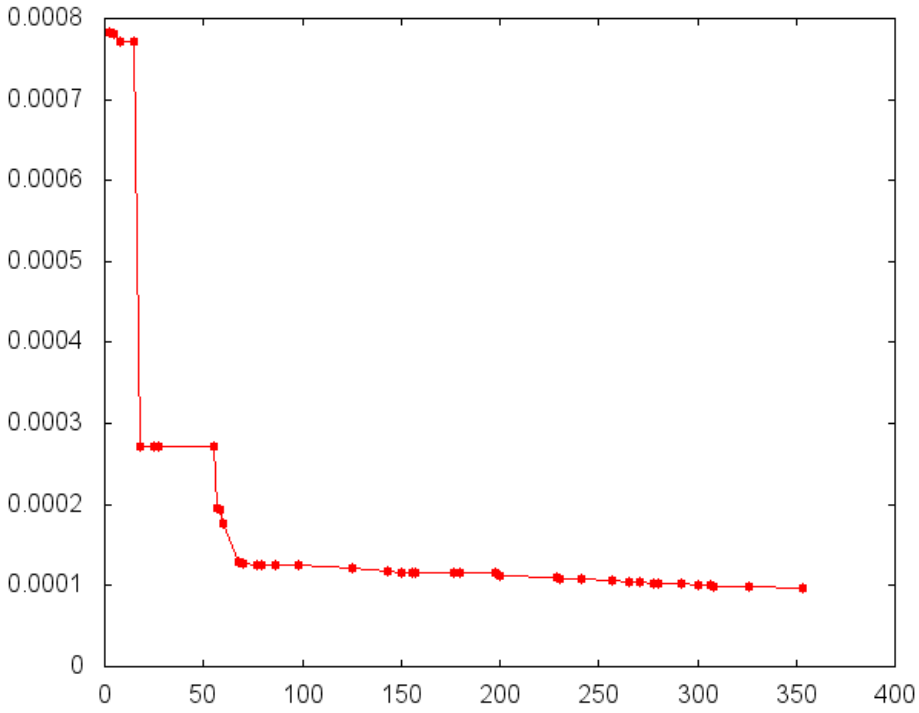
METAL-Experiment-Result

Adam Brady[1] Jason Lawrence[1] Pieter Peers[2] Westley Weimer[1]
[1]University of Virginia [2]College of William & Mary

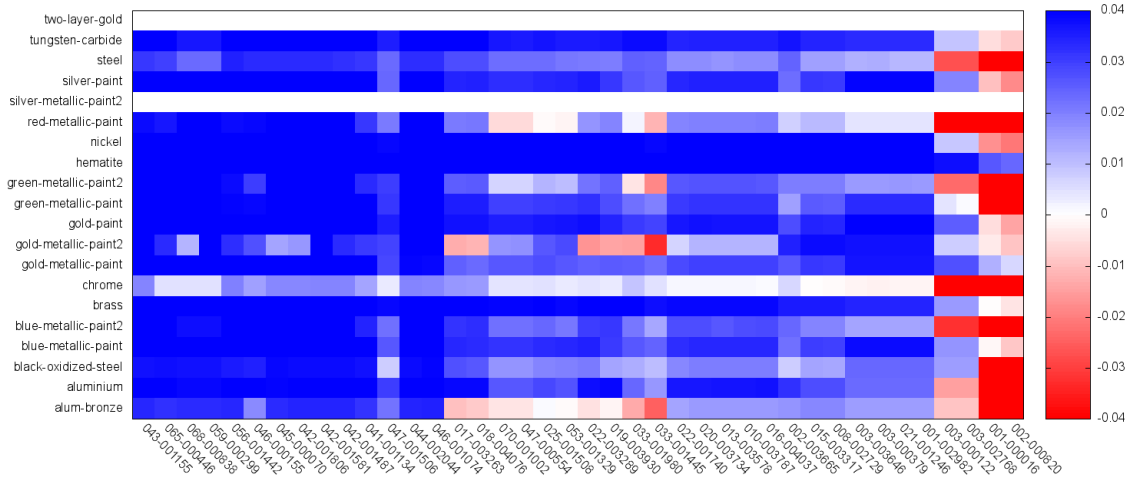
The genetic search was performed on the following 8 materials:

- gold-metallic-paint
- steel
- aluminium
- nickel
- blue-metallic-paint
- blue-metallic-paint2
- red-metallic-paint
- brass

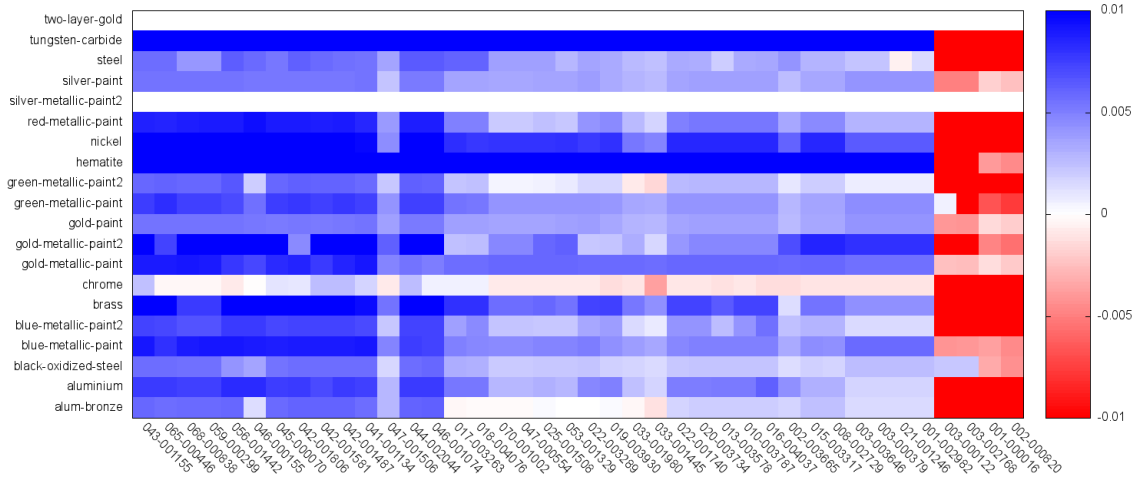
Each BRDF is formed by: $f_r(\omega_i, \omega_o) = max(f'_r(\omega_i, \omega_o), 0)$. The form of the BRDF was further constrained to: $f'_r = \frac{\rho_d}{\pi} + \frac{\rho_s n_r(\omega_i, \omega_o, \omega_h) F(R_0, (\omega_i \cdot \omega_h))}{4(\omega_i \cdot \omega_n)(\omega_o \cdot \omega_n)}$, and only $n_r(\omega_i, \omega_o, \omega_h)$ was optimized.



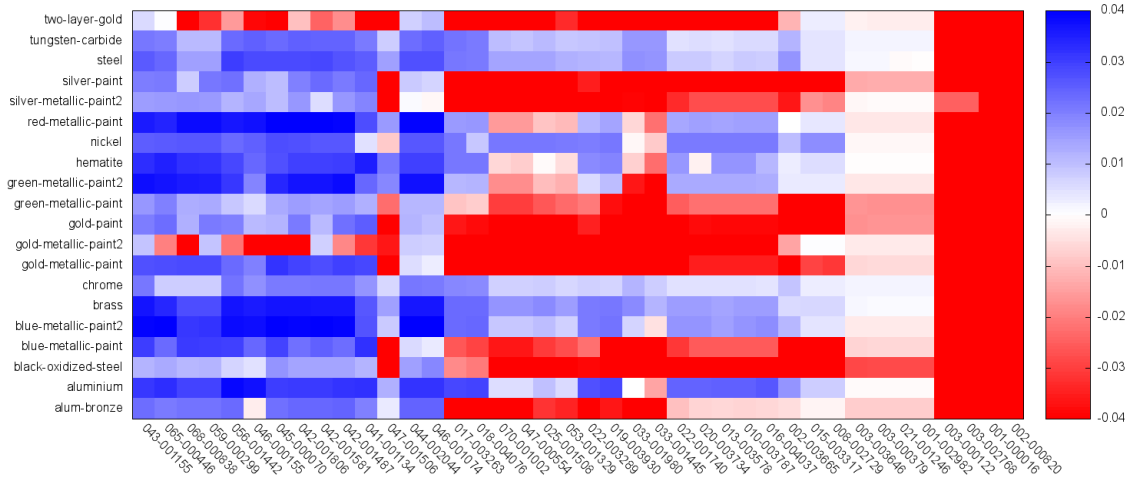
Pareto Frontier



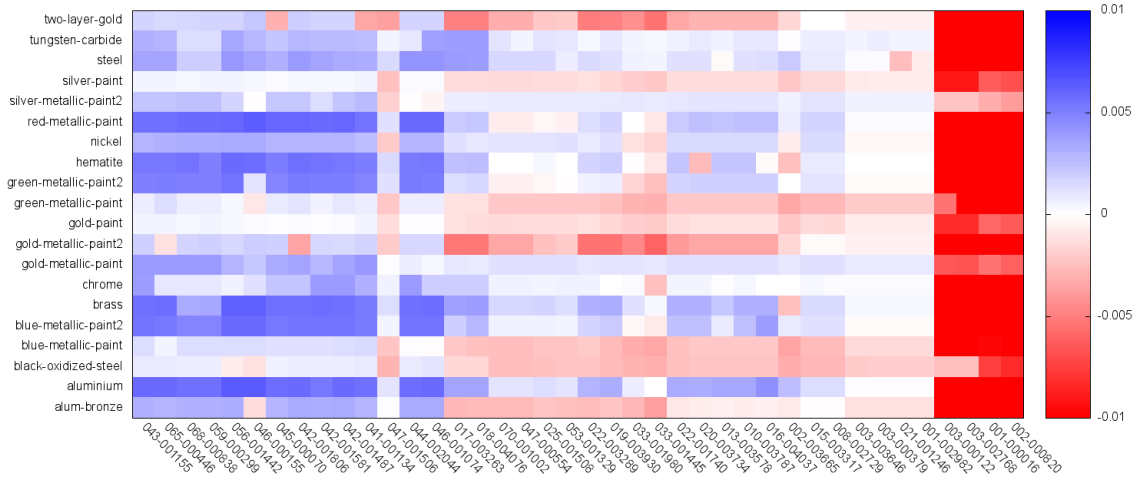
Average relative L_2 error difference between genBRDF and Cook-Torrance (Ngan et al. parameters). Blue is better.



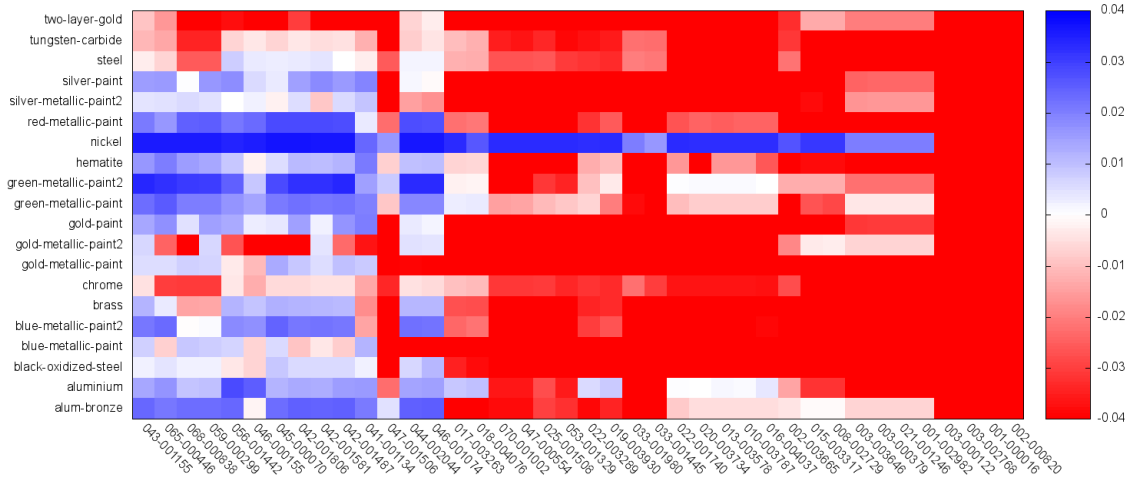
Average relative SSIM error difference between Cook-Torrance (Ngan et al. parameters) and genBRDF. Blue is better.



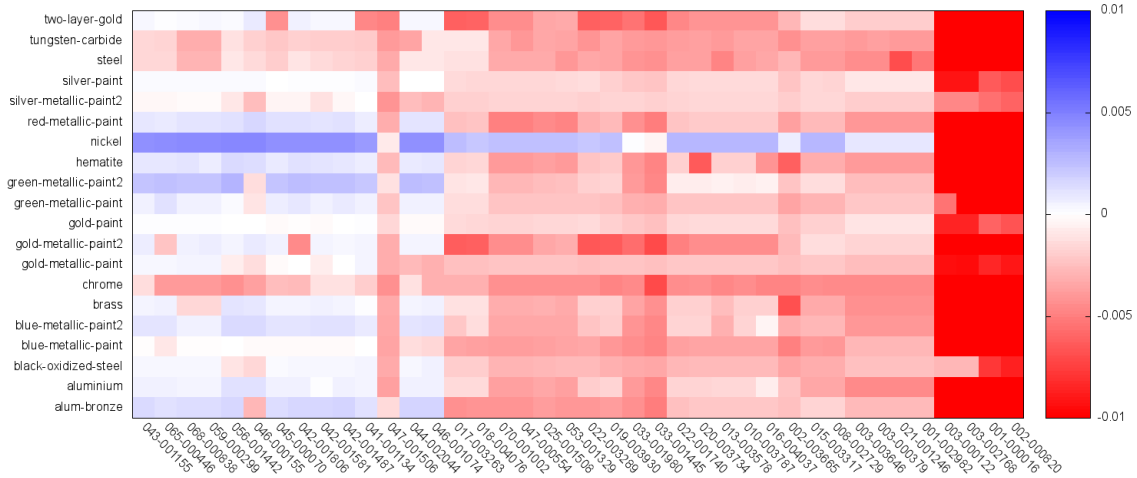
Average relative L_2 error difference between genBRDF and Cook-Torrance (fitted with E_2 metric). Blue is better.



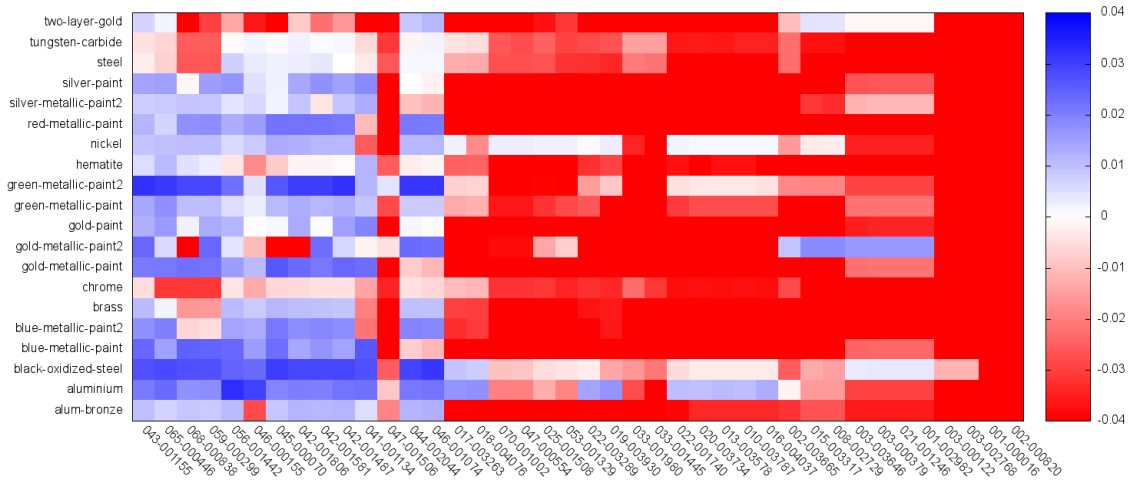
Average relative SSIM error difference between Cook-Torrance (fitted with E_2 metric) and genBRDF. Blue is better.



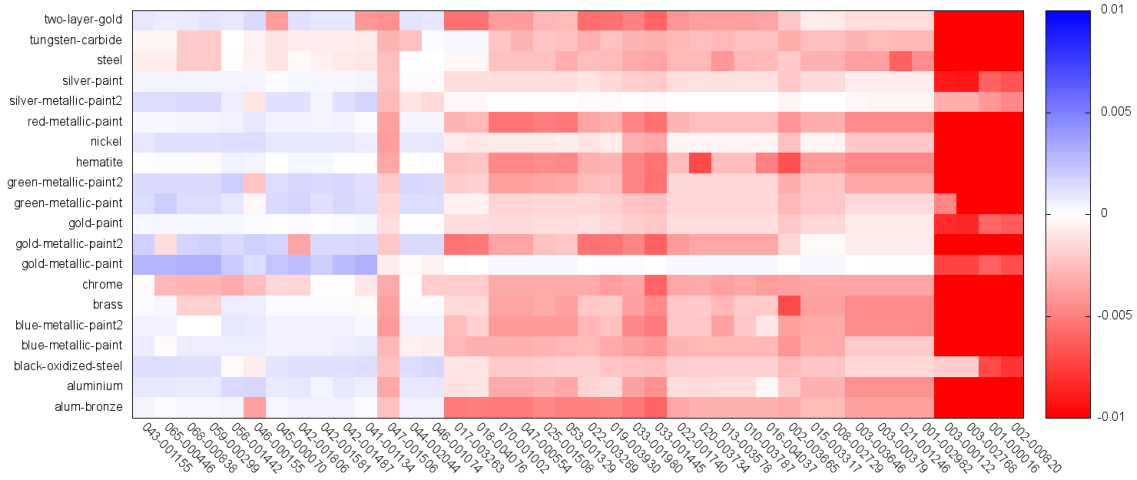
Average relative L_2 error difference between genBRDF and Löw et al. Smooth Surface. Blue is better.



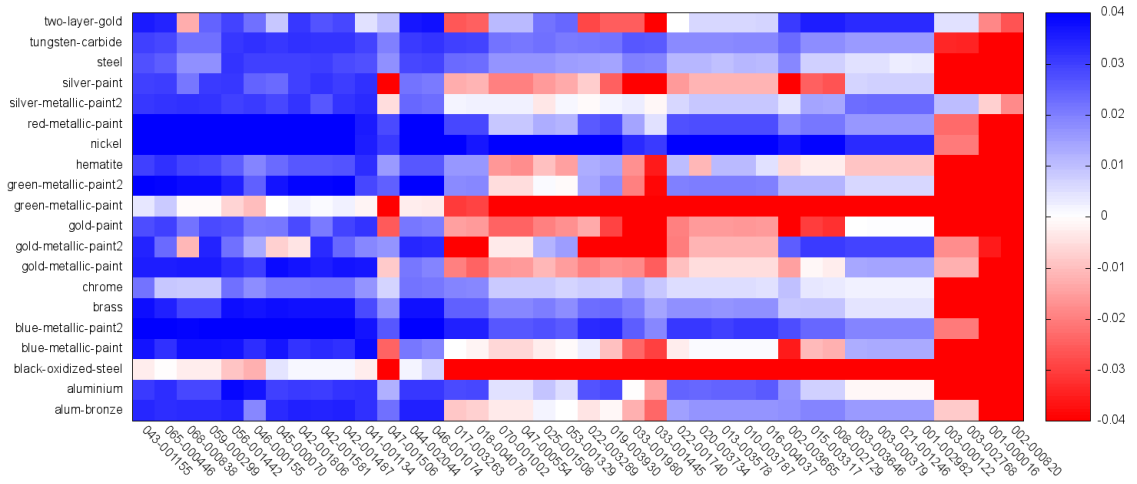
Average relative SSIM error difference between Löw et al. Smooth Surface and genBRDF. Blue is better.



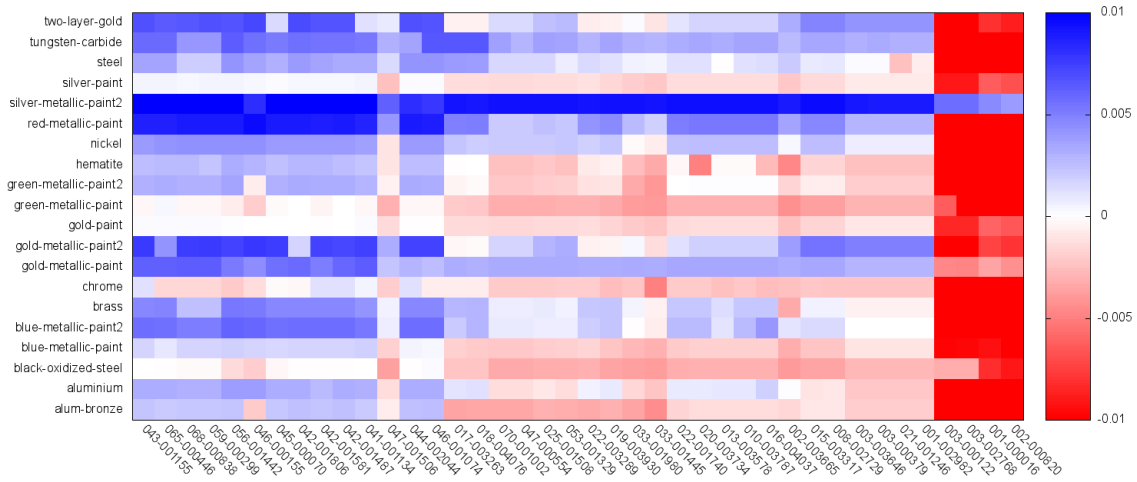
Average relative L_2 error difference between genBRDF and Löw et al. Microfacet. Blue is better.



Average relative SSIM error difference between Löw et al. Microfacet and genBRDF. Blue is better.



Average relative L_2 error difference between genBRDF and Bagher et al.. Blue is better.



Average relative SSIM error difference between Bagher et al. and genBRDF. Blue is better.

id	fitness	length	CT(Ngan)	CT(E_2 fit)	Löw SS	Löw MF	Bagher	genBRDF
043-001155	0.00009630	353	0/0	0/0	2/5	2/0	1/2	15/13
			(0/0)	(0/0)	(4/5)	(3/3)	(1/2)	1.26942902e-14
065-000446	0.00009798	326	0/0	0/0	4/6	2/0	1/1	13/13
			(0/1)	(1/1)	(6/6)	(3/5)	(1/2)	1.16577722e-14
068-000838	0.00009816	308	0/0	0/0	3/5	5/1	2/2	10/12
			(0/1)	(2/0)	(7/6)	(8/4)	(4/3)	1.918967501e-14
059-000299	0.00010011	307	0/0	0/0	2/5	4/2	2/2	12/11
			(0/1)	(1/0)	(5/6)	(6/5)	(2/3)	5.866842072e-15
056-001442	0.00010112	300	0/0	0/0	4/6	2/0	2/2	12/12
			(0/1)	(2/1)	(6/7)	(4/4)	(2/3)	1.8431573e-13
046-000155	0.00010188	292	0/0	0/0	5/7	3/2	2/2	10/9
			(0/1)	(3/4)	(9/11)	(5/8)	(2/5)	2.13266113e-13
045-000070	0.00010254	280	0/0	0/0	4/8	2/1	1/2	13/9
			(0/0)	(2/1)	(5/8)	(5/5)	(2/4)	1.40782196e-14
042-001806	0.00010306	278	0/0	0/0	4/8	2/0	0/2	14/10
			(0/0)	(2/1)	(5/8)	(4/4)	(1/3)	1.42892879e-14
042-001581	0.00010399	271	0/0	0/0	4/7	2/0	0/2	14/11
			(0/0)	(1/0)	(5/7)	(4/3)	(0/3)	1.46058619e-14
042-001487	0.00010417	265	0/0	0/0	4/6	3/0	0/2	13/12
			(0/0)	(2/0)	(5/6)	(4/3)	(0/2)	9.2688599e-15
041-001134	0.00010589	257	0/0	0/0	3/5	6/2	2/2	9/11
			(0/0)	(2/1)	(7/5)	(9/6)	(2/2)	2.33319271e-14
047-001506	0.00010834	241	0/0	0/0	7/11	10/7	2/2	1/0
			(0/1)	(10/9)	(17/20)	(19/20)	(7/11)	6.44244753e-14
044-002044	0.00010872	230	0/0	0/0	5/8	3/0	1/2	11/10
			(0/0)	(0/1)	(6/8)	(7/6)	(1/3)	1.111525526e-14
046-001074	0.00010947	229	0/0	0/0	5/8	4/0	1/1	10/11
			(0/0)	(1/2)	(7/8)	(7/5)	(1/3)	1.310872819e-14
017-003263	0.00011171	200	0/0	0/0	6/11	10/7	2/2	2/0
			(2/1)	(10/8)	(17/19)	(17/18)	(8/11)	4.07787868145e-14
018-004076	0.00011512	198	0/0	0/0	6/11	11/7	2/2	1/0
			(2/1)	(10/8)	(17/19)	(18/18)	(9/10)	3.72494331978e-14
070-001002	0.00011593	180	0/0	0/0	7/11	10/7	2/2	1/0
			(2/2)	(13/10)	(19/19)	(19/19)	(10/10)	6.001932638e-15
047-000554	0.00011598	177	0/0	0/0	7/11	10/7	2/2	1/0
			(2/2)	(13/11)	(19/19)	(19/19)	(10/10)	7.057552384e-15
025-001508	0.00011626	157	0/0	0/0	7/11	10/7	2/2	1/0
			(1/1)	(13/10)	(19/19)	(19/19)	(8/10)	4.904004584e-15
053-001329	0.00011664	156	0/0	0/0	7/11	10/7	2/2	1/0
			(2/1)	(13/10)	(19/19)	(19/19)	(8/10)	4.98243973e-15
022-003289	0.00011674	150	0/0	0/0	6/11	10/7	2/2	2/0
			(2/2)	(10/8)	(18/19)	(18/19)	(9/11)	6.5757883424e-15
019-003930	0.00011786	143	0/0	0/0	6/11	10/7	2/2	2/0
			(2/1)	(10/9)	(18/19)	(18/19)	(9/11)	4.692744677e-15
033-001980	0.00012138	125	0/0	0/0	7/11	11/7	2/2	0/0
			(3/3)	(14/13)	(19/19)	(20/19)	(12/12)	4.73020984563e-15
033-001445	0.00012502	98	0/0	0/0	7/11	11/7	2/2	0/0
			(4/3)	(16/15)	(19/20)	(20/19)	(13/15)	5.17097642e-15
022-001740	0.00012581	86	0/0	0/0	6/11	10/7	2/2	2/0
			(0/1)	(10/8)	(17/19)	(18/19)	(7/8)	5.113423919e-15

Number of time each BRDF outperforms the competition in terms of "L_2 / ssim" error (and number of times better than genBRDF). RMSE on reciprocity listed in blue.

id	fitness	length	CT(Ngan)	CT(E_2 fit)	Löw SS	Löw MF	Bagher	genBRDF
020-003734	0.00012627	79	0/0	0/0	6/11	10/7	2/2	2/0
			(0/1)	(11/9)	(17/19)	(18/18)	(7/8)	5.48677361e-15
013-003578	0.00012630	77	0/0	0/0	6/11	10/7	2/2	2/0
			(0/1)	(10/9)	(17/19)	(18/18)	(6/9)	5.19096339e-15
010-003787	0.00012734	70	0/0	0/0	6/11	10/7	2/2	2/0
			(0/1)	(10/8)	(17/19)	(18/18)	(6/8)	5.29879855e-15
016-004037	0.00012833	68	0/0	0/0	6/11	10/7	2/2	2/0
			(0/1)	(10/10)	(17/19)	(18/18)	(6/8)	6.315912896e-15
002-003665	0.00017603	60	0/0	0/0	7/11	11/7	2/2	0/0
			(0/1)	(10/11)	(19/19)	(19/19)	(7/10)	1.57372149188e-14
015-003317	0.00019396	58	0/0	0/0	7/11	11/7	2/2	0/0
			(1/1)	(8/8)	(19/19)	(18/18)	(7/10)	1.50416755e-14
008-002729	0.00019515	57	0/0	0/0	7/11	11/7	2/2	0/0
			(1/1)	(8/8)	(19/19)	(18/18)	(7/10)	1.398632061e-14
003-003646	0.00027079	55	0/0	0/0	7/11	11/7	2/2	0/0
			(1/1)	(16/11)	(19/19)	(18/20)	(5/11)	2.4037222e-14
003-000379	0.00027098	27	0/0	0/0	7/11	11/7	2/2	0/0
			(1/1)	(16/11)	(19/19)	(18/20)	(4/11)	2.40447657492e-14
021-001246	0.00027109	25	0/0	0/0	7/11	11/7	2/2	0/0
			(1/2)	(17/12)	(19/19)	(18/20)	(4/12)	2.336195972e-14
001-002982	0.00027126	18	0/0	0/0	7/11	11/7	2/2	0/0
			(1/1)	(17/12)	(19/19)	(18/20)	(4/12)	2.342537635e-14
003-000122	0.00077183	15	0/0	0/0	7/11	11/7	2/2	0/0
			(7/16)	(20/20)	(20/20)	(20/20)	(18/19)	3.1285764e-19
003-002768	0.00077222	8	0/0	0/0	7/11	11/7	2/2	0/0
			(7/17)	(20/20)	(20/20)	(20/20)	(18/19)	2.471982e-19
001-000016	0.00078161	5	0/0	0/0	7/11	11/7	2/2	0/0
			(16/18)	(20/20)	(20/20)	(20/20)	(20/19)	4.532602e-15
002-000820	0.00078276	2	0/0	0/0	7/11	11/7	2/2	0/0
			(16/18)	(20/20)	(20/20)	(20/20)	(20/19)	4.2202309e-15

Number of time each BRDF outperforms the competition in terms of "L_2 / ssim" error (and number of times better than genBRDF). RMSE on reciprocity listed in blue.

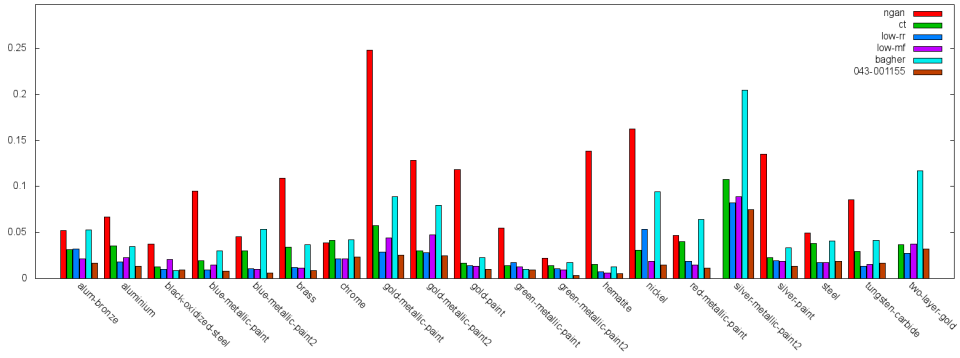
043-001155

Fitness: 0.000096303243

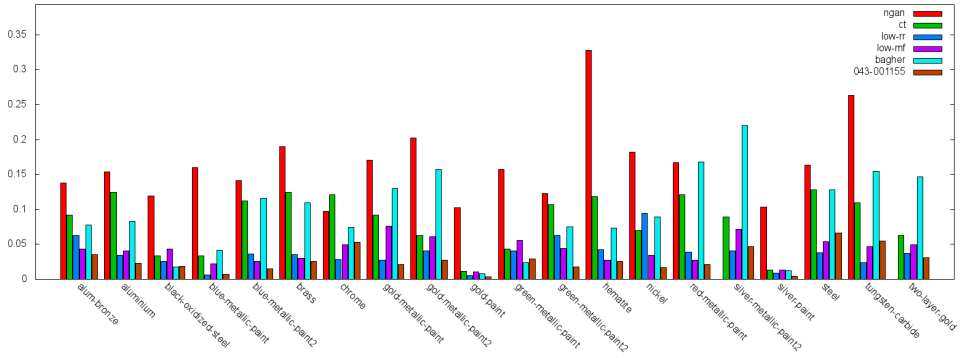
Length: 353

Reciprocity Error: 1.26942902e-14

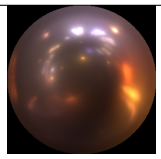
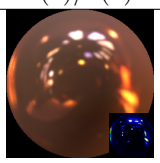
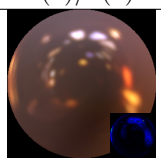
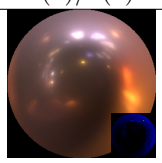
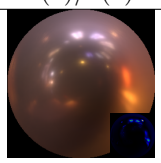
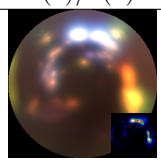
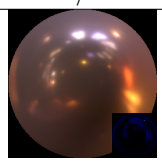
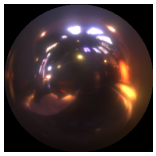
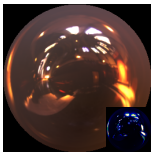
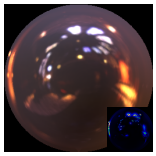
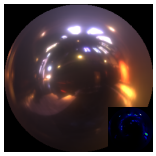
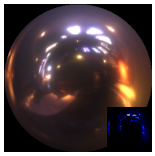
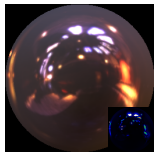
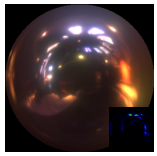
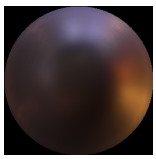
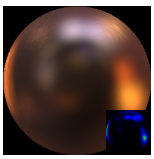
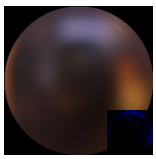
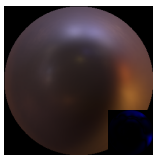
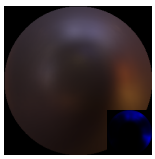
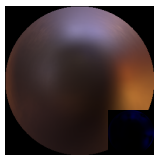
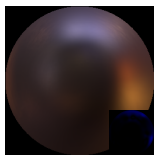
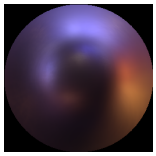
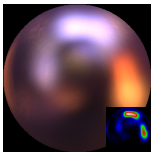
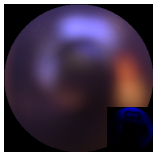
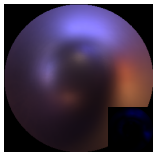
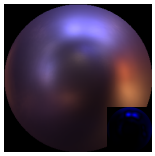
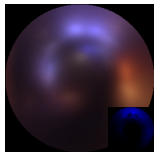
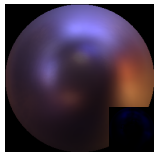
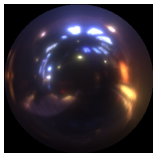
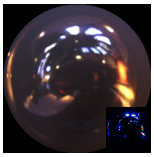
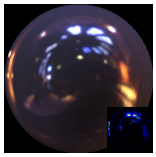
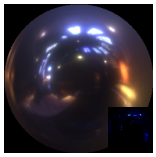
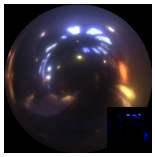
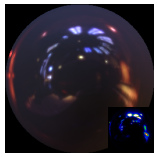
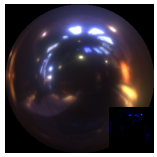
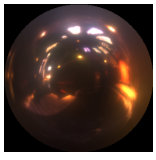
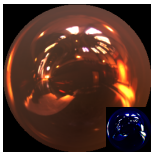
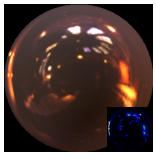
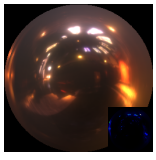
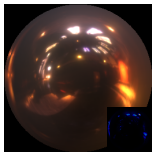
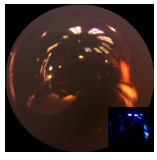
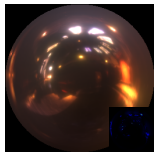
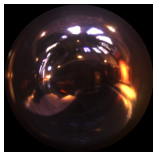
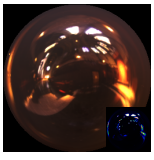
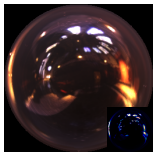
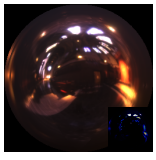
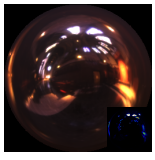
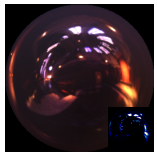
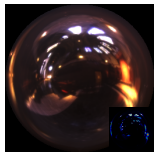
$$f'_n(\omega_i, \omega_o) =$$
$$\left[\left([p_1 * e^{-\left(\left(\frac{tan(cos^{-1}(clamp(\omega_{hz})))}{p_1}\right)^{p_0}\right)}\right] / \left[\left(\left(\frac{tan(cos^{-1}(clamp(\omega_{hz})))}{p_0}\right)^{2.0} + [p_1 * (cos(1.0))^{4.0}]\right) * 1.0\right]\right) * \min([1.0 + (p_1 * [1.0 + \omega_{hz}])],$$
$$\min(\frac{((2.0 * \omega_{rz}) * \omega_{oz})}{(\omega_o \cdot \omega_h)}, \frac{(1.0)^{cos^{-1}(clamp(\omega_{hz}))}}{\left(p_1 * tan(cos^{-1}(clamp(\omega_{hz})))\right)})\right]$$

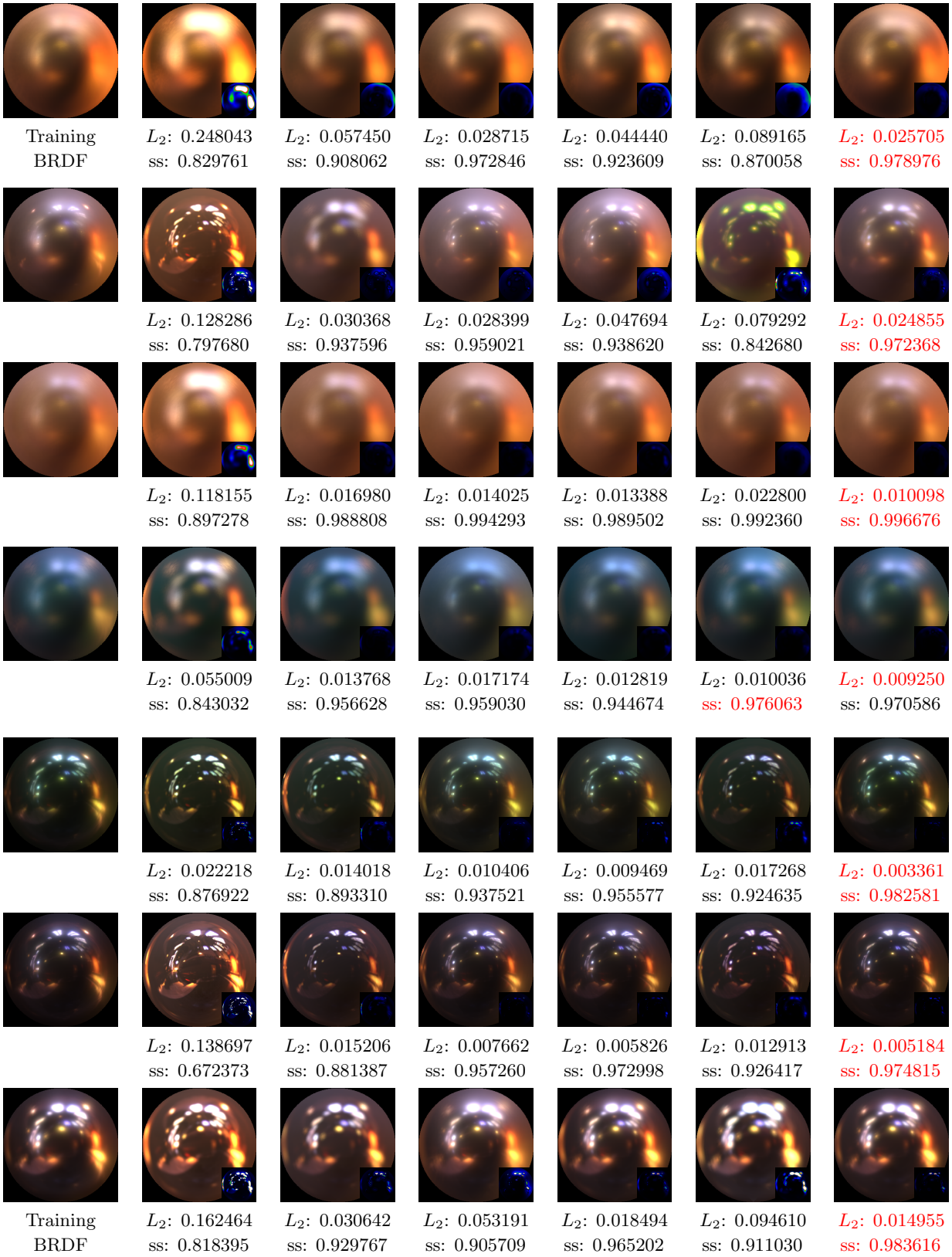


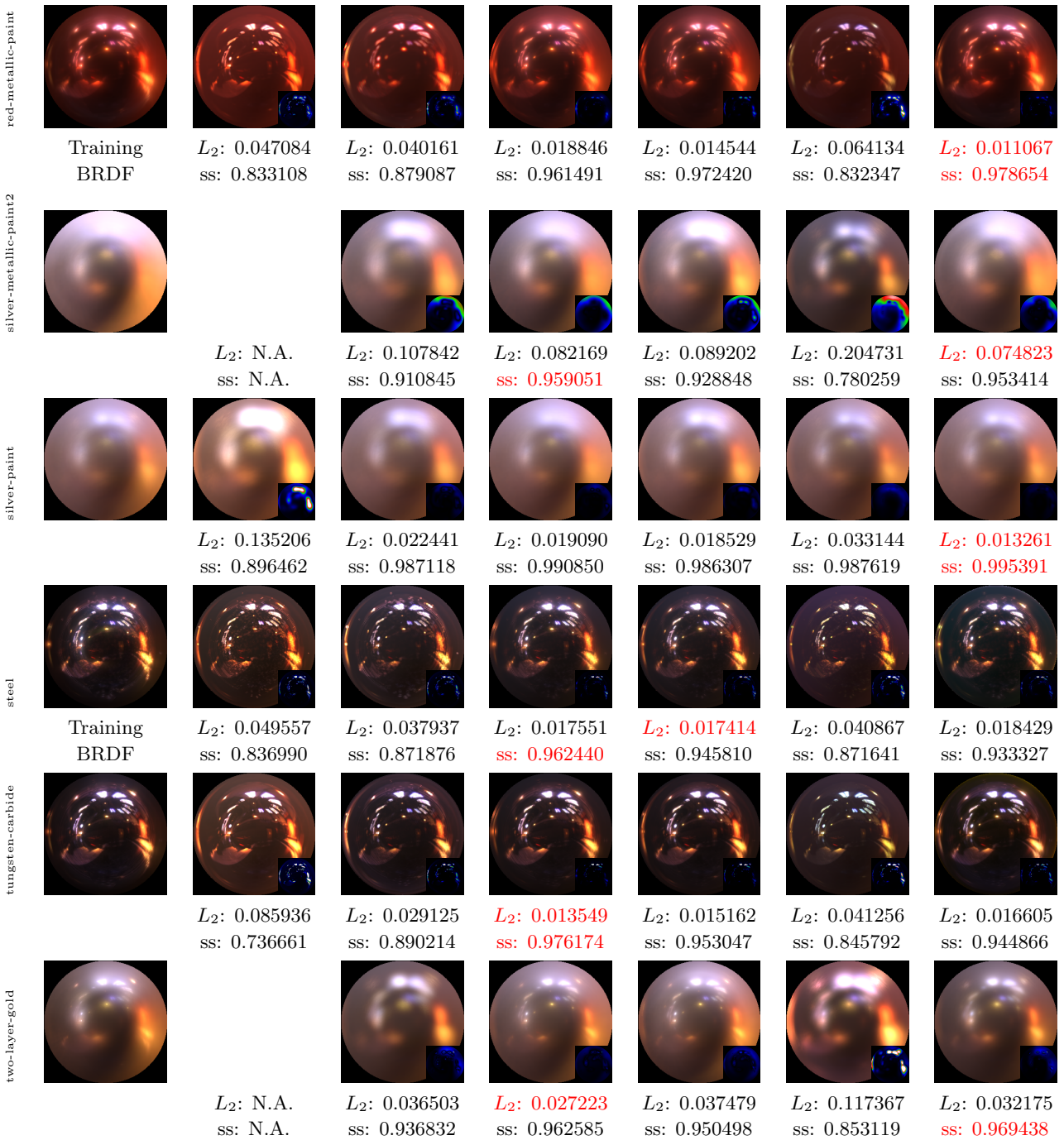
L_2 error.



SSIM error (= 100% - ssim).

	MERL	CT(Ngan) 0(0)/0(0)	CT(E_2 fit) 0(0)/0(0)	Löw SS 2(4)/5(5)	Löw MF 2(3)/0(3)	Bagher 1(1)/2(2)	genBRDF 15/13
alum-bronze		 L_2: 0.052284 ss: 0.862223	 L_2: 0.031392 ss: 0.907766	 L_2: 0.032159 ss: 0.937667	 L_2: 0.021146 ss: 0.956962	 L_2: 0.053167 ss: 0.922395	 L_2: 0.016932 ss: 0.965026
aluminium	 Training BRDF	 L_2: 0.067099 ss: 0.846399	 L_2: 0.035146 ss: 0.875113	 L_2: 0.018044 ss: 0.965309	 L_2: 0.022431 ss: 0.959087	 L_2: 0.034724 ss: 0.917355	 L_2: 0.013136 ss: 0.976668
black-oxidized-steel		 L_2: 0.037563 ss: 0.881117	 L_2: 0.012395 ss: 0.966402	 L_2: 0.009959 ss: 0.974466	 L_2: 0.021000 ss: 0.956823	 L_2: 0.009017 ss: 0.982697	 L_2: 0.009523 ss: 0.981617
blue-metallic-paint	 Training BRDF	 L_2: 0.094791 ss: 0.840025	 L_2: 0.019657 ss: 0.966125	 L_2: 0.009161 ss: 0.993984	 L_2: 0.015014 ss: 0.978181	 L_2: 0.030206 ss: 0.958517	 L_2: 0.007776 ss: 0.992550
blue-metallic-paint2	 Training BRDF	 L_2: 0.045753 ss: 0.859062	 L_2: 0.030359 ss: 0.888022	 L_2: 0.010992 ss: 0.963478	 L_2: 0.009785 ss: 0.974119	 L_2: 0.053468 ss: 0.884442	 L_2: 0.006344 ss: 0.984851
brass	 Training BRDF	 L_2: 0.109247 ss: 0.809906	 L_2: 0.034378 ss: 0.875335	 L_2: 0.011813 ss: 0.965002	 L_2: 0.011450 ss: 0.970392	 L_2: 0.036857 ss: 0.890152	 L_2: 0.009007 ss: 0.974305
chrome		 L_2: 0.038555 ss: 0.902465	 L_2: 0.041371 ss: 0.879025	 L_2: 0.021593 ss: 0.972071	 L_2: 0.021446 ss: 0.950898	 L_2: 0.042031 ss: 0.925449	 L_2: 0.023616 ss: 0.947316


gold-metallic-paint
Training BRDF
L_2: 0.248043 ss: 0.829761
L_2: 0.057450 ss: 0.908062
L_2: 0.028715 ss: 0.972846
L_2: 0.044440 ss: 0.923609
L_2: 0.089165 ss: 0.870058
L_2: 0.025705 ss: 0.978976
gold-metallic-paint2
L_2: 0.128286 ss: 0.797680
L_2: 0.030368 ss: 0.937596
L_2: 0.028399 ss: 0.959021
L_2: 0.047694 ss: 0.938620
L_2: 0.079292 ss: 0.842680
L_2: 0.024855 ss: 0.972368
gold-paint
L_2: 0.118155 ss: 0.897278
L_2: 0.016980 ss: 0.988808
L_2: 0.014025 ss: 0.994293
L_2: 0.013388 ss: 0.989502
L_2: 0.022800 ss: 0.992360
L_2: 0.010098 ss: 0.996676
green-metallic-paint
L_2: 0.055009 ss: 0.843032
L_2: 0.013768 ss: 0.956628
L_2: 0.017174 ss: 0.959030
L_2: 0.012819 ss: 0.944674
L_2: 0.010036 ss: 0.976063
L_2: 0.009250 ss: 0.970586
green-metallic-paint2
L_2: 0.022218 ss: 0.876922
L_2: 0.014018 ss: 0.893310
L_2: 0.010406 ss: 0.937521
L_2: 0.009469 ss: 0.955577
L_2: 0.017268 ss: 0.924635
L_2: 0.003361 ss: 0.982581
hematite
L_2: 0.138697 ss: 0.672373
L_2: 0.015206 ss: 0.881387
L_2: 0.007662 ss: 0.957260
L_2: 0.005826 ss: 0.972998
L_2: 0.012913 ss: 0.926417
L_2: 0.005184 ss: 0.974815
nickel
Training BRDF
L_2: 0.162464 ss: 0.818395
L_2: 0.030642 ss: 0.929767
L_2: 0.053191 ss: 0.905709
L_2: 0.018494 ss: 0.965202
L_2: 0.094610 ss: 0.911030
L_2: 0.014955 ss: 0.983616


red-metallic-paint
Training BRDF
L_2: 0.047084 ss: 0.833108
L_2: 0.040161 ss: 0.879087
L_2: 0.018846 ss: 0.961491
L_2: 0.014544 ss: 0.972420
L_2: 0.064134 ss: 0.832347
L_2: 0.011067 ss: 0.978654
silver-metallic-paint2
L_2: N.A. ss: N.A.
L_2: 0.107842 ss: 0.910845
L_2: 0.082169 ss: 0.959051
L_2: 0.089202 ss: 0.928848
L_2: 0.204731 ss: 0.780259
L_2: 0.074823 ss: 0.953414
silver-paint
L_2: 0.135206 ss: 0.896462
L_2: 0.022441 ss: 0.987118
L_2: 0.019090 ss: 0.990850
L_2: 0.018529 ss: 0.986307
L_2: 0.033144 ss: 0.987619
L_2: 0.013261 ss: 0.995391
steel
Training BRDF
L_2: 0.049557 ss: 0.836990
L_2: 0.037937 ss: 0.871876
L_2: 0.017551 ss: 0.962440
L_2: 0.017414 ss: 0.945810
L_2: 0.040867 ss: 0.871641
L_2: 0.018429 ss: 0.933327
tungsten-carbide
L_2: 0.085936 ss: 0.736661
L_2: 0.029125 ss: 0.890214
L_2: 0.013549 ss: 0.976174
L_2: 0.015162 ss: 0.953047
L_2: 0.041256 ss: 0.845792
L_2: 0.016605 ss: 0.944866
two-layer-gold
L_2: N.A. ss: N.A.
L_2: 0.036503 ss: 0.936832
L_2: 0.027223 ss: 0.962585
L_2: 0.037479 ss: 0.950498
L_2: 0.117367 ss: 0.853119
L_2: 0.032175 ss: 0.969438

Material		p0	p1	ρ_d	ρ_s	R_0
alum-bronze	R	1.75030306e-01	1.54058173e-01	5.86583838e-02	2.80653725e+01	4.41161133e-02
	G	1.91846788e-01	1.46820873e-01	4.93596420e-02	2.25988312e+01	3.19954194e-02
	B	1.55374512e-01	1.34327754e-01	4.00889590e-02	3.41757584e+01	1.71358138e-02
aluminium	R	2.25564808e-01	4.48167138e-03	1.23833176e-02	5.03312103e+02	1.80660516e-01
	G	1.04395850e-02	4.98066723e-01	2.01882635e-08	1.13429626e+03	1.05380930e-01
	B	1.29346251e-02	4.97985840e-01	3.18411658e-05	7.71816223e+02	1.04041055e-01
black-oxidized-steel	R	1.71488369e+00	3.66406083e-01	1.64165460e-02	2.81919539e-01	1.44523885e-02
	G	1.70454597e+00	3.87554765e-01	1.46389836e-02	2.58981496e-01	1.47630945e-02
	B	1.66471052e+00	4.12712604e-01	1.36130136e-02	2.44876713e-01	1.46508198e-02
blue-metallic-paint	R	4.12502170e-01	4.08472824e+00	1.23567681e-03	1.56253055e-01	1.40112430e-01
	G	3.76392931e-01	4.82024956e+00	1.00226118e-03	1.48928881e-01	1.49749681e-01
	B	3.78864020e-01	4.42188501e+00	1.16156449e-03	8.20923969e-02	7.00262666e-01
blue-metallic-paint2	R	2.96473861e-01	1.29762311e-02	3.46249202e-03	9.59923553e+01	7.61206001e-02
	G	2.42149666e-01	1.31504564e-02	1.64912606e-03	1.34586472e+02	1.08574927e-01
	B	2.16529787e-01	1.51745714e-02	6.88075903e-04	2.07811569e+02	1.35738820e-01
brass	R	2.49809697e-01	4.48302878e-03	1.67851821e-02	5.22992798e+02	1.23467617e-01
	G	1.75349787e-01	6.06011972e-03	1.29089989e-02	4.14262665e+02	1.11370966e-01
	B	1.23615921e-01	5.49814850e-03	1.04500037e-02	6.86653503e+02	5.97515032e-02
chrome	R	5.27992845e-01	2.39625014e-03	3.72862117e-03	1.92824841e+03	5.81491962e-02
	G	4.95194703e-01	1.82491657e-03	3.40627623e-03	3.18622827e+03	4.59538475e-02
	B	4.93180931e-01	1.85769331e-03	3.64807760e-03	3.52369653e+03	3.61125618e-02
gold-metallic-paint	R	5.16425788e-01	6.05383873e+00	2.81538036e-07	5.49488179e-02	1.38011801e+00
	G	4.57220674e-01	5.67266607e+00	8.11636802e-09	7.11302161e-02	7.72473335e-01
	B	3.80744696e-01	5.03552151e+00	4.48905444e-03	1.68717220e-01	1.15748659e-01
gold-metallic-paint2	R	1.23918384e-01	2.44223428e+00	4.49248105e-02	2.09916353e+00	1.77668959e-01
	G	1.12200558e-01	2.41622472e+00	3.98345143e-02	2.28779268e+00	1.63378805e-01
	B	6.31907657e-02	2.41063333e+00	4.45991419e-02	6.68729782e+00	9.54910591e-02
gold-paint	R	4.06056494e-01	2.14708900e+00	1.39669150e-01	3.96613568e-01	1.30412981e-01
	G	3.93110752e-01	2.28690529e+00	7.57703632e-02	4.19669271e-01	9.46268886e-02
	B	7.61779726e-01	5.94581306e-01	2.86973622e-02	4.71443057e-01	4.30205800e-02
green-metallic-paint	R	1.61033380e+00	2.30527073e-01	5.33411093e-03	6.34923577e-01	2.44364366e-02
	G	1.05818081e+00	3.76328647e-01	2.05524396e-02	5.66764593e-01	6.23557009e-02
	B	1.00262856e+00	4.03000951e-01	2.63405610e-02	5.78249633e-01	6.51232451e-02
green-metallic-paint2	R	2.07830489e-01	2.10818443e-02	1.31498347e-03	8.05621567e+01	3.88461612e-02
	G	8.04166496e-02	8.36314708e-02	5.23195231e-05	1.11350006e+02	8.05503726e-02
	B	1.17584638e-01	4.14835252e-02	9.30941678e-06	1.06315834e+02	4.98718470e-02
hematite	R	1.76033109e-01	5.66100236e-03	5.10412082e-03	3.74418457e+02	6.82163164e-02
	G	9.25787911e-02	1.02127250e-02	3.48089705e-03	4.92031891e+02	7.79744387e-02
	B	1.68512557e-02	2.31467187e-01	1.54494075e-03	6.49420166e+02	5.37690595e-02
nickel	R	7.56903350e-01	4.58981134e-02	1.30292429e-02	1.27387428e+01	2.35545918e-01
	G	7.77078152e-01	4.84550036e-02	1.17565012e-02	1.19729824e+01	2.00415224e-01
	B	7.97823668e-01	5.09987548e-02	1.12669962e-02	1.14760752e+01	1.65954515e-01
red-metallic-paint	R	8.77900645e-02	6.74345344e-02	1.18531438e-03	2.23704712e+02	1.13578230e-01
	G	1.12173036e-01	2.33314745e-02	8.02892637e-13	2.16393311e+02	3.80077697e-02
	B	8.28792155e-02	2.90237479e-02	6.77438086e-13	2.81764404e+02	2.16124691e-02
silver-metallic-paint2	R	5.22928476e-01	4.87500429e+00	5.39497063e-02	8.18477944e-03	9.95075512e+00
	G	5.60059965e-01	4.73021221e+00	5.49671501e-02	8.33102036e-03	8.46209908e+00
	B	5.84938526e-01	4.45401812e+00	5.47671616e-02	1.23778386e-02	4.94473124e+00
silver-paint	R	3.93504858e-01	2.18222690e+00	1.47236079e-01	4.93844807e-01	1.26411721e-01
	G	3.76926839e-01	2.27932739e+00	1.17948778e-01	5.08542061e-01	1.32055715e-01
	B	3.58119994e-01	2.47254467e+00	1.02012105e-01	5.25466263e-01	1.34304091e-01
steel	R	1.03649532e-03	1.28494492e+02	2.76850536e-04	9.26183899e+02	1.41962036e-01
	G	8.36229126e-04	5.88242371e+02	9.86423437e-03	1.07092322e+03	1.69637010e-01
	B	1.31382525e-03	2.64460541e+02	1.18942838e-02	5.27757385e+02	1.37214437e-01

RGB Parameters for genBRDF 043-001155

Material		p0	p1	ρ_d	ρ_s	R_0
tungsten-carbide	R	1.28443004e-03	1.15871346e+02	1.26084161e-03	5.32240173e+02	1.47496983e-01
	G	1.01609353e-03	1.28976486e+02	1.90030958e-03	7.59517822e+02	1.20363951e-01
	B	4.39775199e-01	1.56514335e-03	4.39613842e-07	3.31902588e+03	3.79106440e-02
two-layer-gold	R	1.28448799e-01	2.63824415e+00	4.28773873e-02	2.29353619e+00	1.48101345e-01
	G	1.14811018e-01	2.55007887e+00	3.85676101e-02	2.81807756e+00	1.27068818e-01
	B	8.65788758e-02	2.41317058e+00	3.55758369e-02	4.56345510e+00	9.73953903e-02

RGB Parameters for genBRDF 043-001155

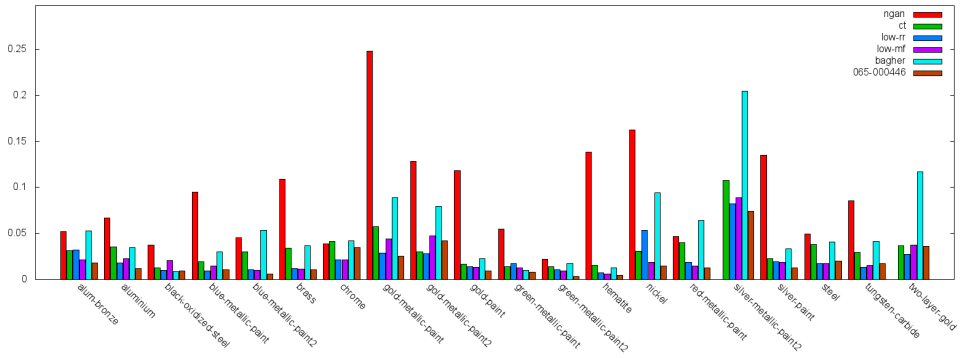
065-000446

Fitness: 0.000097976511

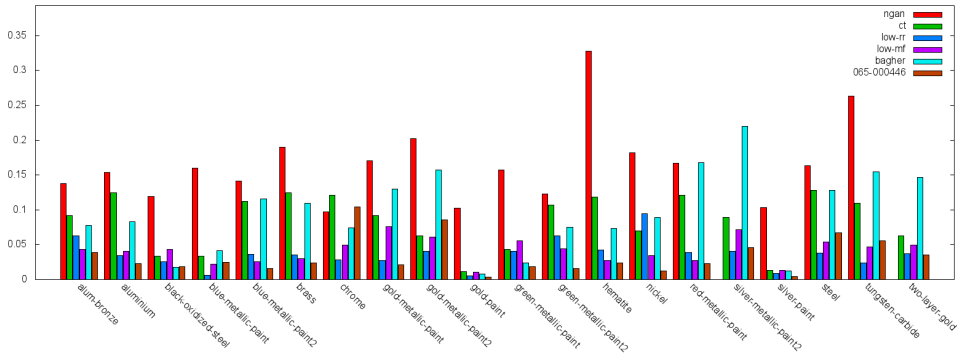
Length: 326

Reciprocity Error: 1.16577722e-14

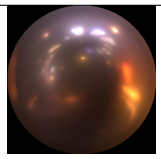
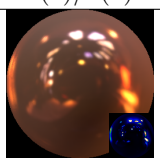
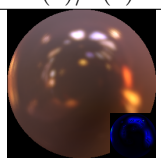
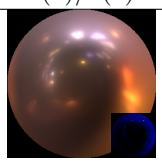
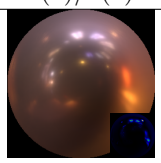
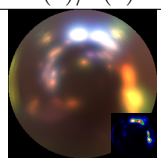
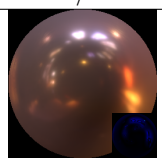
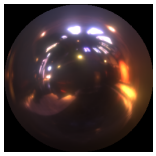
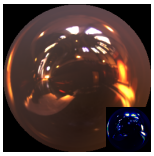
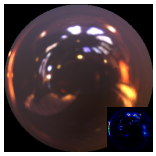
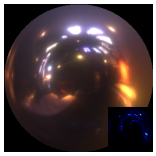
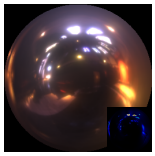
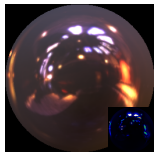
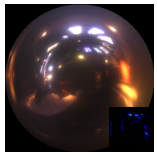
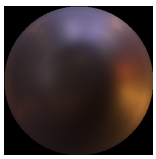
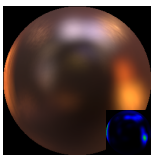
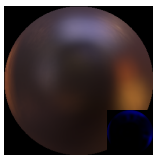
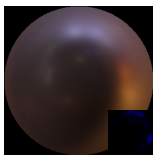
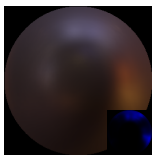
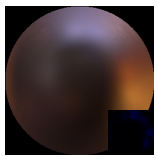
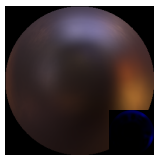
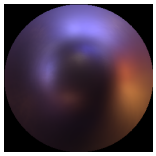
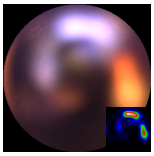
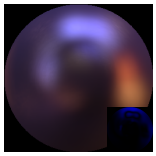
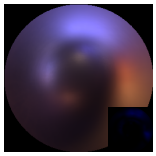
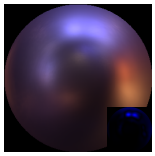
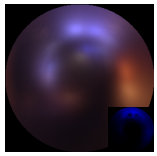
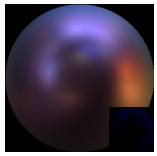
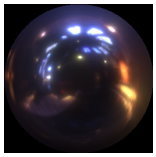
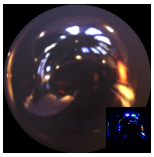
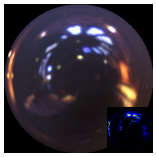
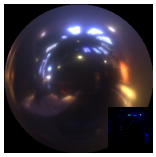
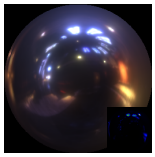
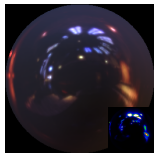
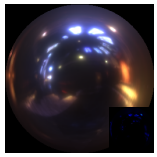
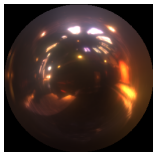
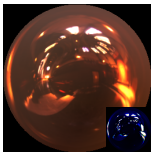
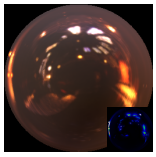
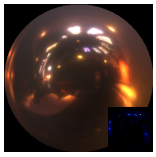
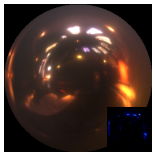
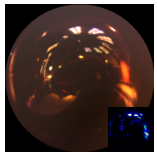
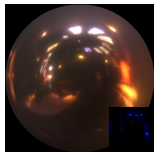
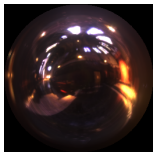
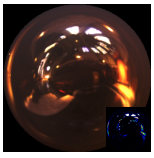
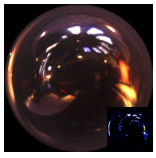
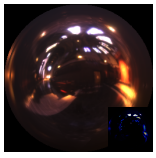
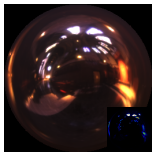
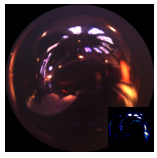
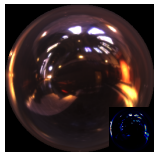
$$f'_n(\omega_i, \omega_o) = \left[\left([p_0 * e^{-\left(\left(\frac{tan(cos^{-1}(clamp(\omega_{hz})))}{p_1}\right)^{p_0}\right)}\right] / \left[\left(\left(\frac{tan(cos^{-1}(clamp(\omega_{hz})))}{p_0}\right)^{2.0} + [p_1 * (p_0)^{4.0}]\right) * p_0\right]\right) * \min((p_1 * [1.0 + \omega_{hz}]), \min(\frac{((p_0 * \omega_{rz}) * \omega_{oz})}{(\omega_o \cdot \omega_h)}, \frac{(cos(p_0))(p_1 + 2.0)}{\left(p_1 * tan(cos^{-1}(clamp(\omega_{hz})))\right)})\right]$$

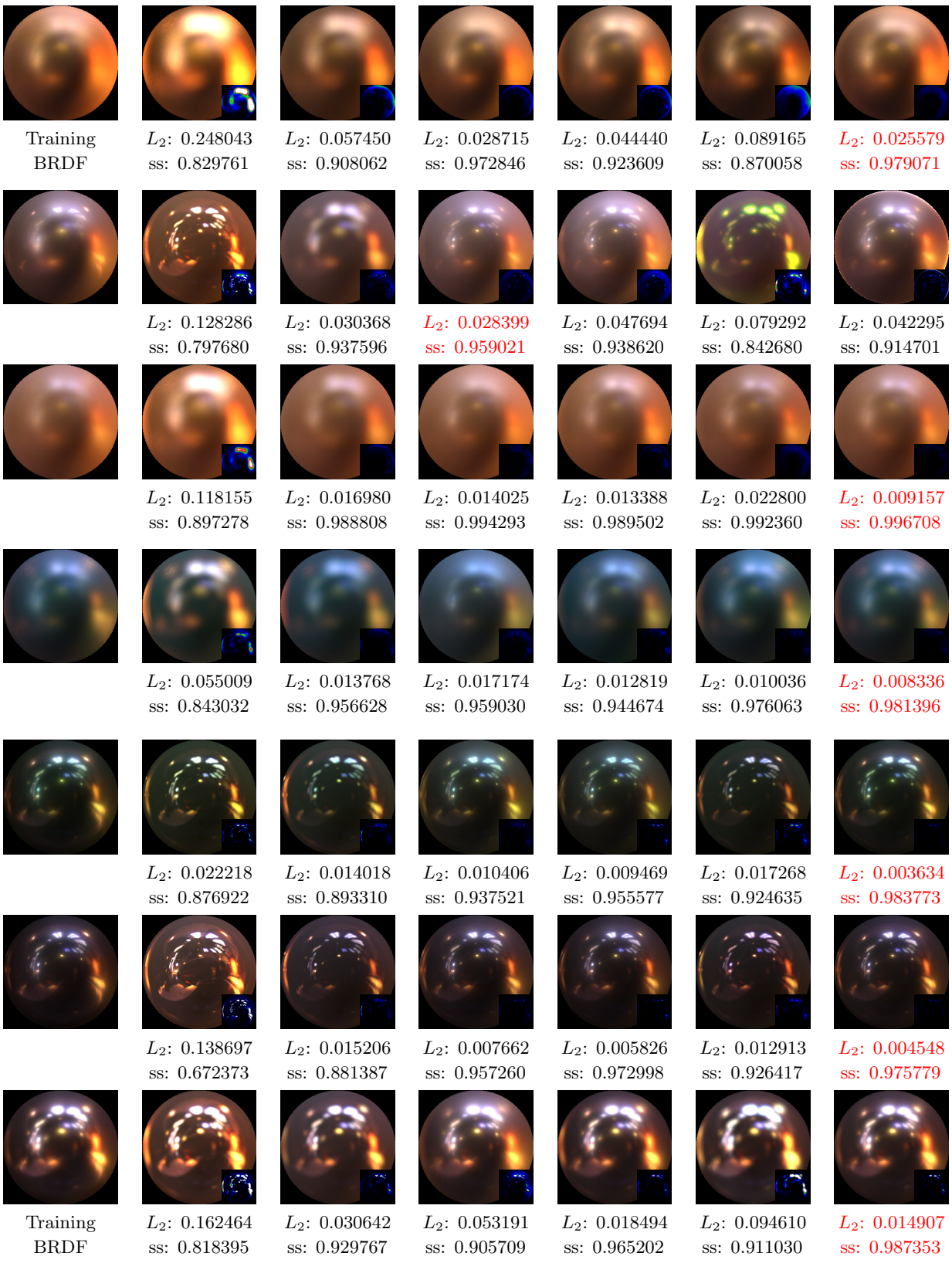


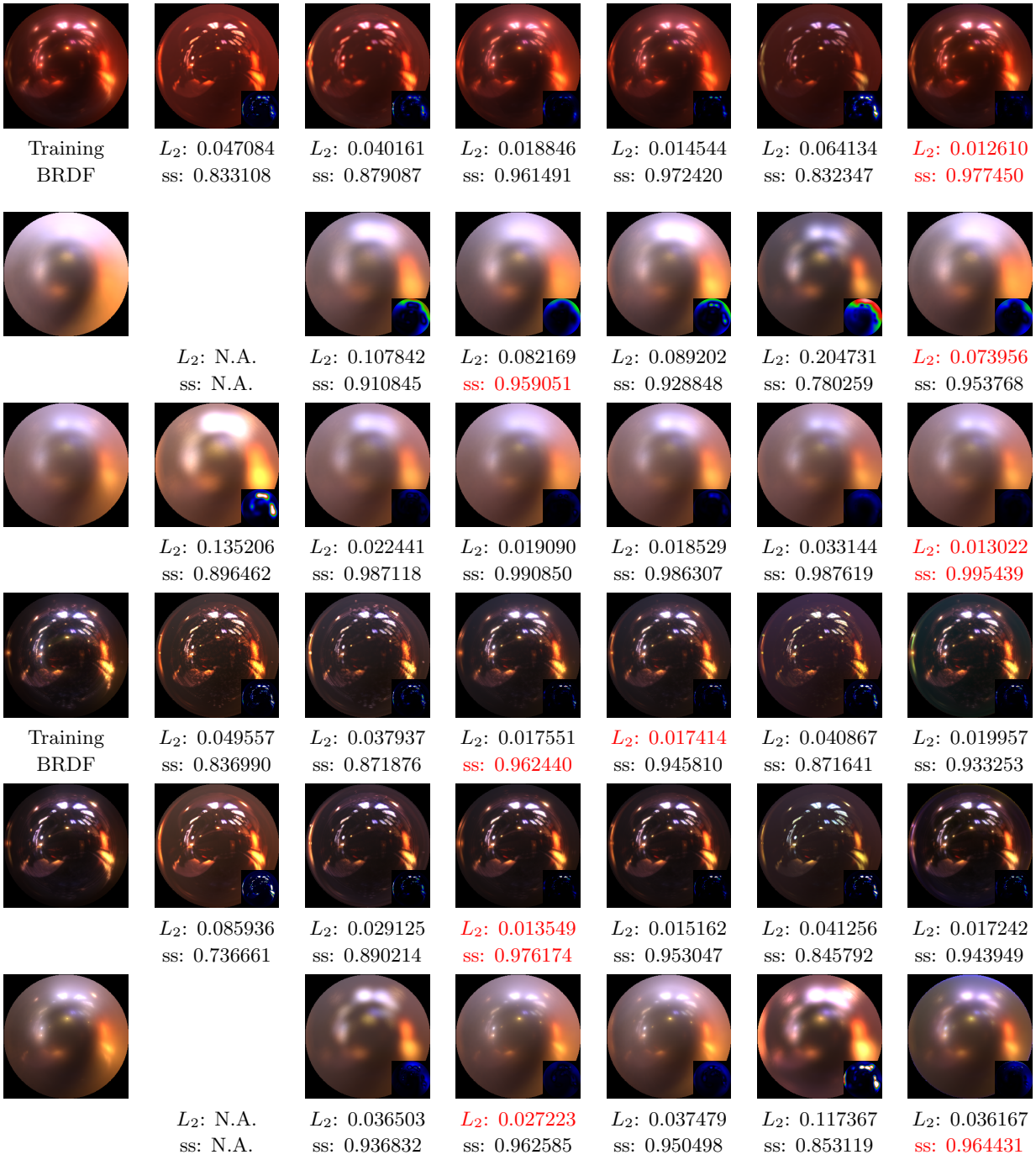
L_2 error.



SSIM error (= 100% - ssim).

	MERL	CT(Ngan) 0(0)/0(1)	CT(E_2 fit) 0(1)/0(1)	Löw SS 4(6)/6(6)	Löw MF 2(3)/0(5)	Bagher 1(1)/1(2)	genBRDF 13/13
alum-bronze		 L_2: 0.052284 ss: 0.862223	 L_2: 0.031392 ss: 0.907766	 L_2: 0.032159 ss: 0.937667	 L_2: 0.021146 ss: 0.956962	 L_2: 0.053167 ss: 0.922395	 L_2: 0.018284 ss: 0.961445
aluminium	 Training BRDF	 L_2: 0.067099 ss: 0.846399	 L_2: 0.035146 ss: 0.875113	 L_2: 0.018044 ss: 0.965309	 L_2: 0.022431 ss: 0.959087	 L_2: 0.034724 ss: 0.917355	 L_2: 0.011927 ss: 0.976902
black-oxidized-steel		 L_2: 0.037563 ss: 0.881117	 L_2: 0.012395 ss: 0.966402	 L_2: 0.009959 ss: 0.974466	 L_2: 0.021000 ss: 0.956823	 L_2: 0.009017 ss: 0.982697	 L_2: 0.009073 ss: 0.981218
blue-metallic-paint	 Training BRDF	 L_2: 0.094791 ss: 0.840025	 L_2: 0.019657 ss: 0.966125	 L_2: 0.009161 ss: 0.993984	 L_2: 0.015014 ss: 0.978181	 L_2: 0.030206 ss: 0.958517	 L_2: 0.010532 ss: 0.975445
blue-metallic-paint2	 Training BRDF	 L_2: 0.045753 ss: 0.859062	 L_2: 0.030359 ss: 0.888022	 L_2: 0.010992 ss: 0.963478	 L_2: 0.009785 ss: 0.974119	 L_2: 0.053468 ss: 0.884442	 L_2: 0.005900 ss: 0.984103
brass	 Training BRDF	 L_2: 0.109247 ss: 0.809906	 L_2: 0.034378 ss: 0.875335	 L_2: 0.011813 ss: 0.965002	 L_2: 0.011450 ss: 0.970392	 L_2: 0.036857 ss: 0.890152	 L_2: 0.011031 ss: 0.976136
chrome		 L_2: 0.038555 ss: 0.902465	 L_2: 0.041371 ss: 0.879025	 L_2: 0.021593 ss: 0.972071	 L_2: 0.021446 ss: 0.950898	 L_2: 0.042031 ss: 0.925449	 L_2: 0.034834 ss: 0.896190


gold-metallic-paint
Training BRDF
L_2: 0.248043 ss: 0.829761
L_2: 0.057450 ss: 0.908062
L_2: 0.028715 ss: 0.972846
L_2: 0.044440 ss: 0.923609
L_2: 0.089165 ss: 0.870058
L_2: 0.025579 ss: 0.979071
gold-metallic-paint2
L_2: 0.128286 ss: 0.797680
L_2: 0.030368 ss: 0.937596
L_2: 0.028399 ss: 0.959021
L_2: 0.047694 ss: 0.938620
L_2: 0.079292 ss: 0.842680
L_2: 0.042295 ss: 0.914701
gold-paint
L_2: 0.118155 ss: 0.897278
L_2: 0.016980 ss: 0.988808
L_2: 0.014025 ss: 0.994293
L_2: 0.013388 ss: 0.989502
L_2: 0.022800 ss: 0.992360
L_2: 0.009157 ss: 0.996708
green-metallic-paint
L_2: 0.055009 ss: 0.843032
L_2: 0.013768 ss: 0.956628
L_2: 0.017174 ss: 0.959030
L_2: 0.012819 ss: 0.944674
L_2: 0.010036 ss: 0.976063
L_2: 0.008336 ss: 0.981396
green-metallic-paint2
L_2: 0.022218 ss: 0.876922
L_2: 0.014018 ss: 0.893310
L_2: 0.010406 ss: 0.937521
L_2: 0.009469 ss: 0.955577
L_2: 0.017268 ss: 0.924635
L_2: 0.003634 ss: 0.983773
hematite
L_2: 0.138697 ss: 0.672373
L_2: 0.015206 ss: 0.881387
L_2: 0.007662 ss: 0.957260
L_2: 0.005826 ss: 0.972998
L_2: 0.012913 ss: 0.926417
L_2: 0.004548 ss: 0.975779
nickel
Training BRDF
L_2: 0.162464 ss: 0.818395
L_2: 0.030642 ss: 0.929767
L_2: 0.053191 ss: 0.905709
L_2: 0.018494 ss: 0.965202
L_2: 0.094610 ss: 0.911030
L_2: 0.014907 ss: 0.987353


red-metallic-paint
Training BRDF
L_2: 0.047084 ss: 0.833108
L_2: 0.040161 ss: 0.879087
L_2: 0.018846 ss: 0.961491
L_2: 0.014544 ss: 0.972420
L_2: 0.064134 ss: 0.832347
L_2: 0.012610 ss: 0.977450
silver-metallic-paint2
L_2: N.A. ss: N.A.
L_2: 0.107842 ss: 0.910845
L_2: 0.082169 ss: 0.959051
L_2: 0.089202 ss: 0.928848
L_2: 0.204731 ss: 0.780259
L_2: 0.073956 ss: 0.953768
silver-paint
L_2: 0.135206 ss: 0.896462
L_2: 0.022441 ss: 0.987118
L_2: 0.019090 ss: 0.990850
L_2: 0.018529 ss: 0.986307
L_2: 0.033144 ss: 0.987619
L_2: 0.013022 ss: 0.995439
steel
Training BRDF
L_2: 0.049557 ss: 0.836990
L_2: 0.037937 ss: 0.871876
L_2: 0.017551 ss: 0.962440
L_2: 0.017414 ss: 0.945810
L_2: 0.040867 ss: 0.871641
L_2: 0.019957 ss: 0.933253
tungsten-carbide
L_2: 0.085936 ss: 0.736661
L_2: 0.029125 ss: 0.890214
L_2: 0.013549 ss: 0.976174
L_2: 0.015162 ss: 0.953047
L_2: 0.041256 ss: 0.845792
L_2: 0.017242 ss: 0.943949
two-layer-gold
L_2: N.A. ss: N.A.
L_2: 0.036503 ss: 0.936832
L_2: 0.027223 ss: 0.962585
L_2: 0.037479 ss: 0.950498
L_2: 0.117367 ss: 0.853119
L_2: 0.036167 ss: 0.964431

Material		p0	p1	ρ_d	ρ_s	R_0
alum-bronze	R	4.03770924e-01	1.29384220e-01	6.43518791e-02	3.94940376e+00	4.28565368e-02
	G	4.07481343e-01	1.30988598e-01	5.31668104e-02	3.49344540e+00	3.07146944e-02
	B	3.78014028e-01	1.22243203e-01	4.25903350e-02	3.86143064e+00	1.57390647e-02
aluminium	R	2.07685798e-01	1.03631057e-01	4.23685135e-03	1.43966570e+01	8.86747986e-02
	G	1.92676082e-01	1.40988037e-01	6.69908710e-03	1.52170124e+01	9.75465626e-02
	B	1.61437795e-01	5.24667859e-01	6.84472313e-03	2.34454212e+01	9.89793763e-02
black-oxidized-steel	R	1.63544738e+00	2.40249395e-01	1.59030650e-02	6.52552986e+00	4.76881787e-02
	G	1.59151924e+00	2.47997060e-01	1.40815703e-02	5.72503138e+00	4.59531471e-02
	B	1.62037492e+00	2.57161826e-01	1.33021586e-02	5.85654593e+00	4.46503498e-02
blue-metallic-paint	R	1.24043560e+00	2.04569831e-01	8.00709426e-03	8.04543793e-01	5.58260560e-01
	G	4.32027251e-01	8.28748322e+00	1.02676533e-03	2.18193269e+00	1.49630919e-01
	B	4.29145157e-01	7.97245216e+00	1.16393808e-03	1.14094949e+00	6.95504725e-01
blue-metallic-paint2	R	3.59493524e-01	3.70131135e-02	2.80657713e-03	2.95987892e+00	2.13890836e-01
	G	3.34797531e-01	4.30373438e-02	2.48889998e-03	3.04538465e+00	2.86231637e-01
	B	3.00153553e-01	7.21608475e-02	1.76406896e-03	6.98063040e+00	1.52461097e-01
brass	R	2.89671212e-01	2.67681889e-02	1.30637512e-02	4.54568529e+00	5.08709073e-01
	G	2.76013047e-01	3.35313752e-02	1.45950308e-02	4.11963892e+00	2.94804066e-01
	B	2.02475071e-01	8.59546736e-02	1.12207960e-02	1.03113384e+01	3.34708877e-02
chrome	R	5.21526873e-01	2.44986801e-03	3.63204139e-03	3.69048035e+02	1.42964303e-01
	G	4.99344409e-01	2.04491499e-03	3.25809047e-03	5.39034790e+02	1.04655921e-01
	B	4.98817891e-01	2.09586788e-03	3.55634349e-03	6.23471313e+02	7.82787800e-02
gold-metallic-paint	R	5.22157192e-01	6.69343615e+00	8.09488654e-07	1.20972884e+00	1.39152539e+00
	G	4.86084640e-01	7.38607597e+00	5.49044696e-13	1.35839891e+00	7.82975256e-01
	B	4.36822653e-01	8.36117554e+00	4.55298787e-03	2.57705879e+00	1.16163790e-01
gold-metallic-paint2	R	1.55500329e+00	3.22364718e-01	4.82419617e-02	1.90067963e+02	3.87785602e+00
	G	1.55571282e+00	3.06288481e-01	3.80474515e-02	5.68241997e+01	1.09014082e+01
	B	1.55711567e+00	2.83393025e-01	3.40807810e-02	4.33760719e+01	1.19614325e+01
gold-paint	R	4.13384795e-01	5.39177561e+00	1.38757482e-01	3.33316565e+00	1.30667329e-01
	G	4.09327805e-01	5.72568464e+00	7.52116218e-02	3.61229229e+00	9.47904810e-02
	B	3.83586884e-01	6.36293268e+00	2.87641082e-02	4.13342524e+00	4.38279584e-02
green-metallic-paint	R	1.45895243e+00	2.01133817e-01	6.09721243e-03	7.74835682e+00	8.89303014e-02
	G	7.04025090e-01	3.21187556e-01	1.64315347e-02	1.73546159e+00	6.23487569e-02
	B	6.99932814e-01	3.31771702e-01	2.30725519e-02	1.77541244e+00	6.47702813e-02
green-metallic-paint2	R	3.28223467e-01	6.28029257e-02	1.89077016e-03	3.02627301e+00	5.54676466e-02
	G	3.05041432e-01	8.88989270e-02	6.38055848e-03	4.01540136e+00	7.36938938e-02
	B	3.13864946e-01	7.01363683e-02	3.25127435e-03	3.44029617e+00	5.92789389e-02
hematite	R	2.26106286e-01	7.86699504e-02	4.57084272e-03	7.11917543e+00	4.76057976e-02
	G	2.15986446e-01	7.64411017e-02	5.99831762e-03	7.32392979e+00	4.96097133e-02
	B	6.41273484e-02	7.56833420e+01	4.09979001e-03	2.38780670e+02	4.21473458e-02
nickel	R	6.80079043e-01	3.10151428e-02	1.33877322e-02	1.42984320e-34	3.40710388e+34
	G	6.85006261e-01	3.25700156e-02	1.11994892e-02	2.67645508e-01	1.53595781e+01
	B	6.94576681e-01	3.38388234e-02	1.02445502e-02	1.35383391e+00	2.59605622e+00
red-metallic-paint	R	3.08612764e-01	8.50389898e-02	1.56842917e-02	7.79697990e+00	1.04973666e-01
	G	2.78354228e-01	6.67662993e-02	1.92256679e-03	4.94535732e+00	3.93841751e-02
	B	6.12408631e-02	2.36282990e+02	2.01019080e-04	3.33619904e+02	1.26954652e-02
silver-metallic-paint2	R	5.14123142e-01	6.14233303e+00	5.20242602e-02	1.46389112e-01	1.07664862e+01
	G	5.31367242e-01	5.68125343e+00	5.29696345e-02	1.60407647e-01	8.77437782e+00
	B	5.40160537e-01	5.33776665e+00	5.25798313e-02	2.33455315e-01	5.20052767e+00
silver-paint	R	4.08144742e-01	5.55921984e+00	1.46171868e-01	4.09023046e+00	1.26647934e-01
	G	4.01628256e-01	5.87871218e+00	1.17011897e-01	4.20456266e+00	1.32281333e-01
	B	3.95132571e-01	6.36921835e+00	1.01254687e-01	4.43940115e+00	1.34306431e-01
steel	R	4.48979549e-02	1.37421106e+03	8.95336416e-05	1.89108618e+03	1.38638839e-01
	G	3.91422182e-01	3.16818105e-03	1.08808232e-02	1.07898193e+02	1.70548037e-01
	B	4.09869909e-01	4.23066178e-03	1.26537280e-02	7.20859909e+01	1.52009398e-01

RGB Parameters for genBRDF 065-000446

Material		p0	p1	ρ_d	ρ_s	R_0
tungsten-carbide	R	4.91903052e-02	1.14684424e+03	6.44772226e-05	1.13221045e+03	1.45670563e-01
	G	4.46260944e-02	1.39281323e+03	1.29603999e-04	1.52199744e+03	1.18642904e-01
	B	4.62325782e-01	2.10422347e-03	5.46804404e-06	4.15684784e+02	8.26016739e-02
two-layer-gold	R	5.90143740e-01	1.91075608e-01	4.57395837e-02	1.02193189e+00	2.60047227e-01
	G	2.42896661e-01	1.33780184e+01	3.93116772e-02	8.88881302e+00	1.26717910e-01
	B	1.55316019e+00	2.97183514e-01	2.81099975e-02	2.94349845e-02	1.23884932e+04

RGB Parameters for genBRDF 065-000446

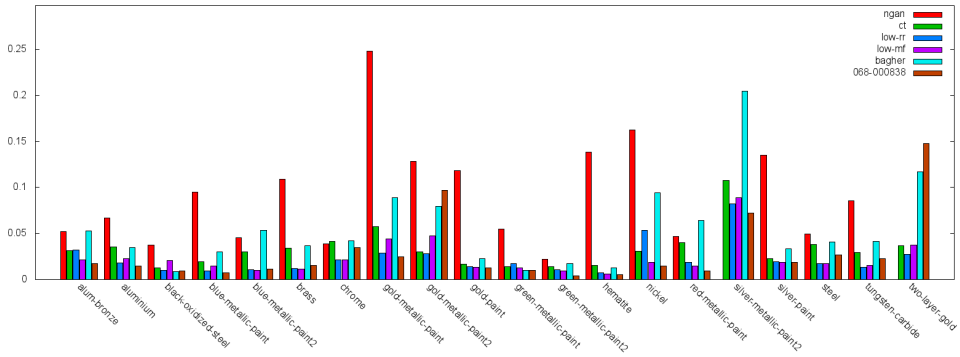
068-000838

Fitness: 0.000098159098

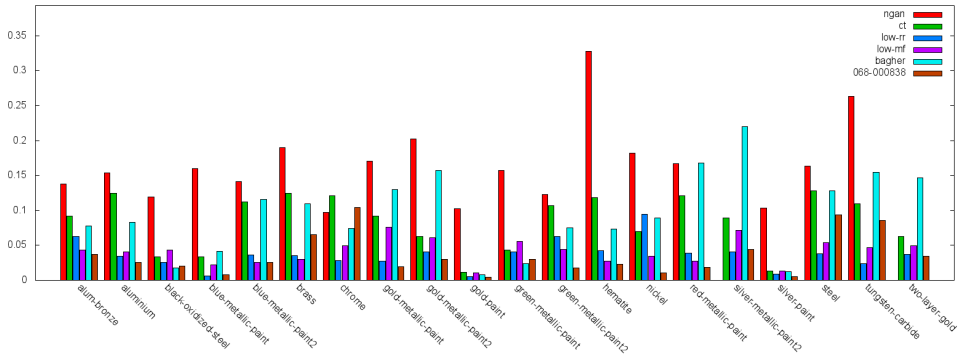
Length: 308

Reciprocity Error: 1.918967501e-14

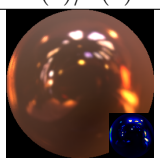
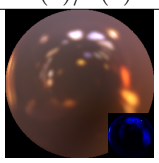
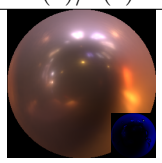
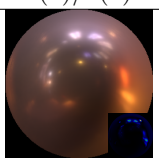
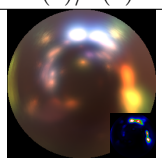
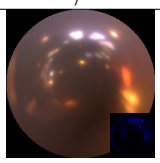
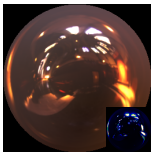
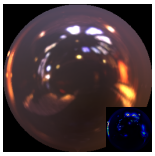
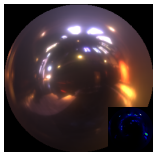
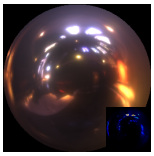
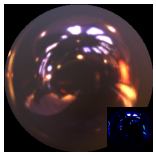
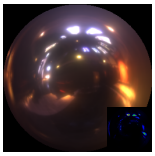
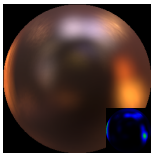
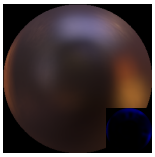
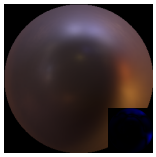
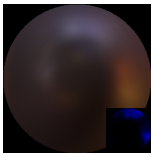
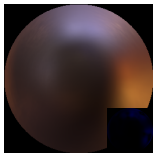
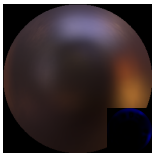
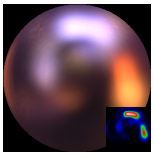
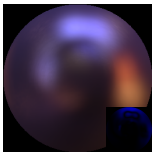
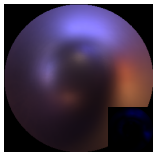
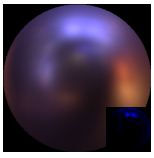
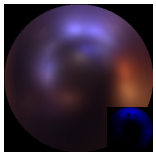
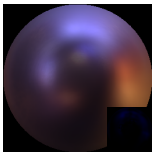
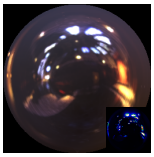
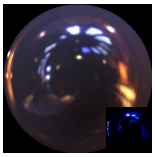
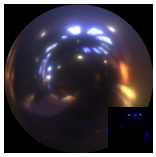
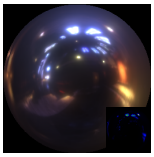
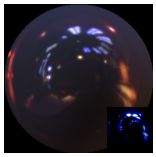
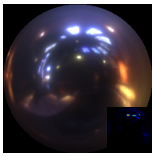
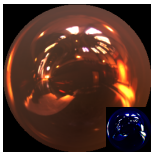
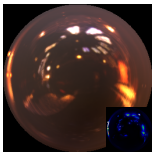
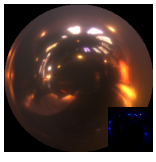
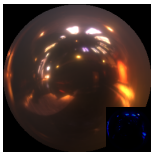
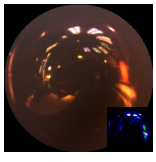
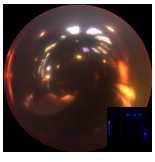
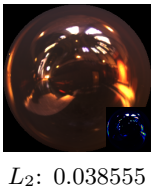
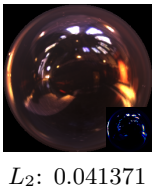
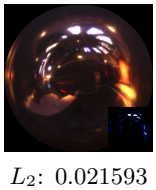
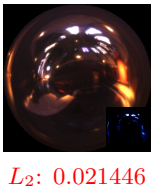
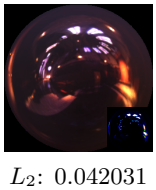
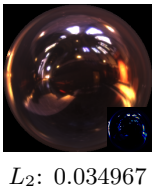
$$f'_n(\omega_i, \omega_o) = \left[\left([p_0 * e^{-\left(\left(\frac{tan(cos^{-1}(clamp(\omega_{hz})))}{p_1}\right)^{p_0}\right)}\right] / \left[\left(\left(\frac{tan(cos^{-1}(clamp(\omega_{hz})))}{p_0}\right)^{2.0} + [p_1 * \left(cos(\omega_{hz})\right)^{4.0}]\right) * p_0\right]\right) * \min((p_1 * [1.0 + 1.0]), \min(\frac{((p_0 * \omega_{rz}) * \omega_{oz})}{(\omega_o \cdot \omega_h)}, \frac{1.0}{\left(p_1 * tan(cos^{-1}(clamp(\omega_{hz})))\right)}))\right]$$

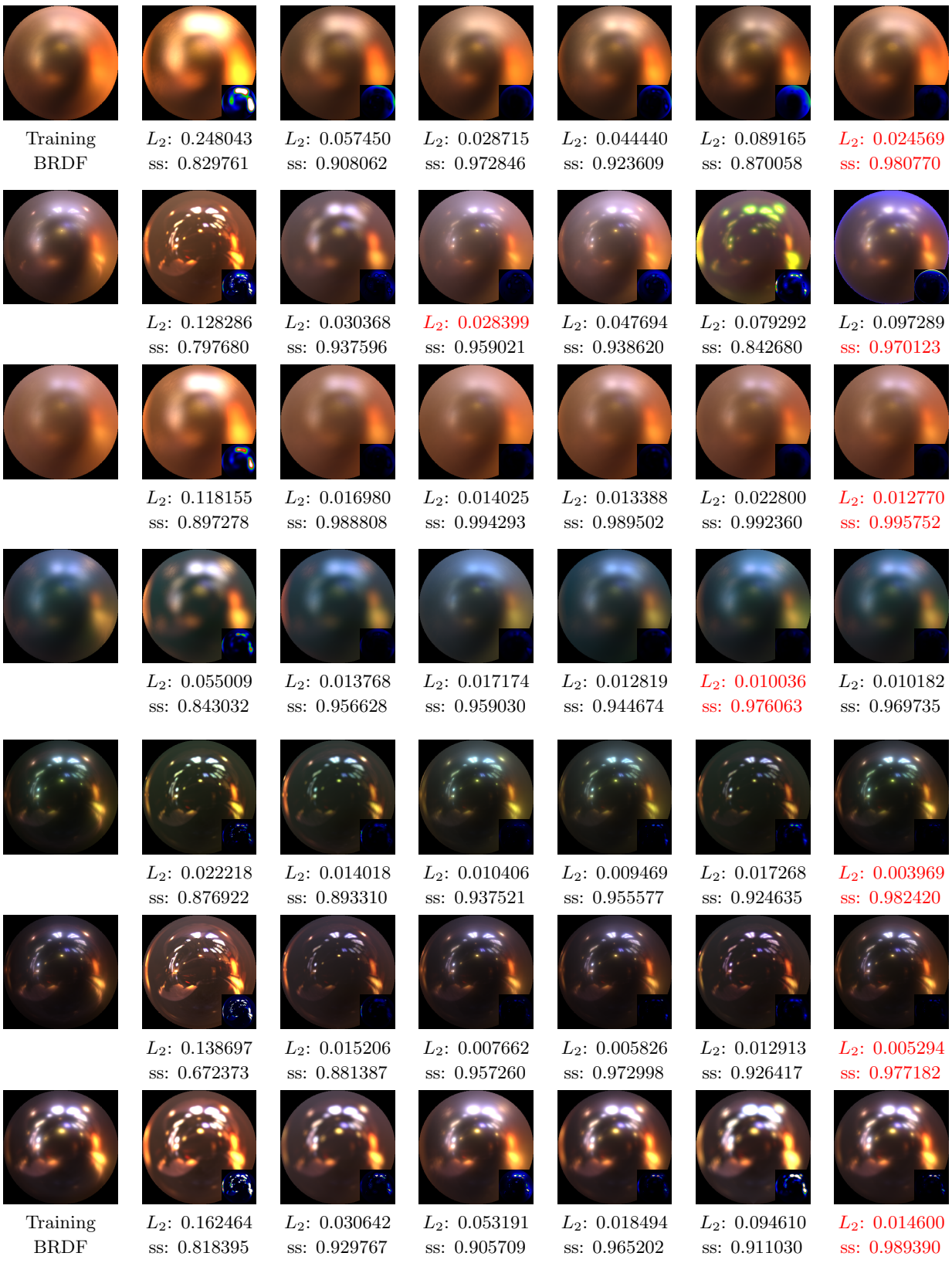


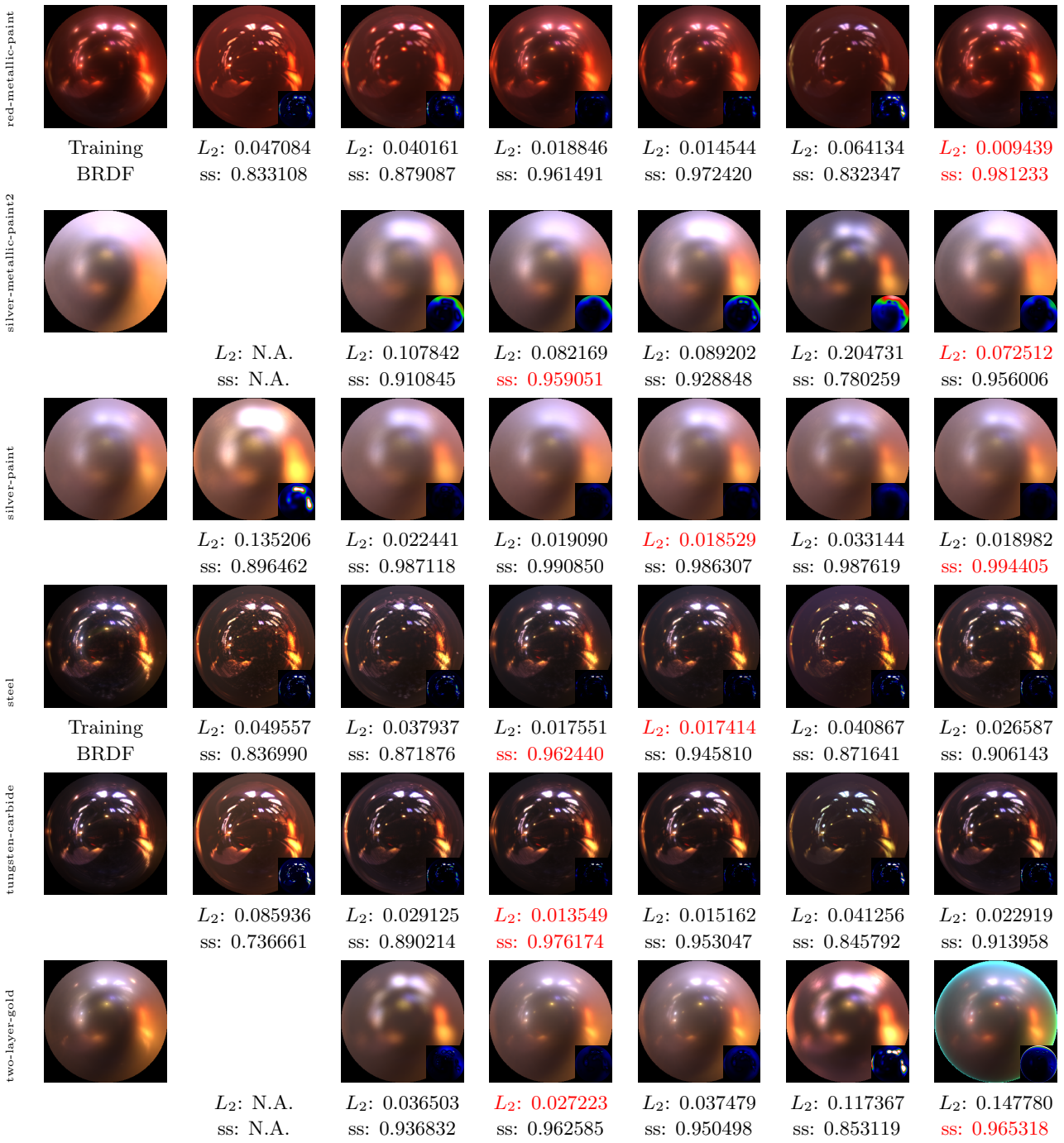
L_2 error.



SSIM error (= 100% - ssim).

	MERL	CT(Ngan) 0(0)/0(1)	CT(E_2 fit) 0(2)/0(0)	Löw SS 3(7)/5(6)	Löw MF 5(8)/1(4)	Bagher 2(4)/2(3)	genBRDF 10/12
alum-bronze		 L_2: 0.052284 ss: 0.862223	 L_2: 0.031392 ss: 0.907766	 L_2: 0.032159 ss: 0.937667	 L_2: 0.021146 ss: 0.956962	 L_2: 0.053167 ss: 0.922395	 L_2: 0.017529 ss: 0.963314
aluminium	Training BRDF	 L_2: 0.067099 ss: 0.846399	 L_2: 0.035146 ss: 0.875113	 L_2: 0.018044 ss: 0.965309	 L_2: 0.022431 ss: 0.959087	 L_2: 0.034724 ss: 0.917355	 L_2: 0.014573 ss: 0.974035
black-oxidized-steel		 L_2: 0.037563 ss: 0.881117	 L_2: 0.012395 ss: 0.966402	 L_2: 0.009959 ss: 0.974466	 L_2: 0.021000 ss: 0.956823	 L_2: 0.009017 ss: 0.982697	 L_2: 0.009560 ss: 0.979588
blue-metallic-paint	Training BRDF	 L_2: 0.094791 ss: 0.840025	 L_2: 0.019657 ss: 0.966125	 L_2: 0.009161 ss: 0.993984	 L_2: 0.015014 ss: 0.978181	 L_2: 0.030206 ss: 0.958517	 L_2: 0.007553 ss: 0.992452
blue-metallic-paint2	Training BRDF	 L_2: 0.045753 ss: 0.859062	 L_2: 0.030359 ss: 0.888022	 L_2: 0.010992 ss: 0.963478	 L_2: 0.009785 ss: 0.974119	 L_2: 0.053468 ss: 0.884442	 L_2: 0.011110 ss: 0.974244
brass	Training BRDF	 L_2: 0.109247 ss: 0.809906	 L_2: 0.034378 ss: 0.875335	 L_2: 0.011813 ss: 0.965002	 L_2: 0.011450 ss: 0.970392	 L_2: 0.036857 ss: 0.890152	 L_2: 0.015154 ss: 0.934328
chrome		 L_2: 0.038555 ss: 0.902465	 L_2: 0.041371 ss: 0.879025	 L_2: 0.021593 ss: 0.972071	 L_2: 0.021446 ss: 0.950898	 L_2: 0.042031 ss: 0.925449	 L_2: 0.034967 ss: 0.895885


gold-metallic-paint
Training BRDF
L_2: 0.248043 ss: 0.829761
L_2: 0.057450 ss: 0.908062
L_2: 0.028715 ss: 0.972846
L_2: 0.044440 ss: 0.923609
L_2: 0.089165 ss: 0.870058
L_2: 0.024569 ss: 0.980770
gold-metallic-paint2
L_2: 0.128286 ss: 0.797680
L_2: 0.030368 ss: 0.937596
L_2: 0.028399 ss: 0.959021
L_2: 0.047694 ss: 0.938620
L_2: 0.079292 ss: 0.842680
L_2: 0.097289 ss: 0.970123
gold-paint
L_2: 0.118155 ss: 0.897278
L_2: 0.016980 ss: 0.988808
L_2: 0.014025 ss: 0.994293
L_2: 0.013388 ss: 0.989502
L_2: 0.022800 ss: 0.992360
L_2: 0.012770 ss: 0.995752
green-metallic-paint
L_2: 0.055009 ss: 0.843032
L_2: 0.013768 ss: 0.956628
L_2: 0.017174 ss: 0.959030
L_2: 0.012819 ss: 0.944674
L_2: 0.010036 ss: 0.976063
L_2: 0.010182 ss: 0.969735
green-metallic-paint2
L_2: 0.022218 ss: 0.876922
L_2: 0.014018 ss: 0.893310
L_2: 0.010406 ss: 0.937521
L_2: 0.009469 ss: 0.955577
L_2: 0.017268 ss: 0.924635
L_2: 0.003969 ss: 0.982420
hematite
L_2: 0.138697 ss: 0.672373
L_2: 0.015206 ss: 0.881387
L_2: 0.007662 ss: 0.957260
L_2: 0.005826 ss: 0.972998
L_2: 0.012913 ss: 0.926417
L_2: 0.005294 ss: 0.977182
nickel
Training BRDF
L_2: 0.162464 ss: 0.818395
L_2: 0.030642 ss: 0.929767
L_2: 0.053191 ss: 0.905709
L_2: 0.018494 ss: 0.965202
L_2: 0.094610 ss: 0.911030
L_2: 0.014600 ss: 0.989390


red-metallic-paint
Training BRDF
L_2: 0.047084 ss: 0.833108
L_2: 0.040161 ss: 0.879087
L_2: 0.018846 ss: 0.961491
L_2: 0.014544 ss: 0.972420
L_2: 0.064134 ss: 0.832347
L_2: 0.009439 ss: 0.981233
silver-metallic-paint2
L_2: N.A. ss: N.A.
L_2: 0.107842 ss: 0.910845
L_2: 0.082169 ss: 0.959051
L_2: 0.089202 ss: 0.928848
L_2: 0.204731 ss: 0.780259
L_2: 0.072512 ss: 0.956006
silver-paint
L_2: 0.135206 ss: 0.896462
L_2: 0.022441 ss: 0.987118
L_2: 0.019090 ss: 0.990850
L_2: 0.018529 ss: 0.986307
L_2: 0.033144 ss: 0.987619
L_2: 0.018982 ss: 0.994405
steel
Training BRDF
L_2: 0.049557 ss: 0.836990
L_2: 0.037937 ss: 0.871876
L_2: 0.017551 ss: 0.962440
L_2: 0.017414 ss: 0.945810
L_2: 0.040867 ss: 0.871641
L_2: 0.026587 ss: 0.906143
tungsten-carbide
L_2: 0.085936 ss: 0.736661
L_2: 0.029125 ss: 0.890214
L_2: 0.013549 ss: 0.976174
L_2: 0.015162 ss: 0.953047
L_2: 0.041256 ss: 0.845792
L_2: 0.022919 ss: 0.913958
two-layer-gold
L_2: N.A. ss: N.A.
L_2: 0.036503 ss: 0.936832
L_2: 0.027223 ss: 0.962585
L_2: 0.037479 ss: 0.950498
L_2: 0.117367 ss: 0.853119
L_2: 0.147780 ss: 0.965318

Material		p0	p1	ρ_d	ρ_s	R_0
alum-bronze	R	2.66274661e-01	8.39558095e-02	6.18637167e-02	1.57861481e+01	4.46354263e-02
	G	2.75306553e-01	8.70686471e-02	5.14080077e-02	1.30578423e+01	3.19811106e-02
	B	2.30897784e-01	7.30682462e-02	4.12917994e-02	2.00163059e+01	1.66709181e-02
aluminium	R	5.39997928e-02	2.69403011e-02	1.82096323e-03	9.46913330e+02	9.41437036e-02
	G	5.17706424e-02	2.58311499e-02	3.25844623e-04	9.53781433e+02	1.02955543e-01
	B	6.01578914e-02	3.00144795e-02	3.44749680e-03	6.39109863e+02	1.00791752e-01
black-oxidized-steel	R	2.17096615e+00	3.42530578e-01	1.66073013e-02	7.83877000e-02	4.19468097e-02
	G	2.19151974e+00	3.59089315e-01	1.48870945e-02	7.44449124e-02	4.13015261e-02
	B	2.24307990e+00	3.70754421e-01	1.40610514e-02	7.04471618e-02	4.06736359e-02
blue-metallic-paint	R	8.78321677e-02	9.09090500e+01	1.55896105e-05	4.65888214e+02	1.39372319e-01
	G	7.17112571e-02	1.33787872e+02	4.81142954e-04	8.23371521e+02	1.49687573e-01
	B	7.07418919e-02	1.23661003e+02	1.44474267e-04	4.35226959e+02	6.87534571e-01
blue-metallic-paint2	R	2.04052329e-01	1.89558007e-02	2.89318134e-08	1.74192657e+01	2.54445344e-01
	G	1.88430935e-01	1.74056552e-02	3.35253588e-07	1.95862770e+01	4.24430937e-01
	B	1.88560694e-01	1.82134099e-02	2.51615432e-07	2.35356808e+01	6.37878597e-01
brass	R	2.59349287e-01	4.31683473e-03	1.67814437e-02	6.27156372e+01	5.42330742e-01
	G	1.09735772e-01	1.13814007e-02	6.66574109e-03	6.45589142e+01	4.08288091e-01
	B	7.94270113e-02	1.02083050e-02	8.02755821e-03	1.73509750e+02	1.42805576e-01
chrome	R	5.16830087e-01	2.30412045e-03	3.68729071e-03	4.32453247e+02	1.42480925e-01
	G	4.82915938e-01	1.73240132e-03	3.23939417e-03	7.83346558e+02	1.04929008e-01
	B	4.82844979e-01	1.77586533e-03	3.57208983e-03	9.05690552e+02	7.85881206e-02
gold-metallic-paint	R	2.02453434e-01	5.89559937e+01	2.31214006e-10	4.02216568e+01	1.28096950e+00
	G	1.30647287e-01	8.61520538e+01	1.58824631e-09	1.25211426e+02	7.52750158e-01
	B	8.21728781e-02	1.19475868e+02	9.56391741e-04	6.83806946e+02	1.18614480e-01
gold-metallic-paint2	R	1.18990317e-01	2.64995408e+00	3.61610502e-02	9.48708954e+01	1.77510351e-01
	G	1.15628377e-01	2.31040382e+00	3.31130810e-02	9.08950958e+01	1.63504466e-01
	B	9.15911421e-02	8.50422500e+04	6.06545467e-13	7.03022480e+00	5.29421000e+06
gold-paint	R	4.37310904e-01	2.00303864e+00	1.31324038e-01	3.61427140e+00	1.30951285e-01
	G	6.75076365e-01	9.45306540e-01	7.18843564e-02	1.09249938e+00	9.33022276e-02
	B	7.75065422e-01	6.18812501e-01	2.86583211e-02	7.46948123e-01	4.30279225e-02
green-metallic-paint	R	2.18067050e+00	2.12120250e-01	6.61524618e-03	1.15036741e-01	9.81900990e-02
	G	9.75430012e-01	4.36633348e-01	1.84845608e-02	5.15119910e-01	6.21231422e-02
	B	9.72496927e-01	4.42943543e-01	2.52673272e-02	5.28444290e-01	6.50830790e-02
green-metallic-paint2	R	1.58936381e-01	3.04110423e-02	5.60240387e-08	3.02985516e+01	5.91245666e-02
	G	1.56894505e-01	3.00204325e-02	2.88029492e-04	2.98769588e+01	1.44363552e-01
	B	1.51486278e-01	2.89855897e-02	3.76113661e-04	3.45838547e+01	7.70488679e-02
hematite	R	9.63100567e-02	1.23780575e-02	1.11697882e-03	9.30821609e+01	1.72919258e-01
	G	7.66871348e-02	1.46733951e-02	2.37821927e-03	1.62983963e+02	1.18097492e-01
	B	5.96842319e-02	2.17389651e-02	1.65560341e-04	4.29611572e+02	5.28225228e-02
nickel	R	7.72376180e-01	4.57419083e-02	1.35195768e-02	3.25683008e-10	5.02969395e+09
	G	7.89563954e-01	4.84158136e-02	1.18447710e-02	1.94301441e-01	6.82401848e+00
	B	7.95497656e-01	5.11964560e-02	1.04188370e-02	5.22341549e-01	2.05197406e+00
red-metallic-paint	R	1.38134763e-01	3.33791710e-02	5.05895959e-03	8.99207306e+01	1.41463801e-01
	G	1.07966244e-01	2.48810500e-02	1.55401210e-07	9.75841599e+01	4.46008109e-02
	B	9.62378234e-02	2.29125917e-02	1.69585178e-07	1.28973602e+02	2.42309216e-02
silver-metallic-paint2	R	1.97142884e-01	4.89840736e+01	4.84973304e-02	4.88816071e+00	9.77169323e+00
	G	2.34783962e-01	3.96051979e+01	5.07067554e-02	3.96539402e+00	6.84943199e+00
	B	2.58929729e-01	3.38961411e+01	5.08610345e-02	3.97312093e+00	4.53552008e+00
silver-paint	R	4.53318059e-01	1.78250790e+00	1.38189107e-01	3.84796500e+00	1.26004413e-01
	G	5.33078372e-01	1.28038144e+00	1.09764613e-01	2.35862184e+00	1.30271658e-01
	B	7.20171273e-01	7.56100833e-01	9.73522291e-02	1.02863371e+00	1.29076019e-01
steel	R	3.95445615e-01	1.82012643e-03	1.05257034e-02	4.18357727e+02	1.63755670e-01
	G	3.37116033e-01	1.42608664e-03	1.06685525e-02	4.67970856e+02	1.72738060e-01
	B	3.58082563e-01	2.15887744e-03	1.24626597e-02	2.56073486e+02	1.54056966e-01

RGB Parameters for genBRDF 068-000838

Material		p0	p1	ρ_d	ρ_s	R_0
tungsten-carbide	R	5.14415681e-01	2.79121310e-03	4.71121911e-03	2.04573364e+02	1.62805215e-01
	G	4.61325645e-01	2.06963369e-03	4.31662658e-03	2.98035675e+02	1.38996020e-01
	B	4.35261250e-01	1.50626211e-03	4.82586166e-03	8.52495544e+02	8.21597353e-02
two-layer-gold	R	1.29376575e-01	2.58774686e+00	3.23636048e-02	9.31992340e+01	1.47288948e-01
	G	4.84473757e+24	3.80545769e+01	1.28307335e-07	1.01661915e-24	7.02971751e+24
	B	2.74142281e+24	3.58572235e+01	6.31423177e-07	1.37527308e-24	3.86913856e+24

RGB Parameters for genBRDF 068-000838

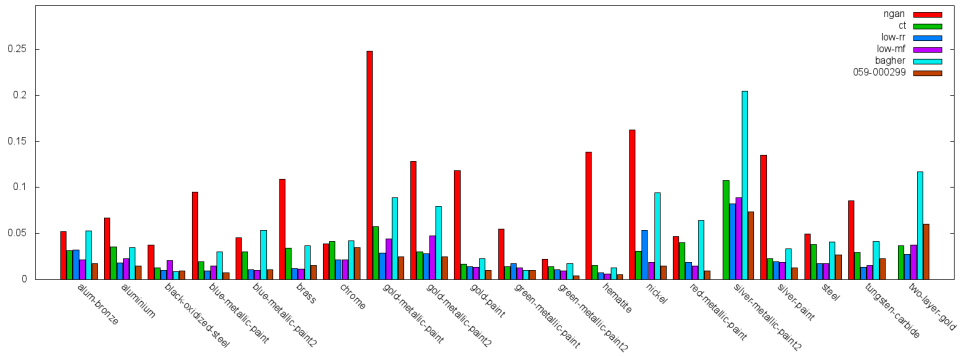
059-000299

Fitness: 0.000100105641

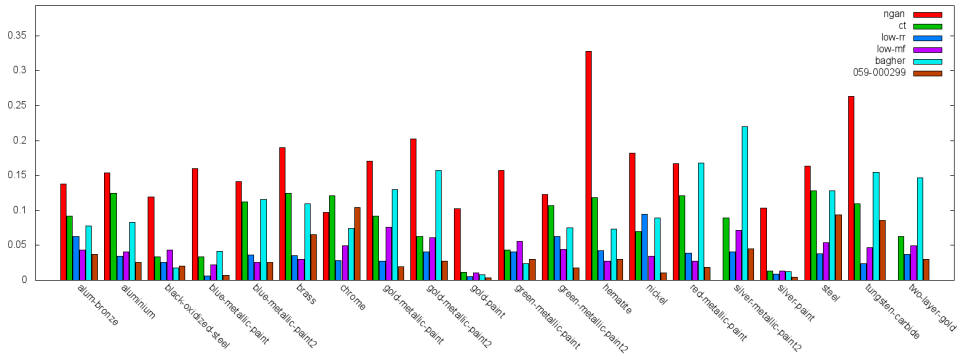
Length: 307

Reciprocity Error: 5.866842072e-15

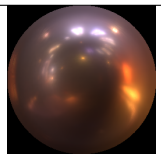
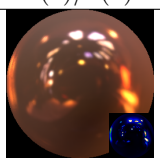
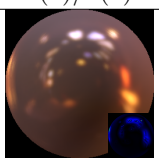
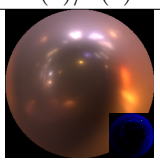
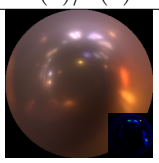
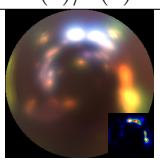
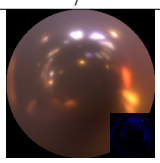
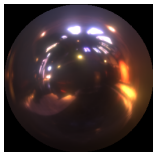
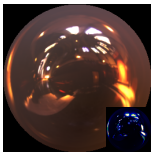
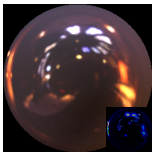
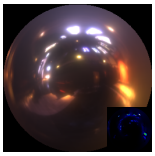
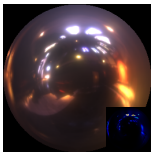
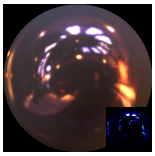
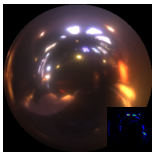
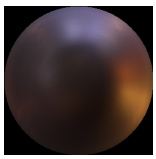
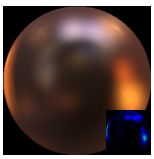
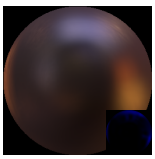
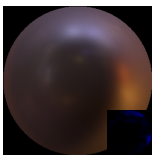
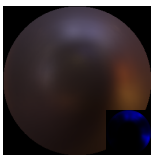
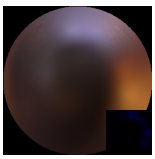
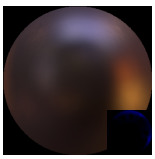
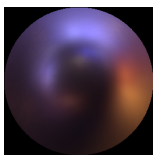
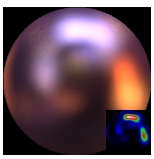
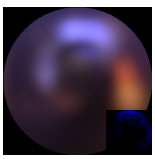
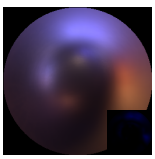
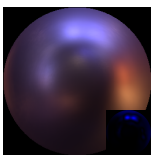
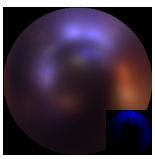
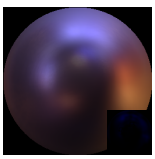
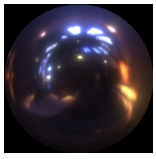
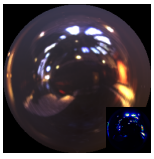
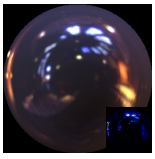
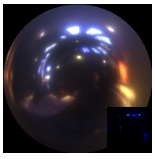
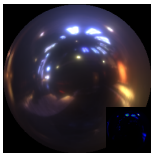
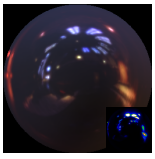
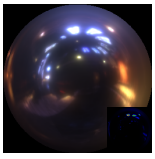
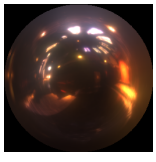
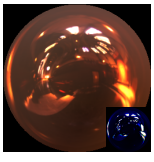
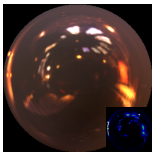
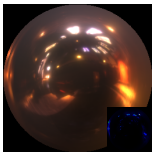
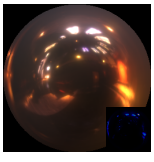
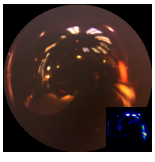
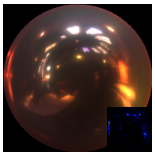
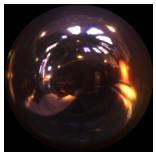
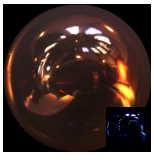
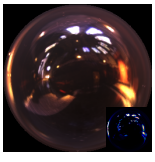
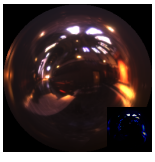
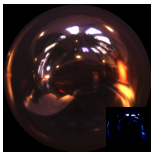
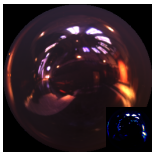
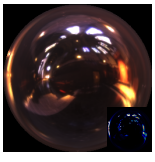
$$f'_n(\omega_i, \omega_o) = \left[\left([p_0 * e^{-\left(\left(\frac{tan(cos^{-1}(clamp(\omega_{hz})))}{p_1}\right)^{p_0}\right)}] / [\left(\left(\frac{tan(cos^{-1}(clamp(\omega_{hz})))}{p_0}\right)^{2.0} + [p_1 * \left(cos(\omega_{hz})\right)^{4.0}]\right) * p_0]\right) * \min((p_1 * [1.0 + \omega_{hz}]), \min(\frac{((p_0 * \omega_{rz}) * \omega_{oz})}{(\omega_o \cdot \omega_h)}, \frac{p_0}{\left(p_1 * tan(cos^{-1}(clamp(\omega_{hz})))\right)}))\right]$$

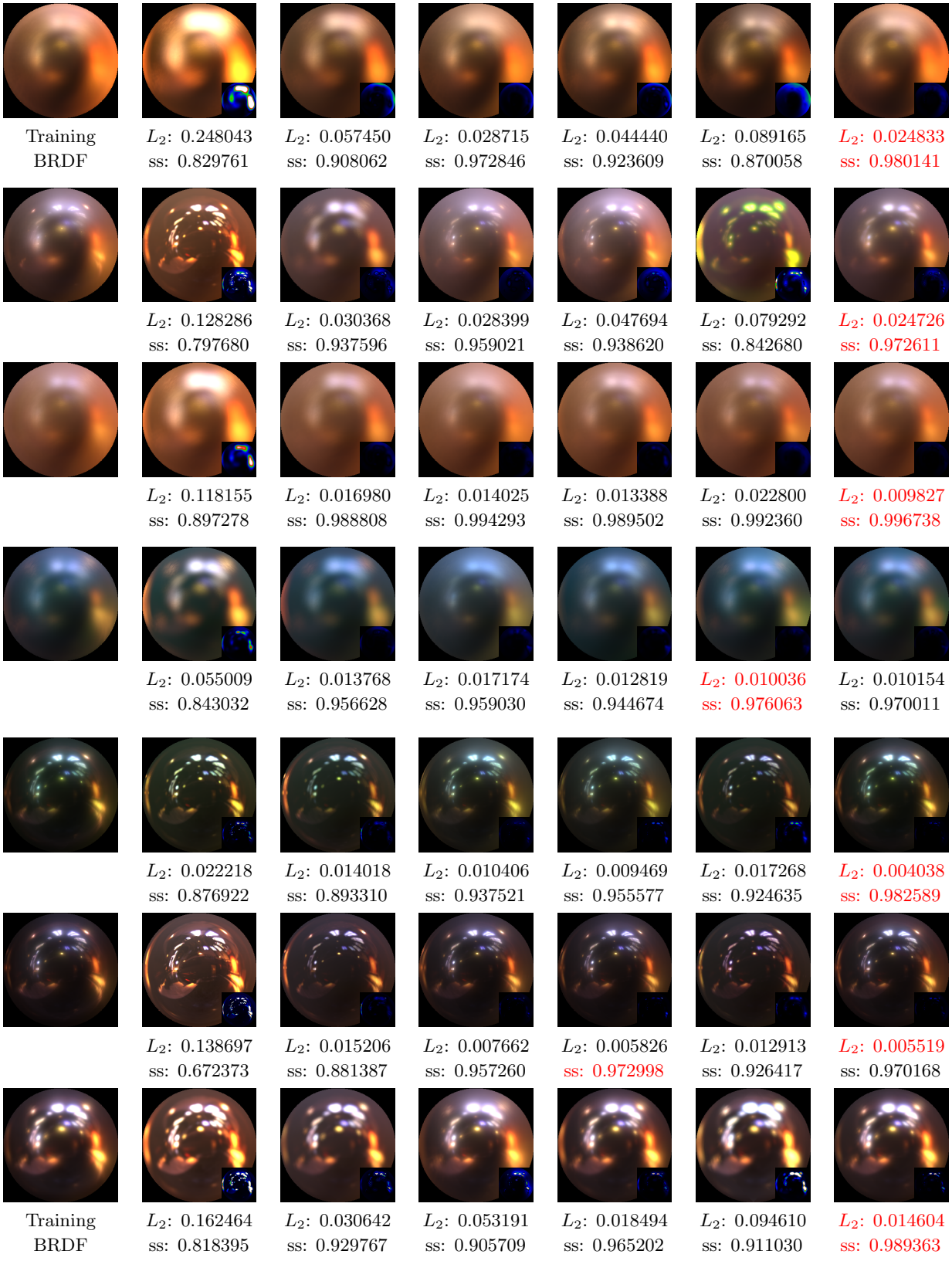


L_2 error.



SSIM error (= 100% - ssim).

	MERL	CT(Ngan) 0(0)/0(1)	CT(E_2 fit) 0(1)/0(0)	Löw SS 2(5)/5(6)	Löw MF 4(6)/2(5)	Bagher 2(2)/2(3)	genBRDF 12/11
alum-bronze							
		L_2: 0.052284 ss: 0.862223	L_2: 0.031392 ss: 0.907766	L_2: 0.032159 ss: 0.937667	L_2: 0.021146 ss: 0.956962	L_2: 0.053167 ss: 0.922395	L_2: 0.017562 ss: 0.963156
aluminium							
	Training BRDF	L_2: 0.067099 ss: 0.846399	L_2: 0.035146 ss: 0.875113	L_2: 0.018044 ss: 0.965309	L_2: 0.022431 ss: 0.959087	L_2: 0.034724 ss: 0.917355	L_2: 0.014495 ss: 0.974108
black-oxidized-steel							
		L_2: 0.037563 ss: 0.881117	L_2: 0.012395 ss: 0.966402	L_2: 0.009959 ss: 0.974466	L_2: 0.021000 ss: 0.956823	L_2: 0.009017 ss: 0.982697	L_2: 0.009524 ss: 0.979832
blue-metallic-paint							
	Training BRDF	L_2: 0.094791 ss: 0.840025	L_2: 0.019657 ss: 0.966125	L_2: 0.009161 ss: 0.993984	L_2: 0.015014 ss: 0.978181	L_2: 0.030206 ss: 0.958517	L_2: 0.007684 ss: 0.992588
blue-metallic-paint2							
	Training BRDF	L_2: 0.045753 ss: 0.859062	L_2: 0.030359 ss: 0.888022	L_2: 0.010992 ss: 0.963478	L_2: 0.009785 ss: 0.974119	L_2: 0.053468 ss: 0.884442	L_2: 0.010814 ss: 0.974610
brass							
	Training BRDF	L_2: 0.109247 ss: 0.809906	L_2: 0.034378 ss: 0.875335	L_2: 0.011813 ss: 0.965002	L_2: 0.011450 ss: 0.970392	L_2: 0.036857 ss: 0.890152	L_2: 0.015123 ss: 0.934756
chrome							
		L_2: 0.038555 ss: 0.902465	L_2: 0.041371 ss: 0.879025	L_2: 0.021593 ss: 0.972071	L_2: 0.021446 ss: 0.950898	L_2: 0.042031 ss: 0.925449	L_2: 0.034974 ss: 0.895876


gold-metallic-paint
Training BRDF
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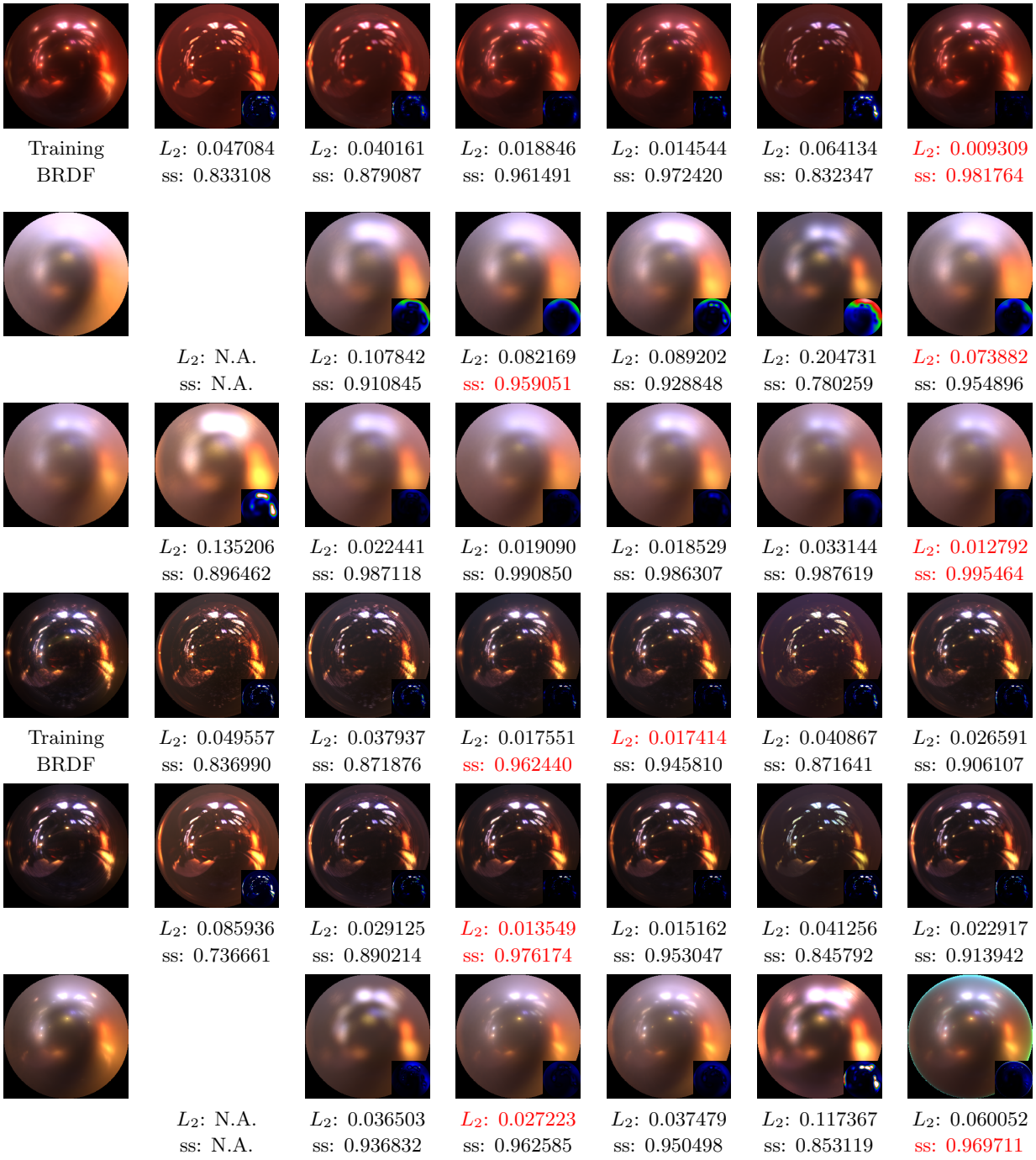
L_2: 0.057450 ss: 0.908062
L_2: 0.028715 ss: 0.972846
L_2: 0.044440 ss: 0.923609
L_2: 0.089165 ss: 0.870058
L_2: 0.024833 ss: 0.980141
gold-metallic-paint2
L_2: 0.128286 ss: 0.797680
L_2: 0.030368 ss: 0.937596
L_2: 0.028399 ss: 0.959021
L_2: 0.047694 ss: 0.938620
L_2: 0.079292 ss: 0.842680
L_2: 0.024726 ss: 0.972611
gold-paint
L_2: 0.118155 ss: 0.897278
L_2: 0.016980 ss: 0.988808
L_2: 0.014025 ss: 0.994293
L_2: 0.013388 ss: 0.989502
L_2: 0.022800 ss: 0.992360
L_2: 0.009827 ss: 0.996738
green-metallic-paint
L_2: 0.055009 ss: 0.843032
L_2: 0.013768 ss: 0.956628
L_2: 0.017174 ss: 0.959030
L_2: 0.012819 ss: 0.944674
L_2: 0.010036 ss: 0.976063
L_2: 0.010154 ss: 0.970011
green-metallic-paint2
L_2: 0.022218 ss: 0.876922
L_2: 0.014018 ss: 0.893310
L_2: 0.010406 ss: 0.937521
L_2: 0.009469 ss: 0.955577
L_2: 0.017268 ss: 0.924635
L_2: 0.004038 ss: 0.982589
hematite
L_2: 0.138697 ss: 0.672373
L_2: 0.015206 ss: 0.881387
L_2: 0.007662 ss: 0.957260
L_2: 0.005826 ss: 0.972998
L_2: 0.012913 ss: 0.926417
L_2: 0.005519 ss: 0.970168
nickel
Training BRDF
L_2: 0.162464 ss: 0.818395
L_2: 0.030642 ss: 0.929767
L_2: 0.053191 ss: 0.905709
L_2: 0.018494 ss: 0.965202
L_2: 0.094610 ss: 0.911030
L_2: 0.014604 ss: 0.989363


red-metallic-paint
Training BRDF
L_2: 0.047084 ss: 0.833108
L_2: 0.040161 ss: 0.879087
L_2: 0.018846 ss: 0.961491
L_2: 0.014544 ss: 0.972420
L_2: 0.064134 ss: 0.832347
L_2: 0.009309 ss: 0.981764
silver-metallic-paint2
L_2: N.A. ss: N.A.
L_2: 0.107842 ss: 0.910845
L_2: 0.082169 ss: 0.959051
L_2: 0.089202 ss: 0.928848
L_2: 0.204731 ss: 0.780259
L_2: 0.073882 ss: 0.954896
silver-paint
L_2: 0.135206 ss: 0.896462
L_2: 0.022441 ss: 0.987118
L_2: 0.019090 ss: 0.990850
L_2: 0.018529 ss: 0.986307
L_2: 0.033144 ss: 0.987619
L_2: 0.012792 ss: 0.995464
steel
Training BRDF
L_2: 0.049557 ss: 0.836990
L_2: 0.037937 ss: 0.871876
L_2: 0.017551 ss: 0.962440
L_2: 0.017414 ss: 0.945810
L_2: 0.040867 ss: 0.871641
L_2: 0.026591 ss: 0.906107
tungsten-carbide
L_2: 0.085936 ss: 0.736661
L_2: 0.029125 ss: 0.890214
L_2: 0.013549 ss: 0.976174
L_2: 0.015162 ss: 0.953047
L_2: 0.041256 ss: 0.845792
L_2: 0.022917 ss: 0.913942
two-layer-gold
L_2: N.A. ss: N.A.
L_2: 0.036503 ss: 0.936832
L_2: 0.027223 ss: 0.962585
L_2: 0.037479 ss: 0.950498
L_2: 0.117367 ss: 0.853119
L_2: 0.060052 ss: 0.969711

Material		p0	p1	ρ_d	ρ_s	R_0
alum-bronze	R	2.66159624e-01	8.40937197e-02	6.20394573e-02	1.58211250e+01	4.45178710e-02
	G	2.75112271e-01	8.70516896e-02	5.14958650e-02	1.30750914e+01	3.19917277e-02
	B	2.30942577e-01	7.30809644e-02	4.13049757e-02	1.99998283e+01	1.66715700e-02
aluminium	R	5.39080501e-02	2.69000586e-02	5.40515657e-07	9.49715149e+02	9.45567489e-02
	G	5.17919660e-02	2.58469936e-02	4.00222619e-33	9.50927734e+02	1.03213288e-01
	B	5.99001870e-02	2.98941284e-02	7.59094361e-35	6.43846680e+02	1.01862147e-01
black-oxidized-steel	R	2.16941500e+00	3.43679130e-01	1.66791882e-02	7.85423741e-02	4.21034358e-02
	G	2.18405890e+00	3.60559821e-01	1.49619319e-02	7.49099329e-02	4.12993021e-02
	B	2.23458219e+00	3.72285247e-01	1.41226295e-02	7.09601045e-02	4.06894386e-02
blue-metallic-paint	R	3.14733505e-01	8.08349991e+00	8.78603314e-04	8.40458393e+00	1.39459148e-01
	G	2.87081927e-01	9.62388134e+00	8.48766998e-04	1.04327784e+01	1.49707451e-01
	B	2.86509931e-01	8.78875351e+00	5.35232772e-04	5.31498718e+00	6.95245981e-01
blue-metallic-paint2	R	2.03448847e-01	1.90341938e-02	2.39876726e-06	1.74819164e+01	2.53769785e-01
	G	1.88302085e-01	1.74007192e-02	1.44658721e-08	1.96132126e+01	4.24902707e-01
	B	1.87509835e-01	1.82980224e-02	6.08999032e-11	2.38160820e+01	6.33667767e-01
brass	R	2.58661598e-01	4.32353187e-03	1.69891715e-02	6.27843971e+01	5.42200148e-01
	G	1.09795734e-01	1.13919182e-02	7.23915501e-03	6.44993134e+01	4.08120930e-01
	B	7.83387721e-02	1.00702876e-02	7.73203373e-03	1.77394180e+02	1.46373332e-01
chrome	R	5.16861796e-01	2.30407878e-03	3.65037262e-03	4.32756897e+02	1.42435282e-01
	G	4.82834101e-01	1.73323497e-03	3.18058697e-03	7.82495361e+02	1.04823112e-01
	B	4.82875764e-01	1.77578395e-03	3.53335543e-03	9.07676758e+02	7.84237832e-02
gold-metallic-paint	R	4.59215373e-01	1.21032152e+01	9.82062360e-08	2.89933658e+00	1.37257099e+00
	G	3.77289176e-01	1.13189240e+01	2.47086888e-07	4.37838554e+00	7.64059484e-01
	B	2.92816669e-01	9.99522877e+00	4.28839074e-03	1.20361004e+01	1.15245596e-01
gold-metallic-paint2	R	8.58242512e-02	4.84575510e+00	4.39631492e-02	2.58981720e+02	1.77019075e-01
	G	7.78072476e-02	4.79462767e+00	3.89156453e-02	3.06443024e+02	1.63126573e-01
	B	4.32101749e-02	4.80196762e+00	4.47342619e-02	1.63107971e+03	9.47914794e-02
gold-paint	R	2.92187661e-01	4.28279352e+00	1.38343588e-01	1.23286018e+01	1.31051049e-01
	G	2.82896787e-01	4.57238197e+00	7.48669729e-02	1.43927717e+01	9.50836465e-02
	B	7.76182115e-01	6.17427826e-01	2.86788680e-02	7.44117677e-01	4.30240668e-02
green-metallic-paint	R	2.17993617e+00	2.12836251e-01	6.62400248e-03	1.15098245e-01	9.82871577e-02
	G	9.75775957e-01	4.37196583e-01	1.84518620e-02	5.14780521e-01	6.22504875e-02
	B	9.71866429e-01	4.43764806e-01	2.52525713e-02	5.29320955e-01	6.51536062e-02
green-metallic-paint2	R	1.58985883e-01	3.04205138e-02	4.48064111e-06	3.02785912e+01	5.91349266e-02
	G	1.47910118e-01	3.22104953e-02	1.78893690e-03	3.71750641e+01	1.18856773e-01
	B	1.51492164e-01	2.89867856e-02	5.49147255e-04	3.45833168e+01	7.70948604e-02
hematite	R	1.04069628e-01	1.07944338e-02	1.50757853e-03	8.01856537e+01	2.03269064e-01
	G	7.66651109e-02	1.46693522e-02	2.08269362e-03	1.62821838e+02	1.18403390e-01
	B	5.94748221e-02	2.17628609e-02	2.87138834e-03	4.34994171e+02	5.22912703e-02
nickel	R	7.71098077e-01	4.57998216e-02	1.35623077e-02	5.88927360e-05	2.78330977e+04
	G	7.88045645e-01	4.84830961e-02	1.18525848e-02	1.94441766e-01	6.82352734e+00
	B	7.94166744e-01	5.12805507e-02	1.04640499e-02	5.25589228e-01	2.03940845e+00
red-metallic-paint	R	1.38120040e-01	3.33880857e-02	5.71275782e-03	8.99054260e+01	1.41567320e-01
	G	1.07888691e-01	2.48866864e-02	1.11681845e-06	9.77681351e+01	4.45637479e-02
	B	9.64007080e-02	2.28704903e-02	6.92187655e-07	1.28366547e+02	2.43412722e-02
silver-metallic-paint2	R	4.43194985e-01	9.69181061e+00	5.22065125e-02	4.00794894e-01	8.93543911e+00
	G	4.85947371e-01	9.39334965e+00	5.33204377e-02	3.47487986e-01	7.84122896e+00
	B	5.10052025e-01	8.83057594e+00	5.31334318e-02	4.58387345e-01	4.61510372e+00
silver-paint	R	2.82752097e-01	4.34824419e+00	1.45706475e-01	1.61291122e+01	1.27030477e-01
	G	2.70239294e-01	4.55112171e+00	1.16549231e-01	1.82206650e+01	1.32689506e-01
	B	2.56832570e-01	4.93928289e+00	1.00741111e-01	2.15366020e+01	1.34843022e-01
steel	R	3.95354360e-01	1.82113342e-03	1.05561530e-02	4.17887604e+02	1.63726956e-01
	G	3.37011486e-01	1.42592622e-03	1.07315080e-02	4.68360626e+02	1.72592223e-01
	B	3.58010679e-01	2.15677125e-03	1.25167118e-02	2.56981628e+02	1.53719112e-01

RGB Parameters for genBRDF 059-000299

Material		p0	p1	ρ_d	ρ_s	R_0
tungsten-carbide	R	5.14390767e-01	2.78959237e-03	4.66993311e-03	2.04964813e+02	1.62725210e-01
	G	4.61131334e-01	2.07045279e-03	4.33691777e-03	2.97725037e+02	1.38948843e-01
	B	4.35390770e-01	1.50666293e-03	4.82505420e-03	8.52846863e+02	8.21091160e-02
two-layer-gold	R	8.92774314e-02	5.21343851e+00	4.19182181e-02	2.91263855e+02	1.48261487e-01
	G	1.56623051e-02	3.88474805e+03	2.19988823e-02	5.56047121e-03	2.59925248e+09
	B	1.73252448e-02	2.68018604e+03	1.54404445e-02	3.20282672e-03	1.66220518e+09

RGB Parameters for genBRDF 059-000299

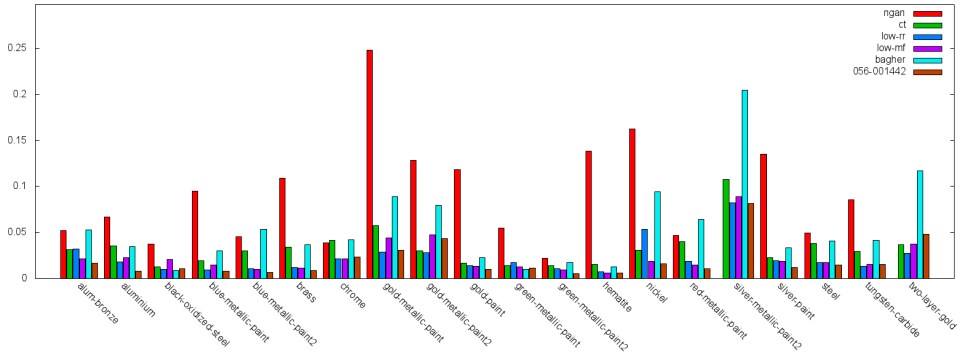
056-001442

Fitness: 0.000101123181

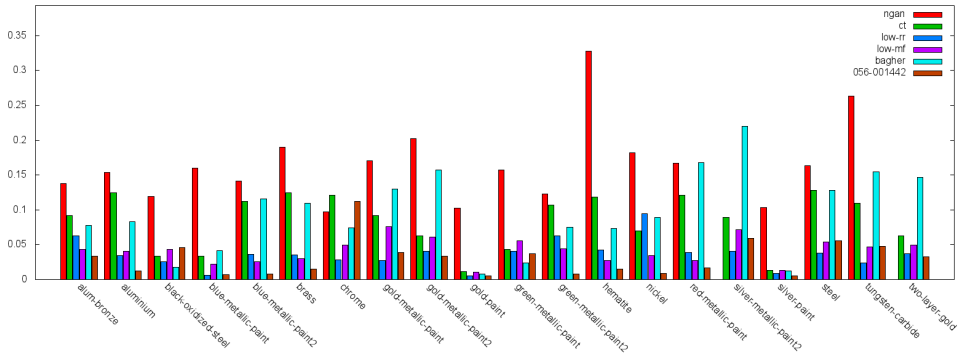
Length: 300

Reciprocity Error: 1.8431573e-13

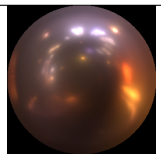
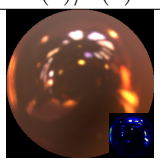
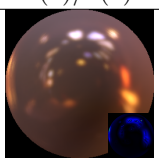
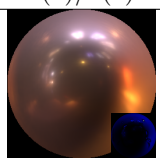
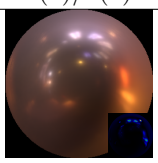
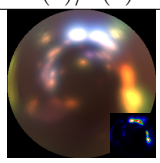
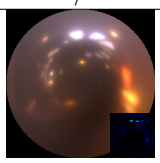
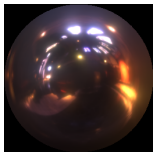
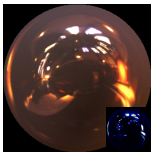
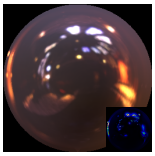
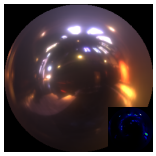
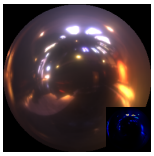
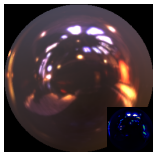
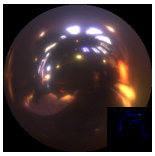
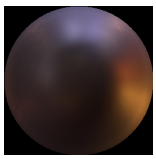
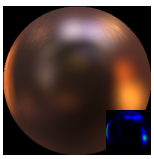
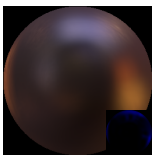
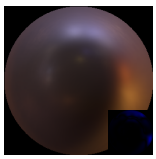
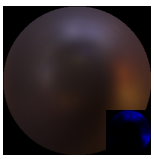
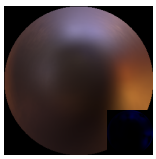
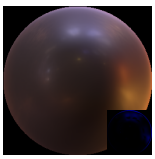
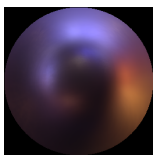
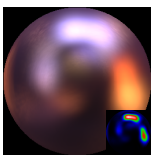
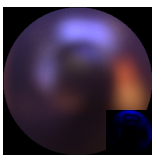
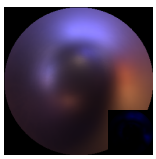
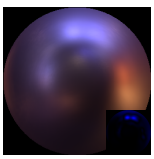
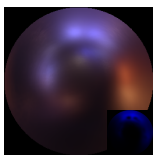
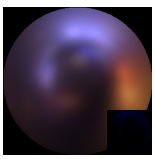
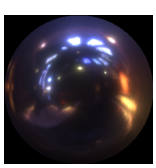
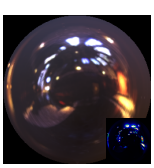
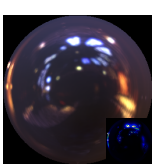
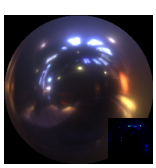
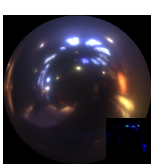
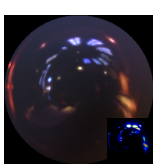
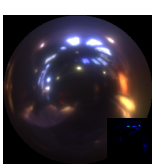
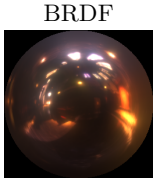
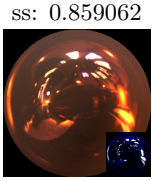
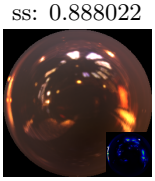
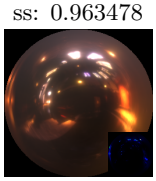
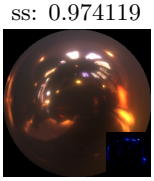
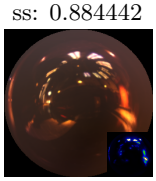
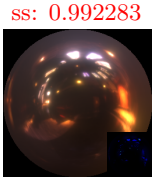
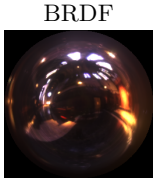
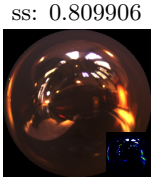
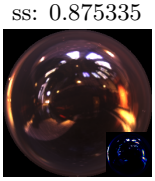
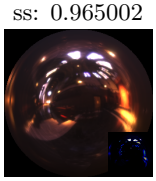
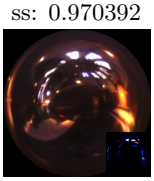
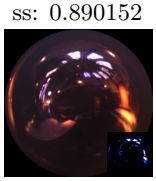
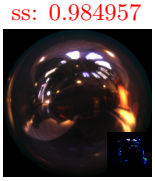
$$f'_n(\omega_i, \omega_o) = \left[\left([\omega_{hz} * e^{-\left(\left(\frac{tan(cos^{-1}(clamp(\omega_{hz})))}{p_1}\right)^{p_0}\right)}\right] / \left[\left(\left(\frac{tan(cos^{-1}(clamp(\omega_{hz})))}{p_0}\right)^{2.0} + [p_1 * 1.0]\right) * 1.0\right]\right) * \min(1.0, \min(\frac{((2.0 * \omega_{rz}) * \omega_{oz})}{1.0}, \frac{\left(cos(\left(\omega_{hz}\right)^{p_1})\right)^{1.0}}{\left(p_1 * tan(cos^{-1}(clamp(\omega_{hz})))\right)}))\right]$$

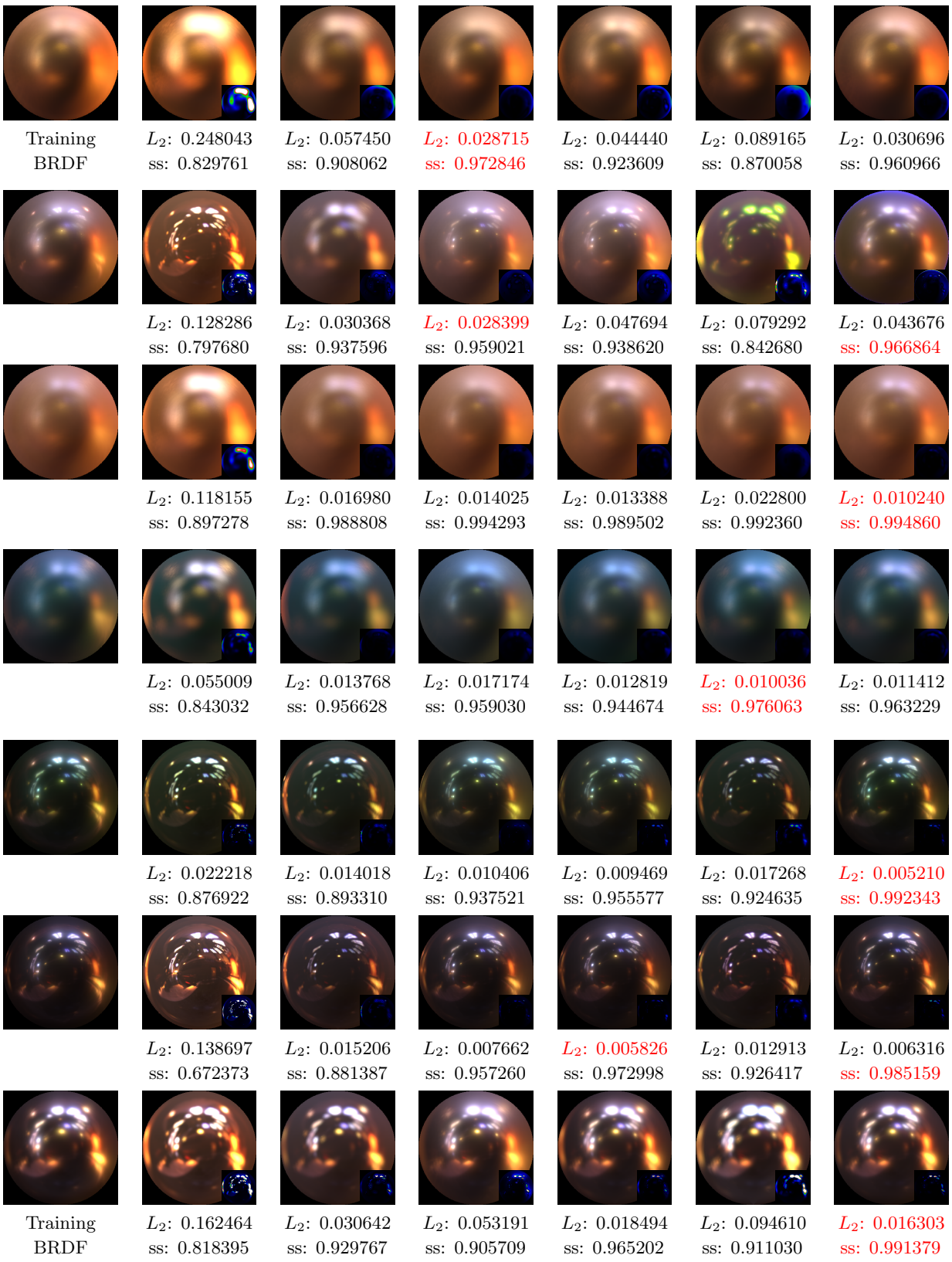


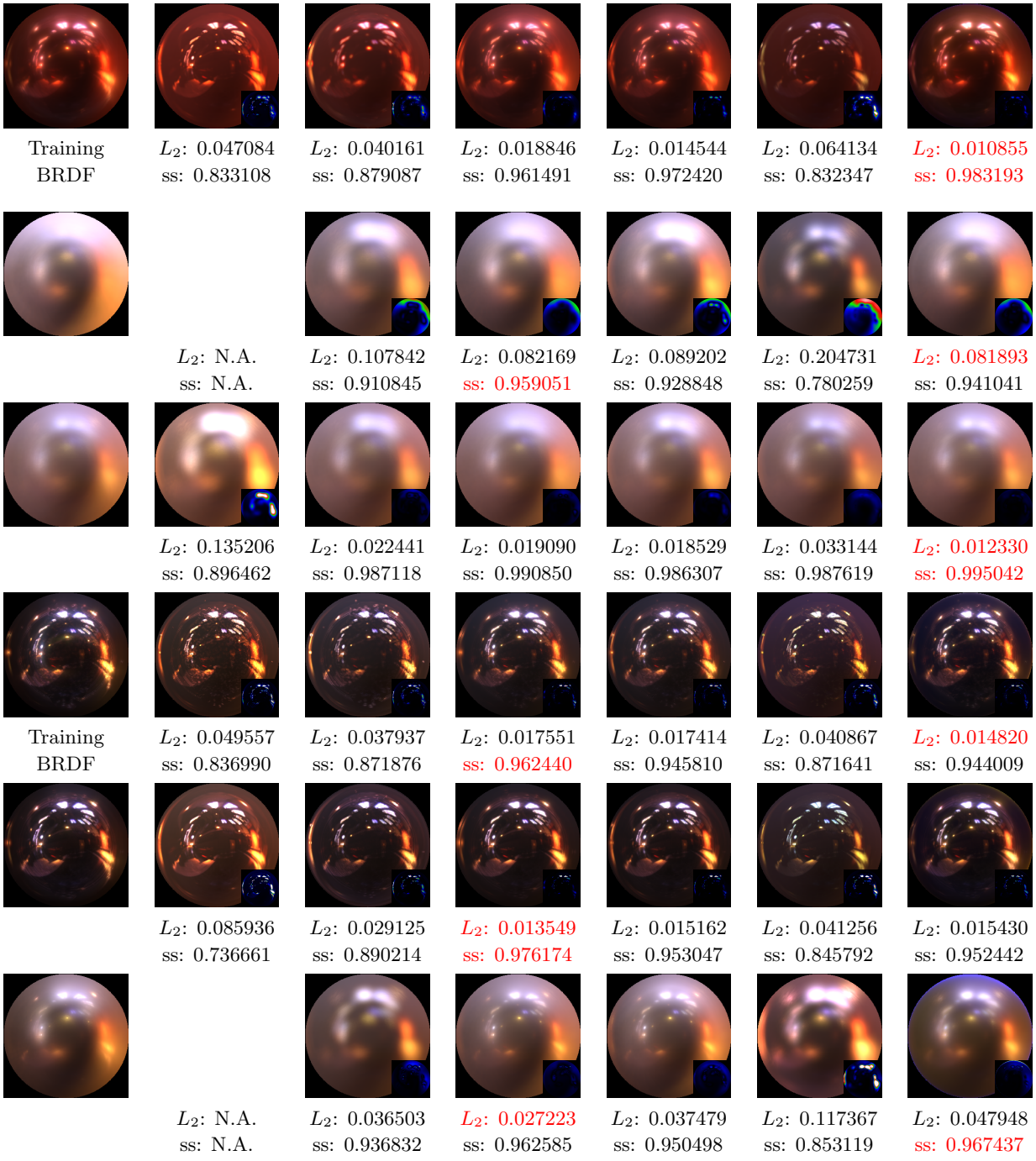
L_2 error.



SSIM error (= 100% - ssim).

	MERL	CT(Ngan) 0(0)/0(1)	CT(E_2 fit) 0(2)/0(1)	Löw SS 4(6)/6(7)	Löw MF 2(4)/0(4)	Bagher 2(2)/2(3)	genBRDF 12/12
alum-bronze							
		L_2: 0.052284 ss: 0.862223	L_2: 0.031392 ss: 0.907766	L_2: 0.032159 ss: 0.937667	L_2: 0.021146 ss: 0.956962	L_2: 0.053167 ss: 0.922395	L_2: 0.016572 ss: 0.966146
aluminium							
	Training BRDF	L_2: 0.067099 ss: 0.846399	L_2: 0.035146 ss: 0.875113	L_2: 0.018044 ss: 0.965309	L_2: 0.022431 ss: 0.959087	L_2: 0.034724 ss: 0.917355	L_2: 0.007716 ss: 0.987853
black-oxidized-steel							
		L_2: 0.037563 ss: 0.881117	L_2: 0.012395 ss: 0.966402	L_2: 0.009959 ss: 0.974466	L_2: 0.021000 ss: 0.956823	L_2: 0.009017 ss: 0.982697	L_2: 0.010699 ss: 0.954092
blue-metallic-paint							
	Training BRDF	L_2: 0.094791 ss: 0.840025	L_2: 0.019657 ss: 0.966125	L_2: 0.009161 ss: 0.993984	L_2: 0.015014 ss: 0.978181	L_2: 0.030206 ss: 0.958517	L_2: 0.007921 ss: 0.992898
blue-metallic-paint2							
	Training BRDF	L_2: 0.045753 ss: 0.859062	L_2: 0.030359 ss: 0.888022	L_2: 0.010992 ss: 0.963478	L_2: 0.009785 ss: 0.974119	L_2: 0.053468 ss: 0.884442	L_2: 0.006925 ss: 0.992283
brass							
	Training BRDF	L_2: 0.109247 ss: 0.809906	L_2: 0.034378 ss: 0.875335	L_2: 0.011813 ss: 0.965002	L_2: 0.011450 ss: 0.970392	L_2: 0.036857 ss: 0.890152	L_2: 0.009022 ss: 0.984957
chrome							
		L_2: 0.038555 ss: 0.902465	L_2: 0.041371 ss: 0.879025	L_2: 0.021593 ss: 0.972071	L_2: 0.021446 ss: 0.950898	L_2: 0.042031 ss: 0.925449	L_2: 0.023284 ss: 0.887764


gold-metallic-paint
Training BRDF
L_2: 0.248043 ss: 0.829761
L_2: 0.057450 ss: 0.908062
L_2: 0.028715 ss: 0.972846
L_2: 0.044440 ss: 0.923609
L_2: 0.089165 ss: 0.870058
L_2: 0.030696 ss: 0.960966
gold-metallic-paint2
L_2: 0.128286 ss: 0.797680
L_2: 0.030368 ss: 0.937596
L_2: 0.028399 ss: 0.959021
L_2: 0.047694 ss: 0.938620
L_2: 0.079292 ss: 0.842680
L_2: 0.043676 ss: 0.966864
gold-paint
L_2: 0.118155 ss: 0.897278
L_2: 0.016980 ss: 0.988808
L_2: 0.014025 ss: 0.994293
L_2: 0.013388 ss: 0.989502
L_2: 0.022800 ss: 0.992360
L_2: 0.010240 ss: 0.994860
green-metallic-paint
L_2: 0.055009 ss: 0.843032
L_2: 0.013768 ss: 0.956628
L_2: 0.017174 ss: 0.959030
L_2: 0.012819 ss: 0.944674
L_2: 0.010036 ss: 0.976063
L_2: 0.011412 ss: 0.963229
green-metallic-paint2
L_2: 0.022218 ss: 0.876922
L_2: 0.014018 ss: 0.893310
L_2: 0.010406 ss: 0.937521
L_2: 0.009469 ss: 0.955577
L_2: 0.017268 ss: 0.924635
L_2: 0.005210 ss: 0.992343
hematite
L_2: 0.138697 ss: 0.672373
L_2: 0.015206 ss: 0.881387
L_2: 0.007662 ss: 0.957260
L_2: 0.005826 ss: 0.972998
L_2: 0.012913 ss: 0.926417
L_2: 0.006316 ss: 0.985159
nickel
Training BRDF
L_2: 0.162464 ss: 0.818395
L_2: 0.030642 ss: 0.929767
L_2: 0.053191 ss: 0.905709
L_2: 0.018494 ss: 0.965202
L_2: 0.094610 ss: 0.911030
L_2: 0.016303 ss: 0.991379


red-metallic-paint
Training BRDF
L_2: 0.047084 ss: 0.833108
L_2: 0.040161 ss: 0.879087
L_2: 0.018846 ss: 0.961491
L_2: 0.014544 ss: 0.972420
L_2: 0.064134 ss: 0.832347
L_2: 0.010855 ss: 0.983193
silver-metallic-paint2
L_2: N.A. ss: N.A.
L_2: 0.107842 ss: 0.910845
L_2: 0.082169 ss: 0.959051
L_2: 0.089202 ss: 0.928848
L_2: 0.204731 ss: 0.780259
L_2: 0.081893 ss: 0.941041
silver-paint
L_2: 0.135206 ss: 0.896462
L_2: 0.022441 ss: 0.987118
L_2: 0.019090 ss: 0.990850
L_2: 0.018529 ss: 0.986307
L_2: 0.033144 ss: 0.987619
L_2: 0.012330 ss: 0.995042
steel
Training BRDF
L_2: 0.049557 ss: 0.836990
L_2: 0.037937 ss: 0.871876
L_2: 0.017551 ss: 0.962440
L_2: 0.017414 ss: 0.945810
L_2: 0.040867 ss: 0.871641
L_2: 0.014820 ss: 0.944009
tungsten-carbide
L_2: 0.085936 ss: 0.736661
L_2: 0.029125 ss: 0.890214
L_2: 0.013549 ss: 0.976174
L_2: 0.015162 ss: 0.953047
L_2: 0.041256 ss: 0.845792
L_2: 0.015430 ss: 0.952442
two-layer-gold
L_2: N.A. ss: N.A.
L_2: 0.036503 ss: 0.936832
L_2: 0.027223 ss: 0.962585
L_2: 0.037479 ss: 0.950498
L_2: 0.117367 ss: 0.853119
L_2: 0.047948 ss: 0.967437

Material		p0	p1	ρ_d	ρ_s	R_0
alum-bronze	R	1.17839407e-02	1.95378232e+00	5.67626655e-02	3.90638843e+03	1.45044783e-02
	G	1.24867028e-02	1.94465005e+00	4.79185395e-02	3.07261108e+03	1.05028069e-02
	B	4.62466739e-02	1.00913085e-01	3.94292139e-02	1.94668564e+02	5.49868587e-03
aluminium	R	1.79192901e-01	7.20933662e-04	1.23225702e-02	3.12666969e+01	3.26792076e-02
	G	1.25407889e-01	8.29492870e-04	8.64793360e-03	3.54989128e+01	3.72793861e-02
	B	1.05486810e-01	1.35045836e-03	8.65256134e-03	4.27956047e+01	3.74433063e-02
black-oxidized-steel	R	3.54962610e-02	6.81306992e+01	1.81999374e-02	1.91625195e+03	4.26944420e-02
	G	3.82811800e-02	5.42243309e+01	1.69328414e-02	1.38304822e+03	3.26251052e-02
	B	4.04192880e-02	5.44616127e+01	1.58791505e-02	1.29015613e+03	3.39035541e-02
blue-metallic-paint	R	1.10064007e-01	3.67611289e+00	3.26608018e-10	5.83025131e+01	4.31205779e-02
	G	9.85256284e-02	4.17220068e+00	3.84520610e-10	6.62289124e+01	4.38271202e-02
	B	9.68808308e-02	4.50591993e+00	3.43676976e-10	6.92598877e+01	1.23630956e-01
blue-metallic-paint2	R	2.18493924e-01	2.28688098e-03	2.97276420e-03	1.60594635e+01	1.81798823e-02
	G	1.86540231e-01	2.13005487e-03	1.90993887e-03	2.23500271e+01	2.29514539e-02
	B	1.69111282e-01	2.35481095e-03	2.11616419e-03	4.12958412e+01	2.58422624e-02
brass	R	1.97104722e-01	7.33926543e-04	1.67689491e-02	3.09605846e+01	2.46334393e-02
	G	1.42063200e-01	8.94929632e-04	1.33174788e-02	2.59522610e+01	2.33597122e-02
	B	1.05491266e-01	7.72732659e-04	1.07637178e-02	2.78053303e+01	1.42470151e-02
chrome	R	4.20932919e-01	6.41452963e-04	9.79066613e-07	1.11140419e+02	1.40086776e-02
	G	4.04524684e-01	4.93031344e-04	3.39993951e-03	1.23976700e+02	1.17173027e-02
	B	4.00473773e-01	4.90739825e-04	3.65008204e-03	1.31794540e+02	9.54493321e-03
gold-metallic-paint	R	1.22265823e-01	6.11037445e+00	1.53571882e-12	1.17760498e+02	1.30791470e-01
	G	1.10466234e-01	5.57533455e+00	7.89941897e-12	8.97719421e+01	1.13362722e-01
	B	9.70706344e-02	4.50303984e+00	5.62410383e-03	7.63581238e+01	3.50721292e-02
gold-metallic-paint2	R	3.18991482e-01	6.71530515e-02	4.39546816e-02	8.19088078e+00	6.11861348e-02
	G	3.11973929e-01	5.93231060e-02	3.94309461e-02	7.46157885e+00	5.76588288e-02
	B	3.33669316e-03	5.34567725e+03	3.61553020e-07	3.96892762e+00	1.21197975e+06
gold-paint	R	1.07436486e-01	2.23552394e+00	1.39494792e-01	7.44389191e+01	4.86860499e-02
	G	1.04056604e-01	2.38227725e+00	7.57814348e-02	7.91903000e+01	3.70064937e-02
	B	9.32369605e-02	2.21171165e+00	2.87506282e-02	8.53175430e+01	1.81153975e-02
green-metallic-paint	R	1.51714706e+00	1.67678624e-01	6.44165929e-03	4.76977777e+00	8.40184838e-03
	G	1.09248793e+00	1.76172957e-01	2.63742171e-02	5.07403421e+00	2.40388587e-02
	B	1.06037152e+00	1.75730258e-01	3.31760533e-02	5.21339560e+00	2.52996124e-02
green-metallic-paint2	R	1.63184151e-01	3.33082746e-03	1.08816940e-03	1.54786682e+01	1.01016453e-02
	G	4.04909439e-02	2.57755108e-02	4.88227197e-05	1.78783295e+02	2.05318201e-02
	B	1.16225265e-01	4.39383555e-03	1.04989111e-03	2.53516388e+01	1.27032958e-02
hematite	R	1.46657020e-01	8.50136101e-04	5.40486863e-03	1.87195110e+01	1.59830321e-02
	G	7.15281591e-02	1.57604762e-03	3.64341680e-03	4.30925865e+01	1.78202707e-02
	B	5.19184396e-02	2.76413793e-03	2.84732366e-03	7.53453751e+01	1.87924448e-02
nickel	R	5.72638750e-01	1.56666152e-02	1.24597298e-02	2.54869938e+01	4.00291905e-02
	G	6.17368162e-01	1.80367120e-02	1.21249743e-02	2.43496799e+01	3.64312679e-02
	B	6.72936082e-01	2.10159626e-02	1.23847695e-02	2.34630299e+01	3.25628594e-02
red-metallic-paint	R	3.51019464e-02	3.10328733e-02	7.16334325e-04	4.90951019e+02	2.57723033e-02
	G	1.05473712e-01	2.71727215e-03	1.96428038e-04	2.91040401e+01	9.89981554e-03
	B	4.71302541e-04	1.43166577e+03	2.01167254e-16	1.03990660e+07	4.94915880e-02
silver-metallic-paint2	R	1.32066295e-01	5.68362999e+00	4.60312963e-02	6.39559784e+01	2.47560322e-01
	G	1.42641097e-01	5.50516605e+00	4.78179567e-02	5.38464203e+01	2.44143575e-01
	B	1.51419163e-01	5.29202557e+00	4.80882674e-02	4.58520279e+01	2.36420512e-01
silver-paint	R	1.06121540e-01	2.17665029e+00	1.45645946e-01	9.09645538e+01	4.67998236e-02
	G	1.00703746e-01	2.31001306e+00	1.16669171e-01	1.00887695e+02	4.82008234e-02
	B	9.53065008e-02	2.52728367e+00	1.00562498e-01	1.14156227e+02	4.89323027e-02
steel	R	2.19064241e-04	3.48242340e+02	4.64129499e-07	8.85573900e+06	1.91114247e-01
	G	1.74246466e-04	7.00350830e+02	1.26268691e-03	2.04274440e+07	2.06752881e-01
	B	2.55553081e-04	4.62599548e+02	9.85886902e-03	8.11410800e+06	1.70271888e-01

RGB Parameters for genBRDF 056-001442

Material		p0	p1	ρ_d	ρ_s	R_0
tungsten-carbide	R	3.19486746e-04	1.61181793e+02	6.44465445e-07	2.74261100e+06	1.23770982e-01
	G	2.40511261e-04	2.26563904e+02	1.64482939e-19	5.11060750e+06	1.21004559e-01
	B	3.60062152e-01	3.86480562e-04	4.87630209e-03	9.01821518e+01	9.91868787e-03
two-layer-gold	R	3.05631846e-01	7.63478652e-02	3.94310281e-02	1.06027412e+01	5.03886454e-02
	G	2.93433428e-01	6.67368621e-02	3.61295789e-02	1.03025141e+01	4.59431559e-02
	B	4.50975401e-03	2.86410034e+03	4.31738893e-14	1.25810510e+03	1.20559265e+03

RGB Parameters for genBRDF 056-001442

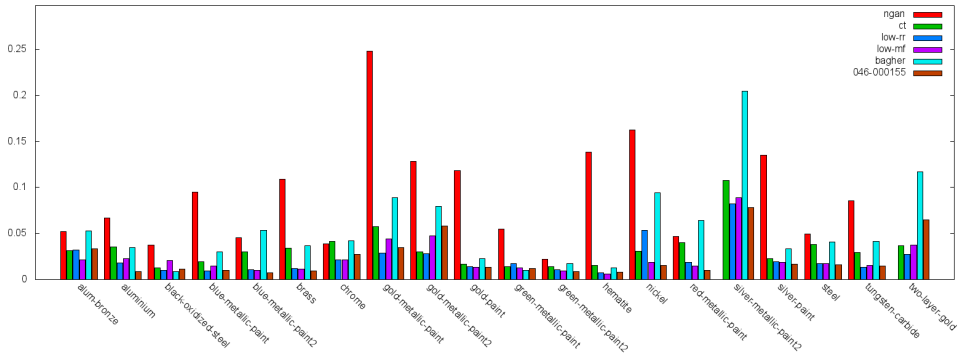
046-000155

Fitness: 0.000101881778

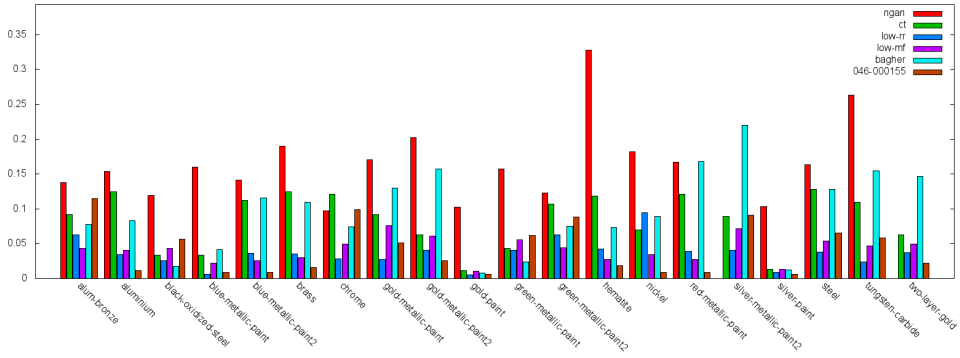
Length: 292

Reciprocity Error: 2.13266113e-13

$$f'_n(\omega_i, \omega_o) = \left[\left[(\omega_o \cdot \omega_h) * e^{-\left(\left(\frac{cos^{-1}(clamp(\omega_{hz}))}{p_1}\right)^{p_0}\right)}\right] / \left[\left(\left(\frac{cos^{-1}(clamp(\omega_{hz}))}{p_0}\right)^{2.0} + [p_1 * (cos(1.0))^{4.0}]\right) * p_0\right]\right] * \min(\omega_{hz}, \min(\frac{((2.0 * \omega_{rz}) * \omega_{oz})}{(\omega_o \cdot \omega_h)}, \frac{1.0}{\left(p_1 * tan(cos^{-1}(clamp(\omega_{hz})))\right)}))\right]$$

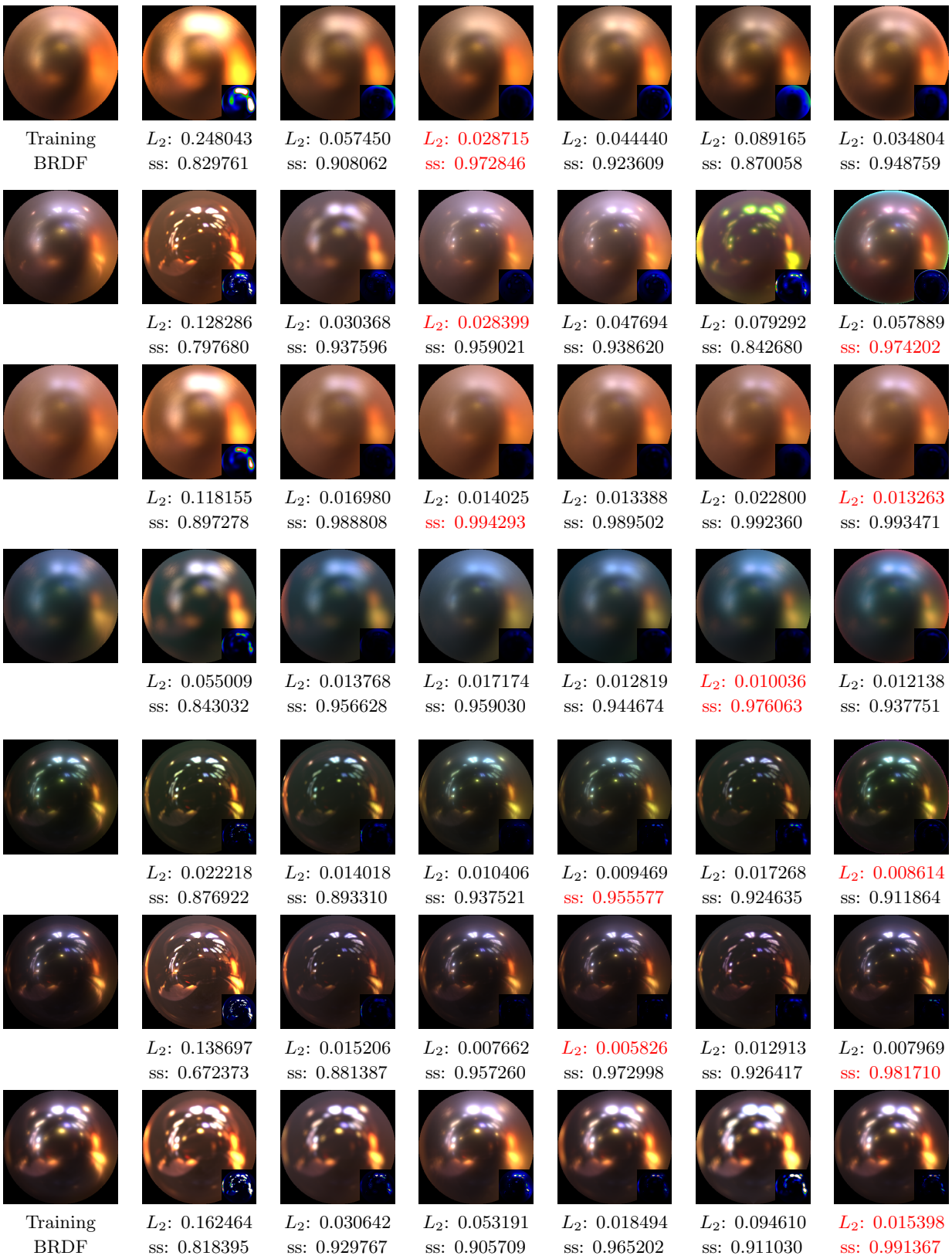


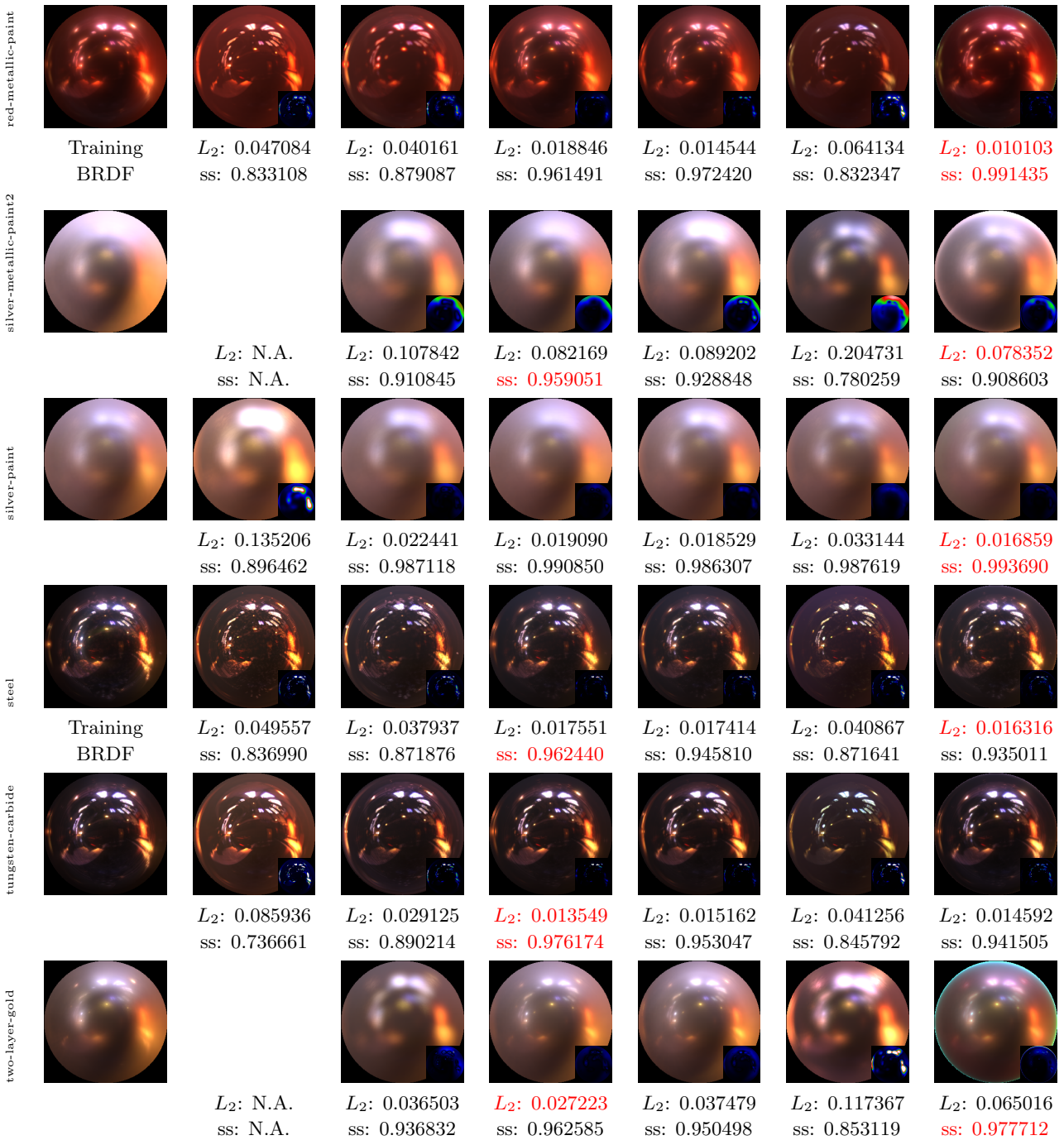
L_2 error.



SSIM error (= 100% - ssim).

	MERL	CT(Ngan) 0(0)/0(1)	CT(E_2 fit) 0(3)/0(4)	Löw SS 5(9)/7(11)	Löw MF 3(5)/2(8)	Bagher 2(2)/2(5)	genBRDF 10/9
alum-bronze		L_2: 0.052284 ss: 0.862223	L_2: 0.031392 ss: 0.907766	L_2: 0.032159 ss: 0.937667	L_2: 0.021146 ss: 0.956962	L_2: 0.053167 ss: 0.922395	L_2: 0.033202 ss: 0.884924
aluminium	Training BRDF	L_2: 0.067099 ss: 0.846399	L_2: 0.035146 ss: 0.875113	L_2: 0.018044 ss: 0.965309	L_2: 0.022431 ss: 0.959087	L_2: 0.034724 ss: 0.917355	L_2: 0.008936 ss: 0.988195
black-oxidized-steel		L_2: 0.037563 ss: 0.881117	L_2: 0.012395 ss: 0.966402	L_2: 0.009959 ss: 0.974466	L_2: 0.021000 ss: 0.956823	L_2: 0.009017 ss: 0.982697	L_2: 0.011259 ss: 0.943148
blue-metallic-paint	Training BRDF	L_2: 0.094791 ss: 0.840025	L_2: 0.019657 ss: 0.966125	L_2: 0.009161 ss: 0.993984	L_2: 0.015014 ss: 0.978181	L_2: 0.030206 ss: 0.958517	L_2: 0.010354 ss: 0.990989
blue-metallic-paint2	Training BRDF	L_2: 0.045753 ss: 0.859062	L_2: 0.030359 ss: 0.888022	L_2: 0.010992 ss: 0.963478	L_2: 0.009785 ss: 0.974119	L_2: 0.053468 ss: 0.884442	L_2: 0.007212 ss: 0.991131
brass	Training BRDF	L_2: 0.109247 ss: 0.809906	L_2: 0.034378 ss: 0.875335	L_2: 0.011813 ss: 0.965002	L_2: 0.011450 ss: 0.970392	L_2: 0.036857 ss: 0.890152	L_2: 0.009553 ss: 0.983897
chrome		L_2: 0.038555 ss: 0.902465	L_2: 0.041371 ss: 0.879025	L_2: 0.021593 ss: 0.972071	L_2: 0.021446 ss: 0.950898	L_2: 0.042031 ss: 0.925449	L_2: 0.027104 ss: 0.900645


gold-metallic-paint
Training BRDF
L_2: 0.248043 ss: 0.829761
L_2: 0.057450 ss: 0.908062
L_2: 0.028715 ss: 0.972846
L_2: 0.044440 ss: 0.923609
L_2: 0.089165 ss: 0.870058
L_2: 0.034804 ss: 0.948759
gold-metallic-paint2
L_2: 0.128286 ss: 0.797680
L_2: 0.030368 ss: 0.937596
L_2: 0.028399 ss: 0.959021
L_2: 0.047694 ss: 0.938620
L_2: 0.079292 ss: 0.842680
L_2: 0.057889 ss: 0.974202
gold-paint
L_2: 0.118155 ss: 0.897278
L_2: 0.016980 ss: 0.988808
L_2: 0.014025 ss: 0.994293
L_2: 0.013388 ss: 0.989502
L_2: 0.022800 ss: 0.992360
L_2: 0.013263 ss: 0.993471
green-metallic-paint
L_2: 0.055009 ss: 0.843032
L_2: 0.013768 ss: 0.956628
L_2: 0.017174 ss: 0.959030
L_2: 0.012819 ss: 0.944674
L_2: 0.010036 ss: 0.976063
L_2: 0.012138 ss: 0.937751
green-metallic-paint2
L_2: 0.022218 ss: 0.876922
L_2: 0.014018 ss: 0.893310
L_2: 0.010406 ss: 0.937521
L_2: 0.009469 ss: 0.955577
L_2: 0.017268 ss: 0.924635
L_2: 0.008614 ss: 0.911864
hematite
L_2: 0.138697 ss: 0.672373
L_2: 0.015206 ss: 0.881387
L_2: 0.007662 ss: 0.957260
L_2: 0.005826 ss: 0.972998
L_2: 0.012913 ss: 0.926417
L_2: 0.007969 ss: 0.981710
nickel
Training BRDF
L_2: 0.162464 ss: 0.818395
L_2: 0.030642 ss: 0.929767
L_2: 0.053191 ss: 0.905709
L_2: 0.018494 ss: 0.965202
L_2: 0.094610 ss: 0.911030
L_2: 0.015398 ss: 0.991367


red-metallic-paint
Training BRDF
L_2: 0.047084 ss: 0.833108
L_2: 0.040161 ss: 0.879087
L_2: 0.018846 ss: 0.961491
L_2: 0.014544 ss: 0.972420
L_2: 0.064134 ss: 0.832347
L_2: 0.010103 ss: 0.991435
silver-metallic-paint2
L_2: N.A. ss: N.A.
L_2: 0.107842 ss: 0.910845
L_2: 0.082169 ss: 0.959051
L_2: 0.089202 ss: 0.928848
L_2: 0.204731 ss: 0.780259
L_2: 0.078352 ss: 0.908603
silver-paint
L_2: 0.135206 ss: 0.896462
L_2: 0.022441 ss: 0.987118
L_2: 0.019090 ss: 0.990850
L_2: 0.018529 ss: 0.986307
L_2: 0.033144 ss: 0.987619
L_2: 0.016859 ss: 0.993690
steel
Training BRDF
L_2: 0.049557 ss: 0.836990
L_2: 0.037937 ss: 0.871876
L_2: 0.017551 ss: 0.962440
L_2: 0.017414 ss: 0.945810
L_2: 0.040867 ss: 0.871641
L_2: 0.016316 ss: 0.935011
tungsten-carbide
L_2: 0.085936 ss: 0.736661
L_2: 0.029125 ss: 0.890214
L_2: 0.013549 ss: 0.976174
L_2: 0.015162 ss: 0.953047
L_2: 0.041256 ss: 0.845792
L_2: 0.014592 ss: 0.941505
two-layer-gold
L_2: N.A. ss: N.A.
L_2: 0.036503 ss: 0.936832
L_2: 0.027223 ss: 0.962585
L_2: 0.037479 ss: 0.950498
L_2: 0.117367 ss: 0.853119
L_2: 0.065016 ss: 0.977712

Material		p0	p1	ρ_d	ρ_s	R_0
alum-bronze	R	1.79332104e-02	3.23201050e+02	5.64167313e-02	8.57996948e+02	4.05348726e-02
	G	3.37576456e-02	3.23012161e+00	4.68511581e-02	1.29281082e+01	1.19647002e-02
	B	8.16126764e-02	3.93580705e-01	3.85878272e-02	4.51429415e+00	6.19111815e-03
aluminium	R	2.12978944e-01	4.66274377e-03	9.06782411e-03	2.82587361e+00	3.87449339e-02
	G	1.39330193e-01	6.44117128e-03	3.58757563e-03	2.74174476e+00	4.45965677e-02
	B	1.17906690e-01	1.11963768e-02	3.30919586e-03	2.96464491e+00	4.47140001e-02
black-oxidized-steel	R	2.45404154e-01	1.90963783e+01	1.72111373e-02	6.65946388e+00	9.73190926e-03
	G	2.60192662e-01	1.82336941e+01	1.55008622e-02	6.04347134e+00	1.01371109e-02
	B	2.75691360e-01	1.82369022e+01	1.44546013e-02	5.93504143e+00	1.04082208e-02
blue-metallic-paint	R	3.04925561e-01	4.46052599e+00	5.44886916e-07	1.35416317e+00	4.69260812e-02
	G	2.79048055e-01	4.95035696e+00	2.74280598e-08	1.38962340e+00	4.63540927e-02
	B	2.63014853e-01	4.88595104e+00	2.97274241e-08	1.40548742e+00	1.22712113e-01
blue-metallic-paint2	R	2.89875150e-01	1.31790377e-02	2.56014010e-03	1.59746754e+00	2.05359124e-02
	G	2.38707334e-01	1.33340955e-02	4.04534803e-04	2.07448816e+00	2.62778718e-02
	B	2.18679905e-01	1.50856664e-02	1.37086481e-10	3.61700225e+00	2.97271889e-02
brass	R	2.47778386e-01	4.53338213e-03	1.57247521e-02	2.93649626e+00	2.82567888e-02
	G	1.71637014e-01	6.28590118e-03	1.16500137e-02	2.12724209e+00	2.69001219e-02
	B	1.23975739e-01	5.86435059e-03	9.76402313e-03	1.93185031e+00	1.62861571e-02
chrome	R	5.42632103e-01	2.49566208e-03	1.68674291e-04	1.05283098e+01	1.51591888e-02
	G	5.10166883e-01	1.91223715e-03	3.44500551e-03	1.16429148e+01	1.27721298e-02
	B	5.10673702e-01	1.95784029e-03	3.79798678e-03	1.26295204e+01	1.02782631e-02
gold-metallic-paint	R	3.77923459e-01	7.94124556e+00	4.64903422e-07	3.61752939e+00	1.20207459e-01
	G	3.40658069e-01	8.29576874e+00	1.01418763e-07	2.53074574e+00	1.22311130e-01
	B	3.17516208e-01	8.90736103e+00	3.60998804e-08	2.17666173e+00	4.92044985e-02
gold-metallic-paint2	R	9.93244648e-02	3.46653557e+00	3.48714553e-02	3.77740383e+00	7.15674460e-02
	G	1.57111939e-02	3.78429199e+03	7.56674456e-09	1.11313377e+02	4.13409081e+01
	B	1.47247650e-02	3.78423779e+03	1.62933240e-08	8.88060226e+01	4.13601418e+01
gold-paint	R	8.87078226e-01	5.35893321e-01	1.27610818e-01	7.28226185e-01	5.98776266e-02
	G	9.91641760e-01	4.60359901e-01	6.99605718e-02	6.98346019e-01	4.40771803e-02
	B	9.75758135e-01	3.95644784e-01	2.81140320e-02	6.70986652e-01	2.11514737e-02
green-metallic-paint	R	1.46672577e-01	1.91781044e+01	3.81485210e-03	9.48813820e+00	1.54488254e-02
	G	1.24696040e+00	3.04170042e-01	2.12060362e-02	8.21550965e-01	2.89243292e-02
	B	1.20977974e+00	3.13969195e-01	2.70177461e-02	8.39797437e-01	3.05709150e-02
green-metallic-paint2	R	4.48046438e-03	6.53360535e+02	2.88164266e-03	1.44560376e+03	2.12473832e-02
	G	7.05201412e-03	8.34976482e+00	5.14420681e-03	3.81937943e+01	2.37457957e-02
	B	3.94036900e-03	9.53881470e+02	4.09731967e-03	2.63433154e+03	2.78322827e-02
hematite	R	1.75908148e-01	5.84719470e-03	4.52913856e-03	1.57890987e+00	1.83192808e-02
	G	9.49642807e-02	1.04394797e-02	2.80152028e-03	2.02342463e+00	2.02369392e-02
	B	5.46778925e-03	2.29896903e+00	7.10169616e-06	3.09723244e+01	2.20801812e-02
nickel	R	7.63686895e-01	4.64542732e-02	1.13062514e-02	2.84948111e+00	4.59957086e-02
	G	7.87058175e-01	4.89604734e-02	1.04154348e-02	2.72653055e+00	4.17284817e-02
	B	8.10725451e-01	5.14578931e-02	1.01630772e-02	2.62681985e+00	3.72160338e-02
red-metallic-paint	R	1.01789990e-02	3.71981335e+00	2.79706319e-06	5.33477058e+01	3.03748269e-02
	G	2.89373496e-03	1.02491101e+03	1.58983850e-04	3.14715918e+03	1.94945354e-02
	B	2.55872915e-03	1.33778247e+03	1.91077605e-04	4.18069971e+03	1.24772396e-02
silver-metallic-paint2	R	4.52415735e-01	1.01035681e+01	5.31439995e-03	2.21124554e+00	3.71528983e-01
	G	4.72389132e-01	9.47727776e+00	1.29940696e-02	1.95700467e+00	3.55224997e-01
	B	4.83988822e-01	8.91530418e+00	1.94884650e-02	1.69890118e+00	3.41111422e-01
silver-paint	R	9.06902015e-01	5.03135085e-01	1.35286152e-01	8.71768177e-01	5.68960048e-02
	G	2.90475219e-01	3.18168926e+00	1.03414156e-01	2.25605631e+00	5.95923327e-02
	B	9.98876929e-01	4.19282407e-01	9.41261277e-02	8.58135879e-01	5.76925203e-02
steel	R	9.14173317e-04	1.47355270e+02	8.17760918e-03	8.38659973e+02	3.11199892e-02
	G	8.24328337e-04	1.67649063e+02	1.02106556e-02	9.05620605e+02	2.88154930e-02
	B	1.24669261e-03	2.92592957e+02	1.16763758e-02	1.15420984e+03	2.89332941e-02

RGB Parameters for genBRDF 046-000155

Material		p0	p1	ρ_d	ρ_s	R_0
tungsten-carbide	R	1.14188821e-03	1.46286163e+02	1.04031002e-03	5.87668762e+02	3.23983133e-02
	G	9.07000736e-04	1.46466095e+02	1.75700127e-03	6.37910828e+02	2.72363629e-02
	B	6.63684797e-04	2.21614410e+02	2.34102574e-03	1.51720483e+03	2.12256834e-02
two-layer-gold	R	1.06442511e-01	3.47850776e+00	3.10366470e-02	4.42777491e+00	5.92294782e-02
	G	1.68696977e-02	3.32588916e+03	9.20536024e-07	5.19622273e-34	7.57834234e+36
	B	2.05655321e-02	1.83145496e+03	8.14973668e-04	7.02335645e+03	1.55823991e-01

RGB Parameters for genBRDF 046-000155

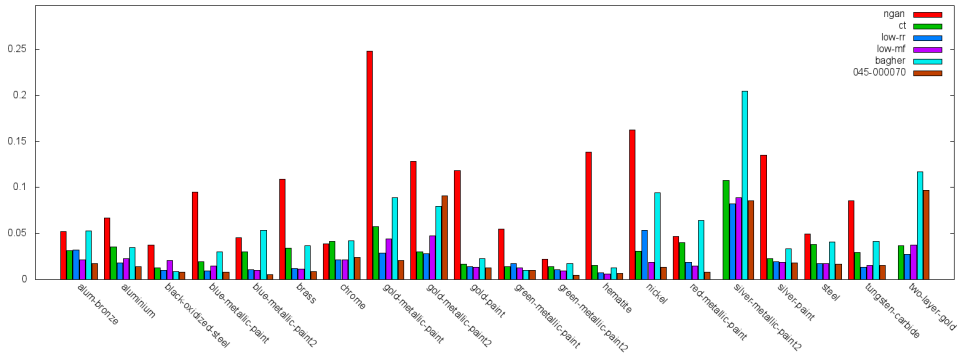
045-000070

Fitness: 0.000102539481

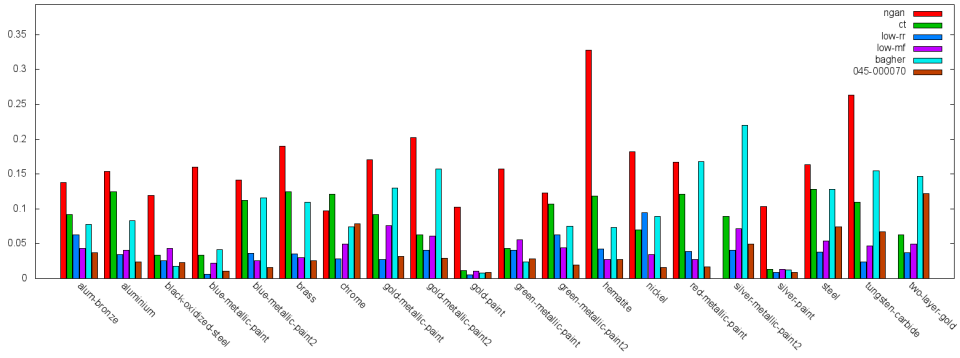
Length: 280

Reciprocity Error: 1.40782196e-14

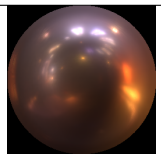
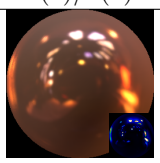
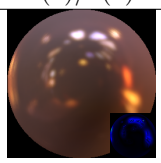
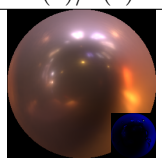
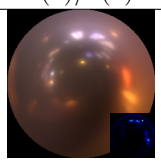
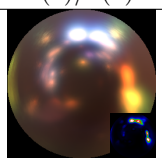
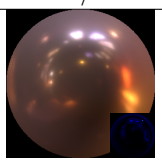
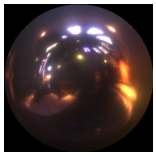
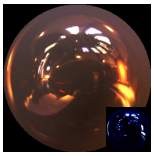
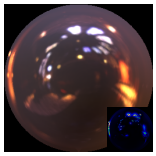
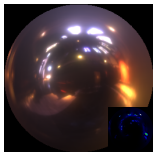
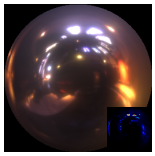
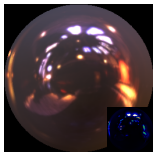
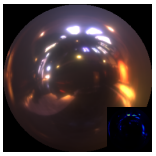
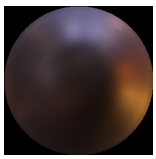
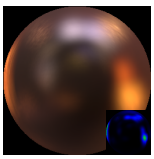
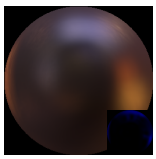
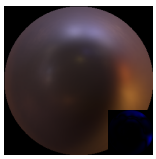
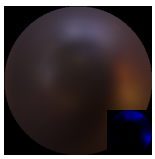
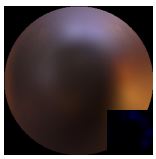
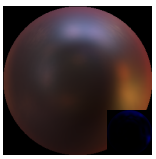
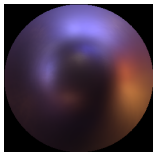
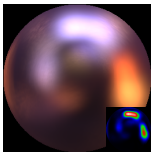
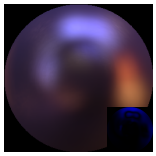
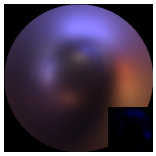
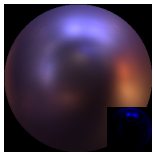
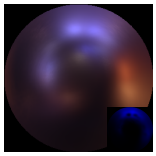
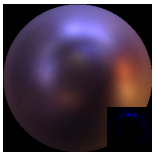
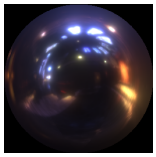
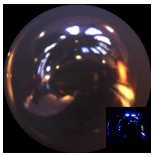
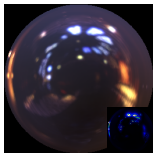
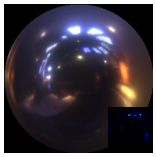
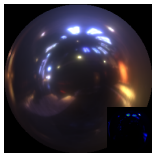
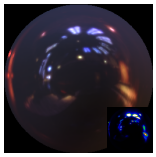
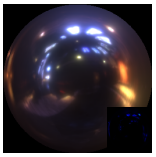
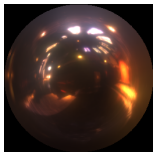
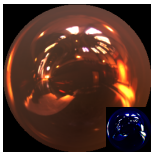
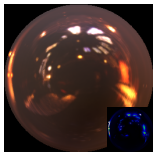
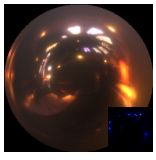
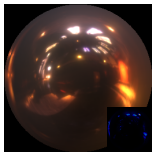
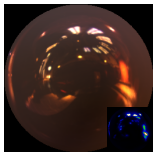
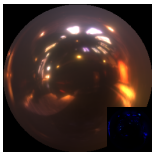
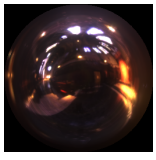
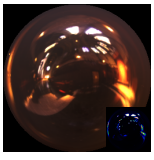
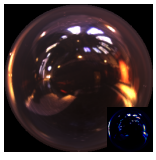
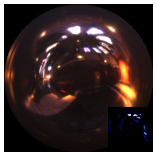
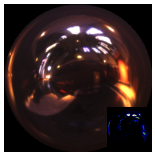
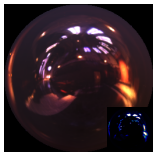
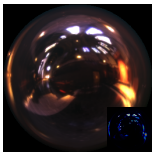
$$f'_n(\omega_i, \omega_o) = \left[\left([1.0 * e^{-\left(\left(\frac{cos^{-1}(clamp(\omega_{hz}))}{p_1}\right)^{p0}\right)}\right] / \left[\left(\left(\frac{cos^{-1}(clamp(\omega_{hz}))}{p0}\right)^{2.0} + [p_1 * (cos(1.0))^{4.0}]\right) * p_0\right]\right) * \min(\omega_{hz}, \min(\frac{((2.0 * \omega_{rz}) * \omega_{oz})}{(\omega_o \cdot \omega_h)}, \frac{1.0}{\left(p_1 * tan(cos^{-1}(clamp(\omega_{hz})))\right)}))\right]$$

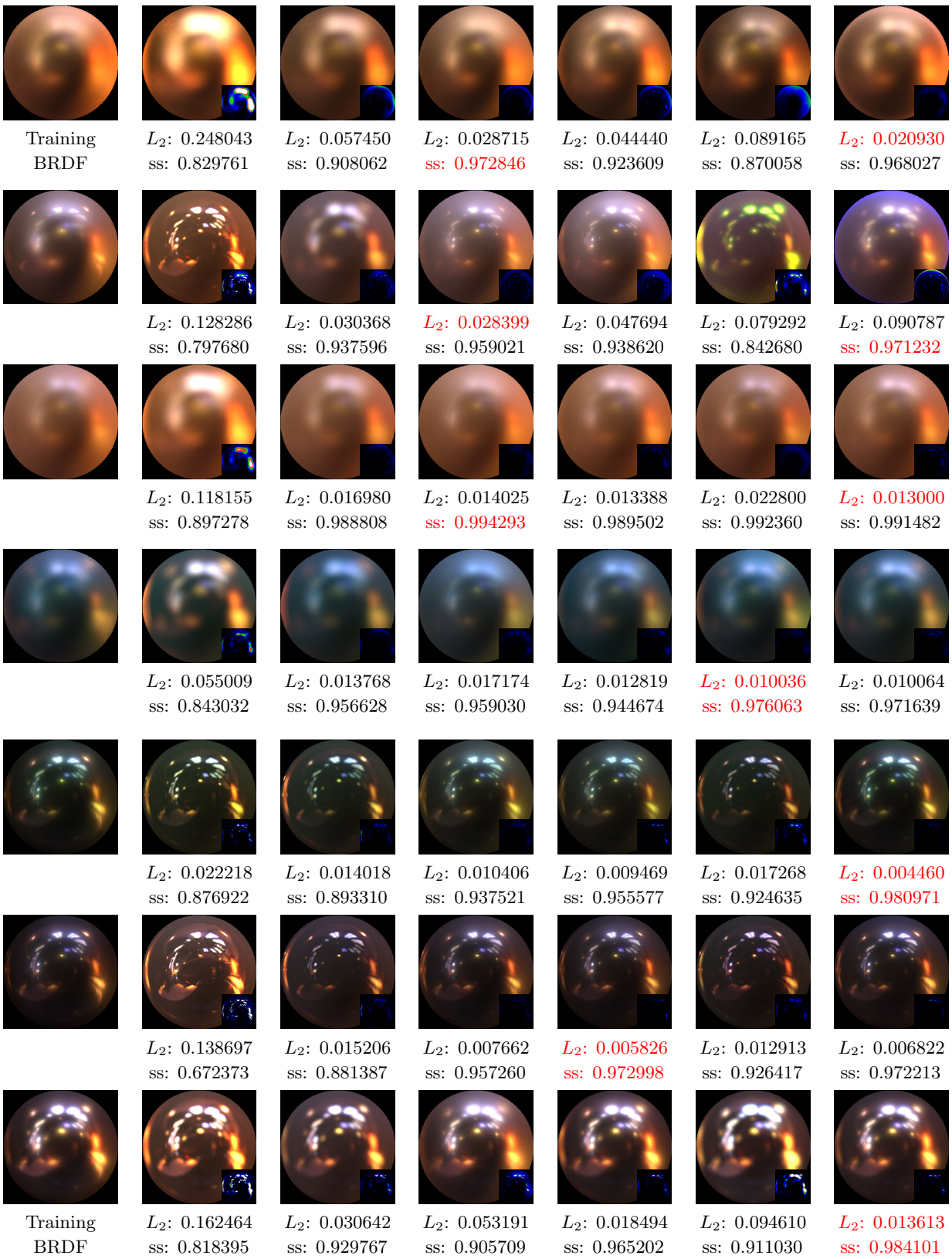


L_2 error.



SSIM error (= 100% - ssim).

	MERL	CT(Ngan) 0(0)/0(0)	CT(E_2 fit) 0(2)/0(1)	Löw SS 4(5)/8(8)	Löw MF 2(5)/1(5)	Bagher 1(2)/2(4)	genBRDF 13/9
alum-bronze		 L_2: 0.052284 ss: 0.862223	 L_2: 0.031392 ss: 0.907766	 L_2: 0.032159 ss: 0.937667	 L_2: 0.021146 ss: 0.956962	 L_2: 0.053167 ss: 0.922395	 L_2: 0.017409 ss: 0.962876
aluminium	 Training BRDF	 L_2: 0.067099 ss: 0.846399	 L_2: 0.035146 ss: 0.875113	 L_2: 0.018044 ss: 0.965309	 L_2: 0.022431 ss: 0.959087	 L_2: 0.034724 ss: 0.917355	 L_2: 0.013795 ss: 0.975709
black-oxidized-steel		 L_2: 0.037563 ss: 0.881117	 L_2: 0.012395 ss: 0.966402	 L_2: 0.009959 ss: 0.974466	 L_2: 0.021000 ss: 0.956823	 L_2: 0.009017 ss: 0.982697	 L_2: 0.008254 ss: 0.977431
blue-metallic-paint	 Training BRDF	 L_2: 0.094791 ss: 0.840025	 L_2: 0.019657 ss: 0.966125	 L_2: 0.009161 ss: 0.993984	 L_2: 0.015014 ss: 0.978181	 L_2: 0.030206 ss: 0.958517	 L_2: 0.008086 ss: 0.989409
blue-metallic-paint2	 Training BRDF	 L_2: 0.045753 ss: 0.859062	 L_2: 0.030359 ss: 0.888022	 L_2: 0.010992 ss: 0.963478	 L_2: 0.009785 ss: 0.974119	 L_2: 0.053468 ss: 0.884442	 L_2: 0.005595 ss: 0.984101
brass	 Training BRDF	 L_2: 0.109247 ss: 0.809906	 L_2: 0.034378 ss: 0.875335	 L_2: 0.011813 ss: 0.965002	 L_2: 0.011450 ss: 0.970392	 L_2: 0.036857 ss: 0.890152	 L_2: 0.008886 ss: 0.974064
chrome		 L_2: 0.038555 ss: 0.902465	 L_2: 0.041371 ss: 0.879025	 L_2: 0.021593 ss: 0.972071	 L_2: 0.021446 ss: 0.950898	 L_2: 0.042031 ss: 0.925449	 L_2: 0.024061 ss: 0.921299


gold-metallic-paint
Training BRDF
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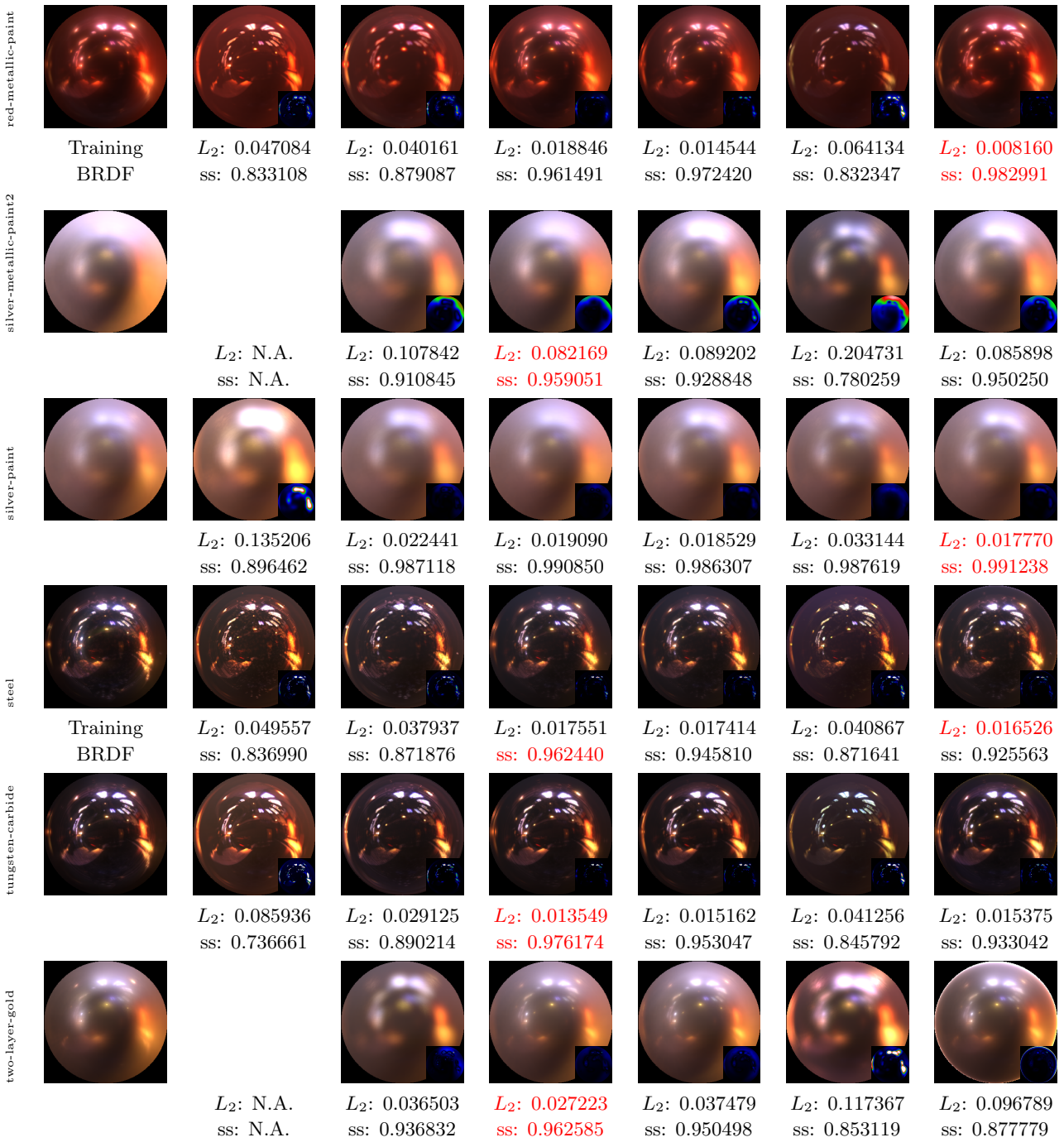
L_2: 0.057450 ss: 0.908062
L_2: 0.028715 ss: 0.972846
L_2: 0.044440 ss: 0.923609
L_2: 0.089165 ss: 0.870058
L_2: 0.020930 ss: 0.968027
gold-metallic-paint2
L_2: 0.128286 ss: 0.797680
L_2: 0.030368 ss: 0.937596
L_2: 0.028399 ss: 0.959021
L_2: 0.047694 ss: 0.938620
L_2: 0.079292 ss: 0.842680
L_2: 0.090787 ss: 0.971232
gold-paint
L_2: 0.118155 ss: 0.897278
L_2: 0.016980 ss: 0.988808
L_2: 0.014025 ss: 0.994293
L_2: 0.013388 ss: 0.989502
L_2: 0.022800 ss: 0.992360
L_2: 0.013000 ss: 0.991482
green-metallic-paint
L_2: 0.055009 ss: 0.843032
L_2: 0.013768 ss: 0.956628
L_2: 0.017174 ss: 0.959030
L_2: 0.012819 ss: 0.944674
L_2: 0.010036 ss: 0.976063
L_2: 0.010064 ss: 0.971639
green-metallic-paint2
L_2: 0.022218 ss: 0.876922
L_2: 0.014018 ss: 0.893310
L_2: 0.010406 ss: 0.937521
L_2: 0.009469 ss: 0.955577
L_2: 0.017268 ss: 0.924635
L_2: 0.004460 ss: 0.980971
hematite
L_2: 0.138697 ss: 0.672373
L_2: 0.015206 ss: 0.881387
L_2: 0.007662 ss: 0.957260
L_2: 0.005826 ss: 0.972998
L_2: 0.012913 ss: 0.926417
L_2: 0.006822 ss: 0.972213
nickel
Training BRDF
L_2: 0.162464 ss: 0.818395
L_2: 0.030642 ss: 0.929767
L_2: 0.053191 ss: 0.905709
L_2: 0.018494 ss: 0.965202
L_2: 0.094610 ss: 0.911030
L_2: 0.013613 ss: 0.984101


red-metallic-paint
Training BRDF
L_2: 0.047084 ss: 0.833108
L_2: 0.040161 ss: 0.879087
L_2: 0.018846 ss: 0.961491
L_2: 0.014544 ss: 0.972420
L_2: 0.064134 ss: 0.832347
L_2: 0.008160 ss: 0.982991
silver-metallic-paint2
L_2: N.A. ss: N.A.
L_2: 0.107842 ss: 0.910845
L_2: 0.082169 ss: 0.959051
L_2: 0.089202 ss: 0.928848
L_2: 0.204731 ss: 0.780259
L_2: 0.085898 ss: 0.950250
silver-paint
L_2: 0.135206 ss: 0.896462
L_2: 0.022441 ss: 0.987118
L_2: 0.019090 ss: 0.990850
L_2: 0.018529 ss: 0.986307
L_2: 0.033144 ss: 0.987619
L_2: 0.017770 ss: 0.991238
steel
Training BRDF
L_2: 0.049557 ss: 0.836990
L_2: 0.037937 ss: 0.871876
L_2: 0.017551 ss: 0.962440
L_2: 0.017414 ss: 0.945810
L_2: 0.040867 ss: 0.871641
L_2: 0.016526 ss: 0.925563
tungsten-carbide
L_2: 0.085936 ss: 0.736661
L_2: 0.029125 ss: 0.890214
L_2: 0.013549 ss: 0.976174
L_2: 0.015162 ss: 0.953047
L_2: 0.041256 ss: 0.845792
L_2: 0.015375 ss: 0.933042
two-layer-gold
L_2: N.A. ss: N.A.
L_2: 0.036503 ss: 0.936832
L_2: 0.027223 ss: 0.962585
L_2: 0.037479 ss: 0.950498
L_2: 0.117367 ss: 0.853119
L_2: 0.096789 ss: 0.877779

Material		p0	p1	ρ_d	ρ_s	R_0
alum-bronze	R	3.19071747e-02	3.29797244e+00	5.44817373e-02	3.61136818e+00	6.53259233e-02
	G	3.45516093e-02	3.19013047e+00	4.59173135e-02	3.14303541e+00	4.58193049e-02
	B	1.22821935e-01	2.00267777e-01	3.85592245e-02	8.39525461e-01	2.30882671e-02
aluminium	R	2.27441460e-01	4.47199494e-03	1.15791131e-02	5.03129125e-01	1.84041187e-01
	G	1.59720346e-01	5.55912731e-03	6.94867084e-03	4.25299197e-01	2.27888510e-01
	B	1.40429914e-01	8.87414999e-03	6.79066405e-03	4.30561781e-01	2.33883679e-01
black-oxidized-steel	R	2.42052659e-01	8.95001888e+00	1.61119141e-02	7.52306044e-01	3.30850482e-02
	G	1.70561385e+00	3.70180786e-01	1.34387659e-02	1.56757534e-01	2.55082436e-02
	B	1.67070436e+00	3.91554564e-01	1.22180032e-02	1.53357044e-01	2.57973783e-02
blue-metallic-paint	R	3.01241487e-01	4.49484777e+00	1.05935818e-07	2.00948164e-01	2.65541464e-01
	G	2.76180059e-01	5.08029509e+00	9.57210986e-08	2.09705755e-01	2.62053549e-01
	B	2.61838019e-01	4.42425156e+00	7.28281089e-20	1.50496826e-05	8.56105176e+03
blue-metallic-paint2	R	2.99809933e-01	1.28410980e-02	3.16488650e-03	3.65051121e-01	7.88344815e-02
	G	2.45739460e-01	1.29614454e-02	9.81679070e-04	4.20234144e-01	1.13096356e-01
	B	2.21718609e-01	1.48347132e-02	9.22007479e-13	6.60787523e-01	1.43040285e-01
brass	R	2.51646847e-01	4.46611550e-03	1.62768811e-02	5.81422508e-01	1.25501677e-01
	G	1.78232893e-01	5.94741665e-03	1.23291351e-02	4.34660882e-01	1.13488741e-01
	B	1.26566857e-01	5.32998703e-03	1.01076197e-02	4.58946556e-01	6.06167503e-02
chrome	R	5.28012455e-01	2.39733700e-03	3.20436346e-04	2.43345666e+00	5.86229265e-02
	G	4.95386571e-01	1.82517944e-03	3.38230608e-03	2.88014460e+00	4.61198054e-02
	B	4.93827492e-01	1.86324504e-03	3.69274360e-03	3.22955608e+00	3.62013243e-02
gold-metallic-paint	R	3.61607999e-01	7.22512197e+00	3.64199735e-07	1.70700301e-10	1.82624397e+09
	G	3.22554439e-01	7.31156969e+00	8.94726138e-04	5.26579834e-06	4.02870938e+04
	B	3.05408299e-01	8.79579926e+00	2.41147703e-03	3.22697282e-01	2.62115031e-01
gold-metallic-paint2	R	9.21784714e-02	3.54167008e+00	4.14080732e-02	4.41256076e-01	5.16674280e-01
	G	8.17322731e-02	3.60466838e+00	3.79776582e-02	4.66829956e-01	4.46978599e-01
	B	2.37572007e-02	3.78761719e+03	3.36112082e-02	3.86400879e+03	6.91882312e-01
gold-paint	R	1.19474101e+00	3.64764214e-01	1.50987983e-01	1.06853873e-01	2.71235883e-01
	G	1.23026133e+00	3.55892450e-01	8.39988813e-02	1.24281332e-01	1.78399161e-01
	B	1.09353685e+00	3.53423178e-01	3.13391015e-02	1.53483570e-01	7.46027306e-02
green-metallic-paint	R	1.68333793e+00	2.20437616e-01	5.72514394e-03	2.22668529e-01	3.53989527e-02
	G	1.32817352e+00	2.86951542e-01	2.60140020e-02	1.76921740e-01	1.09762676e-01
	B	1.29768240e+00	2.93066770e-01	3.26305963e-02	1.76927015e-01	1.17720351e-01
green-metallic-paint2	R	2.06895247e-01	2.11543888e-02	5.45998104e-04	3.49138021e-01	4.11401242e-02
	G	8.43629334e-03	5.80281973e+00	6.23298138e-06	6.40469217e+00	1.05178624e-01
	B	1.28317028e-01	3.61953788e-02	8.10925826e-07	4.72923070e-01	5.52068129e-02
hematite	R	1.78731471e-01	5.58513915e-03	4.80706105e-03	3.69419754e-01	6.92650005e-02
	G	9.39781964e-02	1.00172041e-02	2.91467924e-03	4.55147147e-01	8.04324523e-02
	B	3.55393300e-03	5.08096790e+00	2.86511611e-03	1.06169529e+01	8.67124349e-02
nickel	R	7.68078208e-01	4.56176400e-02	1.30441431e-02	3.98544222e-01	2.85257369e-01
	G	7.89546192e-01	4.81412187e-02	1.18328203e-02	4.09401327e-01	2.41921440e-01
	B	8.10240448e-01	5.06926626e-02	1.12946015e-02	4.27949190e-01	1.99383482e-01
red-metallic-paint	R	9.14822612e-03	4.55922127e+00	2.45413440e-03	1.07114077e+01	1.49090633e-01
	G	3.51041858e-03	1.62662868e+01	3.26945144e-03	1.63774605e+01	4.24454957e-02
	B	2.86958157e-03	1.85699215e+01	1.80827489e-03	1.90874004e+01	2.36200728e-02
silver-metallic-paint2	R	3.12593460e-01	4.07287121e+00	7.01586455e-02	8.92254519e-08	2.29301500e+06
	G	3.35364014e-01	3.84591198e+00	6.99014664e-02	7.79579707e-08	2.28792775e+06
	B	3.58059764e-01	4.12176466e+00	6.92598969e-02	3.54143386e-12	4.71893729e+10
silver-paint	R	1.13922346e+00	3.70086849e-01	1.57550141e-01	1.28489301e-01	2.68951714e-01
	G	1.14910650e+00	3.56881738e-01	1.28587633e-01	1.24622971e-01	2.88013607e-01
	B	1.19777226e+00	3.36751789e-01	1.13520220e-01	1.25202581e-01	2.91314155e-01
steel	R	8.98456317e-04	1.46470642e+02	8.25634785e-03	1.49477280e+02	1.54746756e-01
	G	7.92389037e-04	1.56372330e+02	1.03317108e-02	1.62376648e+02	1.36424765e-01
	B	1.23373861e-03	2.82182037e+02	1.17430212e-02	2.01508865e+02	1.41601786e-01

RGB Parameters for genBRDF 045-000070

Material		p0	p1	ρ_d	ρ_s	R_0
tungsten-carbide	R	1.13432528e-03	1.46286652e+02	1.06498832e-03	1.00410835e+02	1.68515936e-01
	G	8.90804979e-04	1.46426163e+02	1.80915627e-03	1.17398315e+02	1.34144440e-01
	B	4.41251546e-01	1.56887947e-03	4.90118004e-03	2.29868674e+00	3.78956422e-02
two-layer-gold	R	2.19486672e-02	1.52870642e+03	2.28825975e-02	3.00529017e-03	2.75166656e+05
	G	1.71389114e-02	2.34441333e+03	1.81897599e-02	5.17370412e-03	2.74265156e+05
	B	1.93195529e-02	1.61905957e+03	1.23495283e-02	3.35306395e-03	1.93989641e+05

RGB Parameters for genBRDF 045-000070

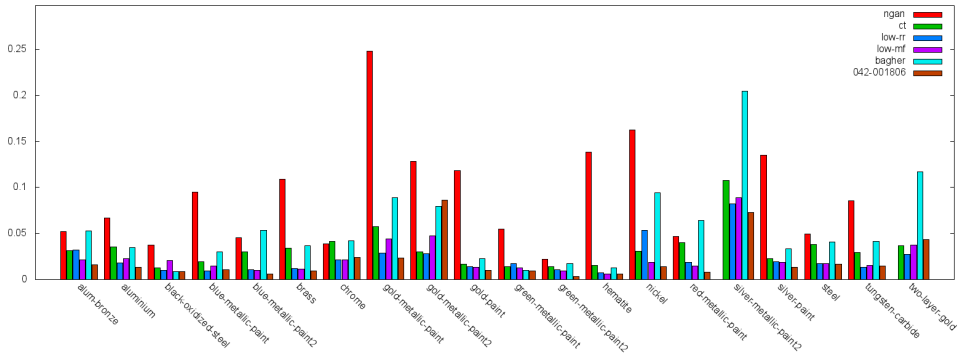
042-001806

Fitness: 0.000103055435

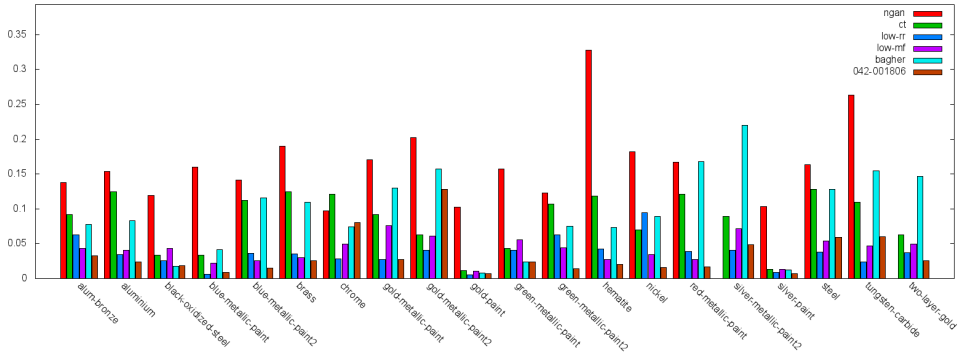
Length: 278

Reciprocity Error: 1.42892879e-14

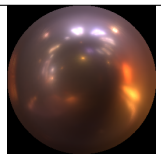
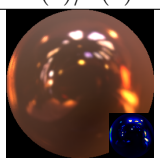
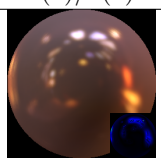
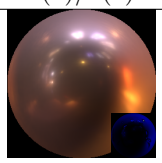
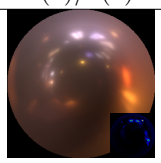
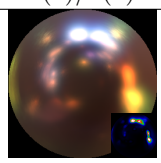
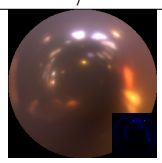
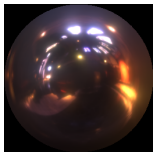
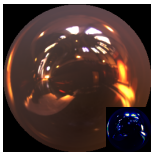
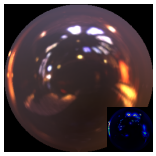
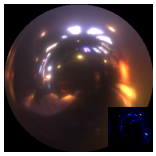
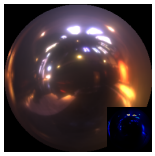
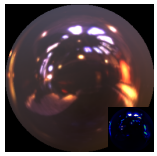
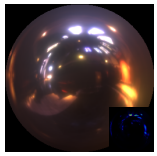
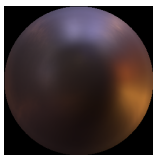
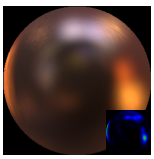
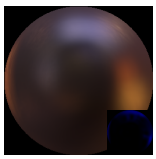
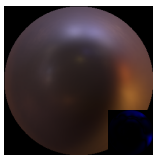
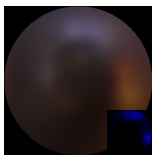
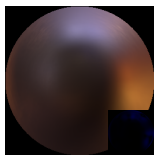
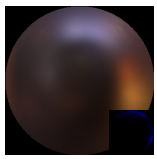
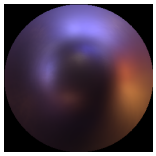
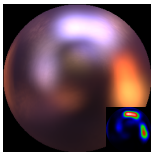
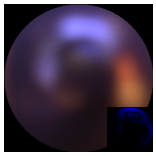
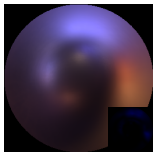
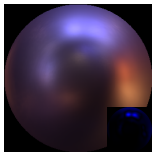
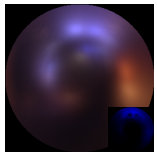
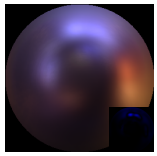
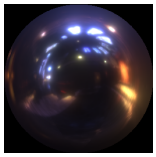
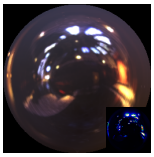
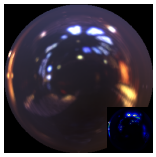
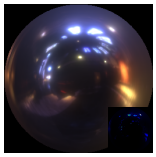
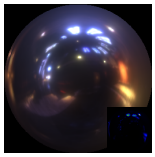
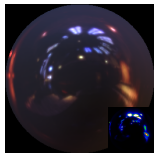
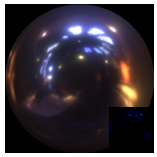
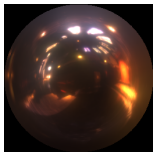
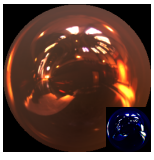
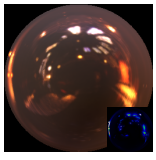
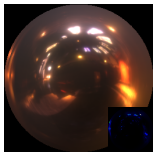
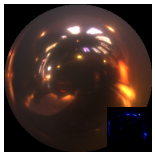
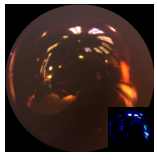
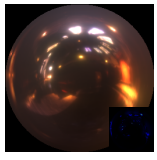
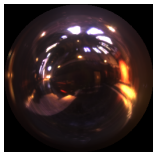
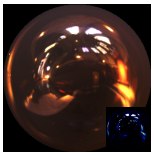
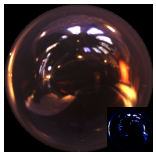
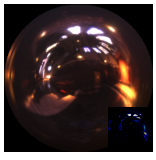
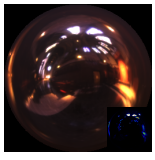
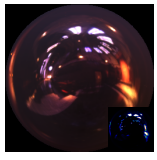
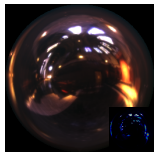
$$f'_n(\omega_i, \omega_o) = \left[\left([\omega_{hz} * e^{-\left(\left(\frac{tan(cos^{-1}(clamp(\omega_{hz})))}{p_1}\right)^{p_0}\right)}\right] / \left[\left(\left(\frac{tan(cos^{-1}(clamp(\omega_{hz})))}{p_0}\right)^{2.0} + [p_1 * (p_0)^{2.0}]\right) * p_0\right]\right) * \min(1.0, \min(\frac{((2.0 * \omega_{rz}) * \omega_{oz})}{(\omega_o \cdot \omega_h)}, \frac{1.0}{\left(p_1 * cos^{-1}(clamp(\omega_{hz}))\right)}))\right]$$

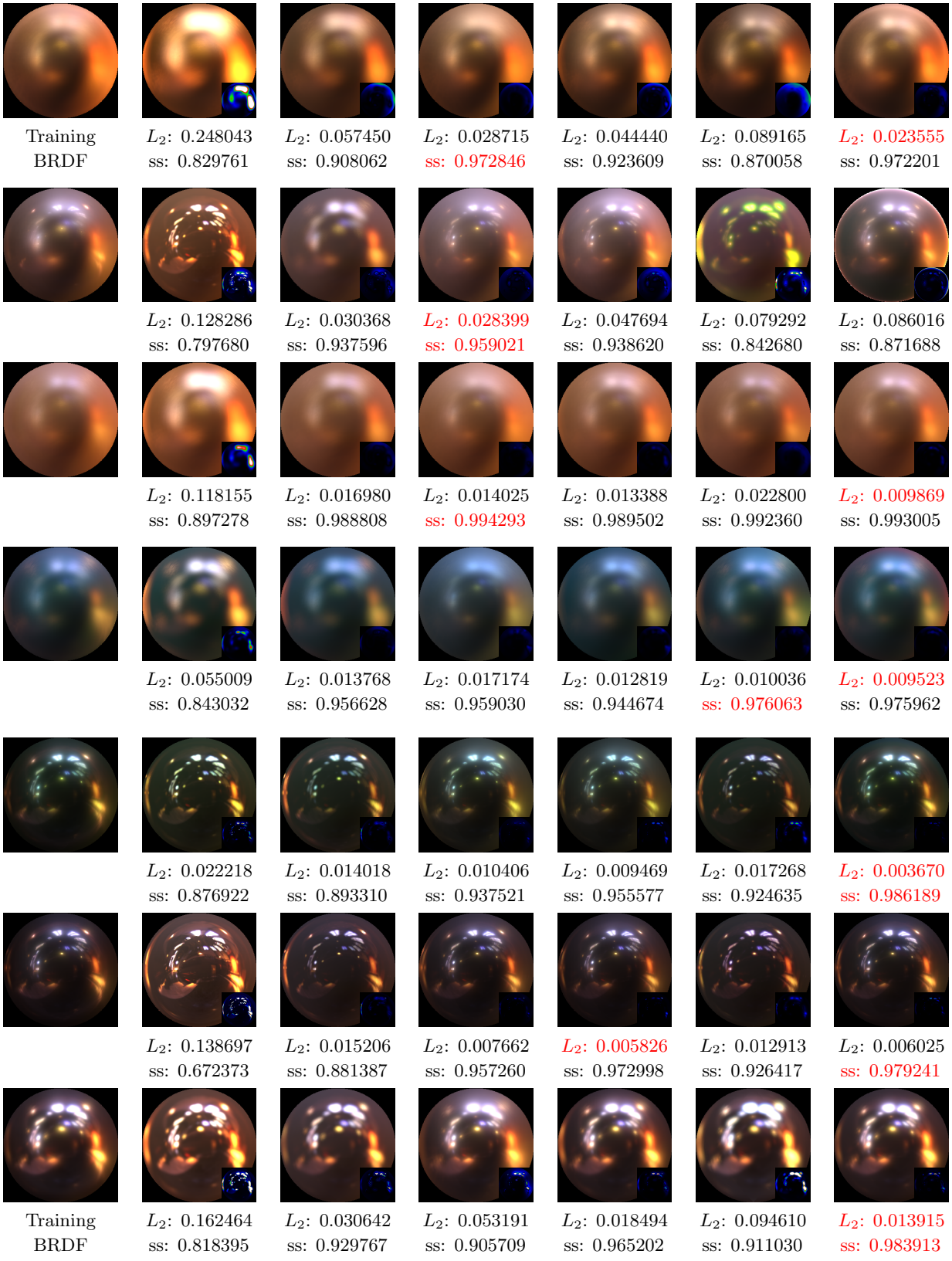


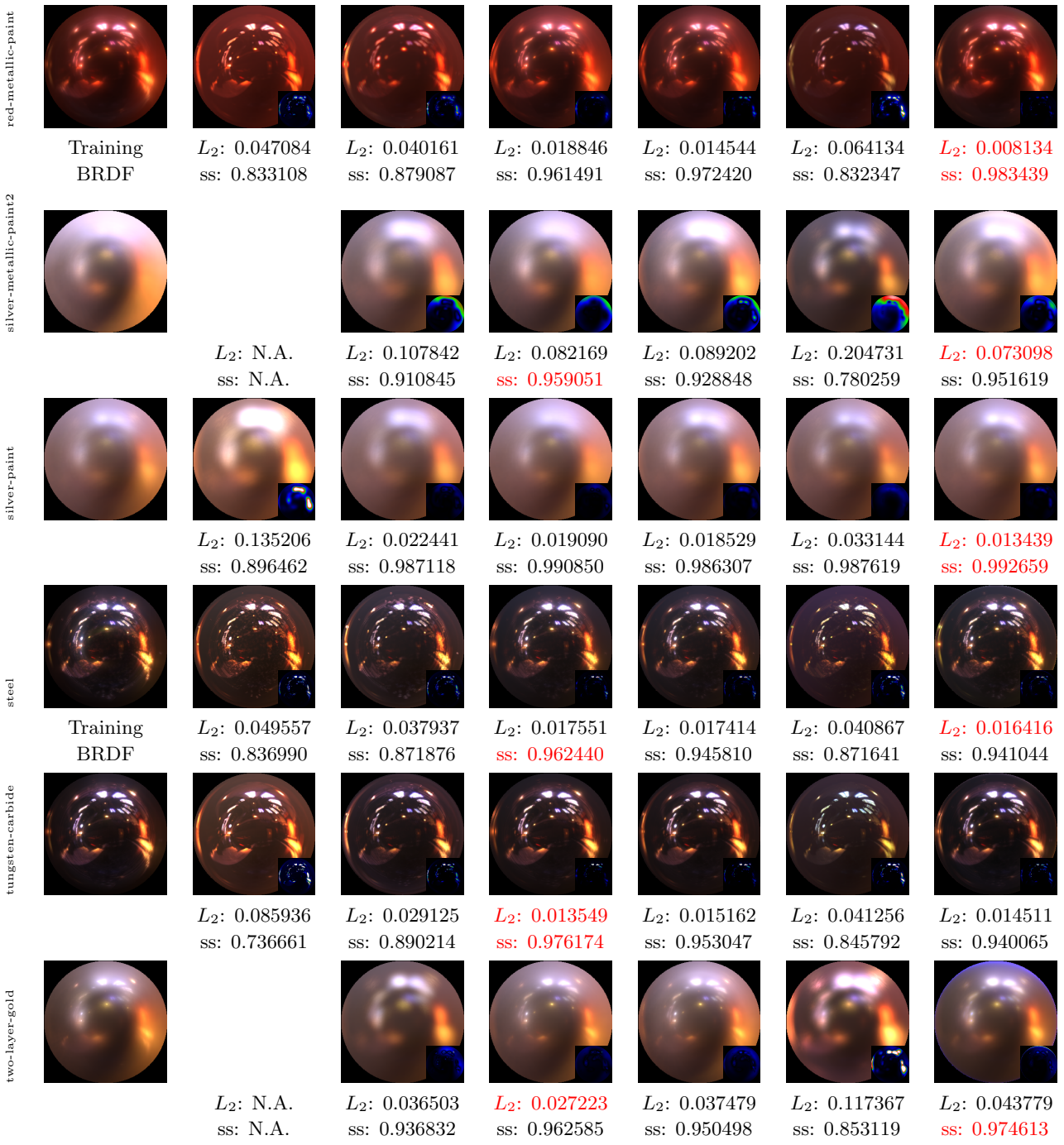
L_2 error.



SSIM error (= 100% - ssim).

	MERL	CT(Ngan) 0(0)/0(0)	CT(E_2 fit) 0(2)/0(1)	Löw SS 4(5)/8(8)	Löw MF 2(4)/0(4)	Bagher 0(1)/2(3)	genBRDF 14/10
alum-bronze		 L_2: 0.052284 ss: 0.862223	 L_2: 0.031392 ss: 0.907766	 L_2: 0.032159 ss: 0.937667	 L_2: 0.021146 ss: 0.956962	 L_2: 0.053167 ss: 0.922395	 L_2: 0.016187 ss: 0.967221
aluminium	 Training BRDF	 L_2: 0.067099 ss: 0.846399	 L_2: 0.035146 ss: 0.875113	 L_2: 0.018044 ss: 0.965309	 L_2: 0.022431 ss: 0.959087	 L_2: 0.034724 ss: 0.917355	 L_2: 0.013314 ss: 0.976582
black-oxidized-steel		 L_2: 0.037563 ss: 0.881117	 L_2: 0.012395 ss: 0.966402	 L_2: 0.009959 ss: 0.974466	 L_2: 0.021000 ss: 0.956823	 L_2: 0.009017 ss: 0.982697	 L_2: 0.008824 ss: 0.981020
blue-metallic-paint	 Training BRDF	 L_2: 0.094791 ss: 0.840025	 L_2: 0.019657 ss: 0.966125	 L_2: 0.009161 ss: 0.993984	 L_2: 0.015014 ss: 0.978181	 L_2: 0.030206 ss: 0.958517	 L_2: 0.010895 ss: 0.990737
blue-metallic-paint2	 Training BRDF	 L_2: 0.045753 ss: 0.859062	 L_2: 0.030359 ss: 0.888022	 L_2: 0.010992 ss: 0.963478	 L_2: 0.009785 ss: 0.974119	 L_2: 0.053468 ss: 0.884442	 L_2: 0.006292 ss: 0.984754
brass	 Training BRDF	 L_2: 0.109247 ss: 0.809906	 L_2: 0.034378 ss: 0.875335	 L_2: 0.011813 ss: 0.965002	 L_2: 0.011450 ss: 0.970392	 L_2: 0.036857 ss: 0.890152	 L_2: 0.009063 ss: 0.974120
chrome		 L_2: 0.038555 ss: 0.902465	 L_2: 0.041371 ss: 0.879025	 L_2: 0.021593 ss: 0.972071	 L_2: 0.021446 ss: 0.950898	 L_2: 0.042031 ss: 0.925449	 L_2: 0.023999 ss: 0.919263


gold-metallic-paint
Training BRDF
L_2: 0.248043 ss: 0.829761
L_2: 0.057450 ss: 0.908062
L_2: 0.028715 ss: 0.972846
L_2: 0.044440 ss: 0.923609
L_2: 0.089165 ss: 0.870058
L_2: 0.023555 ss: 0.972201
gold-metallic-paint2
L_2: 0.128286 ss: 0.797680
L_2: 0.030368 ss: 0.937596
L_2: 0.028399 ss: 0.959021
L_2: 0.047694 ss: 0.938620
L_2: 0.079292 ss: 0.842680
L_2: 0.086016 ss: 0.871688
gold-paint
L_2: 0.118155 ss: 0.897278
L_2: 0.016980 ss: 0.988808
L_2: 0.014025 ss: 0.994293
L_2: 0.013388 ss: 0.989502
L_2: 0.022800 ss: 0.992360
L_2: 0.009869 ss: 0.993005
green-metallic-paint
L_2: 0.055009 ss: 0.843032
L_2: 0.013768 ss: 0.956628
L_2: 0.017174 ss: 0.959030
L_2: 0.012819 ss: 0.944674
L_2: 0.010036 ss: 0.976063
L_2: 0.009523 ss: 0.975962
green-metallic-paint2
L_2: 0.022218 ss: 0.876922
L_2: 0.014018 ss: 0.893310
L_2: 0.010406 ss: 0.937521
L_2: 0.009469 ss: 0.955577
L_2: 0.017268 ss: 0.924635
L_2: 0.003670 ss: 0.986189
hematite
L_2: 0.138697 ss: 0.672373
L_2: 0.015206 ss: 0.881387
L_2: 0.007662 ss: 0.957260
L_2: 0.005826 ss: 0.972998
L_2: 0.012913 ss: 0.926417
L_2: 0.006025 ss: 0.979241
nickel
Training BRDF
L_2: 0.162464 ss: 0.818395
L_2: 0.030642 ss: 0.929767
L_2: 0.053191 ss: 0.905709
L_2: 0.018494 ss: 0.965202
L_2: 0.094610 ss: 0.911030
L_2: 0.013915 ss: 0.983913


red-metallic-paint
Training BRDF
L_2: 0.047084 ss: 0.833108
L_2: 0.040161 ss: 0.879087
L_2: 0.018846 ss: 0.961491
L_2: 0.014544 ss: 0.972420
L_2: 0.064134 ss: 0.832347
L_2: 0.008134 ss: 0.983439
silver-metallic-paint2
L_2: N.A. ss: N.A.
L_2: 0.107842 ss: 0.910845
L_2: 0.082169 ss: 0.959051
L_2: 0.089202 ss: 0.928848
L_2: 0.204731 ss: 0.780259
L_2: 0.073098 ss: 0.951619
silver-paint
L_2: 0.135206 ss: 0.896462
L_2: 0.022441 ss: 0.987118
L_2: 0.019090 ss: 0.990850
L_2: 0.018529 ss: 0.986307
L_2: 0.033144 ss: 0.987619
L_2: 0.013439 ss: 0.992659
steel
Training BRDF
L_2: 0.049557 ss: 0.836990
L_2: 0.037937 ss: 0.871876
L_2: 0.017551 ss: 0.962440
L_2: 0.017414 ss: 0.945810
L_2: 0.040867 ss: 0.871641
L_2: 0.016416 ss: 0.941044
tungsten-carbide
L_2: 0.085936 ss: 0.736661
L_2: 0.029125 ss: 0.890214
L_2: 0.013549 ss: 0.976174
L_2: 0.015162 ss: 0.953047
L_2: 0.041256 ss: 0.845792
L_2: 0.014511 ss: 0.940065
two-layer-gold
L_2: N.A. ss: N.A.
L_2: 0.036503 ss: 0.936832
L_2: 0.027223 ss: 0.962585
L_2: 0.037479 ss: 0.950498
L_2: 0.117367 ss: 0.853119
L_2: 0.043779 ss: 0.974613

Material		p0	p1	ρ_d	ρ_s	R_0
alum-bronze	R	1.00499101e-01	3.21340537e+00	5.80755398e-02	9.71997321e-01	6.35280609e-02
	G	1.03846140e-01	3.15960073e+00	4.85598780e-02	8.82162869e-01	4.48252670e-02
	B	9.29346681e-02	3.05109572e+00	3.96927446e-02	9.31489706e-01	2.30885651e-02
aluminium	R	2.34795064e-01	6.12774026e-03	1.29757365e-02	4.46183443e-01	1.83525056e-01
	G	1.70846507e-01	1.28881177e-02	9.20778885e-03	3.41729939e-01	2.26684585e-01
	B	1.48908466e-01	2.71203220e-02	9.18927882e-03	3.41188848e-01	2.33324155e-01
black-oxidized-steel	R	1.51335192e+00	2.51163244e-01	1.61807369e-02	2.86232114e+00	2.34119110e-02
	G	1.48693871e+00	2.61386991e-01	1.42597249e-02	2.60064578e+00	2.44092438e-02
	B	1.46067047e+00	2.70586699e-01	1.31773474e-02	2.41281772e+00	2.45209206e-02
blue-metallic-paint	R	3.06550622e-01	4.66866493e+00	2.51117791e-03	2.29774639e-01	2.56408244e-01
	G	2.93357104e-01	5.72824383e+00	2.46633263e-03	2.31119335e-01	2.65012413e-01
	B	2.82978714e-01	4.49484921e+00	7.12900935e-03	1.09977392e-03	1.13644821e+02
blue-metallic-paint2	R	2.95567244e-01	1.27789164e-02	3.69393756e-03	3.70079458e-01	7.86244422e-02
	G	2.52195776e-01	1.60990134e-02	2.30015768e-03	3.87581676e-01	1.12437680e-01
	B	2.28610888e-01	2.16841865e-02	1.95040088e-03	5.85336089e-01	1.42103136e-01
brass	R	2.56747901e-01	5.37694152e-03	1.71733610e-02	5.38702905e-01	1.25006229e-01
	G	1.92186430e-01	1.12544689e-02	1.36204930e-02	3.56434733e-01	1.13023572e-01
	B	1.33126765e-01	2.06324812e-02	1.06005967e-02	3.57550204e-01	6.12296350e-02
chrome	R	4.72654998e-01	1.41788903e-03	2.24630785e-04	4.28060102e+00	5.88831939e-02
	G	4.52766180e-01	1.13681715e-03	3.30313109e-03	4.75628901e+00	4.62667681e-02
	B	4.49672312e-01	1.15543429e-03	3.61132319e-03	5.24219608e+00	3.64696868e-02
gold-metallic-paint	R	3.54447722e-01	8.34512424e+00	2.75913393e-03	1.33053365e-03	3.81809021e+02
	G	3.28490108e-01	8.55711269e+00	6.47303229e-03	8.77685397e-06	3.51363477e+04
	B	3.14773440e-01	9.52351856e+00	4.15507751e-03	3.87537986e-01	2.76575118e-01
gold-metallic-paint2	R	7.65549466e-02	2.71916504e+03	6.14536111e-06	4.97540087e-02	8.32683594e+03
	G	6.38510436e-02	3.78406470e+03	3.20109241e-02	1.26267493e-01	3.37783252e+03
	B	6.15845509e-02	3.78399976e+03	2.35387813e-02	1.26900613e-01	2.61065479e+03
gold-paint	R	2.99081236e-01	3.13128471e+00	1.46792814e-01	3.14478964e-01	2.72009492e-01
	G	2.92137265e-01	3.52097583e+00	8.16324502e-02	3.77540320e-01	1.80314407e-01
	B	2.87201107e-01	3.09429908e+00	2.95062102e-02	4.38366681e-01	7.49493018e-02
green-metallic-paint	R	2.08070993e-01	1.26596794e+01	4.92458092e-03	9.63237047e-01	5.18137515e-02
	G	1.14863193e+00	1.71192273e-01	2.87493467e-02	1.58186734e+00	1.06910340e-01
	B	1.11046171e+00	1.70906544e-01	3.57533880e-02	1.44413161e+00	1.14491664e-01
green-metallic-paint2	R	2.08063990e-01	3.78684029e-02	1.17964992e-05	3.03352326e-01	4.13073972e-02
	G	4.90959734e-02	6.74100208e+00	5.07721025e-03	9.45454836e-01	1.02188200e-01
	B	4.19642180e-02	1.15087366e+01	4.16091876e-03	1.12149906e+00	5.70951737e-02
hematite	R	1.85355946e-01	1.16033060e-02	4.09178669e-03	3.00779462e-01	7.03031793e-02
	G	9.54486057e-02	8.04214850e-02	3.60751082e-03	3.65211397e-01	8.11313093e-02
	B	3.34718376e-02	4.58450508e+00	3.86565551e-03	9.96508777e-01	8.50784332e-02
nickel	R	6.24925971e-01	2.37209331e-02	1.31574748e-02	1.03017211e+00	2.89238423e-01
	G	6.38919413e-01	2.50069015e-02	1.17280297e-02	1.09881043e+00	2.45990112e-01
	B	6.58605814e-01	2.63210740e-02	1.13096274e-02	1.22035635e+00	2.03052104e-01
red-metallic-paint	R	5.49830869e-02	4.07496119e+00	6.55470183e-03	1.56958306e+00	1.42458290e-01
	G	3.44002023e-02	1.27586365e+01	2.83359364e-03	1.41578758e+00	4.19962555e-02
	B	2.98033208e-02	1.73122272e+01	1.86363596e-03	1.57824326e+00	2.34459955e-02
silver-metallic-paint2	R	3.48436445e-01	8.03826332e+00	7.87867755e-02	2.48047468e-06	2.01153484e+05
	G	3.58538598e-01	7.67125607e+00	8.08349550e-02	2.25595772e-06	2.00103625e+05
	B	3.40140522e-01	5.17373848e+00	8.66244510e-02	9.35592825e-10	2.60780720e+08
silver-paint	R	2.96493292e-01	3.06959009e+00	1.53555200e-01	3.73505414e-01	2.67529279e-01
	G	2.88250834e-01	3.29666972e+00	1.24900587e-01	3.67384911e-01	2.87490696e-01
	B	2.79780656e-01	3.63689423e+00	1.09533176e-01	3.77552062e-01	2.94232398e-01
steel	R	1.63139217e-02	1.46470016e+02	6.00788090e-03	7.34597683e+00	1.53191835e-01
	G	1.48761235e-02	7.44879272e+02	9.86017566e-03	3.21919250e+01	1.73823208e-01
	B	1.90902762e-02	2.84028503e+02	1.20814014e-02	1.13316011e+01	1.40740588e-01

RGB Parameters for genBRDF 042-001806

Material		p0	p1	ρ_d	ρ_s	R_0
tungsten-carbide	R	1.83367599e-02	1.46287003e+02	4.12889960e-07	5.45035410e+00	1.67430356e-01
	G	1.62023548e-02	1.46292725e+02	1.98052404e-03	5.71838760e+00	1.33443847e-01
	B	1.36709269e-02	1.79606659e+02	2.54512718e-03	1.08096323e+01	9.49133486e-02
two-layer-gold	R	1.77495569e-01	3.51137447e+00	4.18708920e-02	2.67173856e-01	4.28640693e-01
	G	1.66922763e-01	3.52831578e+00	3.86448540e-02	2.93278247e-01	3.36841643e-01
	B	7.64261633e-02	1.80273425e+03	1.73612107e-02	1.43930659e-01	1.03010901e+03

RGB Parameters for genBRDF 042-001806

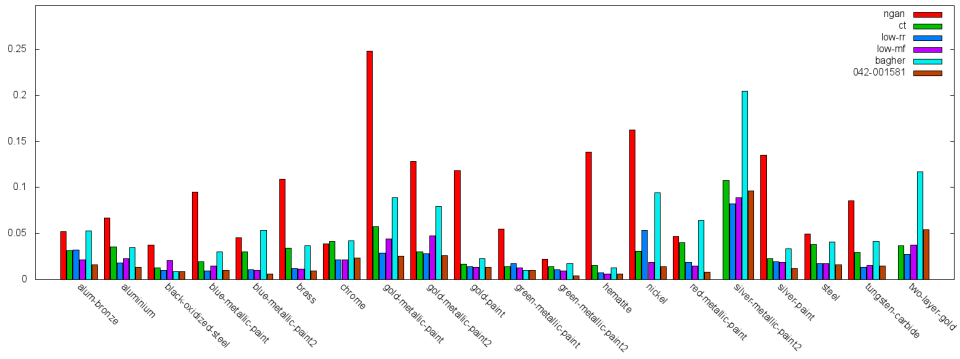
042-001581

Fitness: 0.000103993241

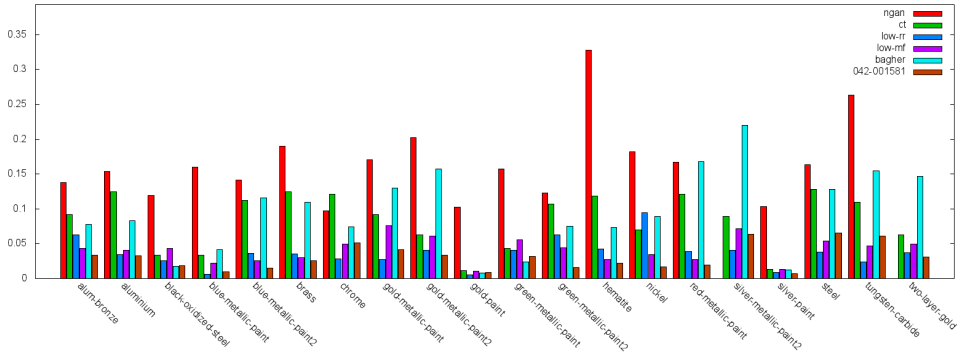
Length: 271

Reciprocity Error: 1.46058619e-14

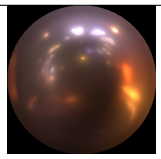
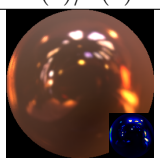
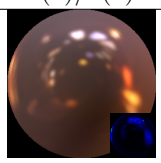
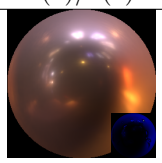
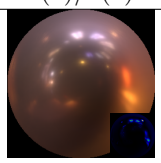
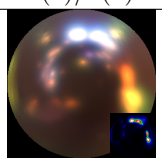
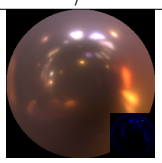
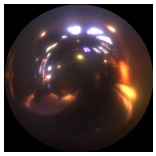
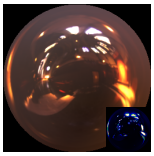
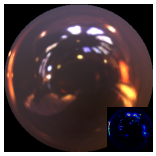
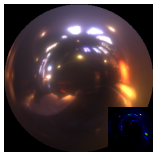
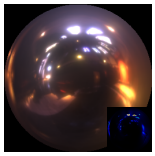
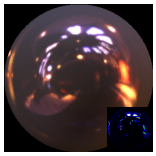
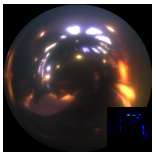
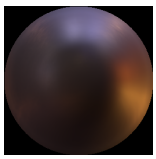
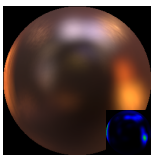
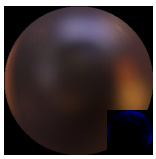
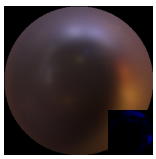
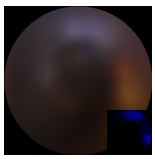
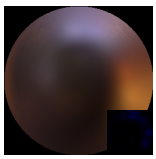
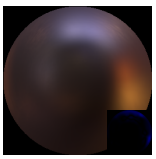
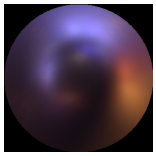
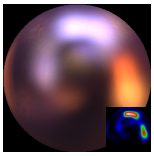
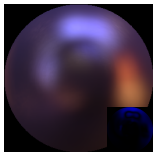
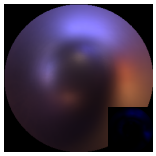
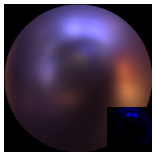
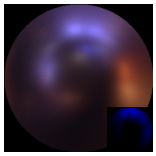
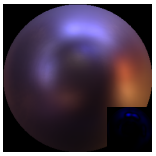
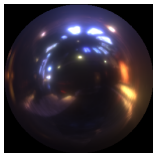
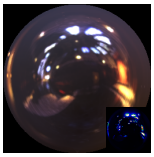
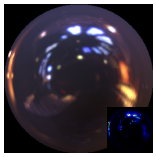
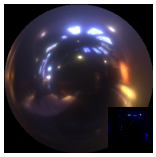
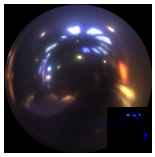
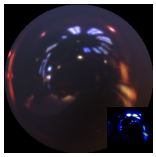
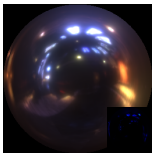
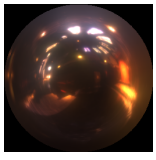
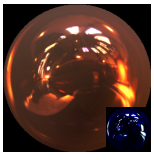
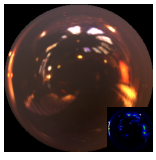
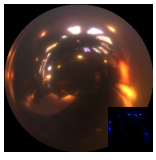
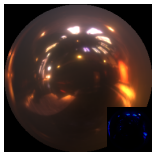
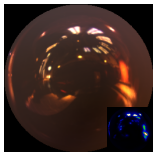
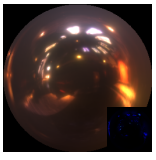
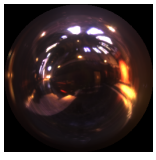
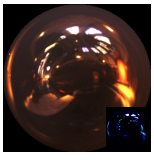
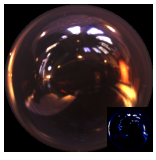
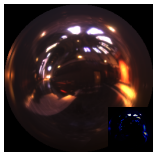
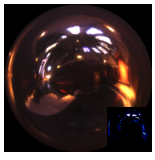
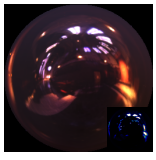
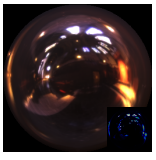
$$f'_n(\omega_i, \omega_o) = \left[\left([p_0 * e^{-\left(\left(\frac{tan(cos^{-1}(clamp(\omega_{hz})))}{p_1}\right)^{p_0}\right)}\right] / \left[\left(\left(\frac{tan(cos^{-1}(clamp(\omega_{hz})))}{p_0}\right)^{2.0} + [p_1 * 1.0]\right) * p_0\right]\right) * \min(1.0, \min(\frac{((2.0 * \omega_{rz}) * \omega_{oz})}{(\omega_o \cdot \omega_h)}, \frac{\omega_{hz}}{\left(p_1 * tan(cos^{-1}(clamp(\omega_{hz})))\right)}))\right]$$

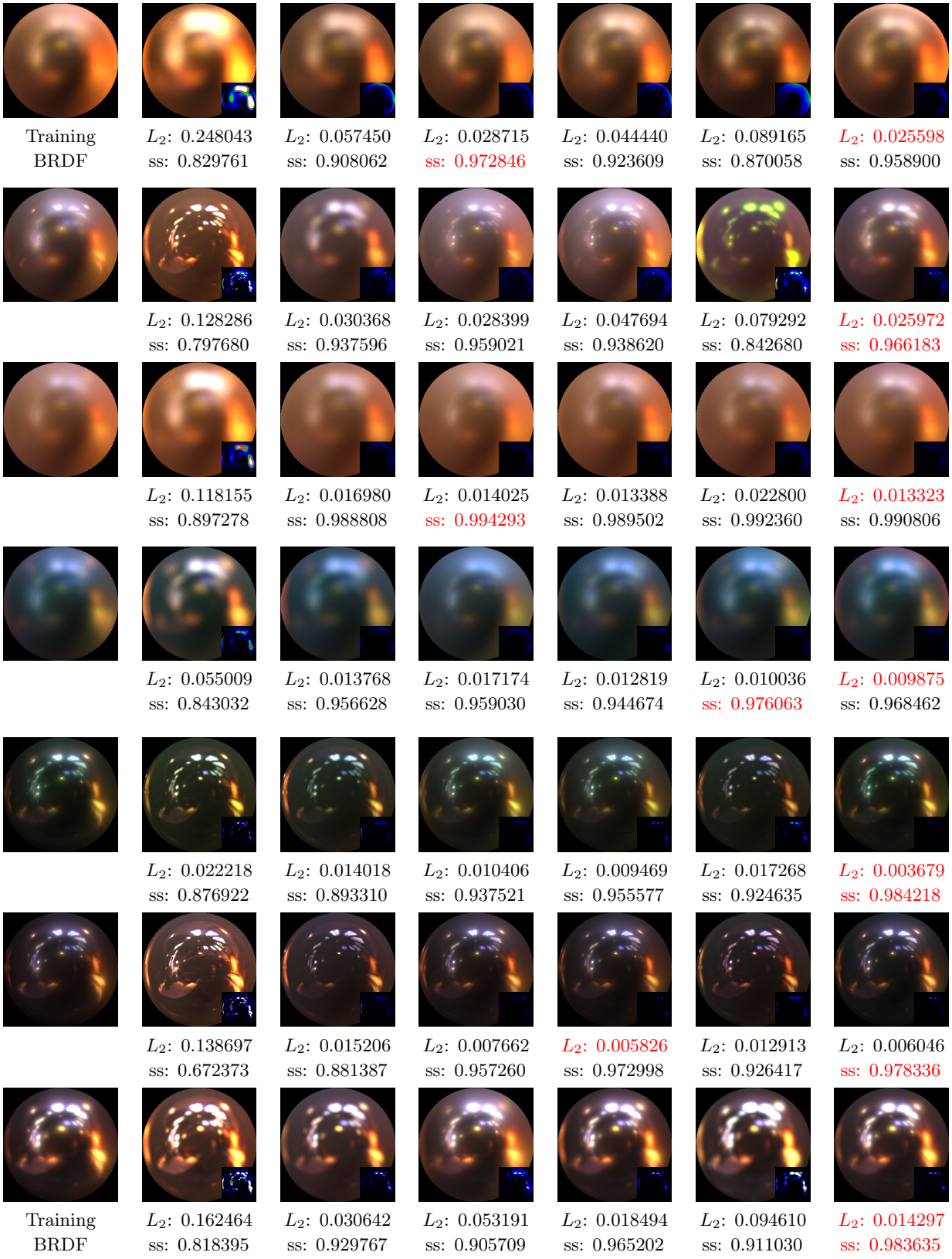


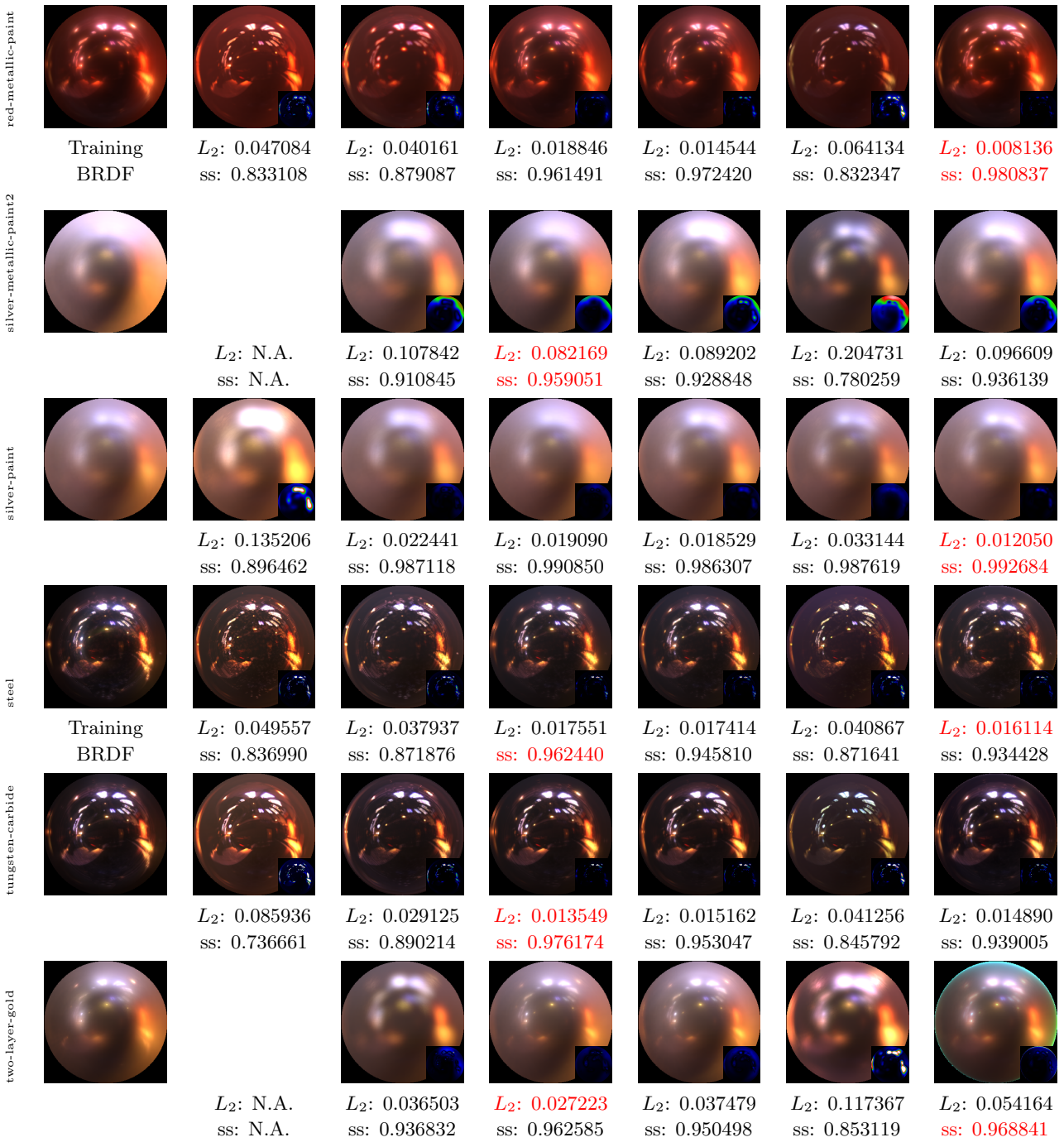
L_2 error.



SSIM error (= 100% - ssim).

	MERL	CT(Ngan) 0(0)/0(0)	CT(E_2 fit) 0(1)/0(0)	Löw SS 4(5)/7(7)	Löw MF 2(4)/0(3)	Bagher 0(0)/2(3)	genBRDF 14/11
alum-bronze		 L_2: 0.052284 ss: 0.862223	 L_2: 0.031392 ss: 0.907766	 L_2: 0.032159 ss: 0.937667	 L_2: 0.021146 ss: 0.956962	 L_2: 0.053167 ss: 0.922395	 L_2: 0.016329 ss: 0.966825
aluminium	 Training BRDF	 L_2: 0.067099 ss: 0.846399	 L_2: 0.035146 ss: 0.875113	 L_2: 0.018044 ss: 0.965309	 L_2: 0.022431 ss: 0.959087	 L_2: 0.034724 ss: 0.917355	 L_2: 0.013466 ss: 0.967440
black-oxidized-steel		 L_2: 0.037563 ss: 0.881117	 L_2: 0.012395 ss: 0.966402	 L_2: 0.009959 ss: 0.974466	 L_2: 0.021000 ss: 0.956823	 L_2: 0.009017 ss: 0.982697	 L_2: 0.008788 ss: 0.981106
blue-metallic-paint	 Training BRDF	 L_2: 0.094791 ss: 0.840025	 L_2: 0.019657 ss: 0.966125	 L_2: 0.009161 ss: 0.993984	 L_2: 0.015014 ss: 0.978181	 L_2: 0.030206 ss: 0.958517	 L_2: 0.009881 ss: 0.990084
blue-metallic-paint2	 Training BRDF	 L_2: 0.045753 ss: 0.859062	 L_2: 0.030359 ss: 0.888022	 L_2: 0.010992 ss: 0.963478	 L_2: 0.009785 ss: 0.974119	 L_2: 0.053468 ss: 0.884442	 L_2: 0.006137 ss: 0.985112
brass	 Training BRDF	 L_2: 0.109247 ss: 0.809906	 L_2: 0.034378 ss: 0.875335	 L_2: 0.011813 ss: 0.965002	 L_2: 0.011450 ss: 0.970392	 L_2: 0.036857 ss: 0.890152	 L_2: 0.009177 ss: 0.974563
chrome		 L_2: 0.038555 ss: 0.902465	 L_2: 0.041371 ss: 0.879025	 L_2: 0.021593 ss: 0.972071	 L_2: 0.021446 ss: 0.950898	 L_2: 0.042031 ss: 0.925449	 L_2: 0.023538 ss: 0.948876


gold-metallic-paint
Training BRDF
L_2: 0.248043 ss: 0.829761
L_2: 0.057450 ss: 0.908062
L_2: 0.028715 ss: 0.972846
L_2: 0.044440 ss: 0.923609
L_2: 0.089165 ss: 0.870058
L_2: 0.025598 ss: 0.958900
gold-metallic-paint2
L_2: 0.128286 ss: 0.797680
L_2: 0.030368 ss: 0.937596
L_2: 0.028399 ss: 0.959021
L_2: 0.047694 ss: 0.938620
L_2: 0.079292 ss: 0.842680
L_2: 0.025972 ss: 0.966183
gold-paint
L_2: 0.118155 ss: 0.897278
L_2: 0.016980 ss: 0.988808
L_2: 0.014025 ss: 0.994293
L_2: 0.013388 ss: 0.989502
L_2: 0.022800 ss: 0.992360
L_2: 0.013323 ss: 0.990806
green-metallic-paint
L_2: 0.055009 ss: 0.843032
L_2: 0.013768 ss: 0.956628
L_2: 0.017174 ss: 0.959030
L_2: 0.012819 ss: 0.944674
L_2: 0.010036 ss: 0.976063
L_2: 0.009875 ss: 0.968462
green-metallic-paint2
L_2: 0.022218 ss: 0.876922
L_2: 0.014018 ss: 0.893310
L_2: 0.010406 ss: 0.937521
L_2: 0.009469 ss: 0.955577
L_2: 0.017268 ss: 0.924635
L_2: 0.003679 ss: 0.984218
hematite
L_2: 0.138697 ss: 0.672373
L_2: 0.015206 ss: 0.881387
L_2: 0.007662 ss: 0.957260
L_2: 0.005826 ss: 0.972998
L_2: 0.012913 ss: 0.926417
L_2: 0.006046 ss: 0.978336
nickel
Training BRDF
L_2: 0.162464 ss: 0.818395
L_2: 0.030642 ss: 0.929767
L_2: 0.053191 ss: 0.905709
L_2: 0.018494 ss: 0.965202
L_2: 0.094610 ss: 0.911030
L_2: 0.014297 ss: 0.983635


red-metallic-paint
Training BRDF
L_2: 0.047084 ss: 0.833108
L_2: 0.040161 ss: 0.879087
L_2: 0.018846 ss: 0.961491
L_2: 0.014544 ss: 0.972420
L_2: 0.064134 ss: 0.832347
L_2: 0.008136 ss: 0.980837
silver-metallic-paint2
L_2: N.A. ss: N.A.
L_2: 0.107842 ss: 0.910845
L_2: 0.082169 ss: 0.959051
L_2: 0.089202 ss: 0.928848
L_2: 0.204731 ss: 0.780259
L_2: 0.096609 ss: 0.936139
silver-paint
L_2: 0.135206 ss: 0.896462
L_2: 0.022441 ss: 0.987118
L_2: 0.019090 ss: 0.990850
L_2: 0.018529 ss: 0.986307
L_2: 0.033144 ss: 0.987619
L_2: 0.012050 ss: 0.992684
steel
Training BRDF
L_2: 0.049557 ss: 0.836990
L_2: 0.037937 ss: 0.871876
L_2: 0.017551 ss: 0.962440
L_2: 0.017414 ss: 0.945810
L_2: 0.040867 ss: 0.871641
L_2: 0.016114 ss: 0.934428
tungsten-carbide
L_2: 0.085936 ss: 0.736661
L_2: 0.029125 ss: 0.890214
L_2: 0.013549 ss: 0.976174
L_2: 0.015162 ss: 0.953047
L_2: 0.041256 ss: 0.845792
L_2: 0.014890 ss: 0.939005
two-layer-gold
L_2: N.A. ss: N.A.
L_2: 0.036503 ss: 0.936832
L_2: 0.027223 ss: 0.962585
L_2: 0.037479 ss: 0.950498
L_2: 0.117367 ss: 0.853119
L_2: 0.054164 ss: 0.968841

Material		p0	p1	ρ_d	ρ_s	R_0
alum-bronze	R	9.87919420e-03	2.78016043e+00	5.55748940e-02	1.28472559e+03	6.50033876e-02
	G	1.06282067e-02	2.71056509e+00	4.68197241e-02	1.04981519e+03	4.55892533e-02
	B	9.89171416e-02	2.73942370e-02	3.90242413e-02	1.32717609e+01	2.30325833e-02
aluminium	R	1.72175154e-01	7.14082154e-04	2.83655681e-04	5.41944599e+00	1.89669490e-01
	G	1.34562746e-01	7.83007301e-04	8.54157563e-03	5.31314754e+00	2.23617479e-01
	B	1.15841724e-01	1.21248467e-03	8.26075021e-03	5.94277239e+00	2.31232464e-01
black-oxidized-steel	R	1.50098681e+00	2.55228698e-01	1.61162019e-02	8.40845585e-01	2.34308522e-02
	G	1.47293401e+00	2.65865266e-01	1.41535932e-02	8.05488825e-01	2.45303232e-02
	B	1.44798136e+00	2.75168240e-01	1.31038669e-02	7.88005471e-01	2.46169399e-02
blue-metallic-paint	R	8.93884823e-02	4.25451565e+00	2.93886475e-03	1.13862247e+01	2.54480541e-01
	G	8.14544037e-02	4.86428833e+00	2.63046240e-03	1.30079889e+01	2.52225131e-01
	B	7.57729262e-02	4.20279884e+00	7.93939736e-03	5.71025126e-02	1.42402054e+02
blue-metallic-paint2	R	2.29943737e-01	2.23917584e-03	3.35423765e-03	3.61052370e+00	7.85674751e-02
	G	1.93201378e-01	2.07404583e-03	1.69838662e-03	4.43378115e+00	1.11979410e-01
	B	1.72394559e-01	2.30474584e-03	4.77266673e-04	7.37480879e+00	1.41926393e-01
brass	R	1.99902266e-01	7.22925819e-04	1.65444817e-02	6.07164955e+00	1.24435775e-01
	G	1.47077695e-01	8.48605123e-04	1.31217865e-02	5.19052744e+00	1.12033620e-01
	B	1.09689318e-01	6.86297251e-04	1.06547400e-02	6.41099262e+00	5.97184077e-02
chrome	R	4.12919819e-01	6.12575677e-04	3.65062850e-03	2.62304897e+01	5.93285821e-02
	G	3.93849701e-01	4.61562566e-04	3.23682022e-03	3.11169510e+01	4.64322381e-02
	B	3.88476104e-01	4.56795126e-04	3.49670625e-03	3.42545090e+01	3.67585383e-02
gold-metallic-paint	R	1.24866083e-01	8.22916126e+00	9.77413170e-03	1.13149653e-07	1.42003776e+08
	G	1.06775410e-01	8.46396351e+00	9.77666304e-03	1.63600362e-07	7.71909520e+07
	B	9.72551182e-02	9.44787216e+00	5.21610491e-03	1.80970364e+01	2.82316566e-01
gold-metallic-paint2	R	3.21166247e-01	6.26055002e-02	4.40921374e-02	8.09862733e-01	5.59273601e-01
	G	3.10759217e-01	5.57236820e-02	3.95443328e-02	7.97884524e-01	4.93661195e-01
	B	7.37359002e-02	1.35659367e-01	4.18830924e-02	9.61843586e+00	2.06991896e-01
gold-paint	R	9.35124516e-01	1.86836079e-01	1.55393064e-01	6.54112756e-01	2.60520995e-01
	G	1.00538361e+00	1.89878479e-01	8.79964754e-02	7.44296789e-01	1.71938494e-01
	B	7.54052252e-02	3.07539678e+00	3.00121456e-02	2.88956852e+01	7.51280114e-02
green-metallic-paint	R	4.09569964e-02	1.28021488e+01	5.24536707e-03	1.75485809e+02	5.25066592e-02
	G	1.15322471e+00	1.73559800e-01	2.86219399e-02	1.05305874e+00	1.07004106e-01
	B	1.12446451e+00	1.72918394e-01	3.56732383e-02	1.05901790e+00	1.14483036e-01
green-metallic-paint2	R	1.85741529e-01	2.96677137e-03	1.41650706e-03	3.54929900e+00	4.02982496e-02
	G	2.11481447e-03	7.75100470e+00	5.52971242e-03	1.25666143e+04	1.04236230e-01
	B	1.27500474e-01	3.86239425e-03	1.83477532e-04	5.40222597e+00	5.41063435e-02
hematite	R	1.38590649e-01	8.53715756e-04	1.93436281e-05	4.59816694e+00	6.99909404e-02
	G	7.08930343e-02	1.48734136e-03	3.01216077e-03	9.69744587e+00	8.06469545e-02
	B	6.03250414e-02	2.01221742e-03	2.58437893e-03	1.30812712e+01	8.25681239e-02
nickel	R	5.84846854e-01	1.58441849e-02	1.34052038e-02	3.41636014e+00	2.93883473e-01
	G	6.29353225e-01	1.82630606e-02	1.27689205e-02	3.51863742e+00	2.48971850e-01
	B	6.82059705e-01	2.11777780e-02	1.27163799e-02	3.70309615e+00	2.04371467e-01
red-metallic-paint	R	5.62415533e-02	1.31996721e-02	6.05994810e-10	3.68417587e+01	1.41760007e-01
	G	1.15924224e-01	2.30382825e-03	1.50978623e-04	6.66423845e+00	3.92884761e-02
	B	8.54698243e-04	1.77748699e+01	4.66160856e-14	7.60088828e+04	2.36364827e-02
silver-metallic-paint2	R	8.80271941e-02	3.63980699e+00	9.18433145e-02	5.72294630e-06	1.87649050e+06
	G	9.46413055e-02	3.54297352e+00	9.19242427e-02	1.02031066e-04	8.72405703e+04
	B	1.02469690e-01	3.83612466e+00	8.98888931e-02	1.58794134e-19	4.90471378e+19
silver-paint	R	8.33150968e-02	2.84053874e+00	1.53306827e-01	2.06807022e+01	2.67663002e-01
	G	7.82200694e-02	3.10273480e+00	1.25193119e-01	2.25886574e+01	2.88225591e-01
	B	7.35427365e-02	3.46477103e+00	1.10190354e-01	2.57149906e+01	2.95839816e-01
steel	R	2.62906164e-04	1.46473434e+02	8.49308725e-03	1.96362925e+06	1.54218435e-01
	G	2.31580154e-04	1.56450790e+02	1.05203046e-02	2.42430975e+06	1.35833487e-01
	B	3.60081845e-04	2.81720337e+02	1.19861830e-02	1.93673638e+06	1.41178936e-01

RGB Parameters for genBRDF 042-001581

Material		p0	p1	ρ_d	ρ_s	R_0
tungsten-carbide	R	3.31370713e-04	1.46283936e+02	4.86725621e-05	1.04765544e+06	1.68273598e-01
	G	2.60216184e-04	1.46284485e+02	1.10676803e-04	1.56025038e+06	1.33564577e-01
	B	1.85449026e-04	1.82289047e+02	2.53708404e-03	4.86282000e+06	9.55831259e-02
two-layer-gold	R	3.07728857e-01	7.40103275e-02	3.56321670e-02	1.10003388e+00	4.56643403e-01
	G	5.11221727e-03	2.82987964e+03	2.29627937e-02	2.79779528e-07	5.49622697e+12
	B	5.88762295e-03	1.67053528e+03	1.79303456e-02	9.02097383e-08	5.21540836e+12

RGB Parameters for genBRDF 042-001581

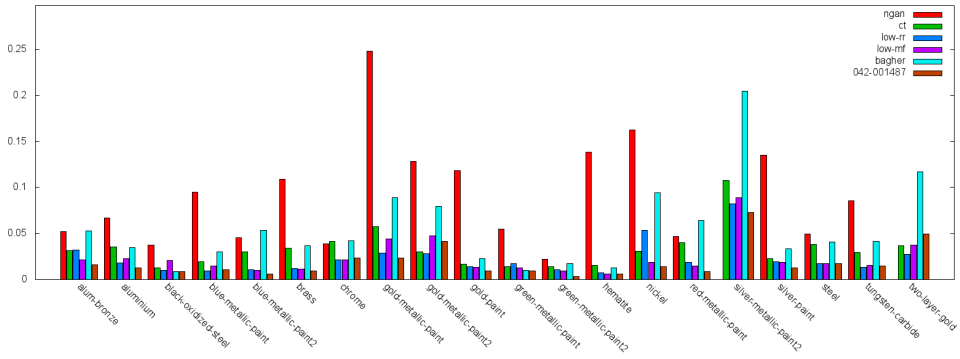
042-001487

Fitness: 0.000104173287

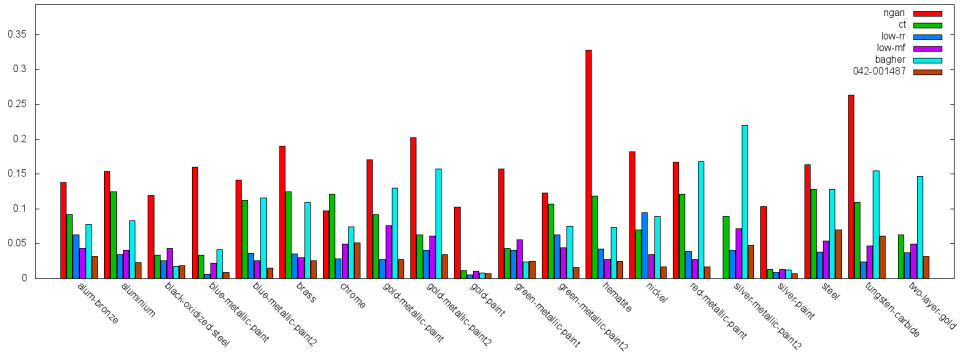
Length: 265

Reciprocity Error: 9.2688599e-15

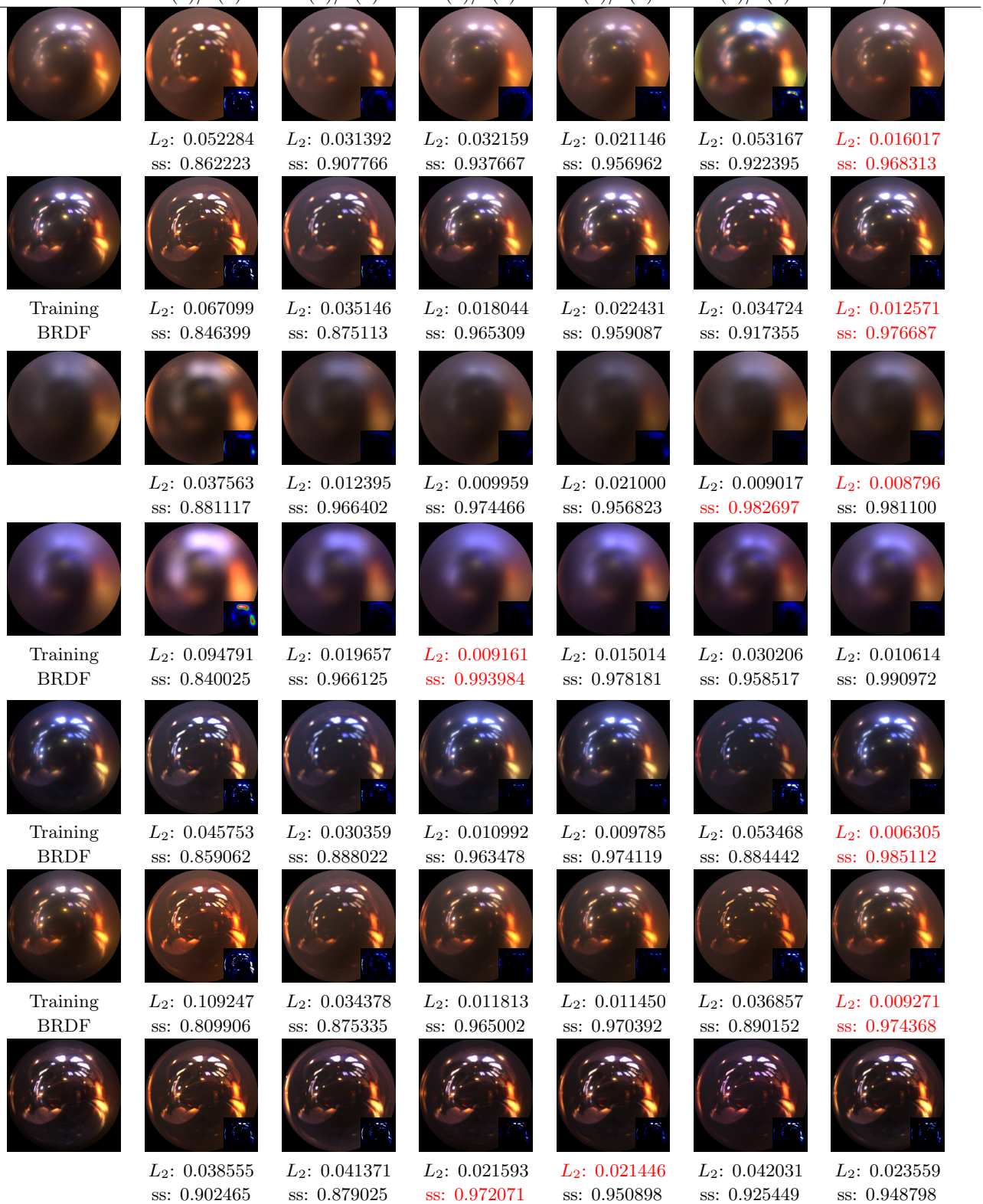
$$f'_n(\omega_i, \omega_o) = \left[\left([\omega_{h_z} * e^{-\left(\left(\frac{tan(cos^{-1}(clamp(\omega_{h_z})))}{p_1}\right)^{p_0}\right)}\right] / \left[\left(\left(\frac{tan(cos^{-1}(clamp(\omega_{h_z})))}{p_0}\right)^{2.0} + [p_1 * 1.0]\right) * p_0\right]\right) * \min(1.0, \min(\frac{((2.0 * \omega_{r_z}) * \omega_{o_z})}{(\omega_o \cdot \omega_h)}, \frac{1.0}{\left(p_1 * cos^{-1}(clamp(\omega_{h_z}))\right)}))\right]$$

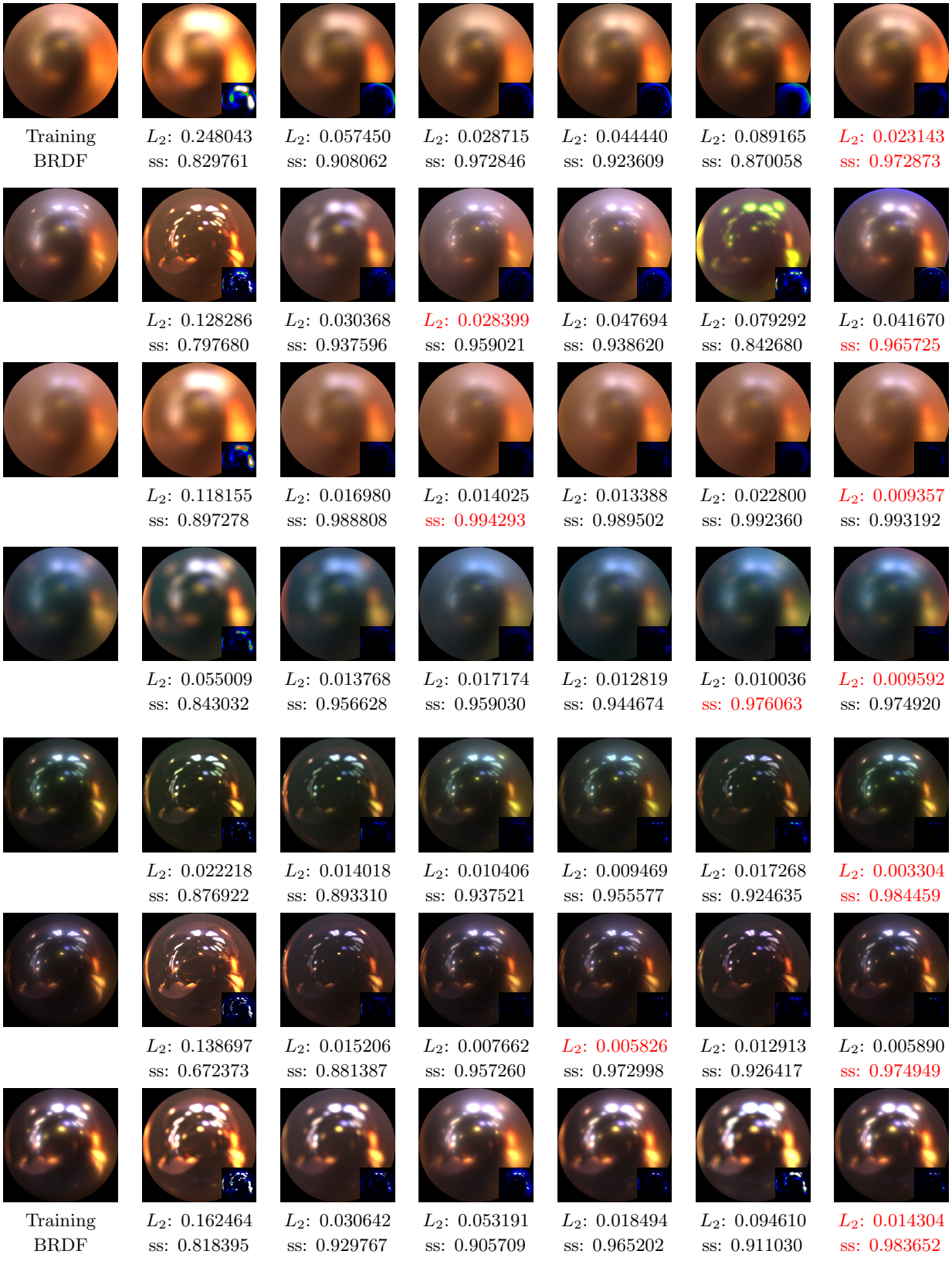


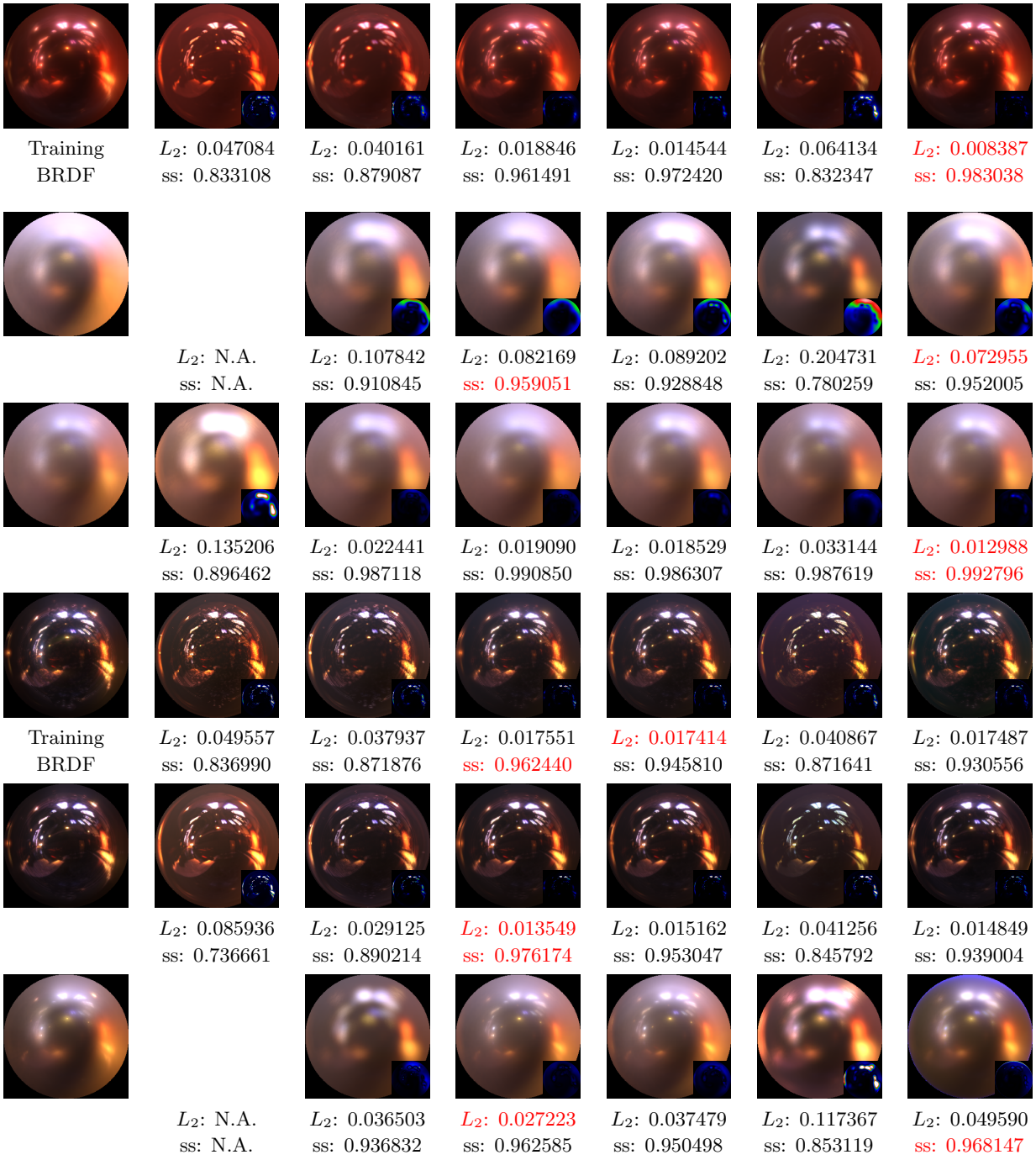
L_2 error.



SSIM error (= 100% - ssim).


MERL
CT(Ngan)
0(0)/0(0)
CT(E_2 fit)
0(2)/0(0)
Löw SS
4(5)/6(6)
Löw MF
3(4)/0(3)
Bagher
0(0)/2(2)
genBRDF
13/12
alum-bronze
L_2: 0.052284
ss: 0.862223
L_2: 0.031392
ss: 0.907766
L_2: 0.032159
ss: 0.937667
L_2: 0.021146
ss: 0.956962
L_2: 0.053167
ss: 0.922395
L_2: 0.016017
ss: 0.968313
aluminium
Training
BRDF
L_2: 0.067099
ss: 0.846399
L_2: 0.035146
ss: 0.875113
L_2: 0.018044
ss: 0.965309
L_2: 0.022431
ss: 0.959087
L_2: 0.034724
ss: 0.917355
L_2: 0.012571
ss: 0.976687
black-oxidized-steel
L_2: 0.037563
ss: 0.881117
L_2: 0.012395
ss: 0.966402
L_2: 0.009959
ss: 0.974466
L_2: 0.021000
ss: 0.956823
L_2: 0.009017
ss: 0.982697
L_2: 0.008796
ss: 0.981100
blue-metallic-paint
Training
BRDF
L_2: 0.094791
ss: 0.840025
L_2: 0.019657
ss: 0.966125
L_2: 0.009161
ss: 0.993984
L_2: 0.015014
ss: 0.978181
L_2: 0.030206
ss: 0.958517
L_2: 0.010614
ss: 0.990972
blue-metallic-paint2
Training
BRDF
L_2: 0.045753
ss: 0.859062
L_2: 0.030359
ss: 0.888022
L_2: 0.010992
ss: 0.963478
L_2: 0.009785
ss: 0.974119
L_2: 0.053468
ss: 0.884442
L_2: 0.006305
ss: 0.985112
brass
Training
BRDF
L_2: 0.109247
ss: 0.809906
L_2: 0.034378
ss: 0.875335
L_2: 0.011813
ss: 0.965002
L_2: 0.011450
ss: 0.970392
L_2: 0.036857
ss: 0.890152
L_2: 0.009271
ss: 0.974368
chrome
L_2: 0.038555
ss: 0.902465
L_2: 0.041371
ss: 0.879025
L_2: 0.021593
ss: 0.972071
L_2: 0.021446
ss: 0.950898
L_2: 0.042031
ss: 0.925449
L_2: 0.023559
ss: 0.948798


gold-metallic-paint
Training BRDF
L_2: 0.248043 ss: 0.829761
L_2: 0.057450 ss: 0.908062
L_2: 0.028715 ss: 0.972846
L_2: 0.044440 ss: 0.923609
L_2: 0.089165 ss: 0.870058
L_2: 0.023143 ss: 0.972873
gold-metallic-paint2
L_2: 0.128286 ss: 0.797680
L_2: 0.030368 ss: 0.937596
L_2: 0.028399 ss: 0.959021
L_2: 0.047694 ss: 0.938620
L_2: 0.079292 ss: 0.842680
L_2: 0.041670 ss: 0.965725
gold-paint
L_2: 0.118155 ss: 0.897278
L_2: 0.016980 ss: 0.988808
L_2: 0.014025 ss: 0.994293
L_2: 0.013388 ss: 0.989502
L_2: 0.022800 ss: 0.992360
L_2: 0.009357 ss: 0.993192
green-metallic-paint
L_2: 0.055009 ss: 0.843032
L_2: 0.013768 ss: 0.956628
L_2: 0.017174 ss: 0.959030
L_2: 0.012819 ss: 0.944674
L_2: 0.010036 ss: 0.976063
L_2: 0.009592 ss: 0.974920
green-metallic-paint2
L_2: 0.022218 ss: 0.876922
L_2: 0.014018 ss: 0.893310
L_2: 0.010406 ss: 0.937521
L_2: 0.009469 ss: 0.955577
L_2: 0.017268 ss: 0.924635
L_2: 0.003304 ss: 0.984459
hematite
L_2: 0.138697 ss: 0.672373
L_2: 0.015206 ss: 0.881387
L_2: 0.007662 ss: 0.957260
L_2: 0.005826 ss: 0.972998
L_2: 0.012913 ss: 0.926417
L_2: 0.005890 ss: 0.974949
nickel
Training BRDF
L_2: 0.162464 ss: 0.818395
L_2: 0.030642 ss: 0.929767
L_2: 0.053191 ss: 0.905709
L_2: 0.018494 ss: 0.965202
L_2: 0.094610 ss: 0.911030
L_2: 0.014304 ss: 0.983652


red-metallic-paint
Training BRDF
L_2: 0.047084 ss: 0.833108
L_2: 0.040161 ss: 0.879087
L_2: 0.018846 ss: 0.961491
L_2: 0.014544 ss: 0.972420
L_2: 0.064134 ss: 0.832347
L_2: 0.008387 ss: 0.983038
silver-metallic-paint2
L_2: N.A. ss: N.A.
L_2: 0.107842 ss: 0.910845
L_2: 0.082169 ss: 0.959051
L_2: 0.089202 ss: 0.928848
L_2: 0.204731 ss: 0.780259
L_2: 0.072955 ss: 0.952005
silver-paint
L_2: 0.135206 ss: 0.896462
L_2: 0.022441 ss: 0.987118
L_2: 0.019090 ss: 0.990850
L_2: 0.018529 ss: 0.986307
L_2: 0.033144 ss: 0.987619
L_2: 0.012988 ss: 0.992796
steel
Training BRDF
L_2: 0.049557 ss: 0.836990
L_2: 0.037937 ss: 0.871876
L_2: 0.017551 ss: 0.962440
L_2: 0.017414 ss: 0.945810
L_2: 0.040867 ss: 0.871641
L_2: 0.017487 ss: 0.930556
tungsten-carbide
L_2: 0.085936 ss: 0.736661
L_2: 0.029125 ss: 0.890214
L_2: 0.013549 ss: 0.976174
L_2: 0.015162 ss: 0.953047
L_2: 0.041256 ss: 0.845792
L_2: 0.014849 ss: 0.939004
two-layer-gold
L_2: N.A. ss: N.A.
L_2: 0.036503 ss: 0.936832
L_2: 0.027223 ss: 0.962585
L_2: 0.037479 ss: 0.950498
L_2: 0.117367 ss: 0.853119
L_2: 0.049590 ss: 0.968147

Material		p0	p1	ρ_d	ρ_s	R_0
alum-bronze	R	9.42274835e-03	3.07473636e+00	5.61435372e-02	1.34285822e+01	6.45972490e-02
	G	1.01059861e-02	3.01699162e+00	4.72182333e-02	1.18408680e+01	4.53186296e-02
	B	9.27997157e-02	3.05214506e-02	3.94870639e-02	1.37987769e+00	2.29815915e-02
aluminium	R	1.84015974e-01	7.13545014e-04	1.29907988e-02	9.97695625e-01	1.81061000e-01
	G	1.32997170e-01	7.90752412e-04	9.52744484e-03	7.15606809e-01	2.23411977e-01
	B	1.13806091e-01	1.23497460e-03	9.41904169e-03	6.94137633e-01	2.30403244e-01
black-oxidized-steel	R	1.48725855e+00	2.60632843e-01	1.61290262e-02	1.27708054e+00	2.34487243e-02
	G	1.46082234e+00	2.72073984e-01	1.41690159e-02	1.20422363e+00	2.44766232e-02
	B	1.43458688e+00	2.82534599e-01	1.31097166e-02	1.16025662e+00	2.45780591e-02
blue-metallic-paint	R	8.92466977e-02	4.62490654e+00	1.95046223e-03	1.08002079e+00	2.57069349e-01
	G	8.15806165e-02	5.40013170e+00	1.87598006e-03	1.12978959e+00	2.58472145e-01
	B	7.54400939e-02	4.49205017e+00	5.95956994e-03	1.46822201e-03	4.42324554e+02
blue-metallic-paint2	R	2.28495941e-01	2.24705576e-03	3.53205996e-03	8.27766418e-01	7.85693079e-02
	G	1.91616282e-01	2.08657631e-03	2.18763715e-03	8.55774343e-01	1.11910395e-01
	B	1.70318455e-01	2.32774625e-03	1.57152547e-03	1.27161610e+00	1.41846895e-01
brass	R	1.99235275e-01	7.23892357e-04	1.69038884e-02	1.21206188e+00	1.24352142e-01
	G	1.45922244e-01	8.53657955e-04	1.36273662e-02	7.63616383e-01	1.11944042e-01
	B	1.08074769e-01	6.98789547e-04	1.09362043e-02	7.05842435e-01	5.97133785e-02
chrome	R	4.12771255e-01	6.12295000e-04	3.61700496e-03	1.08337460e+01	5.92230558e-02
	G	3.93745422e-01	4.61571355e-04	3.25060147e-03	1.22310677e+01	4.64779139e-02
	B	3.88042152e-01	4.55015543e-04	3.54460604e-03	1.33022957e+01	3.67423818e-02
gold-metallic-paint	R	1.22835726e-01	8.29487991e+00	2.34147441e-03	2.42144722e-07	8.34933650e+06
	G	1.04995169e-01	8.52311134e+00	5.43077989e-03	1.49278378e-07	9.08212000e+06
	B	9.56084877e-02	9.41737461e+00	4.02501225e-03	1.79340947e+00	2.73607701e-01
gold-metallic-paint2	R	3.09796602e-01	6.52585775e-02	4.62720618e-02	2.63246149e-01	5.56063354e-01
	G	3.03309292e-01	5.74444197e-02	4.15724590e-02	2.50477970e-01	4.91317600e-01
	B	3.66394524e-03	3.62998682e+03	2.35959254e-02	3.90129826e-05	1.96414816e+08
gold-paint	R	8.28702003e-02	3.21797633e+00	1.45955354e-01	1.53413582e+00	2.73750097e-01
	G	7.93905109e-02	3.60741997e+00	8.11005607e-02	1.89791739e+00	1.81219950e-01
	B	7.39731938e-02	3.35742593e+00	2.97307186e-02	2.31355333e+00	7.51228184e-02
green-metallic-paint	R	4.07956094e-02	1.27111921e+01	4.83235763e-03	7.18607473e+00	5.18442467e-02
	G	1.13777685e+00	1.75971821e-01	2.87062582e-02	1.21685457e+00	1.06975533e-01
	B	1.10803843e+00	1.75304309e-01	3.58018130e-02	1.19294846e+00	1.14372060e-01
green-metallic-paint2	R	1.82661787e-01	3.00506223e-03	1.61110389e-03	6.58396482e-01	4.03194129e-02
	G	4.67371829e-02	1.95823722e-02	5.91117821e-09	1.29806864e+00	1.01591311e-01
	B	1.26059771e-01	3.92042240e-03	1.17968605e-03	6.93477988e-01	5.39284386e-02
hematite	R	1.47355199e-01	8.12982151e-04	5.47857583e-03	6.48567379e-01	6.83714226e-02
	G	6.87588528e-02	1.56010862e-03	3.44682601e-03	7.01437235e-01	8.05851072e-02
	B	5.76731823e-02	2.16748309e-03	3.04955547e-03	8.15337300e-01	8.25515911e-02
nickel	R	5.80530345e-01	1.57569442e-02	1.33477403e-02	1.98038316e+00	2.93962240e-01
	G	6.24367654e-01	1.81405172e-02	1.27497679e-02	2.19503260e+00	2.48852119e-01
	B	6.77065909e-01	2.10476127e-02	1.27245262e-02	2.50433826e+00	2.04399884e-01
red-metallic-paint	R	2.76030228e-03	4.21876955e+00	4.44876961e-03	3.72703972e+01	1.46375403e-01
	G	1.12192690e-01	2.40079407e-03	3.78562137e-04	7.81457722e-01	3.93496715e-02
	B	9.64113474e-02	2.28763581e-03	1.38654286e-06	7.90355086e-01	2.25409884e-02
silver-metallic-paint2	R	1.18655972e-01	7.84319782e+00	7.72727951e-02	8.00125747e-07	2.48402175e+06
	G	1.26797095e-01	7.60580158e+00	7.88683966e-02	7.74282455e-07	2.29007775e+06
	B	1.10227510e-01	5.06480265e+00	8.53061900e-02	4.89538436e-08	2.05200720e+07
silver-paint	R	8.19312781e-02	3.10941815e+00	1.52094916e-01	1.82858348e+00	2.68705577e-01
	G	7.73255900e-02	3.34870052e+00	1.23641916e-01	1.86337364e+00	2.88861960e-01
	B	7.30033517e-02	3.69317222e+00	1.08353131e-01	1.98192680e+00	2.96203762e-01
steel	R	2.64864066e-04	1.46467560e+02	7.67631900e-06	5.12636658e+02	1.54838756e-01
	G	2.22390954e-04	7.09146851e+02	9.83844511e-03	2.35208325e+03	1.73785672e-01
	B	3.60155187e-04	2.82105621e+02	1.19174179e-02	6.97453430e+02	1.41385242e-01

RGB Parameters for genBRDF 042-001487

Material		p0	p1	ρ_d	ρ_s	R_0
tungsten-carbide	R	3.31137242e-04	1.46282257e+02	1.43863588e-07	3.47314178e+02	1.68203905e-01
	G	2.60198314e-04	1.46312454e+02	1.06122193e-03	4.04663391e+02	1.34047791e-01
	B	1.85469544e-04	1.82501953e+02	2.46722181e-03	9.01799194e+02	9.56961289e-02
two-layer-gold	R	3.01404029e-01	7.64949620e-02	3.88403237e-02	3.43269855e-01	4.53877151e-01
	G	2.89548188e-01	6.65151700e-02	3.59428041e-02	3.69483978e-01	3.58808249e-01
	B	6.29724422e-03	1.66697681e+03	1.04240137e-07	3.49034518e-02	8.42415859e+04

RGB Parameters for genBRDF 042-001487

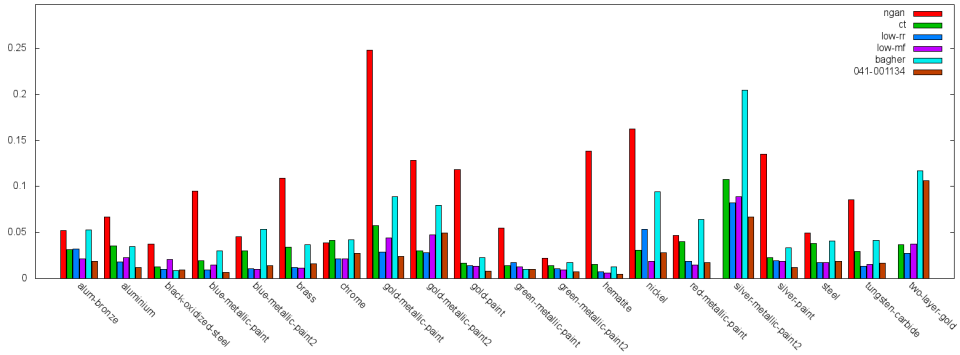
041-001134

Fitness: 0.000105891751

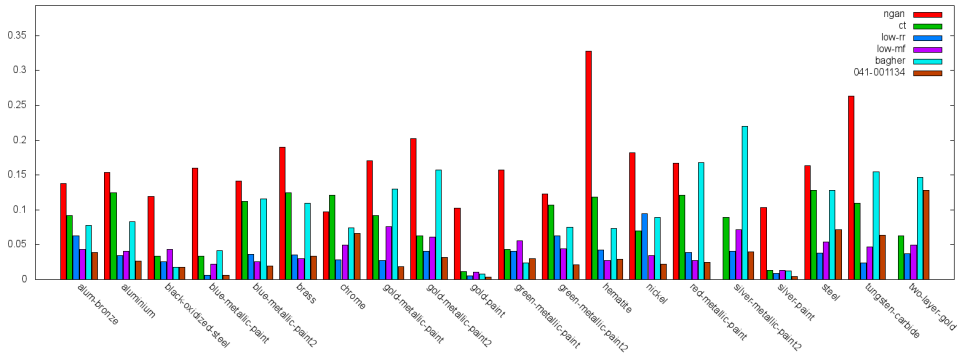
Length: 257

Reciprocity Error: 2.33319271e-14

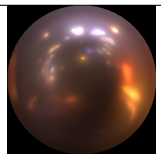
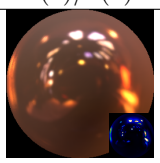
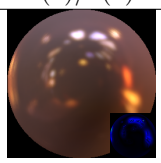
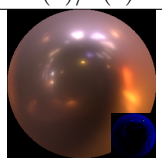
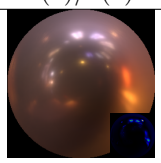
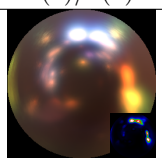
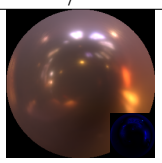
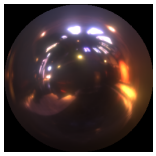
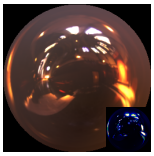
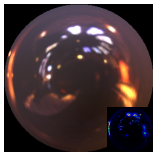
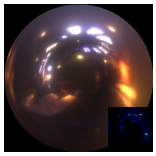
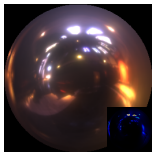
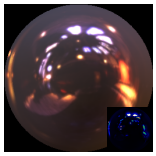
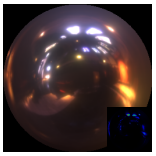
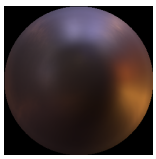
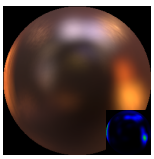
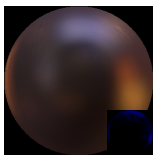
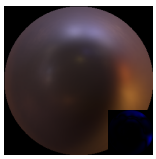
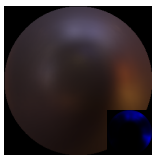
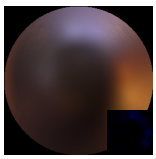
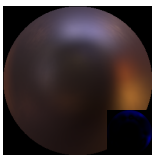
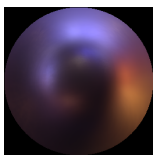
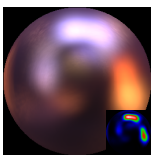
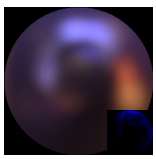
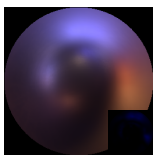
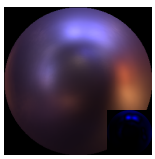
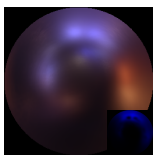
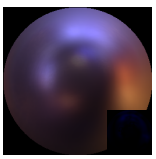
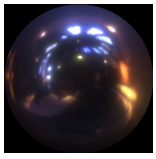
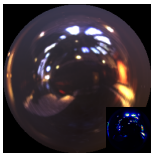
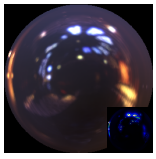
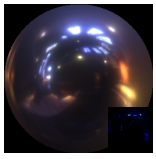
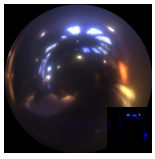
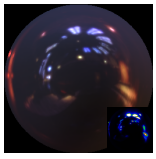
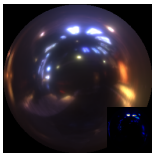
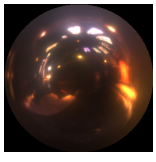
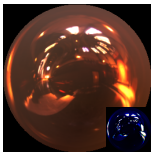
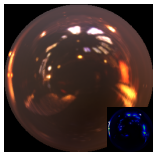
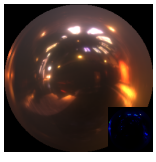
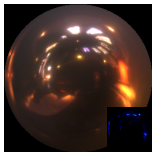
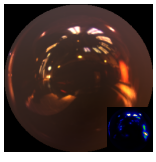
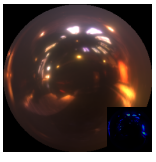
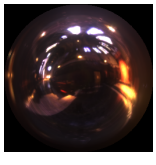
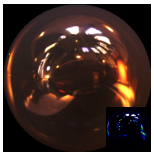
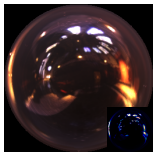
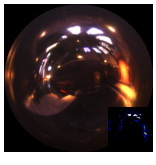
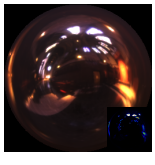
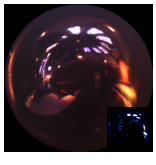
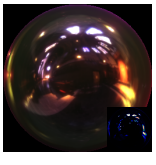
$$f'_n(\omega_i, \omega_o) = \left[\left([1.0 * e^{-\left(\left(\frac{cos^{-1}(clamp(\omega_{hz}))}{p_1}\right)^{p_0}\right)}\right] / \left[\left(\left(\frac{cos^{-1}(clamp(\omega_{hz}))}{p_0}\right)^{2.0} + [p_1 * 1.0]\right) * p_0\right]\right) * \min(1.0, \min(\frac{\left(\left(\omega_{hz} * \omega_{rz}\right) * \omega_{oz}\right)}{(\omega_o \cdot \omega_h)}, \frac{1.0}{\left(p_1 * tan(cos^{-1}(clamp(\omega_{hz})))\right)}))\right]$$

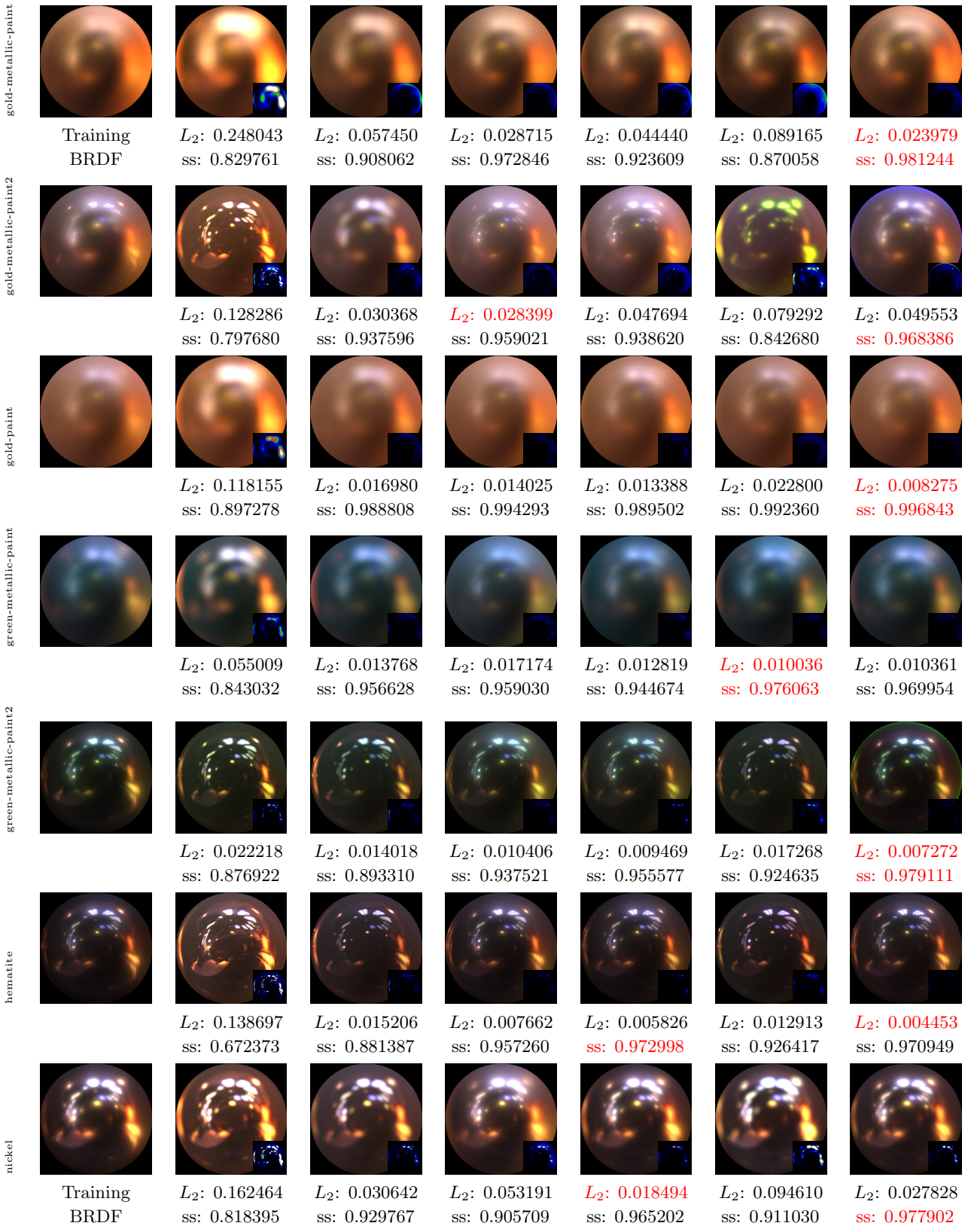


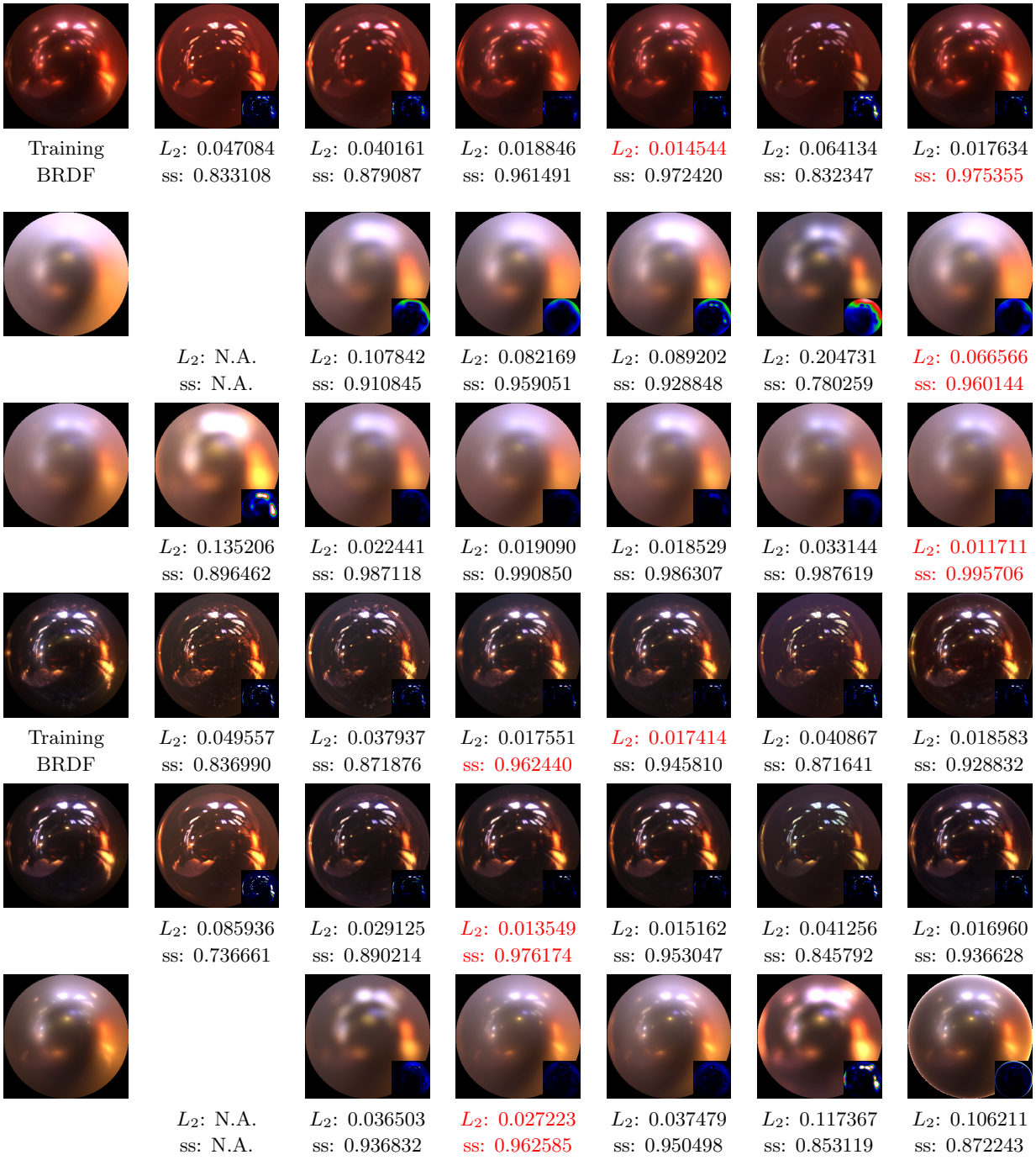
L_2 error.



SSIM error (= 100% - ssim).

	MERL	CT(Ngan) 0(0)/0(0)	CT(E_2 fit) 0(2)/0(1)	Löw SS 3(7)/5(5)	Löw MF 6(9)/2(6)	Bagher 2(2)/2(2)	genBRDF 9/11
alum-bronze							
		L_2: 0.052284 ss: 0.862223	L_2: 0.031392 ss: 0.907766	L_2: 0.032159 ss: 0.937667	L_2: 0.021146 ss: 0.956962	L_2: 0.053167 ss: 0.922395	L_2: 0.018885 ss: 0.960739
aluminium							
	Training BRDF	L_2: 0.067099 ss: 0.846399	L_2: 0.035146 ss: 0.875113	L_2: 0.018044 ss: 0.965309	L_2: 0.022431 ss: 0.959087	L_2: 0.034724 ss: 0.917355	L_2: 0.012304 ss: 0.973470
black-oxidized-steel							
		L_2: 0.037563 ss: 0.881117	L_2: 0.012395 ss: 0.966402	L_2: 0.009959 ss: 0.974466	L_2: 0.021000 ss: 0.956823	L_2: 0.009017 ss: 0.982697	L_2: 0.009457 ss: 0.981953
blue-metallic-paint							
	Training BRDF	L_2: 0.094791 ss: 0.840025	L_2: 0.019657 ss: 0.966125	L_2: 0.009161 ss: 0.993984	L_2: 0.015014 ss: 0.978181	L_2: 0.030206 ss: 0.958517	L_2: 0.006984 ss: 0.993733
blue-metallic-paint2							
	Training BRDF	L_2: 0.045753 ss: 0.859062	L_2: 0.030359 ss: 0.888022	L_2: 0.010992 ss: 0.963478	L_2: 0.009785 ss: 0.974119	L_2: 0.053468 ss: 0.884442	L_2: 0.014101 ss: 0.980241
brass							
	Training BRDF	L_2: 0.109247 ss: 0.809906	L_2: 0.034378 ss: 0.875335	L_2: 0.011813 ss: 0.965002	L_2: 0.011450 ss: 0.970392	L_2: 0.036857 ss: 0.890152	L_2: 0.016031 ss: 0.966244
chrome							
		L_2: 0.038555 ss: 0.902465	L_2: 0.041371 ss: 0.879025	L_2: 0.021593 ss: 0.972071	L_2: 0.021446 ss: 0.950898	L_2: 0.042031 ss: 0.925449	L_2: 0.027624 ss: 0.933305


gold-metallic-paint
Training BRDF
L_2: 0.248043 ss: 0.829761
L_2: 0.057450 ss: 0.908062
L_2: 0.028715 ss: 0.972846
L_2: 0.044440 ss: 0.923609
L_2: 0.089165 ss: 0.870058
L_2: 0.023979 ss: 0.981244
gold-metallic-paint2
L_2: 0.128286 ss: 0.797680
L_2: 0.030368 ss: 0.937596
L_2: 0.028399 ss: 0.959021
L_2: 0.047694 ss: 0.938620
L_2: 0.079292 ss: 0.842680
L_2: 0.049553 ss: 0.968386
gold-paint
L_2: 0.118155 ss: 0.897278
L_2: 0.016980 ss: 0.988808
L_2: 0.014025 ss: 0.994293
L_2: 0.013388 ss: 0.989502
L_2: 0.022800 ss: 0.992360
L_2: 0.008275 ss: 0.996843
green-metallic-paint
L_2: 0.055009 ss: 0.843032
L_2: 0.013768 ss: 0.956628
L_2: 0.017174 ss: 0.959030
L_2: 0.012819 ss: 0.944674
L_2: 0.010036 ss: 0.976063
L_2: 0.010361 ss: 0.969954
green-metallic-paint2
L_2: 0.022218 ss: 0.876922
L_2: 0.014018 ss: 0.893310
L_2: 0.010406 ss: 0.937521
L_2: 0.009469 ss: 0.955577
L_2: 0.017268 ss: 0.924635
L_2: 0.007272 ss: 0.979111
hematite
L_2: 0.138697 ss: 0.672373
L_2: 0.015206 ss: 0.881387
L_2: 0.007662 ss: 0.957260
L_2: 0.005826 ss: 0.972998
L_2: 0.012913 ss: 0.926417
L_2: 0.004453 ss: 0.970949
nickel
Training BRDF
L_2: 0.162464 ss: 0.818395
L_2: 0.030642 ss: 0.929767
L_2: 0.053191 ss: 0.905709
L_2: 0.018494 ss: 0.965202
L_2: 0.094610 ss: 0.911030
L_2: 0.027828 ss: 0.977902


red-metallic-paint
Training BRDF
L_2: 0.047084 ss: 0.833108
L_2: 0.040161 ss: 0.879087
L_2: 0.018846 ss: 0.961491
L_2: 0.014544 ss: 0.972420
L_2: 0.064134 ss: 0.832347
L_2: 0.017634 ss: 0.975355
silver-metallic-paint2
L_2: N.A. ss: N.A.
L_2: 0.107842 ss: 0.910845
L_2: 0.082169 ss: 0.959051
L_2: 0.089202 ss: 0.928848
L_2: 0.204731 ss: 0.780259
L_2: 0.066566 ss: 0.960144
silver-paint
L_2: 0.135206 ss: 0.896462
L_2: 0.022441 ss: 0.987118
L_2: 0.019090 ss: 0.990850
L_2: 0.018529 ss: 0.986307
L_2: 0.033144 ss: 0.987619
L_2: 0.011711 ss: 0.995706
steel
Training BRDF
L_2: 0.049557 ss: 0.836990
L_2: 0.037937 ss: 0.871876
L_2: 0.017551 ss: 0.962440
L_2: 0.017414 ss: 0.945810
L_2: 0.040867 ss: 0.871641
L_2: 0.018583 ss: 0.928832
tungsten-carbide
L_2: 0.085936 ss: 0.736661
L_2: 0.029125 ss: 0.890214
L_2: 0.013549 ss: 0.976174
L_2: 0.015162 ss: 0.953047
L_2: 0.041256 ss: 0.845792
L_2: 0.016960 ss: 0.936628
two-layer-gold
L_2: N.A. ss: N.A.
L_2: 0.036503 ss: 0.936832
L_2: 0.027223 ss: 0.962585
L_2: 0.037479 ss: 0.950498
L_2: 0.117367 ss: 0.853119
L_2: 0.106211 ss: 0.872243

Material		p0	p1	ρ_d	ρ_s	R_0
alum-bronze	R	8.00171588e-03	4.19794941e+00	5.65264635e-02	3.74871674e+01	3.17699611e-02
	G	6.35893494e-02	8.86606351e-02	4.81803045e-02	4.45117712e+00	2.26011202e-02
	B	1.18802890e-01	1.94478892e-02	4.08938751e-02	2.52963471e+00	1.14359213e-02
aluminium	R	1.71058744e-01	7.00091594e-04	1.07523398e-02	2.69462967e+00	7.95995221e-02
	G	1.12035222e-01	8.49482429e-04	6.43406482e-03	2.10789776e+00	9.57562476e-02
	B	9.03708637e-02	1.52439461e-03	6.41144114e-03	2.19940352e+00	9.75151658e-02
black-oxidized-steel	R	1.63827670e+00	2.57017881e-01	1.64584480e-02	2.82886219e+00	1.37658557e-02
	G	1.62089586e+00	2.67788678e-01	1.46239344e-02	2.68154502e+00	1.42843407e-02
	B	1.60199356e+00	2.77174771e-01	1.36076203e-02	2.58788347e+00	1.43735530e-02
blue-metallic-paint	R	7.63933882e-02	8.15863609e+00	9.07639190e-08	3.99782634e+00	1.37257531e-01
	G	6.96311593e-02	9.49999237e+00	6.12103435e-08	4.08066797e+00	1.44624710e-01
	B	6.86377510e-02	8.66485977e+00	7.59650831e-08	2.20121026e+00	6.31514549e-01
blue-metallic-paint2	R	2.32418224e-01	2.23279791e-03	3.66107235e-03	2.05366254e+00	3.77248302e-02
	G	1.90401524e-01	2.07896484e-03	2.17634835e-03	2.22733879e+00	5.09121120e-02
	B	1.67854980e-01	2.34060595e-03	1.73632707e-03	3.53512812e+00	6.03271127e-02
brass	R	1.97340682e-01	7.09422689e-04	1.67645290e-02	3.22688103e+00	5.53844348e-02
	G	1.42746255e-01	8.40428809e-04	1.34621561e-02	1.95527732e+00	5.23190163e-02
	B	1.10965975e-01	6.53642113e-04	1.12142703e-02	1.64860260e+00	3.00045051e-02
chrome	R	1.96899549e-04	2.24271851e+02	3.16028199e-08	1.14913892e+03	1.47492096e-01
	G	3.90617311e-01	4.51234169e-04	4.08823323e-03	2.93425045e+01	2.17490885e-02
	B	1.56656417e-04	2.76937317e+02	1.15585188e-07	2.02961145e+03	9.30206776e-02
gold-metallic-paint	R	9.34426561e-02	1.16248274e+01	7.99422029e-10	3.41846395e+00	9.62338686e-01
	G	8.24961066e-02	1.08106737e+01	9.64233473e-42	3.23118162e+00	6.10600591e-01
	B	7.23977312e-02	9.75800610e+00	1.37340045e-03	4.81447554e+00	1.13828883e-01
gold-metallic-paint2	R	3.20986271e-01	6.74728379e-02	4.18519713e-02	1.02593732e+00	1.83879435e-01
	G	3.17105025e-01	5.93169816e-02	3.77979912e-02	9.27758276e-01	1.71043083e-01
	B	3.01450584e-03	4.80581543e+03	1.93166137e-02	1.70889683e-02	6.62121250e+05
gold-paint	R	7.51551762e-02	4.51352072e+00	1.31478608e-01	5.19236326e+00	1.34402692e-01
	G	7.32655451e-02	4.73301888e+00	6.94370791e-02	5.63032055e+00	9.72056538e-02
	B	6.27864599e-02	4.75204659e+00	2.62077339e-02	6.26599550e+00	4.46595140e-02
green-metallic-paint	R	1.60001373e+00	1.70833319e-01	5.51544782e-03	4.18717432e+00	2.04972792e-02
	G	1.16847730e+00	1.81215450e-01	2.41621751e-02	2.96665120e+00	5.85466921e-02
	B	1.13412988e+00	1.80783808e-01	3.07431649e-02	2.93438196e+00	6.19875304e-02
green-metallic-paint2	R	1.95855111e-01	2.82302452e-03	2.08054762e-03	1.52214670e+00	2.02877503e-02
	G	9.38895741e-04	1.79701489e+03	1.79987168e-07	3.03367920e+03	3.56657386e-01
	B	1.28889844e-01	3.70912743e-03	1.58333735e-09	1.61237955e+00	2.67149638e-02
hematite	R	1.44654825e-01	7.97542802e-04	5.40583255e-03	1.55005789e+00	3.38786989e-02
	G	6.50987998e-02	1.61787460e-03	3.53113376e-03	1.75887918e+00	3.95732895e-02
	B	5.00655808e-02	2.62869056e-03	2.98413890e-03	2.17058873e+00	4.11638021e-02
nickel	R	5.77710450e-01	1.60390940e-02	1.08855823e-02	6.62596321e+00	1.04161747e-01
	G	6.26551270e-01	1.85976028e-02	1.07037015e-02	7.05127144e+00	9.26779285e-02
	B	6.89258337e-01	2.19033025e-02	1.12291304e-02	7.74890566e+00	8.02676231e-02
red-metallic-paint	R	2.25111912e-03	6.23741722e+00	4.94730985e-03	1.27519646e+02	6.24192283e-02
	G	1.19101100e-01	2.15154281e-03	8.30388046e-04	1.73736060e+00	1.99374314e-02
	B	1.03196874e-01	2.01662909e-03	8.11158486e-13	1.65496004e+00	1.18734529e-02
silver-metallic-paint2	R	1.09851584e-01	9.73263836e+00	2.06378773e-02	1.91052794e-01	1.74056282e+01
	G	1.18245356e-01	9.33317757e+00	2.27730609e-02	3.16430360e-01	9.34748173e+00
	B	1.23165317e-01	8.81589890e+00	2.51338221e-02	4.46353048e-01	5.67160654e+00
silver-paint	R	7.29676038e-02	4.57460880e+00	1.37704059e-01	6.34089947e+00	1.30341247e-01
	G	7.00597763e-02	4.75710917e+00	1.08273000e-01	6.50533581e+00	1.35977685e-01
	B	6.70222789e-02	5.08100891e+00	9.21016708e-02	6.86829424e+00	1.37886271e-01
steel	R	2.12909319e-04	2.58003662e+02	8.24456848e-03	1.21094739e+03	1.41575068e-01
	G	1.72602668e-04	1.19570081e+03	4.19176881e-11	5.20445410e+03	1.71462655e-01
	B	2.72295962e-04	5.35636536e+02	8.01540848e-11	1.79728918e+03	1.39677703e-01

RGB Parameters for genBRDF 041-001134

Material		p0	p1	ρ_d	ρ_s	R_0
tungsten-carbide	R	2.64623202e-04	2.32255447e+02	2.22591989e-05	7.74517883e+02	1.47961691e-01
	G	2.09590682e-04	2.58763977e+02	6.71443704e-05	9.71590454e+02	1.20831244e-01
	B	1.48033170e-04	3.09839783e+02	2.43018288e-03	2.07276074e+03	8.68225321e-02
two-layer-gold	R	5.37429145e-03	2.51593188e+03	5.18514582e-07	3.98775190e-01	1.87406895e+04
	G	4.15171264e-03	3.87217603e+03	2.30146952e-07	6.39952481e-01	1.94980156e+04
	B	4.53911023e-03	2.71994824e+03	1.60770853e-07	2.74783403e-01	2.11255723e+04

RGB Parameters for genBRDF 041-001134

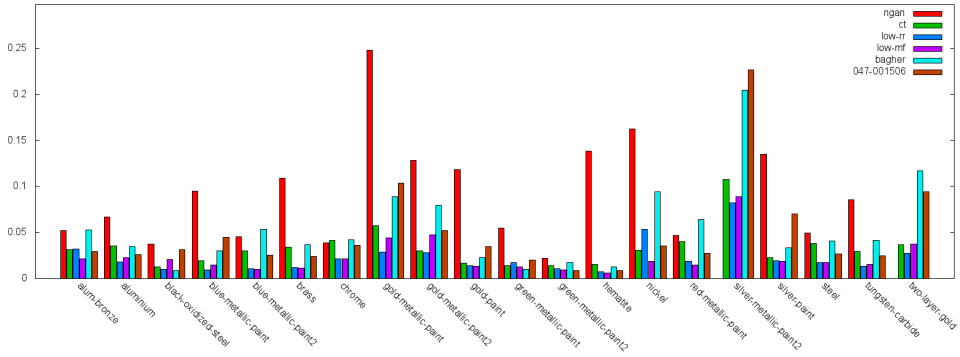
047-001506

Fitness: 0.000108340191

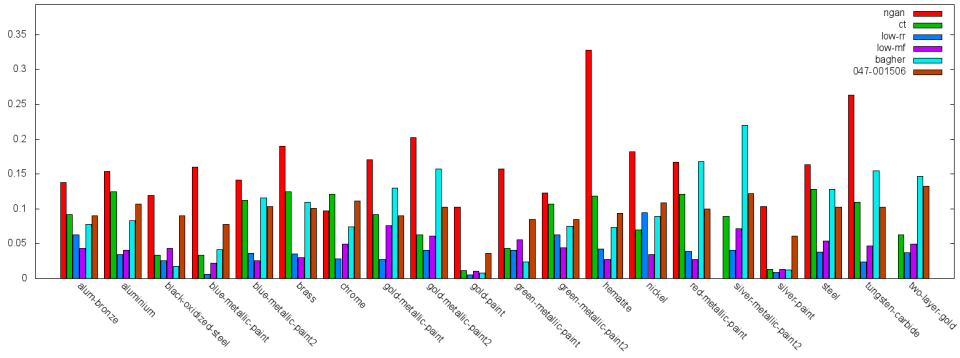
Length: 241

Reciprocity Error: 6.44244753e-14

$$f'_n(\omega_i, \omega_o) = \left[\left([p_0 * e^{-\left(\left(\frac{tan(cos^{-1}(clamp(\omega_{hz})))}{p_1}\right)^{p_0}\right)}\right] / \left[\left(\left(\frac{tan(cos^{-1}(clamp(\omega_{hz})))}{p_0}\right)^{2.0} + [p_1 * 1.0]\right) * p_0\right]\right) * \min(1.0, \min(1.0, \frac{(\omega_o \cdot \omega_h)}{\left(p_1 * tan(cos^{-1}(clamp(\omega_{hz})))\right)}))\right]$$

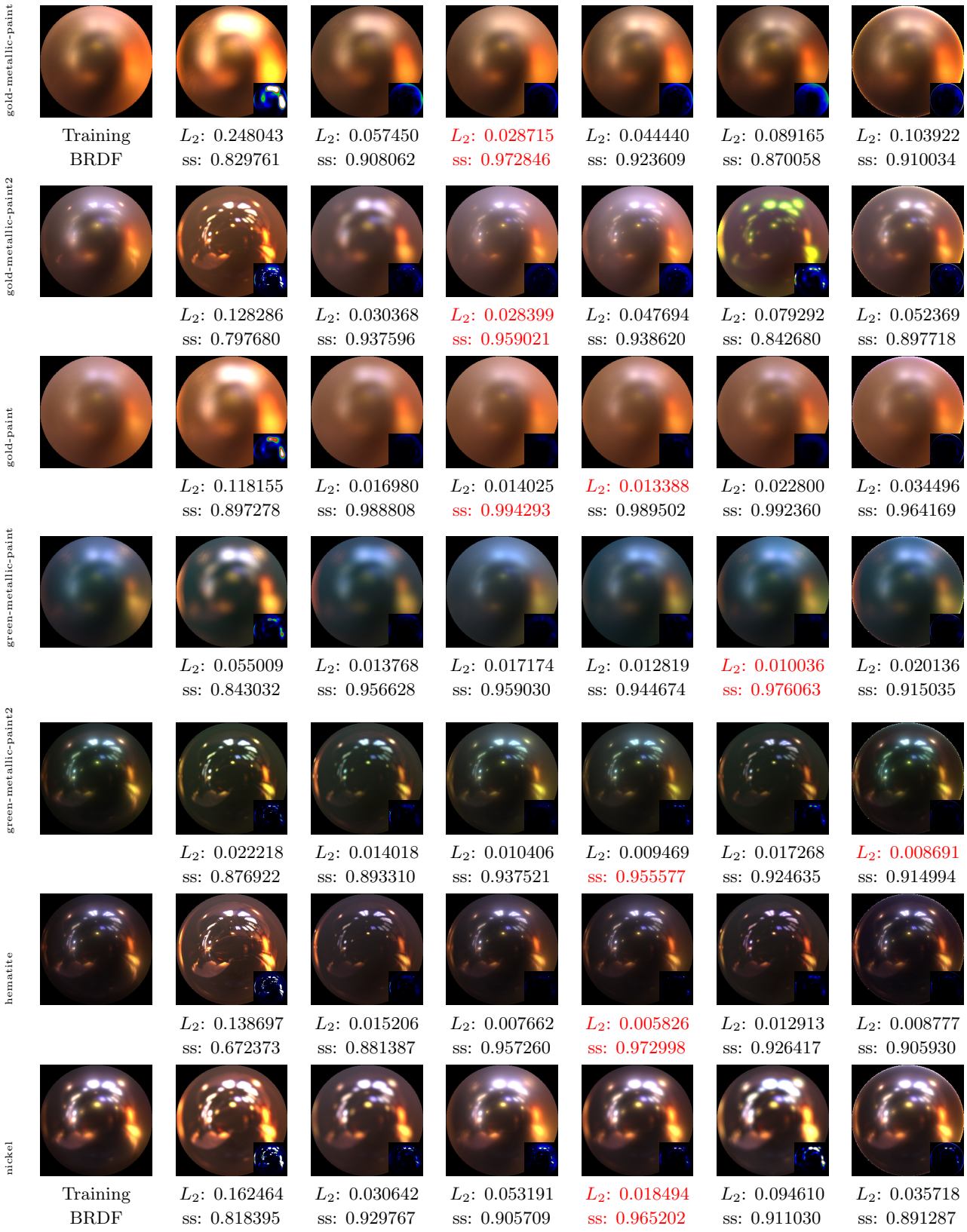


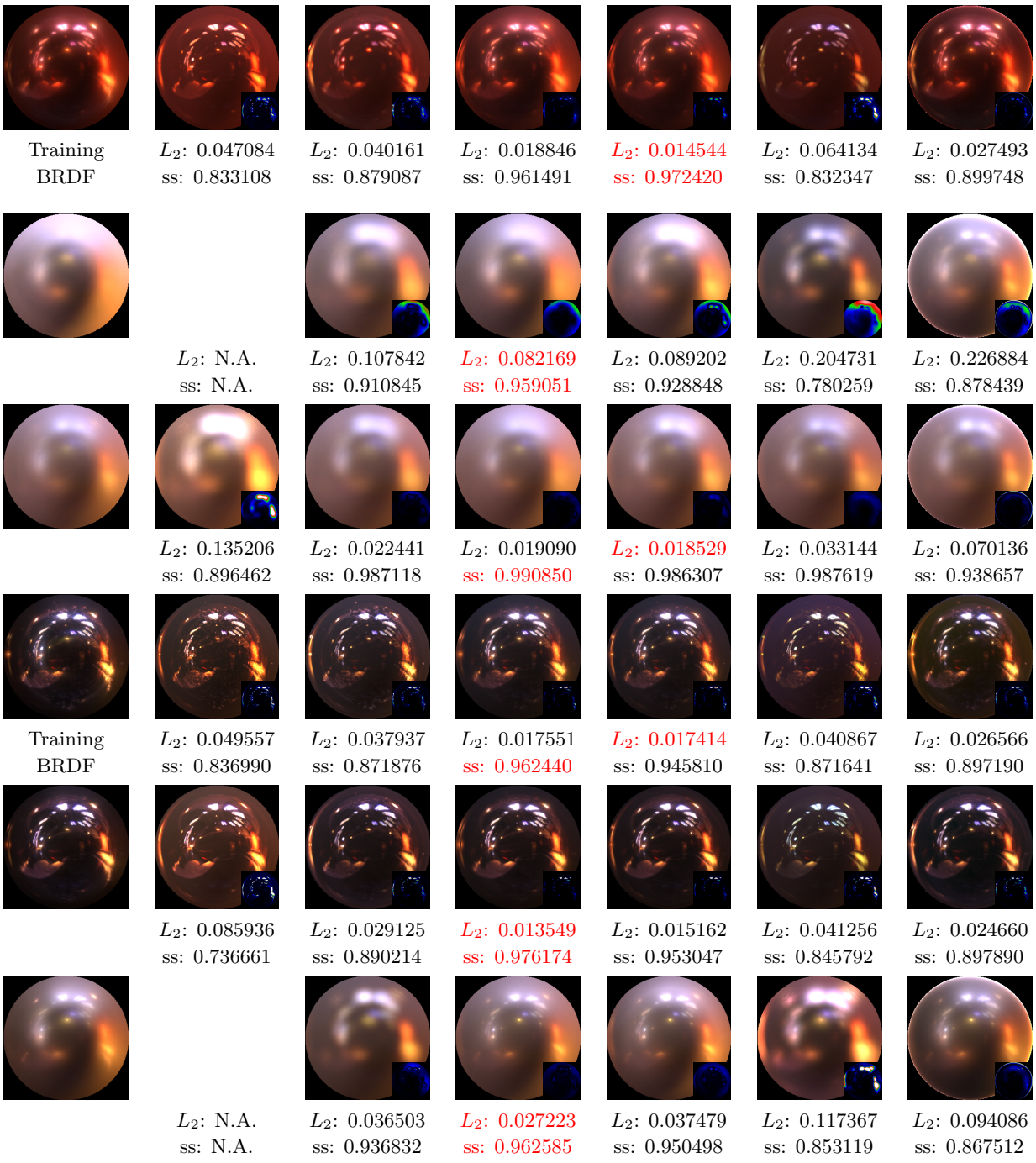
L_2 error.



SSIM error (= 100% - ssim).

	MERL	CT(Ngan) 0(0)/0(1)	CT(E_2 fit) 0(10)/0(9)	Löw SS 7(17)/11(20)	Löw MF 10(19)/7(20)	Bagher 2(7)/2(11)	genBRDF 1/0
alum-bronze		L_2: 0.052284 ss: 0.862223	L_2: 0.031392 ss: 0.907766	L_2: 0.032159 ss: 0.937667	L_2: 0.021146 ss: 0.956962	L_2: 0.053167 ss: 0.922395	L_2: 0.029262 ss: 0.910104
aluminium	Training BRDF	L_2: 0.067099 ss: 0.846399	L_2: 0.035146 ss: 0.875113	L_2: 0.018044 ss: 0.965309	L_2: 0.022431 ss: 0.959087	L_2: 0.034724 ss: 0.917355	L_2: 0.026277 ss: 0.893360
black-oxidized-steel		L_2: 0.037563 ss: 0.881117	L_2: 0.012395 ss: 0.966402	L_2: 0.009959 ss: 0.974466	L_2: 0.021000 ss: 0.956823	L_2: 0.009017 ss: 0.982697	L_2: 0.031636 ss: 0.909580
blue-metallic-paint	Training BRDF	L_2: 0.094791 ss: 0.840025	L_2: 0.019657 ss: 0.966125	L_2: 0.009161 ss: 0.993984	L_2: 0.015014 ss: 0.978181	L_2: 0.030206 ss: 0.958517	L_2: 0.044998 ss: 0.922251
blue-metallic-paint2	Training BRDF	L_2: 0.045753 ss: 0.859062	L_2: 0.030359 ss: 0.888022	L_2: 0.010992 ss: 0.963478	L_2: 0.009785 ss: 0.974119	L_2: 0.053468 ss: 0.884442	L_2: 0.025405 ss: 0.896714
brass	Training BRDF	L_2: 0.109247 ss: 0.809906	L_2: 0.034378 ss: 0.875335	L_2: 0.011813 ss: 0.965002	L_2: 0.011450 ss: 0.970392	L_2: 0.036857 ss: 0.890152	L_2: 0.024081 ss: 0.899685
chrome		L_2: 0.038555 ss: 0.902465	L_2: 0.041371 ss: 0.879025	L_2: 0.021593 ss: 0.972071	L_2: 0.021446 ss: 0.950898	L_2: 0.042031 ss: 0.925449	L_2: 0.036193 ss: 0.888279


gold-metallic-paint
Training BRDF
L_2: 0.248043 ss: 0.829761
L_2: 0.057450 ss: 0.908062
L_2: 0.028715 ss: 0.972846
L_2: 0.044440 ss: 0.923609
L_2: 0.089165 ss: 0.870058
L_2: 0.103922 ss: 0.910034
gold-metallic-paint2
L_2: 0.128286 ss: 0.797680
L_2: 0.030368 ss: 0.937596
L_2: 0.028399 ss: 0.959021
L_2: 0.047694 ss: 0.938620
L_2: 0.079292 ss: 0.842680
L_2: 0.052369 ss: 0.897718
gold-paint
L_2: 0.118155 ss: 0.897278
L_2: 0.016980 ss: 0.988808
L_2: 0.014025 ss: 0.994293
L_2: 0.013388 ss: 0.989502
L_2: 0.022800 ss: 0.992360
L_2: 0.034496 ss: 0.964169
green-metallic-paint
L_2: 0.055009 ss: 0.843032
L_2: 0.013768 ss: 0.956628
L_2: 0.017174 ss: 0.959030
L_2: 0.012819 ss: 0.944674
L_2: 0.010036 ss: 0.976063
L_2: 0.020136 ss: 0.915035
green-metallic-paint2
L_2: 0.022218 ss: 0.876922
L_2: 0.014018 ss: 0.893310
L_2: 0.010406 ss: 0.937521
L_2: 0.009469 ss: 0.955577
L_2: 0.017268 ss: 0.924635
L_2: 0.008691 ss: 0.914994
hematite
L_2: 0.138697 ss: 0.672373
L_2: 0.015206 ss: 0.881387
L_2: 0.007662 ss: 0.957260
L_2: 0.005826 ss: 0.972998
L_2: 0.012913 ss: 0.926417
L_2: 0.008777 ss: 0.905930
nickel
Training BRDF
L_2: 0.162464 ss: 0.818395
L_2: 0.030642 ss: 0.929767
L_2: 0.053191 ss: 0.905709
L_2: 0.018494 ss: 0.965202
L_2: 0.094610 ss: 0.911030
L_2: 0.035718 ss: 0.891287


red-metallic-paint
Training BRDF
L_2: 0.047084 ss: 0.833108
L_2: 0.040161 ss: 0.879087
L_2: 0.018846 ss: 0.961491
L_2: 0.014544 ss: 0.972420
L_2: 0.064134 ss: 0.832347
L_2: 0.027493 ss: 0.899748
silver-metallic-paint2
L_2: N.A. ss: N.A.
L_2: 0.107842 ss: 0.910845
L_2: 0.082169 ss: 0.959051
L_2: 0.089202 ss: 0.928848
L_2: 0.204731 ss: 0.780259
L_2: 0.226884 ss: 0.878439
silver-paint
L_2: 0.135206 ss: 0.896462
L_2: 0.022441 ss: 0.987118
L_2: 0.019090 ss: 0.990850
L_2: 0.018529 ss: 0.986307
L_2: 0.033144 ss: 0.987619
L_2: 0.070136 ss: 0.938657
steel
Training BRDF
L_2: 0.049557 ss: 0.836990
L_2: 0.037937 ss: 0.871876
L_2: 0.017551 ss: 0.962440
L_2: 0.017414 ss: 0.945810
L_2: 0.040867 ss: 0.871641
L_2: 0.026566 ss: 0.897190
tungsten-carbide
L_2: 0.085936 ss: 0.736661
L_2: 0.029125 ss: 0.890214
L_2: 0.013549 ss: 0.976174
L_2: 0.015162 ss: 0.953047
L_2: 0.041256 ss: 0.845792
L_2: 0.024660 ss: 0.897890
two-layer-gold
L_2: N.A. ss: N.A.
L_2: 0.036503 ss: 0.936832
L_2: 0.027223 ss: 0.962585
L_2: 0.037479 ss: 0.950498
L_2: 0.117367 ss: 0.853119
L_2: 0.094086 ss: 0.867512

Material		p0	p1	ρ_d	ρ_s	R_0
alum-bronze	R	9.11931135e-03	3.82559085e+00	5.86505942e-02	8.16145569e+02	1.30150482e-01
	G	9.55773983e-03	4.23966646e+00	4.91773598e-02	7.84483643e+02	8.60654116e-02
	B	7.52498908e-03	4.46029949e+00	3.99575643e-02	1.25531921e+03	4.45603058e-02
aluminium	R	1.92438379e-01	7.06608698e-04	1.20808082e-02	7.73997903e-01	1.28037226e+00
	G	8.79319967e-04	7.07766438e+00	9.70517937e-03	2.77261992e+04	5.14849067e-01
	B	8.91386240e-04	8.30567993e+02	2.23087445e-02	1.01833520e+07	8.73170048e-02
black-oxidized-steel	R	1.73733890e-01	1.85753214e+00	4.51470492e-03	3.91868091e+00	8.21681395e-02
	G	1.84302405e-01	1.84299910e+00	2.66269571e-03	3.44554973e+00	8.66490677e-02
	B	1.94523185e-01	1.79522920e+00	1.63278275e-03	3.06522846e+00	8.91860127e-02
blue-metallic-paint	R	1.09972823e+00	1.93130776e-01	8.67740996e-03	2.16042693e-07	3.86947781e+05
	G	1.05545926e+00	1.82060048e-01	6.15486037e-03	2.14257213e-07	3.73822125e+05
	B	1.10044256e-01	7.21149492e+00	2.74376077e-10	8.94480851e-04	1.25380400e+04
blue-metallic-paint2	R	2.58302927e-01	2.16515060e-03	4.50414279e-03	1.20625520e+00	2.35716417e-01
	G	2.21740268e-03	5.72575140e+00	1.84832496e-13	6.79435107e+03	2.52668262e-01
	B	1.88520804e-01	2.16080854e-03	1.99547780e-04	1.21404338e+00	8.31881523e-01
brass	R	2.07193196e-01	7.08496722e-04	1.64804999e-02	1.44856858e+00	5.38400292e-01
	G	1.62002623e-01	7.67753460e-04	1.34230815e-02	1.28740180e+00	4.35043603e-01
	B	8.54536833e-04	5.82906437e+00	7.30205738e-06	3.18468672e+04	1.29656360e-01
chrome	R	4.05874431e-01	5.83912304e-04	3.51057760e-03	1.10781469e+01	1.43830016e-01
	G	3.86309355e-01	4.35404159e-04	3.16533004e-03	1.41596670e+01	1.05167814e-01
	B	3.83331120e-01	4.37260867e-04	3.51886009e-03	1.65454140e+01	7.94060901e-02
gold-metallic-paint	R	1.26143441e-01	1.63490736e+00	6.73312499e-08	6.26169276e-06	6.37973875e+05
	G	1.14486590e-01	1.86368549e+00	9.78323200e-08	4.95774975e-06	6.60795875e+05
	B	8.81049335e-01	1.82423517e-01	4.02221130e-03	1.73620954e-02	4.55851746e+00
gold-metallic-paint2	R	3.61511171e-01	4.65782173e-02	5.49760088e-02	2.84328951e-08	1.28257850e+07
	G	3.44733149e-01	4.18680981e-02	4.79970425e-02	2.53608565e-08	1.27785360e+07
	B	1.41593982e-02	2.66571069e+00	4.64264825e-02	4.60299416e+01	1.08961523e+00
gold-paint	R	1.10521662e+00	1.71082839e-01	1.67483911e-01	9.45331063e-03	1.62992344e+01
	G	1.14435804e+00	1.72751501e-01	9.58028808e-02	7.59956390e-02	1.58970582e+00
	B	1.01180933e-01	1.73094344e+00	2.30325609e-02	5.12654448e+00	2.50464976e-01
green-metallic-paint	R	1.48198509e+00	1.51132107e-01	5.03952056e-03	3.82663637e-01	1.41351268e-01
	G	1.25364912e+00	1.61940679e-01	3.20886672e-02	1.99989259e-01	5.76118469e-01
	B	1.23276770e+00	1.61753535e-01	3.96875031e-02	1.90118611e-01	6.46355033e-01
green-metallic-paint2	R	2.07292638e-03	2.65836121e+02	2.86893710e-03	6.19819125e+05	2.24302839e-02
	G	3.26251658e-03	3.33517480e+00	4.41509146e-05	1.89173547e+03	3.00908417e-01
	B	2.89636338e-03	3.94041538e+00	2.44712894e-04	3.17505664e+03	1.29163668e-01
hematite	R	1.12100737e-03	5.44266176e+00	2.97364822e-09	1.70362578e+04	1.59587160e-01
	G	1.01082656e-03	4.95761490e+00	1.51879908e-06	1.65684219e+04	1.92448750e-01
	B	1.08506891e-03	4.61195183e+00	4.33519576e-03	1.49869189e+04	1.93175703e-01
nickel	R	7.80245569e-03	1.36544657e+01	1.88942977e-06	4.66655029e+03	1.99057505e-01
	G	8.28629080e-03	1.25274315e+01	4.58439700e-07	3.81589355e+03	1.86435044e-01
	B	8.87897518e-03	1.21522865e+01	9.33465572e-08	3.43363110e+03	1.61200181e-01
red-metallic-paint	R	3.45436530e-03	2.74015689e+00	1.62942897e-19	2.43495532e+03	5.30810237e-01
	G	1.99473673e-03	4.16344547e+00	3.13470200e-19	7.41778906e+03	8.69568288e-02
	B	1.68290036e-03	4.30747509e+00	1.83014517e-18	1.05573730e+04	4.62020375e-02
silver-metallic-paint2	R	1.68691874e-01	1.07902222e+01	1.79970376e-02	1.46747893e-28	1.97616020e+29
	G	1.78592667e-01	1.00666180e+01	2.55905874e-02	1.85286064e-28	1.23543293e+29
	B	1.80639923e-01	9.93488407e+00	3.44093069e-02	1.20692192e-28	1.64749445e+29
silver-paint	R	1.03336670e-01	4.47703266e+00	1.48245096e-01	1.58454590e+01	4.15889859e-01
	G	9.78827849e-02	4.21062326e+00	1.18724935e-01	1.35916624e+01	5.03923833e-01
	B	1.03544548e-01	5.48409319e+00	9.74471644e-02	2.37068176e+01	3.73571694e-01
steel	R	3.12867284e-01	3.79173667e-04	1.03498166e-02	6.02941179e+00	1.64566040e-01
	G	2.71889687e-01	2.77182873e-04	1.06105497e-02	4.52827644e+00	1.71643674e-01
	B	5.00702357e-04	1.73308823e+02	5.33803308e-13	3.25197750e+06	3.22573520e-02

RGB Parameters for genBRDF 047-001506

Material		p0	p1	ρ_d	ρ_s	R_0
tungsten-carbide	R	3.92885804e-01	6.65797736e-04	2.40929541e-04	5.98663425e+00	1.66314647e-01
	G	3.60958159e-01	4.76479880e-04	4.17914847e-03	5.81079388e+00	1.40405640e-01
	B	3.49608779e-01	3.52894043e-04	4.77876747e-03	1.16394787e+01	8.22737217e-02
two-layer-gold	R	1.14034340e-02	7.55658997e+02	1.39478288e-04	6.89556438e+05	2.23576456e-01
	G	8.66336562e-03	1.10835742e+03	5.93028404e-03	1.56687100e+06	1.92421958e-01
	B	8.96783639e-03	8.18774353e+02	6.01166114e-03	8.69482500e+05	1.59957916e-01

RGB Parameters for genBRDF 047-001506

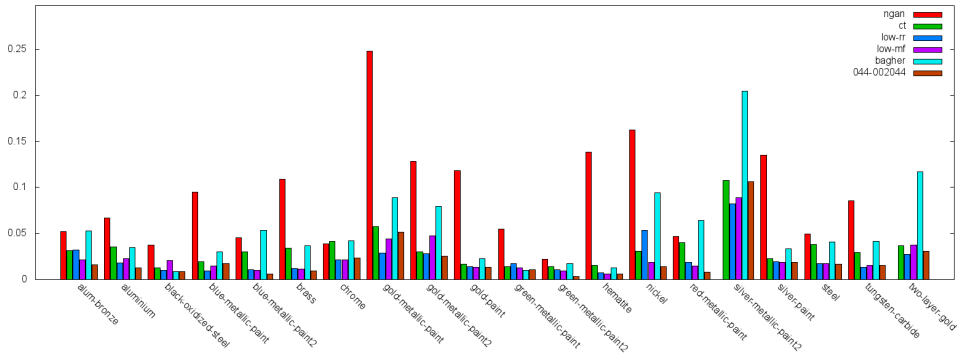
044-002044

Fitness: 0.000108724757

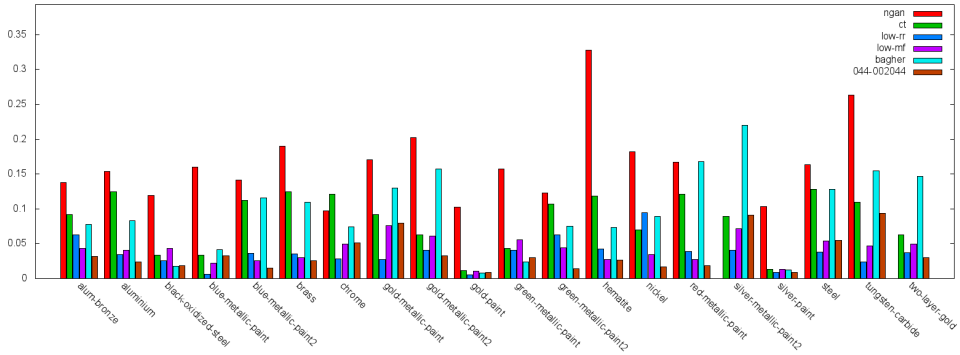
Length: 230

Reciprocity Error: 1.111525526e-14

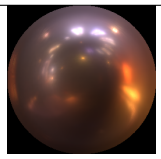
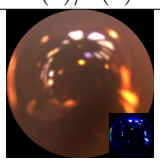
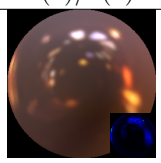
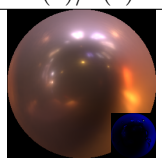
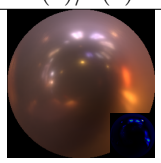
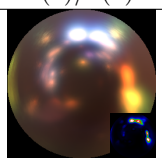
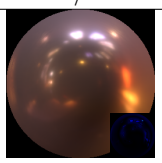
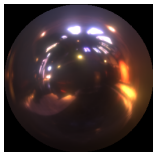
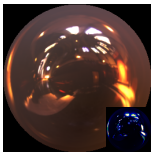
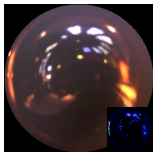
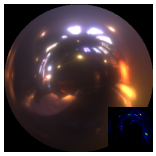
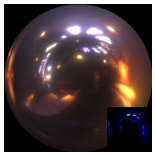
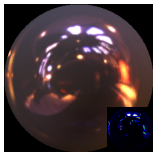
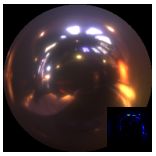
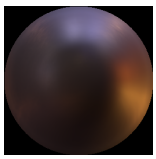
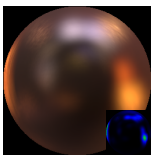
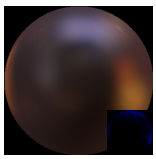
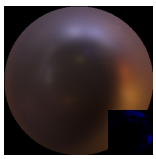
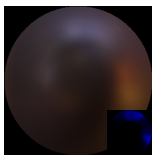
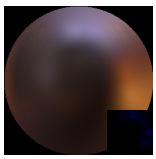
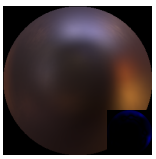
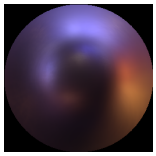
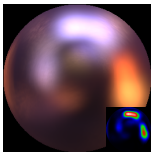
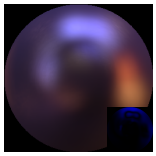
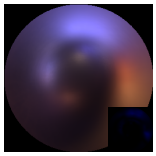
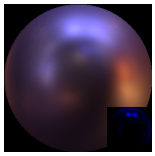
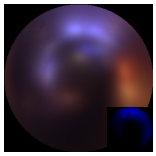
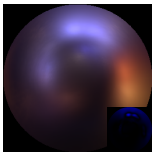
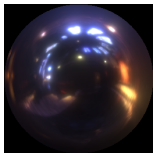
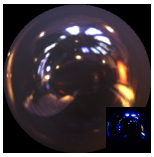
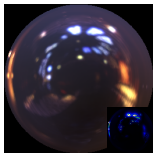
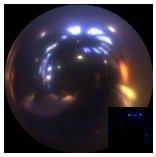
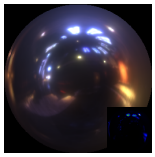
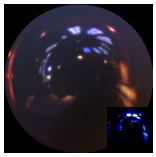
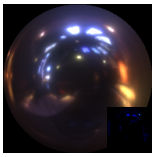
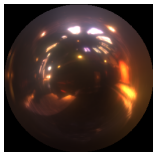
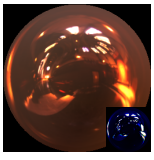
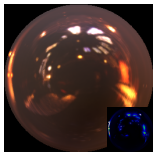
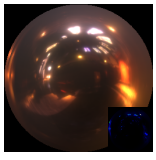
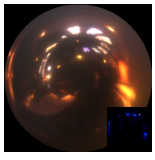
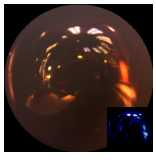
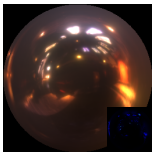
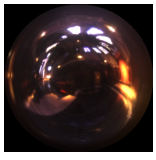
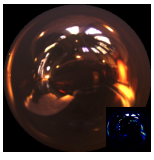
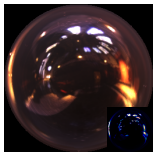
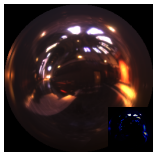
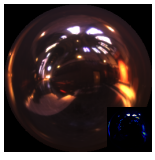
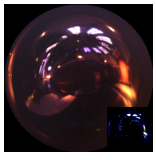
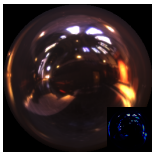
$$f'_n(\omega_i, \omega_o) = \left[\left([p_0 * e^{-\left(\left(\frac{tan(cos^{-1}(clamp(\omega_{hz})))}{p_1}\right)^{p_0}\right)}\right] / \left[\left(\left(\frac{tan(cos^{-1}(clamp(\omega_{hz})))}{p_0}\right)^{2.0} + [p_1 * 1.0]\right) * p_0\right]\right) * \min(1.0, \min(\frac{((2.0 * \omega_{rz}) * \omega_{oz})}{(\omega_o \cdot \omega_h)}, \omega_{hz}))\right]$$

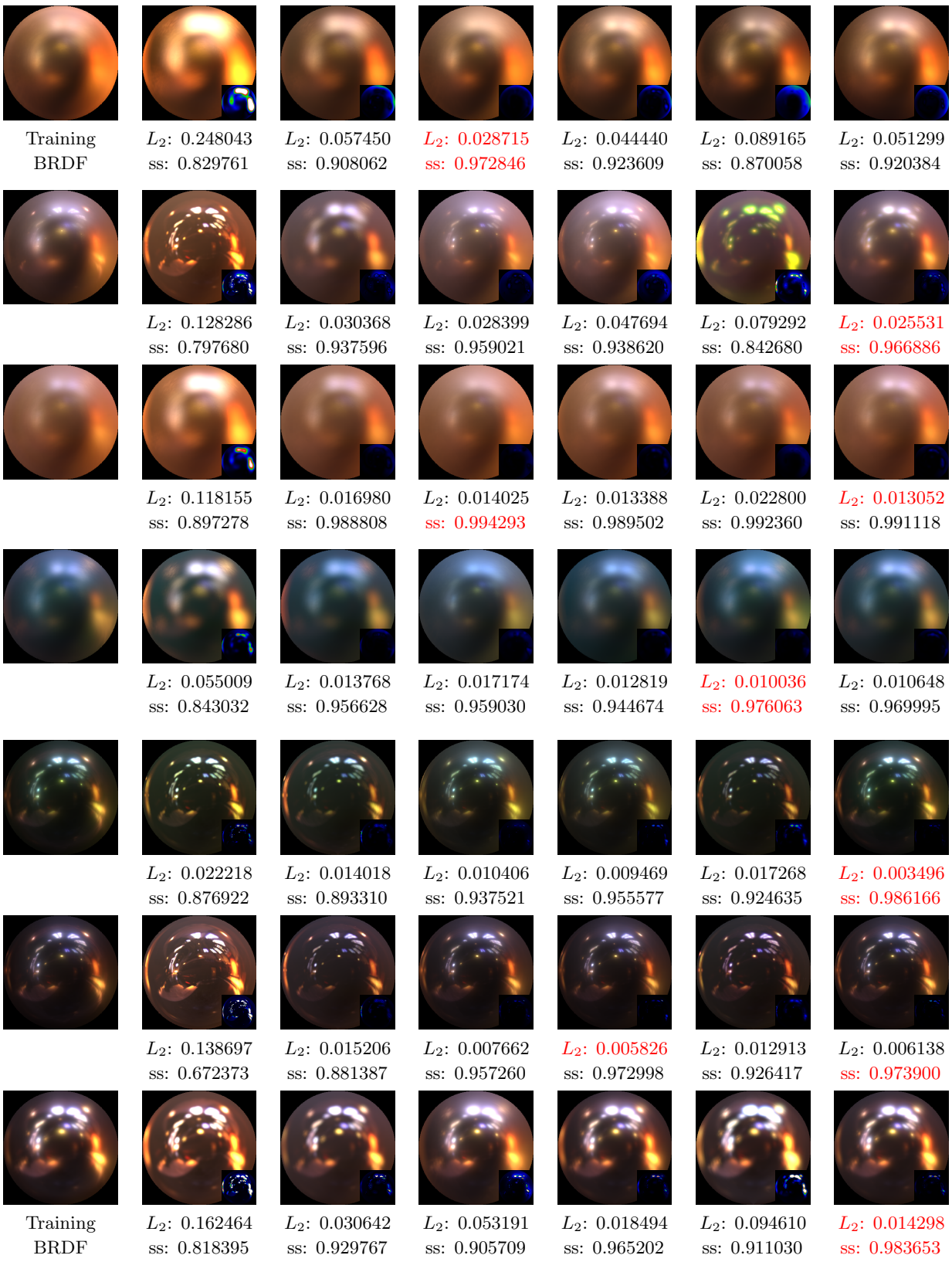


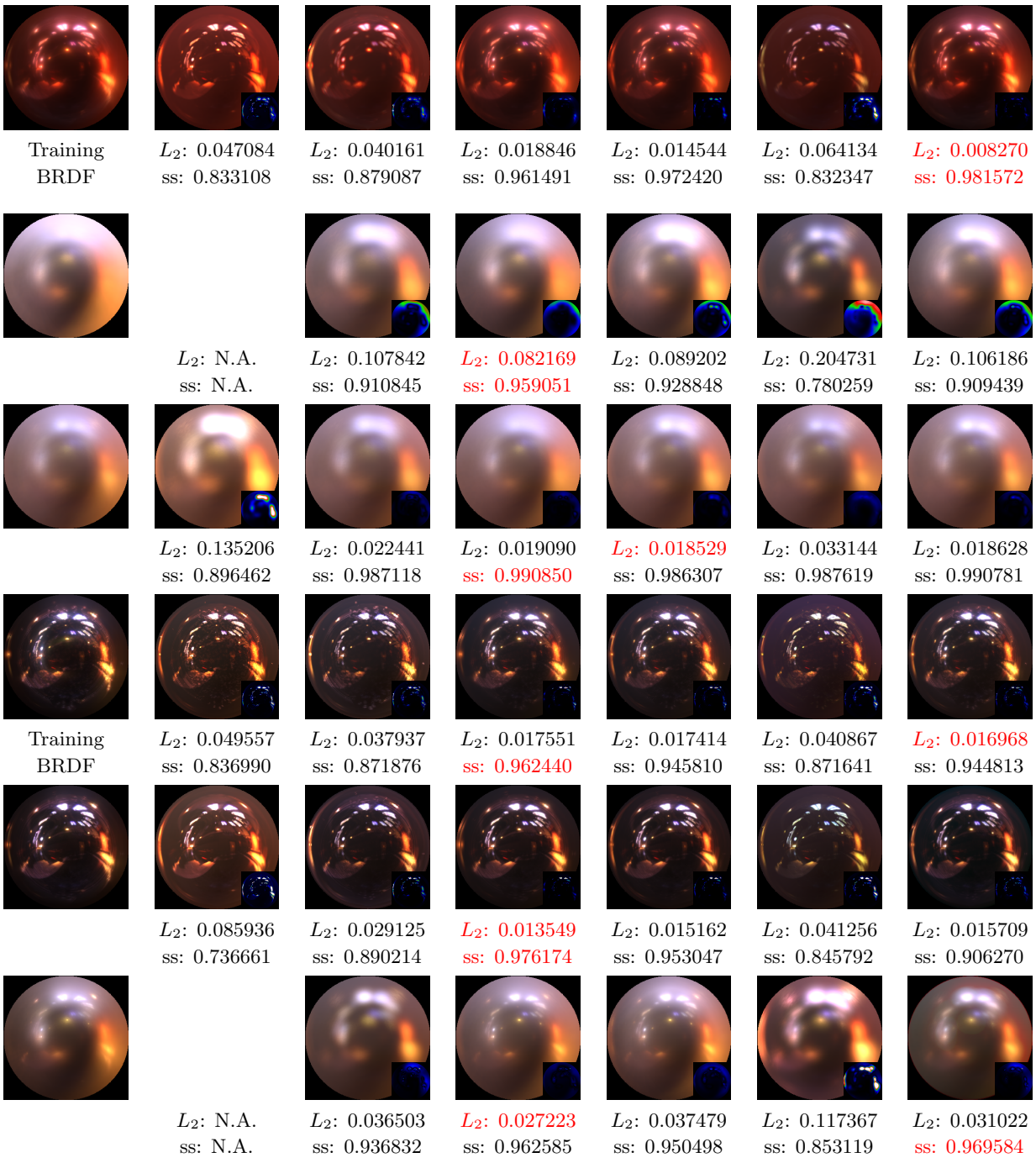
L_2 error.



SSIM error (= 100% - ssim).

	MERL	CT(Ngan) 0(0)/0(0)	CT(E_2 fit) 0(0)/0(1)	Löw SS 5(6)/8(8)	Löw MF 3(7)/0(6)	Bagher 1(1)/2(3)	genBRDF 11/10
alum-bronze		 L_2: 0.052284 ss: 0.862223	 L_2: 0.031392 ss: 0.907766	 L_2: 0.032159 ss: 0.937667	 L_2: 0.021146 ss: 0.956962	 L_2: 0.053167 ss: 0.922395	 L_2: 0.016136 ss: 0.968298
aluminium	 Training BRDF	 L_2: 0.067099 ss: 0.846399	 L_2: 0.035146 ss: 0.875113	 L_2: 0.018044 ss: 0.965309	 L_2: 0.022431 ss: 0.959087	 L_2: 0.034724 ss: 0.917355	 L_2: 0.012809 ss: 0.976314
black-oxidized-steel		 L_2: 0.037563 ss: 0.881117	 L_2: 0.012395 ss: 0.966402	 L_2: 0.009959 ss: 0.974466	 L_2: 0.021000 ss: 0.956823	 L_2: 0.009017 ss: 0.982697	 L_2: 0.008704 ss: 0.981317
blue-metallic-paint	 Training BRDF	 L_2: 0.094791 ss: 0.840025	 L_2: 0.019657 ss: 0.966125	 L_2: 0.009161 ss: 0.993984	 L_2: 0.015014 ss: 0.978181	 L_2: 0.030206 ss: 0.958517	 L_2: 0.017345 ss: 0.967492
blue-metallic-paint2	 Training BRDF	 L_2: 0.045753 ss: 0.859062	 L_2: 0.030359 ss: 0.888022	 L_2: 0.010992 ss: 0.963478	 L_2: 0.009785 ss: 0.974119	 L_2: 0.053468 ss: 0.884442	 L_2: 0.006010 ss: 0.984808
brass	 Training BRDF	 L_2: 0.109247 ss: 0.809906	 L_2: 0.034378 ss: 0.875335	 L_2: 0.011813 ss: 0.965002	 L_2: 0.011450 ss: 0.970392	 L_2: 0.036857 ss: 0.890152	 L_2: 0.009188 ss: 0.974322
chrome		 L_2: 0.038555 ss: 0.902465	 L_2: 0.041371 ss: 0.879025	 L_2: 0.021593 ss: 0.972071	 L_2: 0.021446 ss: 0.950898	 L_2: 0.042031 ss: 0.925449	 L_2: 0.023557 ss: 0.948787


gold-metallic-paint
Training BRDF
L_2: 0.248043 ss: 0.829761
L_2: 0.057450 ss: 0.908062
L_2: 0.028715 ss: 0.972846
L_2: 0.044440 ss: 0.923609
L_2: 0.089165 ss: 0.870058
L_2: 0.051299 ss: 0.920384
gold-metallic-paint2
L_2: 0.128286 ss: 0.797680
L_2: 0.030368 ss: 0.937596
L_2: 0.028399 ss: 0.959021
L_2: 0.047694 ss: 0.938620
L_2: 0.079292 ss: 0.842680
L_2: 0.025531 ss: 0.966886
gold-paint
L_2: 0.118155 ss: 0.897278
L_2: 0.016980 ss: 0.988808
L_2: 0.014025 ss: 0.994293
L_2: 0.013388 ss: 0.989502
L_2: 0.022800 ss: 0.992360
L_2: 0.013052 ss: 0.991118
green-metallic-paint
L_2: 0.055009 ss: 0.843032
L_2: 0.013768 ss: 0.956628
L_2: 0.017174 ss: 0.959030
L_2: 0.012819 ss: 0.944674
L_2: 0.010036 ss: 0.976063
L_2: 0.010648 ss: 0.969995
green-metallic-paint2
L_2: 0.022218 ss: 0.876922
L_2: 0.014018 ss: 0.893310
L_2: 0.010406 ss: 0.937521
L_2: 0.009469 ss: 0.955577
L_2: 0.017268 ss: 0.924635
L_2: 0.003496 ss: 0.986166
hematite
L_2: 0.138697 ss: 0.672373
L_2: 0.015206 ss: 0.881387
L_2: 0.007662 ss: 0.957260
L_2: 0.005826 ss: 0.972998
L_2: 0.012913 ss: 0.926417
L_2: 0.006138 ss: 0.973900
nickel
Training BRDF
L_2: 0.162464 ss: 0.818395
L_2: 0.030642 ss: 0.929767
L_2: 0.053191 ss: 0.905709
L_2: 0.018494 ss: 0.965202
L_2: 0.094610 ss: 0.911030
L_2: 0.014298 ss: 0.983653


red-metallic-paint
Training BRDF
L_2: 0.047084 ss: 0.833108
L_2: 0.040161 ss: 0.879087
L_2: 0.018846 ss: 0.961491
L_2: 0.014544 ss: 0.972420
L_2: 0.064134 ss: 0.832347
L_2: 0.008270 ss: 0.981572
silver-metallic-paint2
L_2: N.A. ss: N.A.
L_2: 0.107842 ss: 0.910845
L_2: 0.082169 ss: 0.959051
L_2: 0.089202 ss: 0.928848
L_2: 0.204731 ss: 0.780259
L_2: 0.106186 ss: 0.909439
silver-paint
L_2: 0.135206 ss: 0.896462
L_2: 0.022441 ss: 0.987118
L_2: 0.019090 ss: 0.990850
L_2: 0.018529 ss: 0.986307
L_2: 0.033144 ss: 0.987619
L_2: 0.018628 ss: 0.990781
steel
Training BRDF
L_2: 0.049557 ss: 0.836990
L_2: 0.037937 ss: 0.871876
L_2: 0.017551 ss: 0.962440
L_2: 0.017414 ss: 0.945810
L_2: 0.040867 ss: 0.871641
L_2: 0.016968 ss: 0.944813
tungsten-carbide
L_2: 0.085936 ss: 0.736661
L_2: 0.029125 ss: 0.890214
L_2: 0.013549 ss: 0.976174
L_2: 0.015162 ss: 0.953047
L_2: 0.041256 ss: 0.845792
L_2: 0.015709 ss: 0.906270
two-layer-gold
L_2: N.A. ss: N.A.
L_2: 0.036503 ss: 0.936832
L_2: 0.027223 ss: 0.962585
L_2: 0.037479 ss: 0.950498
L_2: 0.117367 ss: 0.853119
L_2: 0.031022 ss: 0.969584

Material		p0	p1	ρ_d	ρ_s	R_0
alum-bronze	R	4.36187140e-04	1.38649304e+03	5.30067533e-02	6.78165688e+05	6.52528852e-02
	G	4.09976281e-02	2.02084228e-01	4.59708311e-02	7.11574478e+01	4.54448983e-02
	B	9.88523066e-02	2.73858923e-02	3.93697359e-02	1.32892036e+01	2.30074786e-02
aluminium	R	1.84791371e-01	7.13888090e-04	1.28596034e-02	5.39221907e+00	1.81693405e-01
	G	1.33860737e-01	7.86904478e-04	9.14853625e-03	5.32514191e+00	2.24398911e-01
	B	1.14991136e-01	1.21952326e-03	8.98741279e-03	5.98664951e+00	2.31852949e-01
black-oxidized-steel	R	1.50031877e+00	2.55609781e-01	1.63223632e-02	8.39577258e-01	2.37653591e-02
	G	1.47274530e+00	2.66134113e-01	1.43801412e-02	8.04498911e-01	2.48491671e-02
	B	1.44444883e+00	2.75702000e-01	1.32830162e-02	7.87379265e-01	2.50149705e-02
blue-metallic-paint	R	8.51322830e-01	2.20870212e-01	8.50616198e-04	4.09295857e-01	2.40662083e-01
	G	8.23785126e-01	2.06250727e-01	5.41366444e-16	3.97470295e-01	2.32394233e-01
	B	8.44217598e-01	1.83983102e-01	8.72869510e-03	1.66407935e-02	1.36362925e+01
blue-metallic-paint2	R	2.29615614e-01	2.24175910e-03	3.50834033e-03	3.60860586e+00	7.86880851e-02
	G	1.92650884e-01	2.07855250e-03	2.06264248e-03	4.43682384e+00	1.12215295e-01
	B	1.71301246e-01	2.31733825e-03	1.12941756e-03	7.38800955e+00	1.42642617e-01
brass	R	1.99621037e-01	7.22941302e-04	1.68121997e-02	6.06712341e+00	1.24676794e-01
	G	1.46860242e-01	8.49746983e-04	1.34808104e-02	5.19347095e+00	1.12164505e-01
	B	1.09637342e-01	6.86346320e-04	1.08675752e-02	6.41674995e+00	5.97096235e-02
chrome	R	4.12879586e-01	6.12731092e-04	3.60246561e-03	2.62544289e+01	5.92239425e-02
	G	3.93630713e-01	4.60872892e-04	3.25660245e-03	3.10975800e+01	4.64440398e-02
	B	3.88502747e-01	4.56708862e-04	3.51815717e-03	3.42883530e+01	3.67515273e-02
gold-metallic-paint	R	5.58224507e-03	6.76315857e+02	3.60105510e-08	1.46469177e+03	1.73202407e+00
	G	2.75074691e-01	4.30117518e-01	3.00163788e-06	5.39441049e-01	1.35812378e+00
	B	6.14198148e-01	2.29172215e-01	5.16242231e-04	5.97199678e-01	1.62503198e-01
gold-metallic-paint2	R	3.14693451e-01	6.43881485e-02	4.53030095e-02	8.20162833e-01	5.66916943e-01
	G	3.06563616e-01	5.67966700e-02	4.07004394e-02	8.04877818e-01	4.98258471e-01
	B	6.85862005e-02	1.51970744e-01	4.32500020e-02	1.10207891e+01	2.05747873e-01
gold-paint	R	9.15418327e-01	1.88818634e-01	1.55881330e-01	6.51686907e-01	2.66465187e-01
	G	9.84699130e-01	1.91402212e-01	8.83220509e-02	7.43413508e-01	1.75179794e-01
	B	3.86008702e-04	1.01920469e+05	2.33670976e-02	1.26026075e+06	7.83837810e-02
green-metallic-paint	R	1.54883432e+00	1.69163376e-01	6.34429837e-03	1.22337782e+00	3.52159478e-02
	G	1.14897633e+00	1.74512193e-01	2.90859118e-02	1.04928184e+00	1.08380385e-01
	B	1.11939454e+00	1.73773989e-01	3.62470113e-02	1.05511069e+00	1.15952171e-01
green-metallic-paint2	R	1.81663573e-01	3.02323792e-03	4.72860484e-05	3.61051631e+00	4.05677259e-02
	G	5.33218607e-02	1.55292265e-02	4.52440858e-08	2.17045841e+01	1.01743363e-01
	B	1.29528701e-01	3.79297906e-03	1.09521055e-03	5.29560661e+00	5.39850146e-02
hematite	R	1.48523092e-01	8.08634213e-04	5.42377448e-03	4.36715412e+00	6.83981031e-02
	G	7.05698952e-02	1.49738579e-03	3.29156057e-03	9.76225948e+00	8.07407498e-02
	B	6.03655428e-02	2.01102020e-03	2.91064591e-03	1.30635805e+01	8.25896859e-02
nickel	R	5.82406878e-01	1.58010274e-02	1.34421941e-02	3.39215875e+00	2.95970827e-01
	G	6.27157152e-01	1.82233043e-02	1.28316665e-02	3.49632597e+00	2.50579417e-01
	B	6.80296957e-01	2.11491790e-02	1.28400577e-02	3.68379211e+00	2.05512002e-01
red-metallic-paint	R	4.78355996e-02	1.75330136e-02	7.69744190e-07	4.91358299e+01	1.43408641e-01
	G	1.15253069e-01	2.31911009e-03	3.11611802e-04	6.71097708e+00	3.93352099e-02
	B	1.00498527e-01	2.16218550e-03	3.71033469e-24	7.71255159e+00	2.25210600e-02
silver-metallic-paint2	R	4.09396052e-05	1.29524410e+07	4.25467752e-02	2.44897986e-08	2.34135740e+15
	G	2.36134929e-05	4.31151840e+07	4.71268743e-02	2.07709195e-03	7.96589998e+10
	B	2.39464061e-05	4.71870520e+07	4.61368077e-02	1.83058507e-03	8.47079752e+10
silver-paint	R	8.48982751e-01	1.81464046e-01	1.63218856e-01	8.01555693e-01	2.63618320e-01
	G	8.74982238e-01	1.77144900e-01	1.34796634e-01	7.75208652e-01	2.81646281e-01
	B	9.42404568e-01	1.76073566e-01	1.19885206e-01	7.68524706e-01	2.85133719e-01
steel	R	3.10711265e-01	3.80240264e-04	1.03732850e-02	1.40579691e+01	6.72777668e-02
	G	2.68732071e-01	2.79386149e-04	1.05248354e-02	1.07804489e+01	6.80598766e-02
	B	2.69485414e-01	4.00039629e-04	1.18598836e-02	8.74424744e+00	6.46845847e-02

RGB Parameters for genBRDF 044-002044

Material		p0	p1	ρ_d	ρ_s	R_0
tungsten-carbide	R	3.99160594e-01	6.90246699e-04	1.23395454e-04	1.41407337e+01	6.96302950e-02
	G	3.64162117e-01	4.90205886e-04	4.11310932e-03	1.32565594e+01	5.95922470e-02
	B	3.51357520e-01	3.63860046e-04	4.82338155e-03	2.38048801e+01	3.80497314e-02
two-layer-gold	R	3.02292496e-01	7.63531998e-02	3.71249318e-02	1.10938478e+00	4.65207040e-01
	G	6.28522009e-20	8.71852212e+35	5.91834188e-02	1.53307635e+37	4.70959157e-01
	B	5.97171605e-20	8.71852212e+35	3.99342850e-02	2.23226425e+37	2.81174451e-01

RGB Parameters for genBRDF 044-002044

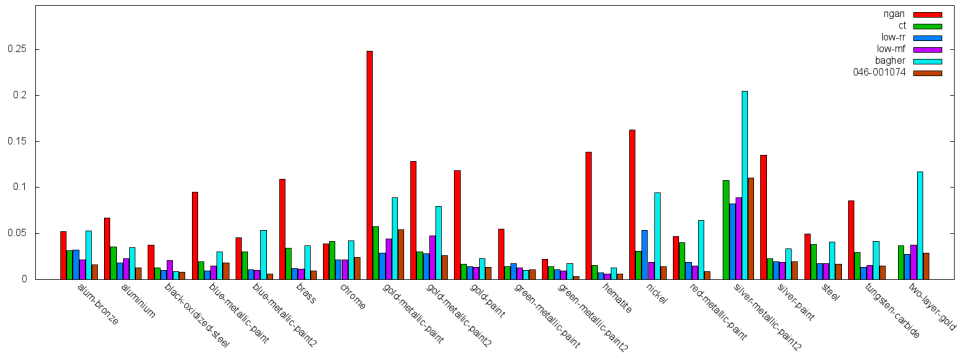
046-001074

Fitness: 0.000109469365

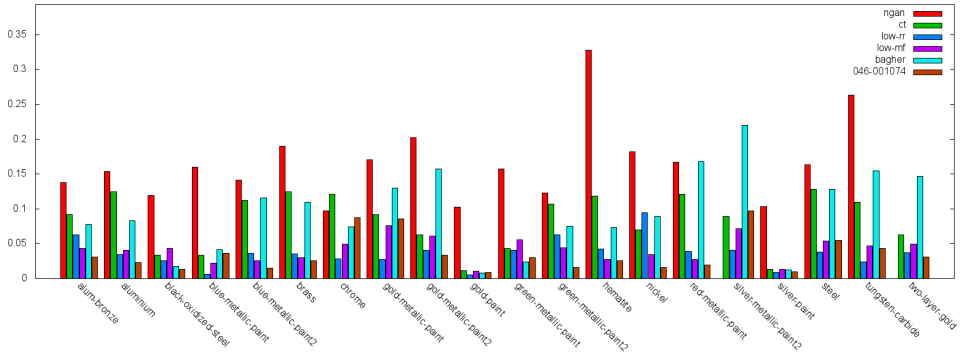
Length: 229

Reciprocity Error: 1.310872819e-14

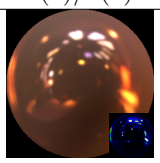
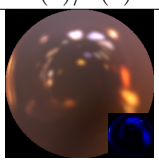
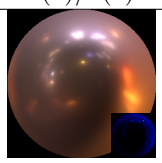
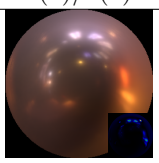
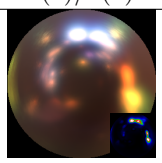
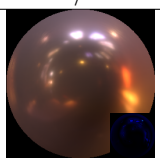
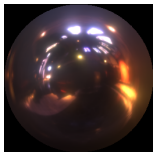
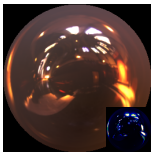
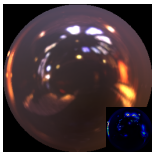
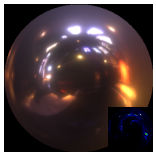
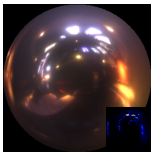
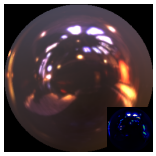
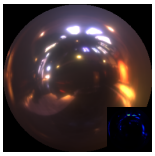
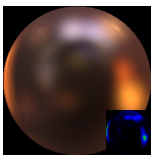
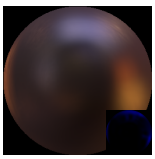
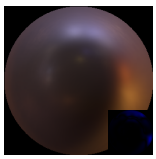
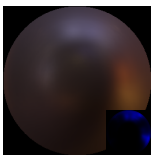
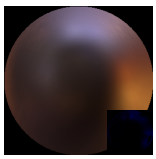
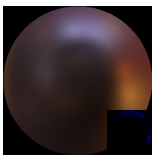
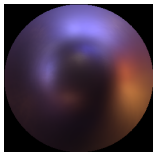
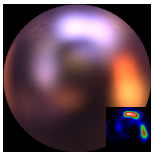
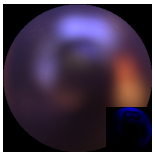
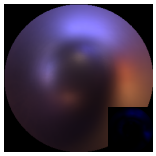
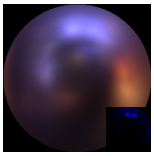
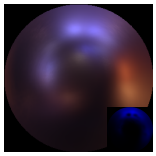
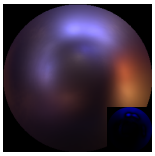
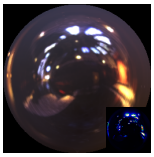
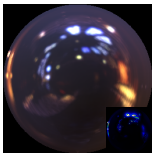
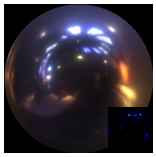
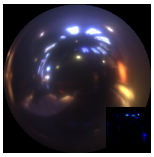
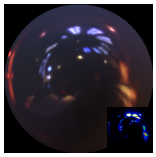
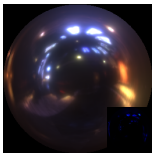
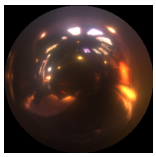
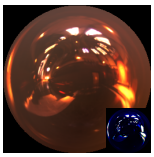
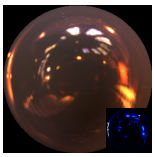
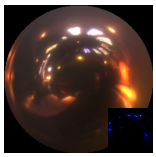
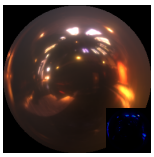
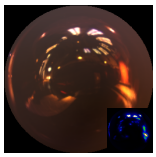
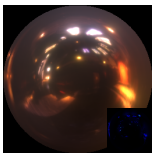
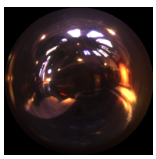
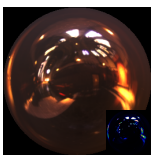
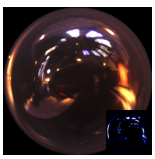
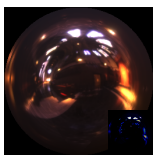
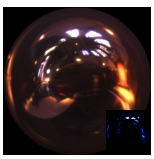
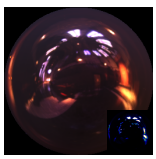
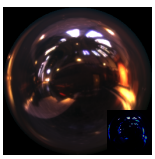
$$f'_n(\omega_i, \omega_o) = \left[\left([p_0 * e^{-\left(\left(\frac{tan(cos^{-1}(clamp(\omega_{hz})))}{p_1}\right)^{p_0}\right)}] / [\left(\left(\frac{tan(cos^{-1}(clamp(\omega_{hz})))}{p_0}\right)^{2.0} + [p_1 * 1.0]\right) * p_0]\right) * \min(1.0, \min(\frac{((2.0 * \omega_{rz}) * \omega_{oz})}{(\omega_o \cdot \omega_h)}, 1.0))\right]$$

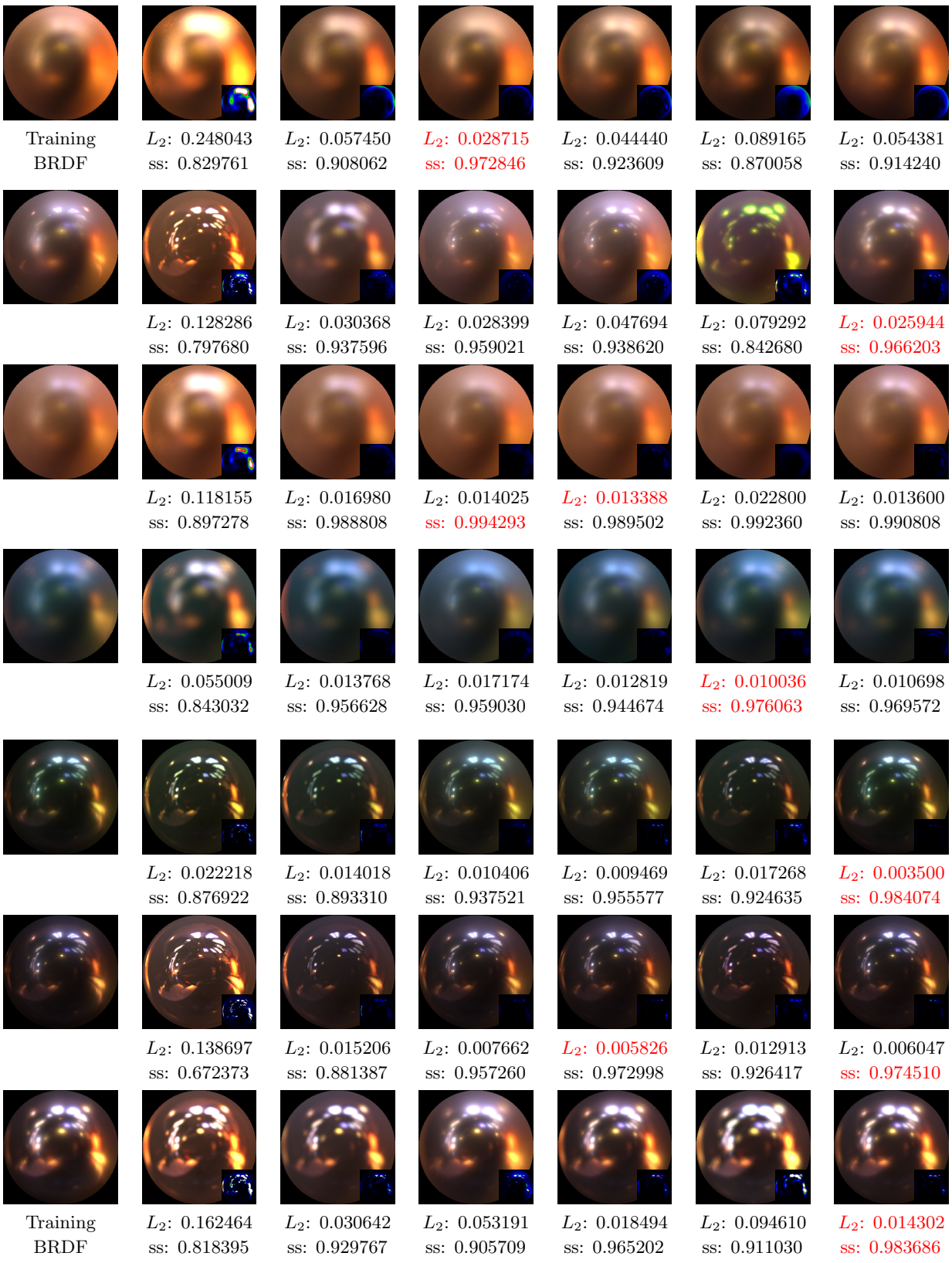


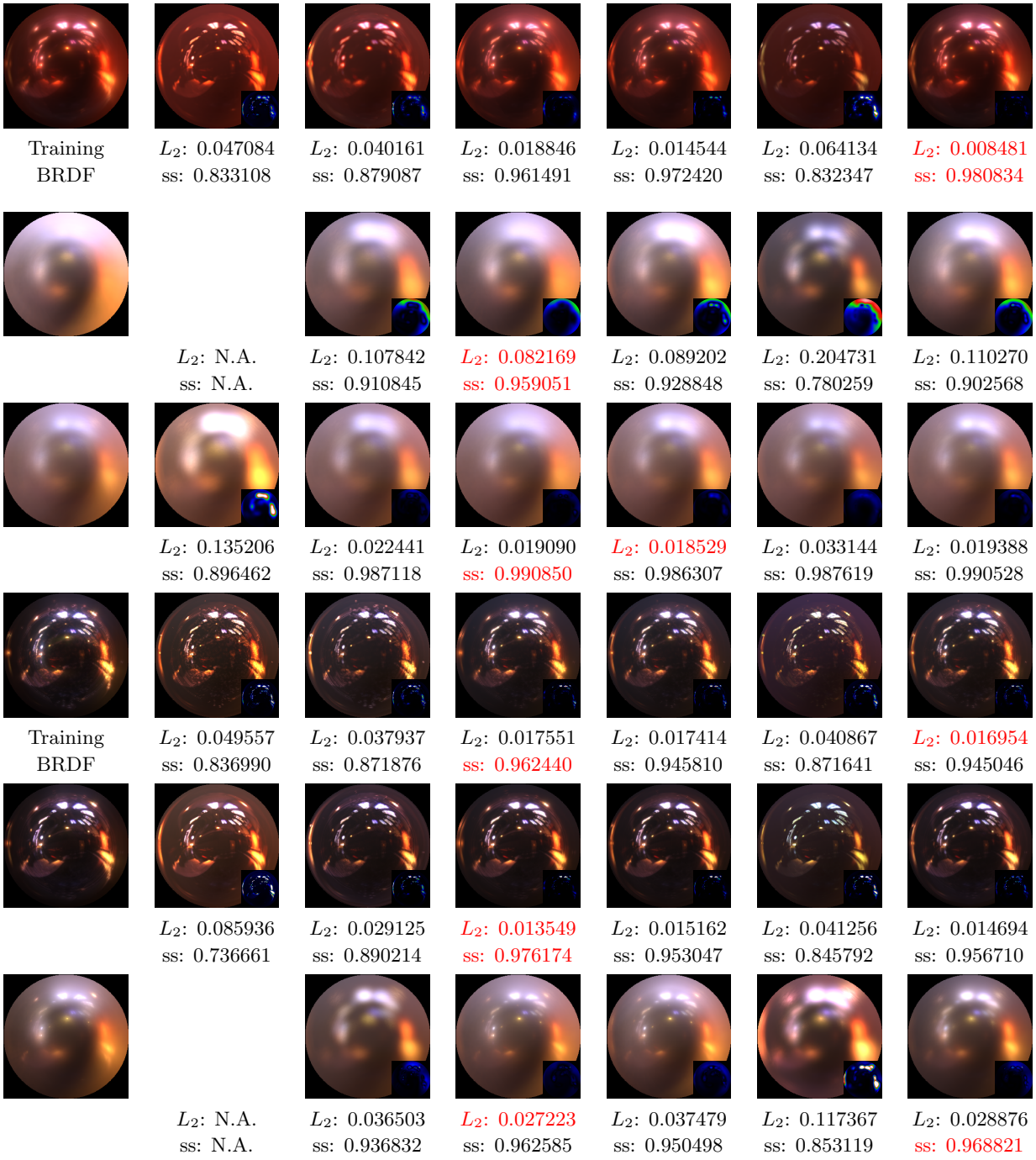
L_2 error.



SSIM error (= 100% - ssim).

	MERL	CT(Ngan) 0(0)/0(0)	CT(E_2 fit) 0(1)/0(2)	Löw SS 5(7)/8(8)	Löw MF 4(7)/0(5)	Bagher 1(1)/1(3)	genBRDF 10/11
alum-bronze		 L_2: 0.052284 ss: 0.862223	 L_2: 0.031392 ss: 0.907766	 L_2: 0.032159 ss: 0.937667	 L_2: 0.021146 ss: 0.956962	 L_2: 0.053167 ss: 0.922395	 L_2: 0.015889 ss: 0.969117
aluminium		 L_2: 0.067099 ss: 0.846399	 L_2: 0.035146 ss: 0.875113	 L_2: 0.018044 ss: 0.965309	 L_2: 0.022431 ss: 0.959087	 L_2: 0.034724 ss: 0.917355	 L_2: 0.012677 ss: 0.976740
black-oxidized-steel		 L_2: 0.037563 ss: 0.881117	 L_2: 0.012395 ss: 0.966402	 L_2: 0.009959 ss: 0.974466	 L_2: 0.021000 ss: 0.956823	 L_2: 0.009017 ss: 0.982697	 L_2: 0.007744 ss: 0.986453
blue-metallic-paint		 L_2: 0.094791 ss: 0.840025	 L_2: 0.019657 ss: 0.966125	 L_2: 0.009161 ss: 0.993984	 L_2: 0.015014 ss: 0.978181	 L_2: 0.030206 ss: 0.958517	 L_2: 0.018364 ss: 0.963765
blue-metallic-paint2		 L_2: 0.045753 ss: 0.859062	 L_2: 0.030359 ss: 0.888022	 L_2: 0.010992 ss: 0.963478	 L_2: 0.009785 ss: 0.974119	 L_2: 0.053468 ss: 0.884442	 L_2: 0.006143 ss: 0.985122
brass		 L_2: 0.109247 ss: 0.809906	 L_2: 0.034378 ss: 0.875335	 L_2: 0.011813 ss: 0.965002	 L_2: 0.011450 ss: 0.970392	 L_2: 0.036857 ss: 0.890152	 L_2: 0.009177 ss: 0.974547
chrome		 L_2: 0.038555 ss: 0.902465	 L_2: 0.041371 ss: 0.879025	 L_2: 0.021593 ss: 0.972071	 L_2: 0.021446 ss: 0.950898	 L_2: 0.042031 ss: 0.925449	 L_2: 0.024128 ss: 0.912946


gold-metallic-paint
Training BRDF
L_2: 0.248043 ss: 0.829761
L_2: 0.057450 ss: 0.908062
L_2: 0.028715 ss: 0.972846
L_2: 0.044440 ss: 0.923609
L_2: 0.089165 ss: 0.870058
L_2: 0.054381 ss: 0.914240
gold-metallic-paint2
L_2: 0.128286 ss: 0.797680
L_2: 0.030368 ss: 0.937596
L_2: 0.028399 ss: 0.959021
L_2: 0.047694 ss: 0.938620
L_2: 0.079292 ss: 0.842680
L_2: 0.025944 ss: 0.966203
gold-paint
L_2: 0.118155 ss: 0.897278
L_2: 0.016980 ss: 0.988808
L_2: 0.014025 ss: 0.994293
L_2: 0.013388 ss: 0.989502
L_2: 0.022800 ss: 0.992360
L_2: 0.013600 ss: 0.990808
green-metallic-paint
L_2: 0.055009 ss: 0.843032
L_2: 0.013768 ss: 0.956628
L_2: 0.017174 ss: 0.959030
L_2: 0.012819 ss: 0.944674
L_2: 0.010036 ss: 0.976063
L_2: 0.010698 ss: 0.969572
green-metallic-paint2
L_2: 0.022218 ss: 0.876922
L_2: 0.014018 ss: 0.893310
L_2: 0.010406 ss: 0.937521
L_2: 0.009469 ss: 0.955577
L_2: 0.017268 ss: 0.924635
L_2: 0.003500 ss: 0.984074
hematite
L_2: 0.138697 ss: 0.672373
L_2: 0.015206 ss: 0.881387
L_2: 0.007662 ss: 0.957260
L_2: 0.005826 ss: 0.972998
L_2: 0.012913 ss: 0.926417
L_2: 0.006047 ss: 0.974510
nickel
Training BRDF
L_2: 0.162464 ss: 0.818395
L_2: 0.030642 ss: 0.929767
L_2: 0.053191 ss: 0.905709
L_2: 0.018494 ss: 0.965202
L_2: 0.094610 ss: 0.911030
L_2: 0.014302 ss: 0.983686


red-metallic-paint
Training BRDF
L_2: 0.047084 ss: 0.833108
L_2: 0.040161 ss: 0.879087
L_2: 0.018846 ss: 0.961491
L_2: 0.014544 ss: 0.972420
L_2: 0.064134 ss: 0.832347
L_2: 0.008481 ss: 0.980834
silver-metallic-paint2
L_2: N.A. ss: N.A.
L_2: 0.107842 ss: 0.910845
L_2: 0.082169 ss: 0.959051
L_2: 0.089202 ss: 0.928848
L_2: 0.204731 ss: 0.780259
L_2: 0.110270 ss: 0.902568
silver-paint
L_2: 0.135206 ss: 0.896462
L_2: 0.022441 ss: 0.987118
L_2: 0.019090 ss: 0.990850
L_2: 0.018529 ss: 0.986307
L_2: 0.033144 ss: 0.987619
L_2: 0.019388 ss: 0.990528
steel
Training BRDF
L_2: 0.049557 ss: 0.836990
L_2: 0.037937 ss: 0.871876
L_2: 0.017551 ss: 0.962440
L_2: 0.017414 ss: 0.945810
L_2: 0.040867 ss: 0.871641
L_2: 0.016954 ss: 0.945046
tungsten-carbide
L_2: 0.085936 ss: 0.736661
L_2: 0.029125 ss: 0.890214
L_2: 0.013549 ss: 0.976174
L_2: 0.015162 ss: 0.953047
L_2: 0.041256 ss: 0.845792
L_2: 0.014694 ss: 0.956710
two-layer-gold
L_2: N.A. ss: N.A.
L_2: 0.036503 ss: 0.936832
L_2: 0.027223 ss: 0.962585
L_2: 0.037479 ss: 0.950498
L_2: 0.117367 ss: 0.853119
L_2: 0.028876 ss: 0.968821

Material		p0	p1	ρ_d	ρ_s	R_0
alum-bronze	R	2.32617836e-04	4.87172461e+03	5.18365353e-02	2.38877375e+06	6.52592182e-02
	G	4.11135629e-02	2.01709136e-01	4.52637225e-02	7.08168869e+01	4.54761572e-02
	B	9.85148177e-02	2.75675748e-02	3.90381552e-02	1.33589039e+01	2.30571926e-02
aluminium	R	1.85364902e-01	7.13166781e-04	1.24599859e-02	5.40045214e+00	1.81121588e-01
	G	1.34622201e-01	7.84102769e-04	8.57239030e-03	5.30523491e+00	2.23747790e-01
	B	1.16068259e-01	1.20882643e-03	8.28252640e-03	5.93999910e+00	2.30830669e-01
black-oxidized-steel	R	1.01305144e-04	2.66745825e+06	9.30010900e-03	2.45909960e+07	2.74869297e-02
	G	1.47305548e+00	2.65732646e-01	1.41602494e-02	8.05593848e-01	2.44816430e-02
	B	1.44828081e+00	2.75203258e-01	1.31052230e-02	7.88085103e-01	2.46109199e-02
blue-metallic-paint	R	8.99740219e-01	2.16638595e-01	1.15136662e-03	4.03397739e-01	2.34146461e-01
	G	8.61108899e-01	2.02727571e-01	1.15108892e-16	3.93096536e-01	2.26944312e-01
	B	8.92686605e-01	1.81364268e-01	9.73994937e-03	2.43132710e-02	9.00890732e+00
blue-metallic-paint2	R	2.29940578e-01	2.23972695e-03	3.35089979e-03	3.60974288e+00	7.85790160e-02
	G	1.93391383e-01	2.07349192e-03	1.72693632e-03	4.43071175e+00	1.11977249e-01
	B	1.72435567e-01	2.30603735e-03	4.79154725e-04	7.36966228e+00	1.41974077e-01
brass	R	1.99925527e-01	7.23464822e-04	1.65623277e-02	6.06930637e+00	1.24474674e-01
	G	1.47091985e-01	8.48325959e-04	1.31349396e-02	5.18676043e+00	1.12103358e-01
	B	1.09734207e-01	6.86276297e-04	1.06604928e-02	6.40903330e+00	5.97116165e-02
chrome	R	4.11676526e-01	6.09026756e-04	1.89997138e-06	2.61283016e+01	5.92456907e-02
	G	3.93923312e-01	4.62109601e-04	2.96216295e-03	3.10831242e+01	4.64796424e-02
	B	3.88531417e-01	4.56924958e-04	3.56089300e-03	3.42609711e+01	3.67599912e-02
gold-metallic-paint	R	1.87953655e-02	5.71287842e+01	3.73808332e-30	1.31082870e+02	1.53986907e+00
	G	3.82079154e-01	2.74360508e-01	2.42023731e-07	3.50852549e-01	1.27131677e+00
	B	9.10502076e-01	2.13097647e-01	3.91243119e-03	4.93329346e-01	1.54169768e-01
gold-metallic-paint2	R	3.19214791e-01	6.29686788e-02	4.38816808e-02	8.11800122e-01	5.61424673e-01
	G	3.11224401e-01	5.55911139e-02	3.95703465e-02	7.97756433e-01	4.93121058e-01
	B	7.84042627e-02	1.23944148e-01	4.16126996e-02	8.55585003e+00	2.08843678e-01
gold-paint	R	9.34528470e-01	1.86855420e-01	1.55354679e-01	6.54463589e-01	2.60447025e-01
	G	1.00468147e+00	1.89864442e-01	8.79613608e-02	7.44145215e-01	1.71978265e-01
	B	4.39557480e-04	7.79108047e+04	2.19372716e-02	9.70029625e+05	7.78370276e-02
green-metallic-paint	R	1.54820740e+00	1.68868899e-01	6.21519564e-03	1.22471082e+00	3.49077545e-02
	G	1.15305507e+00	1.73603997e-01	2.85970978e-02	1.05295849e+00	1.07027225e-01
	B	1.12433589e+00	1.72886491e-01	3.56932320e-02	1.05910087e+00	1.14481919e-01
green-metallic-paint2	R	1.85648859e-01	2.96767824e-03	1.44717738e-03	3.55081320e+00	4.02988829e-02
	G	5.83821833e-02	1.32637499e-02	3.01761310e-10	1.84508610e+01	1.01287983e-01
	B	1.30269915e-01	3.76728433e-03	8.81334883e-04	5.26053286e+00	5.39100021e-02
hematite	R	1.48794547e-01	8.07378150e-04	5.25623560e-03	4.36283636e+00	6.83300346e-02
	G	7.07754940e-02	1.49020867e-03	2.99395341e-03	9.72545052e+00	8.06435570e-02
	B	6.04374185e-02	2.00737570e-03	2.57873116e-03	1.30364962e+01	8.25885609e-02
nickel	R	5.84512651e-01	1.58337466e-02	1.33373514e-02	3.41443634e+00	2.94052780e-01
	G	6.29442155e-01	1.82660986e-02	1.27502419e-02	3.52089643e+00	2.48779312e-01
	B	6.82329595e-01	2.11917739e-02	1.27957817e-02	3.70527625e+00	2.04186276e-01
red-metallic-paint	R	5.63255548e-02	1.31869139e-02	2.00190104e-08	3.67526855e+01	1.41708001e-01
	G	1.15579508e-01	2.31133052e-03	1.25494611e-04	6.68568134e+00	3.93240303e-02
	B	1.00904763e-01	2.15046178e-03	3.80747132e-08	7.67063046e+00	2.24966742e-02
silver-metallic-paint2	R	5.19995774e-05	7.47077650e+06	3.95119712e-02	1.63706653e-20	2.06375620e+27
	G	3.77080936e-11	1.57037594e+19	4.40118760e-02	1.66742428e+15	3.69522461e+04
	B	3.81573176e-11	1.72119771e+19	4.37101647e-02	1.56554591e+15	3.69310352e+04
silver-paint	R	8.73009562e-01	1.79464445e-01	1.62779868e-01	8.03420842e-01	2.57275164e-01
	G	9.01510477e-01	1.75519630e-01	1.34580806e-01	7.77539253e-01	2.74803489e-01
	B	9.67080772e-01	1.74758881e-01	1.19697653e-01	7.72911668e-01	2.78217614e-01
steel	R	3.10730308e-01	3.80397134e-04	1.03082079e-02	1.40583105e+01	6.72527477e-02
	G	2.68591076e-01	2.78971595e-04	1.04968632e-02	1.07866297e+01	6.80360943e-02
	B	2.69381642e-01	3.99079756e-04	1.17905671e-02	8.76068401e+00	6.45313635e-02

RGB Parameters for genBRDF 046-001074

Material		p0	p1	ρ_d	ρ_s	R_0
tungsten-carbide	R	4.00432229e-01	6.94628863e-04	4.57002735e-03	1.42227545e+01	6.94091693e-02
	G	3.64588171e-01	4.92225634e-04	4.26582387e-03	1.32911968e+01	5.94275072e-02
	B	3.51485997e-01	3.63933272e-04	4.76717390e-03	2.38261452e+01	3.80443037e-02
two-layer-gold	R	3.08531672e-01	7.38826469e-02	3.56659777e-02	1.09722233e+00	4.56601560e-01
	G	2.95776278e-01	6.44596592e-02	3.33932452e-02	1.23575246e+00	3.60060304e-01
	B	2.44446278e-01	5.12616783e-02	3.12566459e-02	1.61522627e+00	2.51629621e-01

RGB Parameters for genBRDF 046-001074

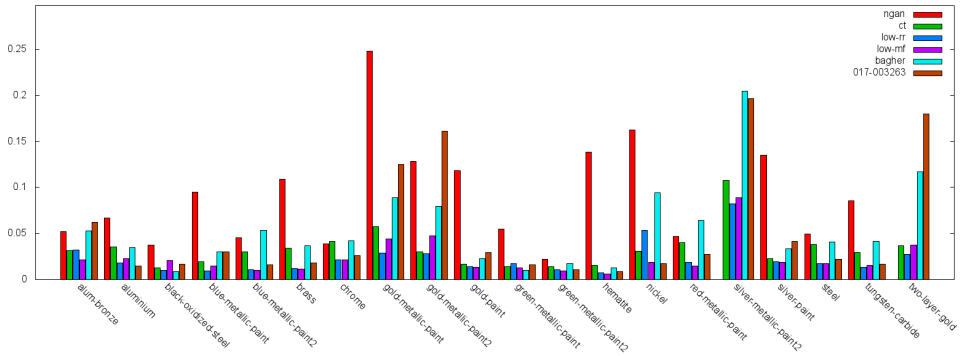
017-003263

Fitness: 0.000111708529

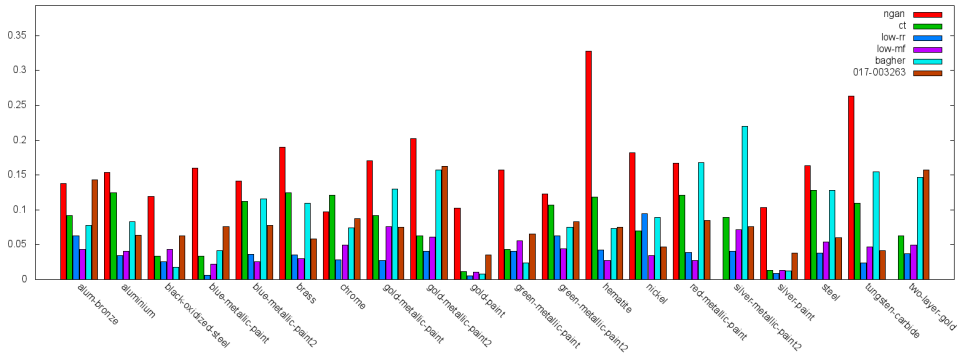
Length: 200

Reciprocity Error: 4.07787868145e-14

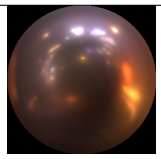
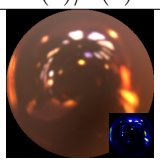
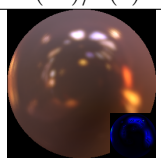
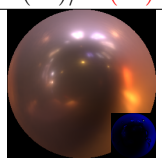
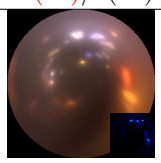
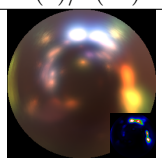
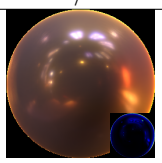
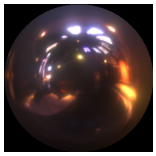
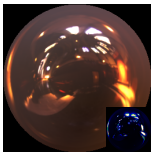
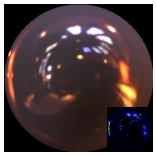
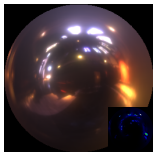
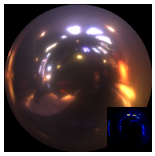
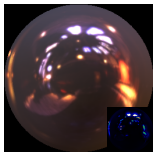
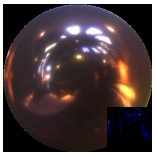
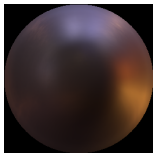
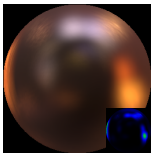
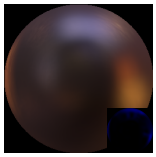
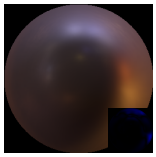
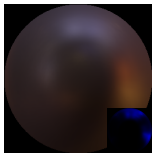
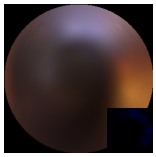
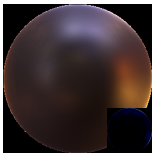
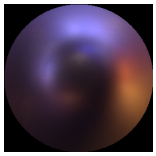
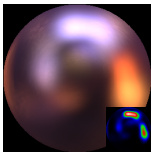
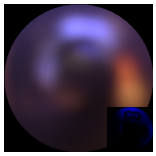
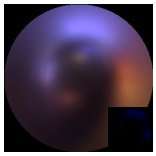
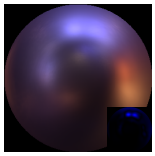
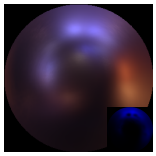
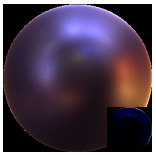
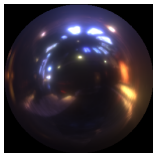
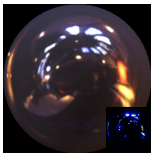
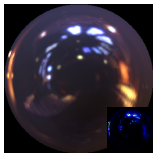
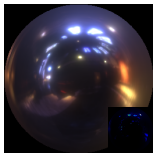
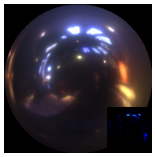
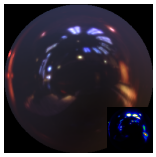
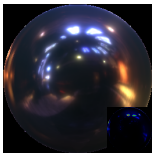
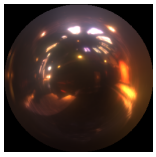
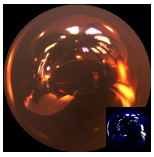
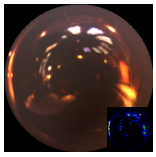
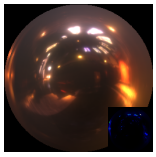
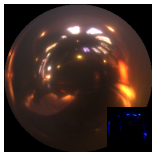
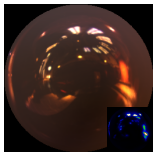
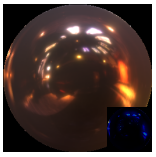
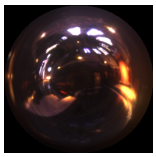
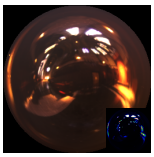
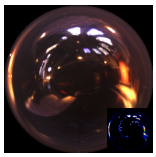
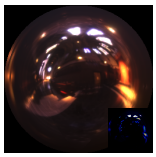
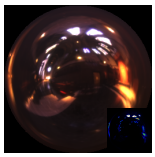
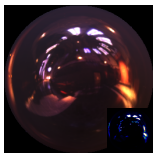
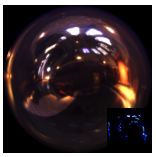
$$f'_n(\omega_i, \omega_o) = [e^{-\left(\left(\frac{tan(cos^{-1}(clamp(\omega_{hz})))}{p_0}\right)^{p_1}\right)} * \min((\omega_o \cdot \omega_h), \min(\frac{(1.0 * 1.0)}{2.0}, \frac{((\pi * p_1) * p_1)}{\left(\frac{tan(cos^{-1}(clamp(\omega_{hz})))}{p_0}\right)^{1.0}}))]$$

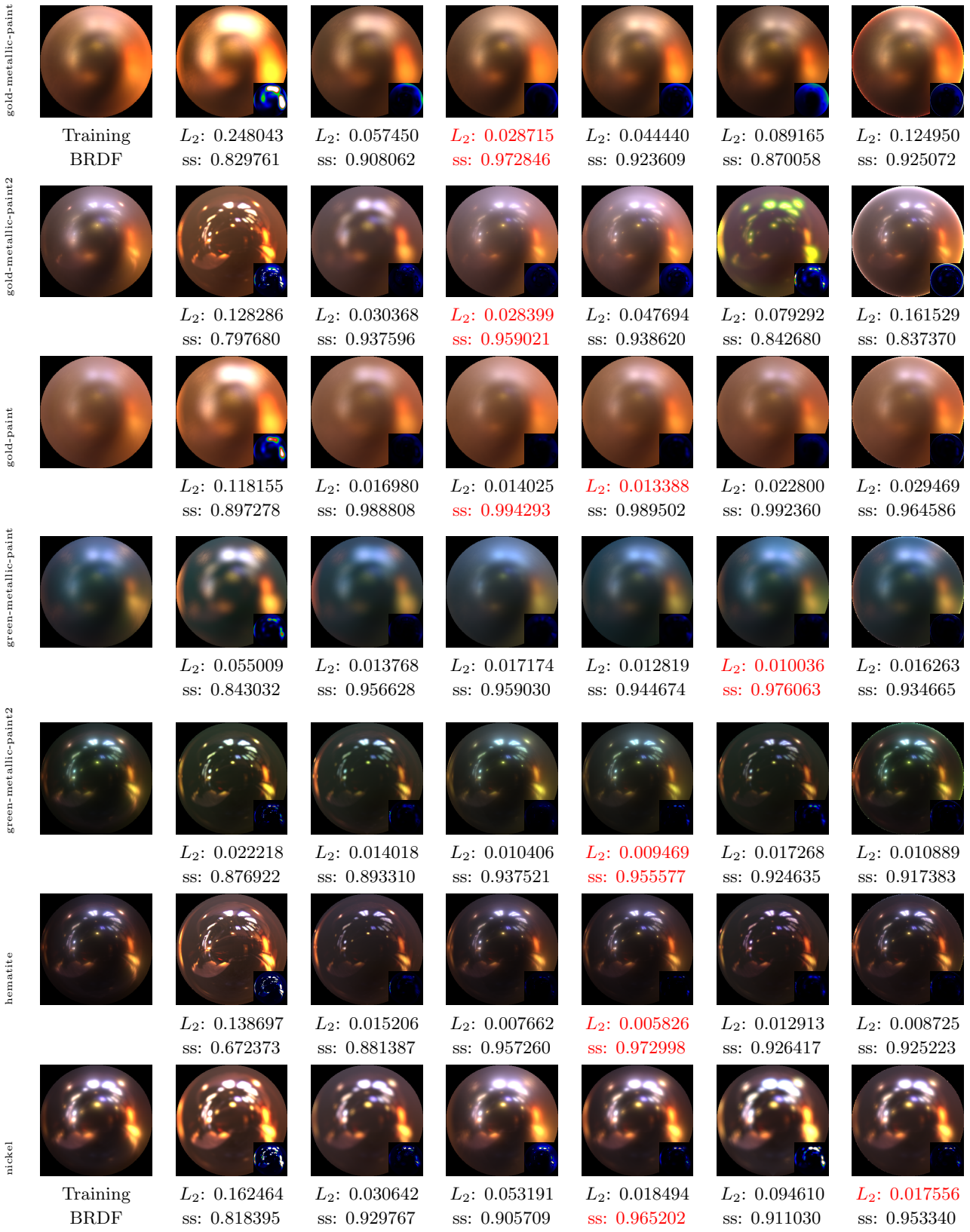


L_2 error.



SSIM error (= 100% - ssim).

	MERL	CT(Ngan) 0(2)/0(1)	CT(E_2 fit) 0(10)/0(8)	Löw SS 6(17)/11(19)	Löw MF 10(17)/7(18)	Bagher 2(8)/2(11)	genBRDF 2/0
alum-bronze		 L_2: 0.052284 ss: 0.862223	 L_2: 0.031392 ss: 0.907766	 L_2: 0.032159 ss: 0.937667	 L_2: 0.021146 ss: 0.956962	 L_2: 0.053167 ss: 0.922395	 L_2: 0.062325 ss: 0.857092
aluminium	 Training BRDF	 L_2: 0.067099 ss: 0.846399	 L_2: 0.035146 ss: 0.875113	 L_2: 0.018044 ss: 0.965309	 L_2: 0.022431 ss: 0.959087	 L_2: 0.034724 ss: 0.917355	 L_2: 0.014921 ss: 0.936797
black-oxidized-steel		 L_2: 0.037563 ss: 0.881117	 L_2: 0.012395 ss: 0.966402	 L_2: 0.009959 ss: 0.974466	 L_2: 0.021000 ss: 0.956823	 L_2: 0.009017 ss: 0.982697	 L_2: 0.016956 ss: 0.936883
blue-metallic-paint	 Training BRDF	 L_2: 0.094791 ss: 0.840025	 L_2: 0.019657 ss: 0.966125	 L_2: 0.009161 ss: 0.993984	 L_2: 0.015014 ss: 0.978181	 L_2: 0.030206 ss: 0.958517	 L_2: 0.030097 ss: 0.923771
blue-metallic-paint2	 Training BRDF	 L_2: 0.045753 ss: 0.859062	 L_2: 0.030359 ss: 0.888022	 L_2: 0.010992 ss: 0.963478	 L_2: 0.009785 ss: 0.974119	 L_2: 0.053468 ss: 0.884442	 L_2: 0.016262 ss: 0.922108
brass	 Training BRDF	 L_2: 0.109247 ss: 0.809906	 L_2: 0.034378 ss: 0.875335	 L_2: 0.011813 ss: 0.965002	 L_2: 0.011450 ss: 0.970392	 L_2: 0.036857 ss: 0.890152	 L_2: 0.018300 ss: 0.941365
chrome		 L_2: 0.038555 ss: 0.902465	 L_2: 0.041371 ss: 0.879025	 L_2: 0.021593 ss: 0.972071	 L_2: 0.021446 ss: 0.950898	 L_2: 0.042031 ss: 0.925449	 L_2: 0.025798 ss: 0.912963


gold-metallic-paint
Training BRDF
L_2: 0.248043 ss: 0.829761
L_2: 0.057450 ss: 0.908062
L_2: 0.028715 ss: 0.972846
L_2: 0.044440 ss: 0.923609
L_2: 0.089165 ss: 0.870058
L_2: 0.124950 ss: 0.925072
gold-metallic-paint2
L_2: 0.128286 ss: 0.797680
L_2: 0.030368 ss: 0.937596
L_2: 0.028399 ss: 0.959021
L_2: 0.047694 ss: 0.938620
L_2: 0.079292 ss: 0.842680
L_2: 0.161529 ss: 0.837370
gold-paint
L_2: 0.118155 ss: 0.897278
L_2: 0.016980 ss: 0.988808
L_2: 0.014025 ss: 0.994293
L_2: 0.013388 ss: 0.989502
L_2: 0.022800 ss: 0.992360
L_2: 0.029469 ss: 0.964586
green-metallic-paint
L_2: 0.055009 ss: 0.843032
L_2: 0.013768 ss: 0.956628
L_2: 0.017174 ss: 0.959030
L_2: 0.012819 ss: 0.944674
L_2: 0.010036 ss: 0.976063
L_2: 0.016263 ss: 0.934665
green-metallic-paint2
L_2: 0.022218 ss: 0.876922
L_2: 0.014018 ss: 0.893310
L_2: 0.010406 ss: 0.937521
L_2: 0.009469 ss: 0.955577
L_2: 0.017268 ss: 0.924635
L_2: 0.010889 ss: 0.917383
hematite
L_2: 0.138697 ss: 0.672373
L_2: 0.015206 ss: 0.881387
L_2: 0.007662 ss: 0.957260
L_2: 0.005826 ss: 0.972998
L_2: 0.012913 ss: 0.926417
L_2: 0.008725 ss: 0.925223
nickel
Training BRDF
L_2: 0.162464 ss: 0.818395
L_2: 0.030642 ss: 0.929767
L_2: 0.053191 ss: 0.905709
L_2: 0.018494 ss: 0.965202
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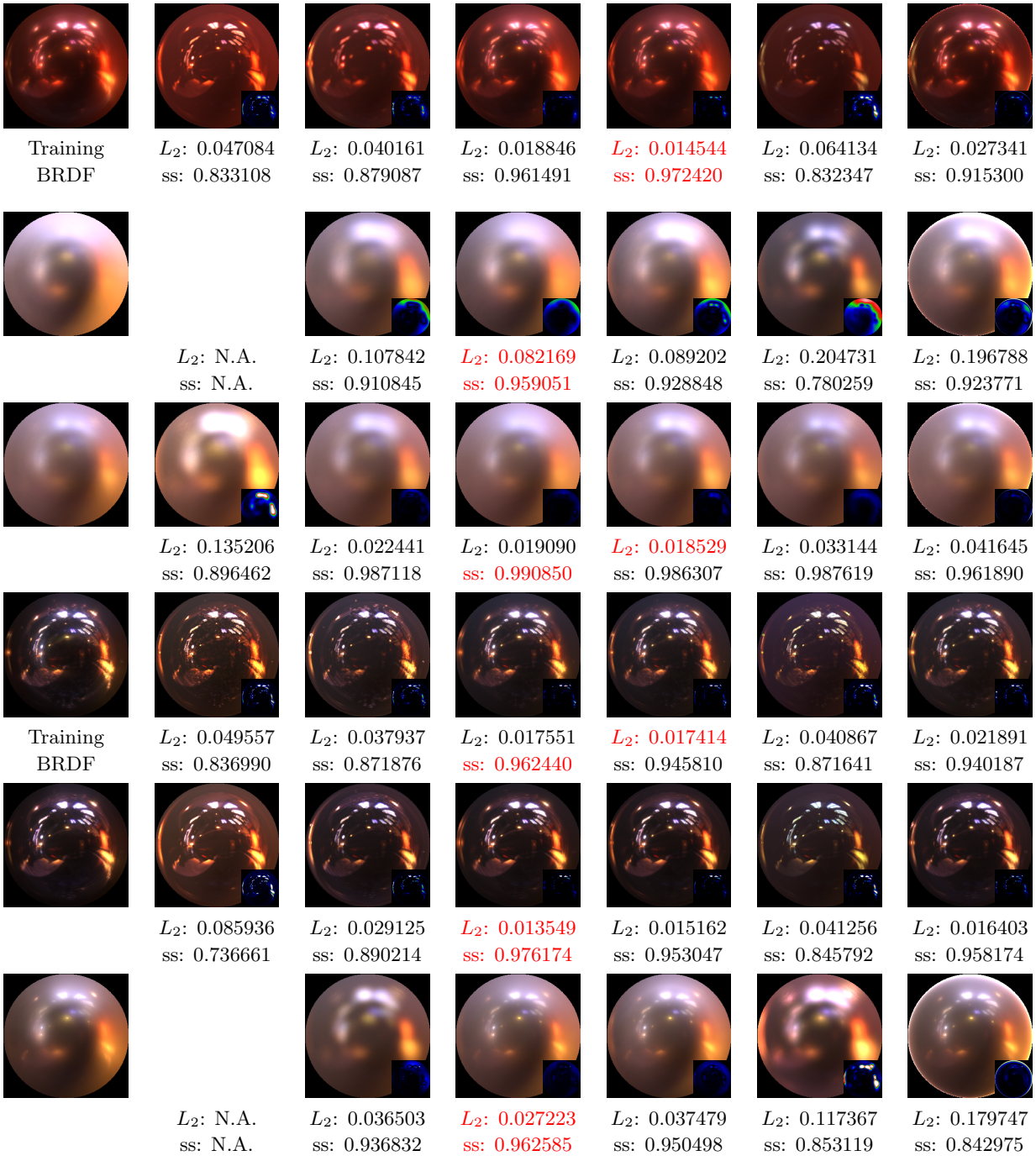
L_2: 0.017556 ss: 0.953340


red-metallic-paint
Training BRDF
L_2: 0.047084 ss: 0.833108
L_2: 0.040161 ss: 0.879087
L_2: 0.018846 ss: 0.961491
L_2: 0.014544 ss: 0.972420
L_2: 0.064134 ss: 0.832347
L_2: 0.027341 ss: 0.915300
silver-metallic-paint2
L_2: N.A. ss: N.A.
L_2: 0.107842 ss: 0.910845
L_2: 0.082169 ss: 0.959051
L_2: 0.089202 ss: 0.928848
L_2: 0.204731 ss: 0.780259
L_2: 0.196788 ss: 0.923771
silver-paint
L_2: 0.135206 ss: 0.896462
L_2: 0.022441 ss: 0.987118
L_2: 0.019090 ss: 0.990850
L_2: 0.018529 ss: 0.986307
L_2: 0.033144 ss: 0.987619
L_2: 0.041645 ss: 0.961890
steel
Training BRDF
L_2: 0.049557 ss: 0.836990
L_2: 0.037937 ss: 0.871876
L_2: 0.017551 ss: 0.962440
L_2: 0.017414 ss: 0.945810
L_2: 0.040867 ss: 0.871641
L_2: 0.021891 ss: 0.940187
tungsten-carbide
L_2: 0.085936 ss: 0.736661
L_2: 0.029125 ss: 0.890214
L_2: 0.013549 ss: 0.976174
L_2: 0.015162 ss: 0.953047
L_2: 0.041256 ss: 0.845792
L_2: 0.016403 ss: 0.958174
two-layer-gold
L_2: N.A. ss: N.A.
L_2: 0.036503 ss: 0.936832
L_2: 0.027223 ss: 0.962585
L_2: 0.037479 ss: 0.950498
L_2: 0.117367 ss: 0.853119
L_2: 0.179747 ss: 0.842975

Material		p0	p1	ρ_d	ρ_s	R_0
alum-bronze	R	7.78528955e-03	3.26049685e-01	4.45698239e-02	4.78991486e+02	2.78108835e-01
	G	1.00518512e-02	3.67089629e-01	4.55162600e-02	3.67190552e+02	1.38550445e-01
	B	1.88692082e-02	8.30660820e-01	4.67280783e-02	3.67450317e+02	2.44191922e-02
aluminium	R	1.84819871e-03	3.96705478e-01	1.94967110e-02	3.46885181e+03	1.02241743e+00
	G	1.52125407e-03	3.63988191e-01	1.81491785e-02	2.15281787e+03	2.10486317e+00
	B	1.84886332e-03	3.65220279e-01	1.91568527e-02	1.10104077e+03	2.83371043e+00
black-oxidized-steel	R	1.98340237e-01	1.48858976e+00	1.72309186e-02	6.19691944e+00	3.15314606e-02
	G	2.01925904e-01	1.45223010e+00	1.53609868e-02	5.70005274e+00	3.33993919e-02
	B	2.05222726e-01	1.42069554e+00	1.42729152e-02	5.39442062e+00	3.39568481e-02
blue-metallic-paint	R	1.74275443e-01	1.20748508e+00	8.43171589e-03	2.26260591e+00	3.79475445e-01
	G	1.63680062e-01	1.17465448e+00	6.26709964e-03	2.40885019e+00	3.58266801e-01
	B	1.58090517e-01	1.17850888e+00	2.11878642e-02	3.59792445e-08	6.15699320e+07
blue-metallic-paint2	R	4.87163337e-03	4.66991127e-01	3.04168992e-04	1.10781116e+03	2.03910708e-01
	G	4.41236421e-03	4.45972443e-01	7.66464090e-03	1.13363330e+03	3.70867878e-01
	B	4.39643255e-03	4.27550733e-01	1.14591364e-02	1.17189307e+03	6.88617826e-01
brass	R	2.42452417e-03	4.33739424e-01	2.30168067e-02	4.09970117e+03	4.28414285e-01
	G	2.24008155e-03	4.08272386e-01	2.01275721e-02	3.56264624e+03	3.54349017e-01
	B	1.38450880e-03	3.73654842e-01	1.49279609e-02	9.26895703e+03	1.58056244e-01
chrome	R	2.58929818e-03	6.48255527e-01	3.21077778e-08	2.03609160e+04	9.88934413e-02
	G	2.37823068e-03	6.55014634e-01	1.23955033e-07	2.88303555e+04	7.33432993e-02
	B	2.34245951e-03	6.44805849e-01	4.27482417e-03	3.43762695e+04	5.62714897e-02
gold-metallic-paint	R	9.15393010e-02	5.60808897e-01	9.17464681e-03	2.06869227e-05	2.50143375e+05
	G	1.45597458e-01	1.00488651e+00	1.58521794e-02	4.53630611e-02	5.65947304e+01
	B	1.64272636e-01	1.12865901e+00	7.54351635e-03	3.28782368e+00	2.29316711e-01
gold-metallic-paint2	R	4.19014692e-03	2.24384159e-01	2.13633720e-02	2.38276422e-02	2.62314180e+04
	G	3.01863975e-03	2.12010130e-01	1.57324318e-02	7.89767038e-03	1.11831570e+05
	B	2.86352355e-03	2.14960426e-01	1.01640653e-02	2.73613129e-02	2.85734961e+04
gold-paint	R	1.55368894e-01	1.19470716e+00	1.66512519e-01	4.76141405e+00	3.78154784e-01
	G	1.58721030e-01	1.24166846e+00	9.64156240e-02	5.77104139e+00	2.35846892e-01
	B	1.42550334e-01	1.22829497e+00	3.94214131e-02	8.87812138e+00	9.04924870e-02
green-metallic-paint	R	1.48396835e-01	1.59033728e+00	7.26992823e-03	1.35204611e+01	4.23866287e-02
	G	1.52093396e-01	1.34627128e+00	3.43230814e-02	9.92849541e+00	1.34148374e-01
	B	1.51433468e-01	1.32577384e+00	4.18460444e-02	9.90753746e+00	1.44347921e-01
green-metallic-paint2	R	4.72967420e-03	4.35116231e-01	3.55203380e-03	1.09451843e+03	9.81283635e-02
	G	3.30609363e-03	3.56023341e-01	2.77222390e-03	1.07692896e+03	4.65570420e-01
	B	4.16158512e-03	3.99701416e-01	3.38262855e-03	1.15545056e+03	1.60937667e-01
hematite	R	1.92264013e-03	3.97208512e-01	8.72310717e-03	4.75405420e+03	1.88479543e-01
	G	1.53107115e-03	3.65445346e-01	8.29545502e-03	5.32275488e+03	2.43610099e-01
	B	1.60635391e-03	3.66844267e-01	8.55907891e-03	5.20533740e+03	2.38289446e-01
nickel	R	2.67099775e-02	9.48635817e-01	2.08366718e-02	2.41704224e+02	3.20608497e-01
	G	2.79283803e-02	9.56393719e-01	1.84317287e-02	2.34156311e+02	2.72538513e-01
	B	2.90259197e-02	9.61500049e-01	1.68212689e-02	2.33605835e+02	2.23957911e-01
red-metallic-paint	R	4.51156730e-03	3.89777631e-01	1.46362539e-02	9.50876526e+02	7.63605237e-01
	G	2.56039156e-03	3.78115714e-01	2.51245964e-03	3.32142920e+03	1.09440684e-01
	B	2.16263300e-03	3.72500271e-01	1.23134186e-03	4.85289844e+03	5.70189133e-02
silver-metallic-paint2	R	9.03094336e-02	5.46529531e-01	8.24627951e-02	9.09081209e-05	6.18428320e+04
	G	9.32064876e-02	5.60858846e-01	8.75292346e-02	2.72306206e-05	1.79145562e+05
	B	9.57540795e-02	5.90133727e-01	8.96932036e-02	1.95738285e-05	2.15421453e+05
silver-paint	R	1.48560941e-01	1.15730393e+00	1.76443294e-01	5.71587420e+00	3.92539501e-01
	G	1.47580728e-01	1.16594744e+00	1.47049710e-01	5.56119585e+00	4.28396761e-01
	B	1.50447682e-01	1.20615518e+00	1.30697414e-01	5.55522585e+00	4.36033010e-01
steel	R	2.03539687e-03	5.42340755e-01	1.16912397e-02	1.85154844e+04	1.30236223e-01
	G	1.40889036e-03	4.76963997e-01	1.21304216e-02	2.72296543e+04	1.45602167e-01
	B	2.09285994e-03	5.09826005e-01	1.40030403e-02	1.27237822e+04	1.23402812e-01

RGB Parameters for genBRDF 017-003263

Material		p0	p1	ρ_d	ρ_s	R_0
tungsten-carbide	R	2.75343237e-03	6.28596604e-01	5.34010679e-03	1.10392529e+04	1.15623303e-01
	G	2.45265802e-03	6.17612600e-01	5.06293913e-03	1.28954297e+04	1.00456148e-01
	B	1.78509904e-03	5.66329420e-01	5.31848893e-03	3.60040391e+04	6.97151572e-02
two-layer-gold	R	6.27156906e-03	2.29023084e-01	8.92651640e-03	6.50059851e-03	5.72795508e+04
	G	4.40671248e-03	2.17447475e-01	3.91283073e-03	4.83682752e-03	1.17204625e+05
	B	5.29580144e-03	2.28941128e-01	1.09977287e-03	4.09390566e-07	8.57755776e+08

RGB Parameters for genBRDF 017-003263

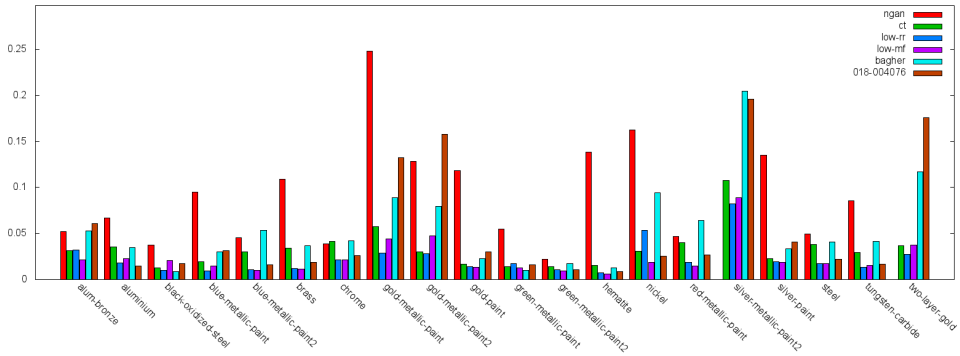
018-004076

Fitness: 0.000115123289

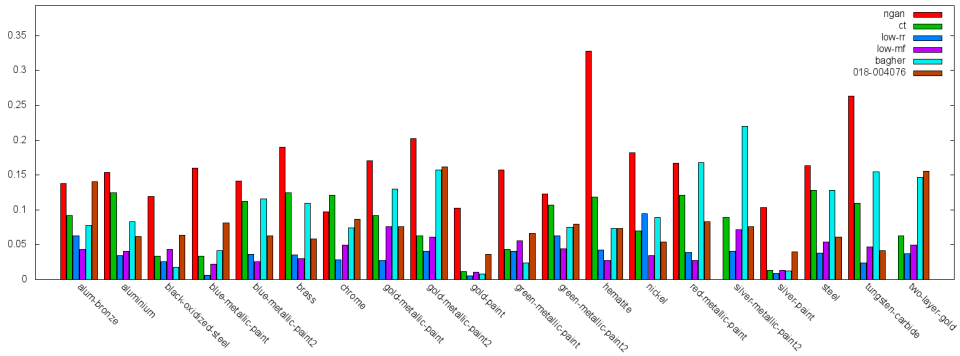
Length: 198

Reciprocity Error: 3.72494331978e-14

$$f'_n(\omega_i, \omega_o) = [e^{-\left(\left(\frac{tan(cos^{-1}(clamp(\omega_{hz})))}{p_0}\right)^{p_1}\right)} * \min(1.0,\ \min(\frac{((\omega_o \cdot \omega_h) * \pi)}{2.0},\ \frac{((\pi * p_1) * p_1)}{\left(\frac{tan(cos^{-1}(clamp(\omega_{hz})))}{p_0}\right)^{1.0}}))]$$

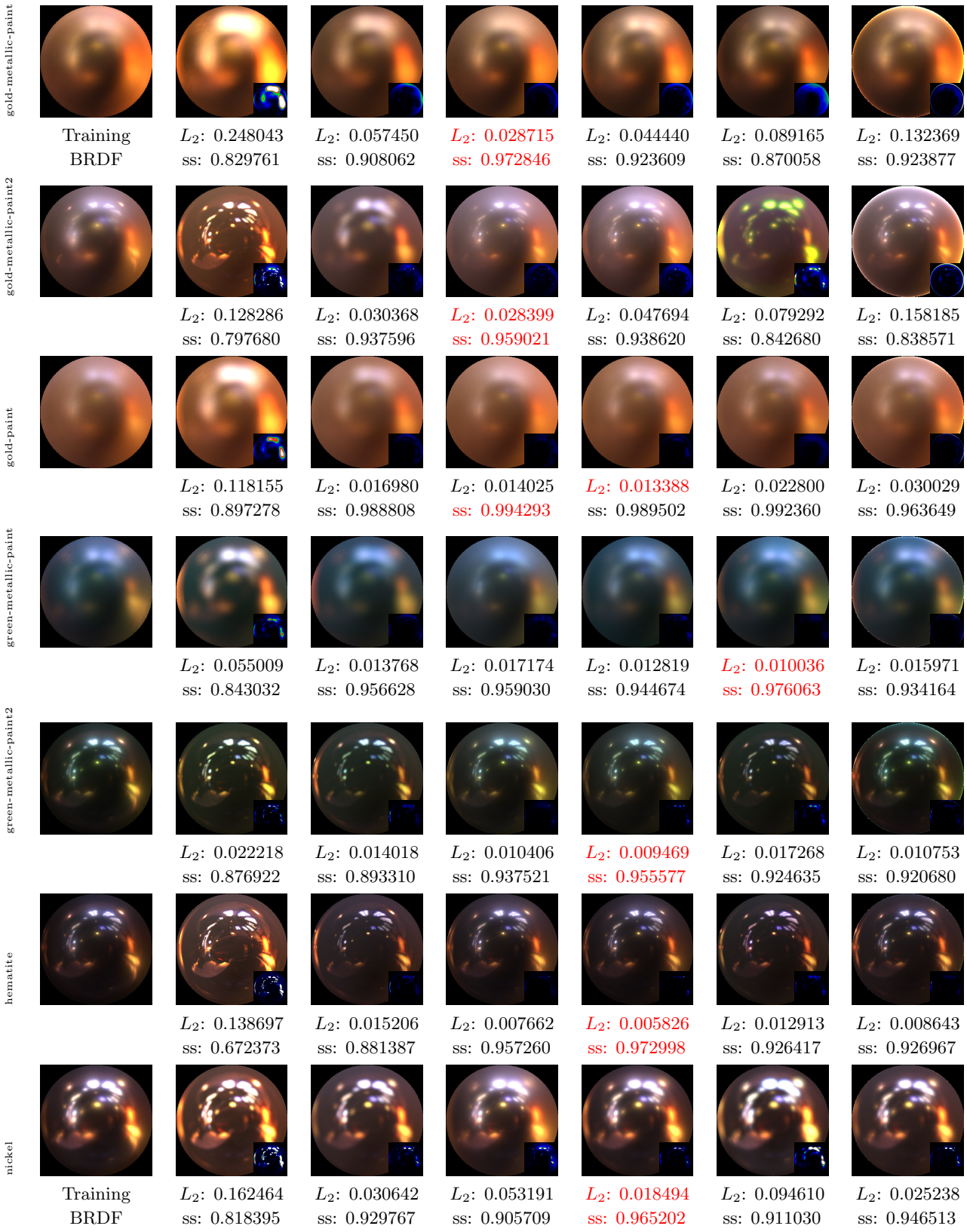


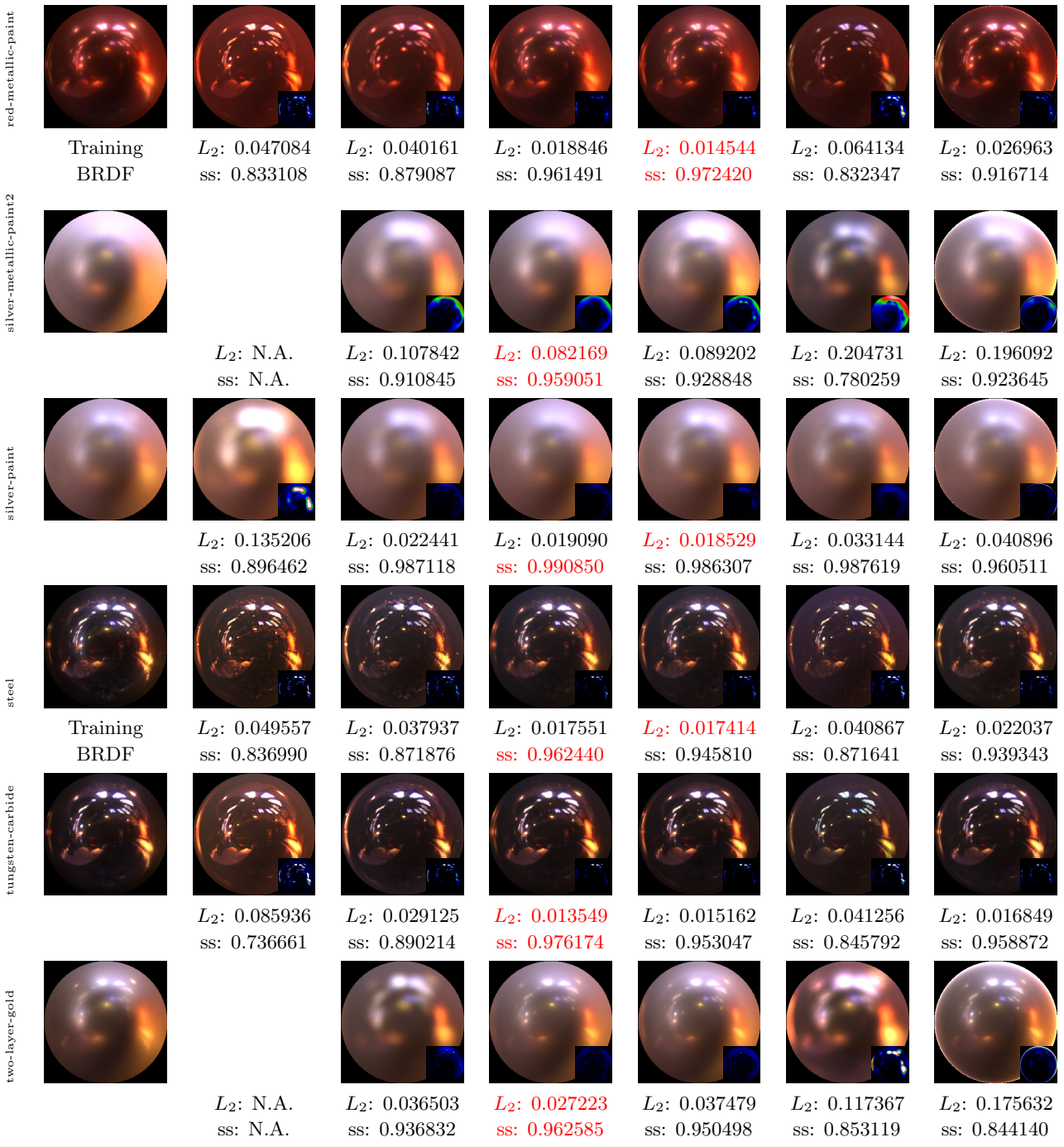
L_2 error.



SSIM error (= 100% - ssim).

	MERL	CT(Ngan) 0(2)/0(1)	CT(E_2 fit) 0(10)/0(8)	Löw SS 6(17)/11(19)	Löw MF 11(18)/7(18)	Bagher 2(9)/2(10)	genBRDF 1/0
alum-bronze		L_2: 0.052284 ss: 0.862223	L_2: 0.031392 ss: 0.907766	L_2: 0.032159 ss: 0.937667	L_2: 0.021146 ss: 0.956962	L_2: 0.053167 ss: 0.922395	L_2: 0.060995 ss: 0.859546
aluminium	Training BRDF	L_2: 0.067099 ss: 0.846399	L_2: 0.035146 ss: 0.875113	L_2: 0.018044 ss: 0.965309	L_2: 0.022431 ss: 0.959087	L_2: 0.034724 ss: 0.917355	L_2: 0.014562 ss: 0.938224
black-oxidized-steel		L_2: 0.037563 ss: 0.881117	L_2: 0.012395 ss: 0.966402	L_2: 0.009959 ss: 0.974466	L_2: 0.021000 ss: 0.956823	L_2: 0.009017 ss: 0.982697	L_2: 0.017615 ss: 0.936480
blue-metallic-paint	Training BRDF	L_2: 0.094791 ss: 0.840025	L_2: 0.019657 ss: 0.966125	L_2: 0.009161 ss: 0.993984	L_2: 0.015014 ss: 0.978181	L_2: 0.030206 ss: 0.958517	L_2: 0.031157 ss: 0.919142
blue-metallic-paint2	Training BRDF	L_2: 0.045753 ss: 0.859062	L_2: 0.030359 ss: 0.888022	L_2: 0.010992 ss: 0.963478	L_2: 0.009785 ss: 0.974119	L_2: 0.053468 ss: 0.884442	L_2: 0.015818 ss: 0.937499
brass	Training BRDF	L_2: 0.109247 ss: 0.809906	L_2: 0.034378 ss: 0.875335	L_2: 0.011813 ss: 0.965002	L_2: 0.011450 ss: 0.970392	L_2: 0.036857 ss: 0.890152	L_2: 0.018435 ss: 0.942041
chrome		L_2: 0.038555 ss: 0.902465	L_2: 0.041371 ss: 0.879025	L_2: 0.021593 ss: 0.972071	L_2: 0.021446 ss: 0.950898	L_2: 0.042031 ss: 0.925449	L_2: 0.026306 ss: 0.913137


gold-metallic-paint
Training BRDF
L_2: 0.248043 ss: 0.829761
L_2: 0.057450 ss: 0.908062
L_2: 0.028715 ss: 0.972846
L_2: 0.044440 ss: 0.923609
L_2: 0.089165 ss: 0.870058
L_2: 0.132369 ss: 0.923877
gold-metallic-paint2
L_2: 0.128286 ss: 0.797680
L_2: 0.030368 ss: 0.937596
L_2: 0.028399 ss: 0.959021
L_2: 0.047694 ss: 0.938620
L_2: 0.079292 ss: 0.842680
L_2: 0.158185 ss: 0.838571
gold-paint
L_2: 0.118155 ss: 0.897278
L_2: 0.016980 ss: 0.988808
L_2: 0.014025 ss: 0.994293
L_2: 0.013388 ss: 0.989502
L_2: 0.022800 ss: 0.992360
L_2: 0.030029 ss: 0.963649
green-metallic-paint
L_2: 0.055009 ss: 0.843032
L_2: 0.013768 ss: 0.956628
L_2: 0.017174 ss: 0.959030
L_2: 0.012819 ss: 0.944674
L_2: 0.010036 ss: 0.976063
L_2: 0.015971 ss: 0.934164
green-metallic-paint2
L_2: 0.022218 ss: 0.876922
L_2: 0.014018 ss: 0.893310
L_2: 0.010406 ss: 0.937521
L_2: 0.009469 ss: 0.955577
L_2: 0.017268 ss: 0.924635
L_2: 0.010753 ss: 0.920680
hematite
L_2: 0.138697 ss: 0.672373
L_2: 0.015206 ss: 0.881387
L_2: 0.007662 ss: 0.957260
L_2: 0.005826 ss: 0.972998
L_2: 0.012913 ss: 0.926417
L_2: 0.008643 ss: 0.926967
nickel
Training BRDF
L_2: 0.162464 ss: 0.818395
L_2: 0.030642 ss: 0.929767
L_2: 0.053191 ss: 0.905709
L_2: 0.018494 ss: 0.965202
L_2: 0.094610 ss: 0.911030
L_2: 0.025238 ss: 0.946513


red-metallic-paint
Training BRDF
L_2: 0.047084 ss: 0.833108
L_2: 0.040161 ss: 0.879087
L_2: 0.018846 ss: 0.961491
L_2: 0.014544 ss: 0.972420
L_2: 0.064134 ss: 0.832347
L_2: 0.026963 ss: 0.916714
silver-metallic-paint2
L_2: N.A. ss: N.A.
L_2: 0.107842 ss: 0.910845
L_2: 0.082169 ss: 0.959051
L_2: 0.089202 ss: 0.928848
L_2: 0.204731 ss: 0.780259
L_2: 0.196092 ss: 0.923645
silver-paint
L_2: 0.135206 ss: 0.896462
L_2: 0.022441 ss: 0.987118
L_2: 0.019090 ss: 0.990850
L_2: 0.018529 ss: 0.986307
L_2: 0.033144 ss: 0.987619
L_2: 0.040896 ss: 0.960511
steel
Training BRDF
L_2: 0.049557 ss: 0.836990
L_2: 0.037937 ss: 0.871876
L_2: 0.017551 ss: 0.962440
L_2: 0.017414 ss: 0.945810
L_2: 0.040867 ss: 0.871641
L_2: 0.022037 ss: 0.939343
tungsten-carbide
L_2: 0.085936 ss: 0.736661
L_2: 0.029125 ss: 0.890214
L_2: 0.013549 ss: 0.976174
L_2: 0.015162 ss: 0.953047
L_2: 0.041256 ss: 0.845792
L_2: 0.016849 ss: 0.958872
two-layer-gold
L_2: N.A. ss: N.A.
L_2: 0.036503 ss: 0.936832
L_2: 0.027223 ss: 0.962585
L_2: 0.037479 ss: 0.950498
L_2: 0.117367 ss: 0.853119
L_2: 0.175632 ss: 0.844140

Material		p0	p1	ρ_d	ρ_s	R_0
alum-bronze	R	1.09974612e-02	3.49994421e-01	4.58308645e-02	2.63768127e+02	2.70947397e-01
	G	1.20723136e-02	3.62613976e-01	4.29604463e-02	2.51918625e+02	1.49673030e-01
	B	9.80066787e-03	4.07610238e-01	4.24268804e-02	4.41923126e+02	5.06893992e-02
aluminium	R	2.46798899e-03	4.19360429e-01	2.00018678e-02	2.04100037e+03	9.86572325e-01
	G	2.06011254e-03	3.83953482e-01	1.87181570e-02	1.26835413e+03	2.02116561e+00
	B	2.49534543e-03	3.85381103e-01	1.98284760e-02	6.60479553e+02	2.68967056e+00
black-oxidized-steel	R	1.98046997e-01	1.48070550e+00	1.71664339e-02	4.07782507e+00	2.42935121e-02
	G	2.01727167e-01	1.44400287e+00	1.52950892e-02	3.75543022e+00	2.56678481e-02
	B	2.04947934e-01	1.41143644e+00	1.41837457e-02	3.55648470e+00	2.61173006e-02
blue-metallic-paint	R	1.73497826e-01	1.18159723e+00	6.36956329e-03	1.85969532e+00	2.43771851e-01
	G	1.63024604e-01	1.15319991e+00	4.60413611e-03	1.95553410e+00	2.32368335e-01
	B	1.57046631e-01	1.15118539e+00	1.54961403e-02	2.83722162e-01	4.23000860e+00
blue-metallic-paint2	R	6.88469410e-03	5.19398272e-01	7.56482640e-03	5.87078674e+02	1.81469202e-01
	G	6.12737518e-03	4.82615650e-01	8.22968315e-03	6.02764160e+02	3.52443635e-01
	B	6.17320696e-03	4.61534292e-01	1.24391187e-02	6.21010437e+02	6.52530253e-01
brass	R	3.18747386e-03	4.60088432e-01	2.33643893e-02	2.40746655e+03	4.17066872e-01
	G	2.98262085e-03	4.33392793e-01	2.05020402e-02	2.06896509e+03	3.46412957e-01
	B	1.88624242e-03	3.96315753e-01	1.51190367e-02	5.26015088e+03	1.54787555e-01
chrome	R	3.60099552e-03	7.20954657e-01	8.13288443e-06	9.67600488e+03	8.85890871e-02
	G	3.13968351e-03	7.09139645e-01	1.71625041e-04	1.42880352e+04	6.98784590e-02
	B	3.12244683e-03	7.00694978e-01	4.36773244e-03	1.69550391e+04	5.31120151e-02
gold-metallic-paint	R	1.29607037e-01	6.13813043e-01	4.28501191e-03	1.20493487e-05	1.94518531e+05
	G	1.18967488e-01	6.52919173e-01	8.70258361e-03	1.95082515e-01	8.63986206e+00
	B	1.67224467e-01	1.13386512e+00	6.41735969e-03	2.43766975e+00	1.59011841e-01
gold-metallic-paint2	R	6.18774211e-03	2.37508863e-01	2.23132707e-02	1.20247596e-05	2.84924500e+07
	G	4.46802797e-03	2.23627746e-01	1.65984202e-02	9.83472910e-06	4.96899600e+07
	B	4.21985844e-03	2.26537660e-01	1.07475063e-02	1.96546553e-05	2.21042740e+07
gold-paint	R	1.53855920e-01	1.15916765e+00	1.62062198e-01	3.83237648e+00	2.51847804e-01
	G	1.58012211e-01	1.21308565e+00	9.34431702e-02	4.31460953e+00	1.67523235e-01
	B	1.41792059e-01	1.21139717e+00	3.84828113e-02	6.10043669e+00	6.91408962e-02
green-metallic-paint	R	1.48396686e-01	1.58820260e+00	7.06254365e-03	8.97257614e+00	3.27121988e-02
	G	1.52194813e-01	1.32942402e+00	3.26535217e-02	7.01071835e+00	9.92609262e-02
	B	1.51458338e-01	1.30735409e+00	3.99962403e-02	7.05077076e+00	1.06074691e-01
green-metallic-paint2	R	6.56168815e-03	4.73230064e-01	3.97016807e-03	5.86163696e+02	9.23260152e-02
	G	4.51904908e-03	3.79085243e-01	3.44460970e-03	6.17304016e+02	4.56309855e-01
	B	4.33672126e-03	3.87028843e-01	2.03578919e-03	9.49168213e+02	1.81833565e-01
hematite	R	2.59134360e-03	4.22430426e-01	8.94971937e-03	2.71048633e+03	1.84809521e-01
	G	2.08825944e-03	3.87333661e-01	8.53319000e-03	3.03061694e+03	2.39129156e-01
	B	2.19125766e-03	3.88877809e-01	8.83311871e-03	2.95527588e+03	2.34244347e-01
nickel	R	3.36095989e-02	1.08518255e+00	2.32460387e-02	1.65253403e+02	1.87190935e-01
	G	3.46343182e-02	1.08846939e+00	2.06692554e-02	1.58187088e+02	1.63873345e-01
	B	3.54813524e-02	1.08723903e+00	1.89113449e-02	1.54910889e+02	1.39452890e-01
red-metallic-paint	R	5.88774914e-03	4.09578949e-01	1.49594918e-02	5.62987366e+02	7.70897031e-01
	G	3.48156597e-03	4.02911097e-01	2.77120760e-03	1.88444653e+03	1.07575327e-01
	B	2.95576453e-03	3.96788150e-01	1.38524047e-03	2.73747852e+03	5.60428053e-02
silver-metallic-paint2	R	1.28357723e-01	6.17812634e-01	7.68102482e-02	4.43442659e-05	5.72291523e+04
	G	1.31911620e-01	6.25701427e-01	8.12310502e-02	4.00963307e-09	5.52973824e+08
	B	1.34340703e-01	6.65726423e-01	8.41763616e-02	3.66671649e-09	5.16965184e+08
silver-paint	R	1.47213057e-01	1.12424767e+00	1.71656832e-01	4.66620779e+00	2.56300986e-01
	G	1.46972880e-01	1.13907027e+00	1.42447025e-01	4.62216187e+00	2.72973776e-01
	B	1.50017947e-01	1.18053496e+00	1.26259670e-01	4.64903831e+00	2.75329769e-01
steel	R	2.59384816e-03	5.73869765e-01	1.17687397e-02	1.04045752e+04	1.30430087e-01
	G	1.83719781e-03	5.05547404e-01	1.22235510e-02	1.56016699e+04	1.42688021e-01
	B	2.79221684e-03	5.49036324e-01	1.41596347e-02	6.92950098e+03	1.19220220e-01

RGB Parameters for genBRDF 018-004076

Material		p0	p1	ρ_d	ρ_s	R_0
tungsten-carbide	R	3.76409362e-03	6.92892790e-01	5.39717590e-03	5.42524756e+03	1.05997756e-01
	G	3.29882302e-03	6.72697365e-01	5.16622979e-03	6.44885547e+03	9.40239206e-02
	B	2.54251924e-03	6.26672566e-01	5.51935192e-03	1.69328359e+04	6.42076209e-02
two-layer-gold	R	9.24698357e-03	2.43549123e-01	1.00698080e-02	4.77720352e-09	4.24980890e+10
	G	6.50533661e-03	2.30042711e-01	4.73907450e-03	4.56088323e-09	6.85789839e+10
	B	7.73569942e-03	2.42722064e-01	1.90846226e-03	1.24575406e-09	1.56337029e+11

RGB Parameters for genBRDF 018-004076

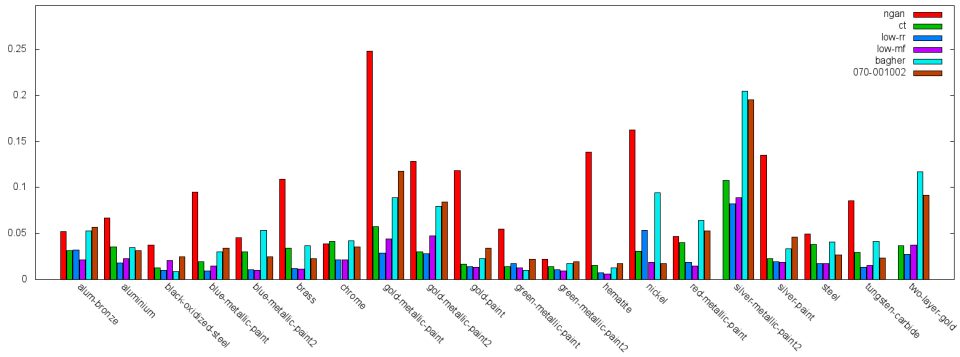
070-001002

Fitness: 0.000115929568

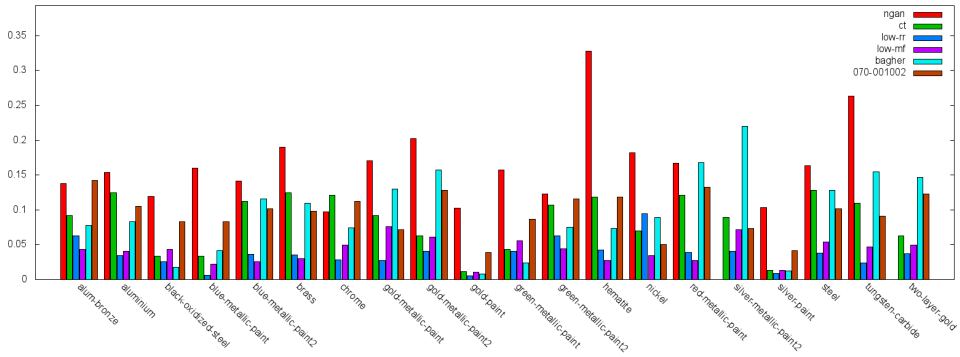
Length: 180

Reciprocity Error: 6.001932638e-15

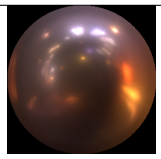
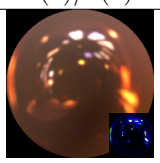
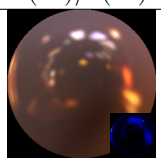
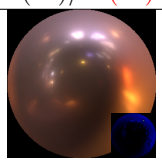
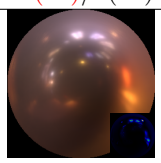
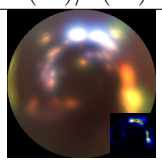
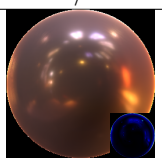
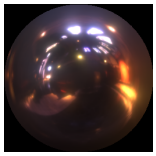
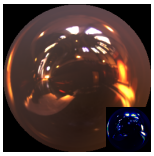
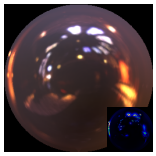
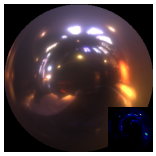
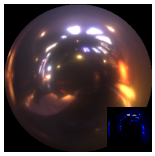
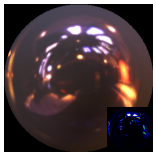
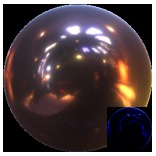
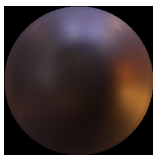
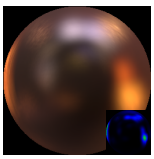
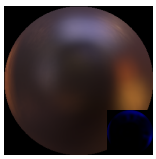
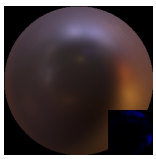
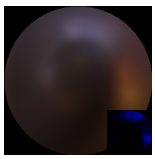
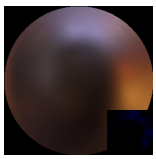
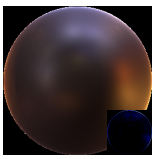
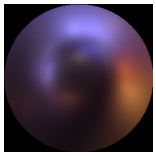
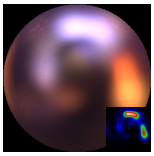
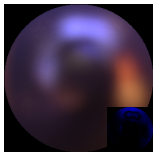
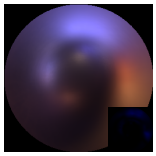
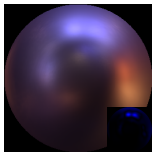
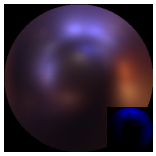
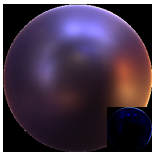
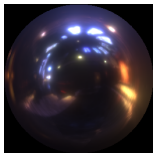
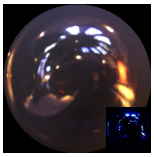
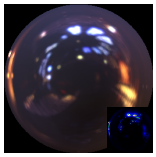
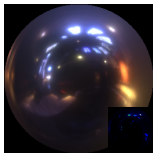
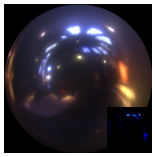
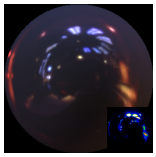
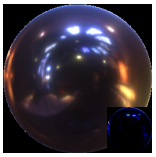
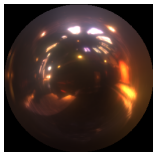
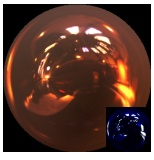
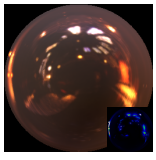
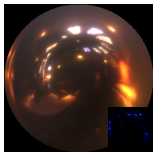
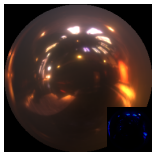
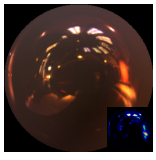
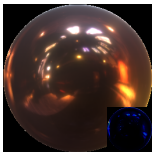
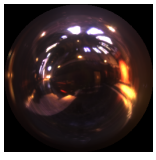
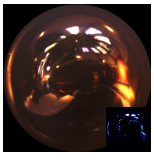
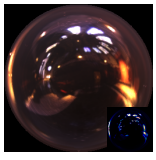
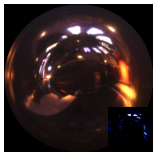
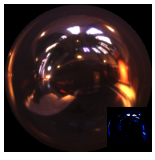
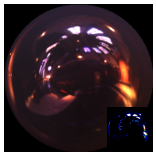
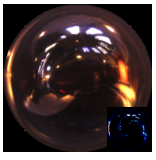
$$f'_n(\omega_i, \omega_o) = \left[\left([p_0 * e^{-\left(\left(\frac{tan(cos^{-1}(clamp(\omega_{hz})))}{p_1}\right)^{p_0}\right)}] / [\left(\left(\frac{tan(cos^{-1}(clamp(\omega_{hz})))}{p_0}\right)^{2.0} + [p_1 * \left(cos(\omega_{hz})\right)^{4.0}]\right) * p_0]\right) * 1.0\right]$$

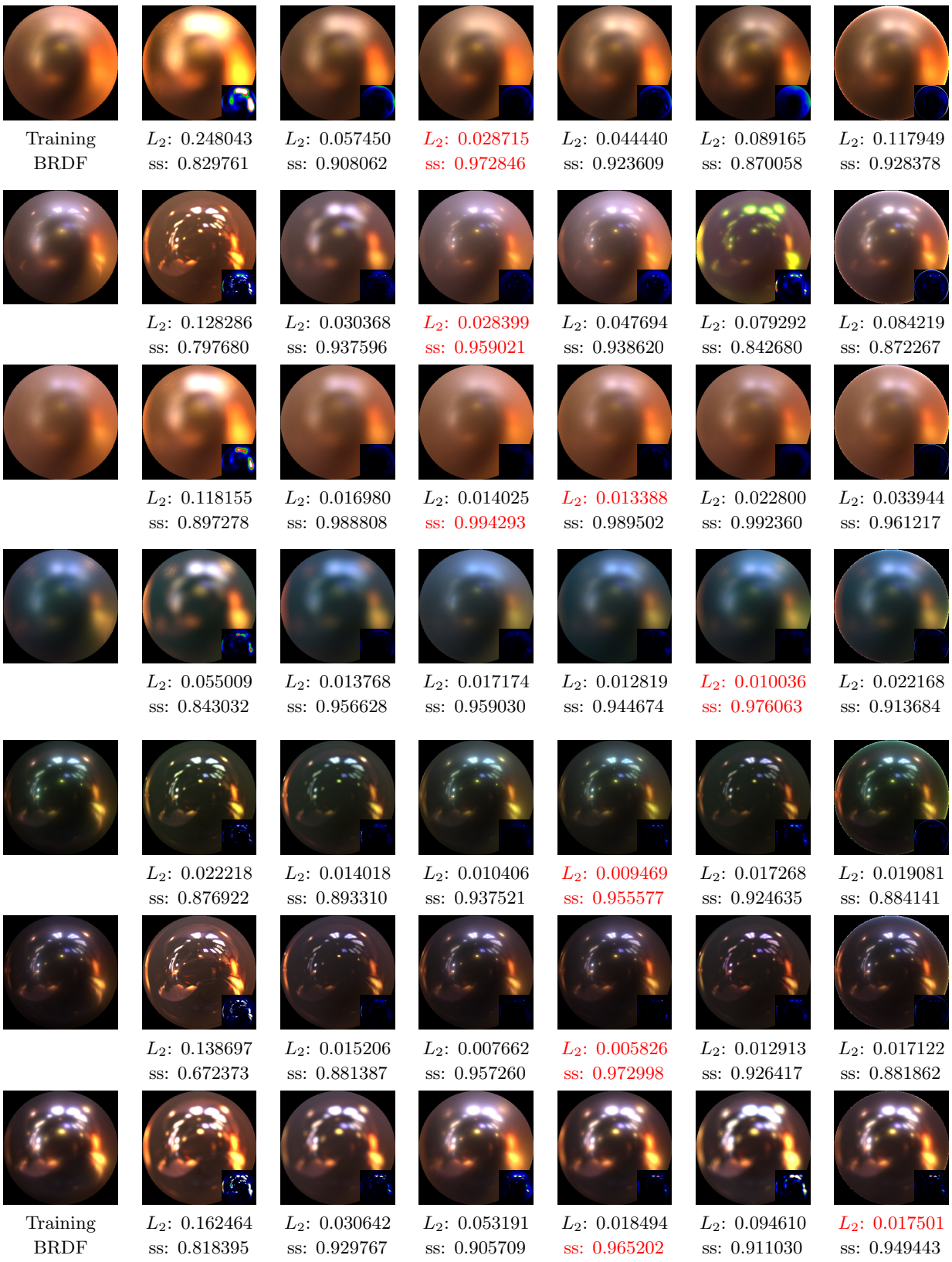


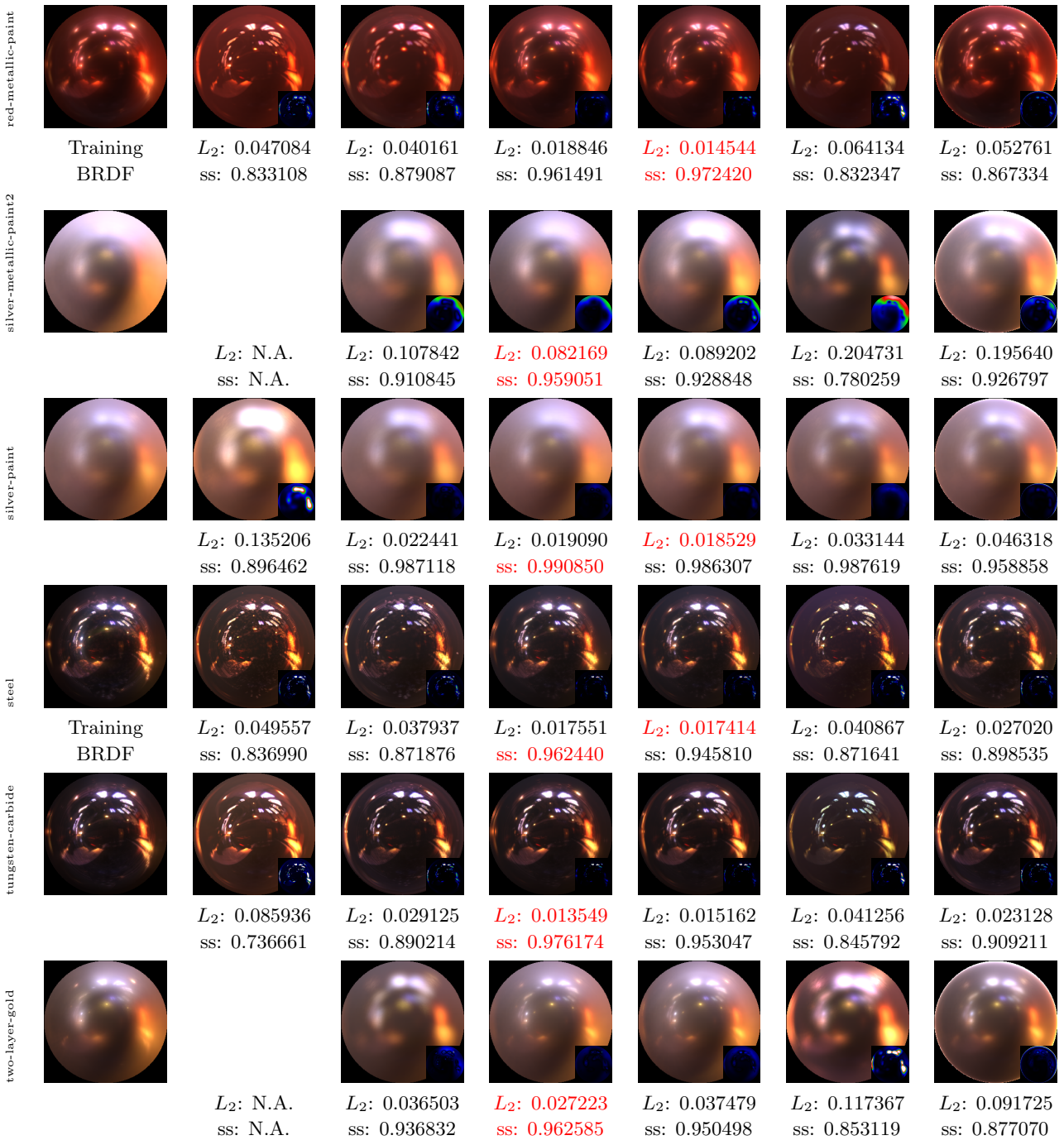
L_2 error.



SSIM error (= 100% - ssim).

	MERL	CT(Ngan) 0(2)/0(2)	CT(E_2 fit) 0(13)/0(10)	Löw SS 7(19)/11(19)	Löw MF 10(19)/7(19)	Bagher 2(10)/2(10)	genBRDF 1/0
alum-bronze		 L_2: 0.052284 ss: 0.862223	 L_2: 0.031392 ss: 0.907766	 L_2: 0.032159 ss: 0.937667	 L_2: 0.021146 ss: 0.956962	 L_2: 0.053167 ss: 0.922395	 L_2: 0.056888 ss: 0.858138
aluminium	 Training BRDF	 L_2: 0.067099 ss: 0.846399	 L_2: 0.035146 ss: 0.875113	 L_2: 0.018044 ss: 0.965309	 L_2: 0.022431 ss: 0.959087	 L_2: 0.034724 ss: 0.917355	 L_2: 0.031307 ss: 0.894498
black-oxidized-steel		 L_2: 0.037563 ss: 0.881117	 L_2: 0.012395 ss: 0.966402	 L_2: 0.009959 ss: 0.974466	 L_2: 0.021000 ss: 0.956823	 L_2: 0.009017 ss: 0.982697	 L_2: 0.025041 ss: 0.916863
blue-metallic-paint	 Training BRDF	 L_2: 0.094791 ss: 0.840025	 L_2: 0.019657 ss: 0.966125	 L_2: 0.009161 ss: 0.993984	 L_2: 0.015014 ss: 0.978181	 L_2: 0.030206 ss: 0.958517	 L_2: 0.034022 ss: 0.917098
blue-metallic-paint2	 Training BRDF	 L_2: 0.045753 ss: 0.859062	 L_2: 0.030359 ss: 0.888022	 L_2: 0.010992 ss: 0.963478	 L_2: 0.009785 ss: 0.974119	 L_2: 0.053468 ss: 0.884442	 L_2: 0.025030 ss: 0.897994
brass	 Training BRDF	 L_2: 0.109247 ss: 0.809906	 L_2: 0.034378 ss: 0.875335	 L_2: 0.011813 ss: 0.965002	 L_2: 0.011450 ss: 0.970392	 L_2: 0.036857 ss: 0.890152	 L_2: 0.022826 ss: 0.902061
chrome		 L_2: 0.038555 ss: 0.902465	 L_2: 0.041371 ss: 0.879025	 L_2: 0.021593 ss: 0.972071	 L_2: 0.021446 ss: 0.950898	 L_2: 0.042031 ss: 0.925449	 L_2: 0.035223 ss: 0.888024


gold-metallic-paint
Training BRDF
L_2: 0.248043 ss: 0.829761
L_2: 0.057450 ss: 0.908062
L_2: 0.028715 ss: 0.972846
L_2: 0.044440 ss: 0.923609
L_2: 0.089165 ss: 0.870058
L_2: 0.117949 ss: 0.928378
gold-metallic-paint2
L_2: 0.128286 ss: 0.797680
L_2: 0.030368 ss: 0.937596
L_2: 0.028399 ss: 0.959021
L_2: 0.047694 ss: 0.938620
L_2: 0.079292 ss: 0.842680
L_2: 0.084219 ss: 0.872267
gold-paint
L_2: 0.118155 ss: 0.897278
L_2: 0.016980 ss: 0.988808
L_2: 0.014025 ss: 0.994293
L_2: 0.013388 ss: 0.989502
L_2: 0.022800 ss: 0.992360
L_2: 0.033944 ss: 0.961217
green-metallic-paint
L_2: 0.055009 ss: 0.843032
L_2: 0.013768 ss: 0.956628
L_2: 0.017174 ss: 0.959030
L_2: 0.012819 ss: 0.944674
L_2: 0.010036 ss: 0.976063
L_2: 0.022168 ss: 0.913684
green-metallic-paint2
L_2: 0.022218 ss: 0.876922
L_2: 0.014018 ss: 0.893310
L_2: 0.010406 ss: 0.937521
L_2: 0.009469 ss: 0.955577
L_2: 0.017268 ss: 0.924635
L_2: 0.019081 ss: 0.884141
hematite
L_2: 0.138697 ss: 0.672373
L_2: 0.015206 ss: 0.881387
L_2: 0.007662 ss: 0.957260
L_2: 0.005826 ss: 0.972998
L_2: 0.012913 ss: 0.926417
L_2: 0.017122 ss: 0.881862
nickel
Training BRDF
L_2: 0.162464 ss: 0.818395
L_2: 0.030642 ss: 0.929767
L_2: 0.053191 ss: 0.905709
L_2: 0.018494 ss: 0.965202
L_2: 0.094610 ss: 0.911030
L_2: 0.017501 ss: 0.949443


red-metallic-paint
Training BRDF
L_2: 0.047084 ss: 0.833108
L_2: 0.040161 ss: 0.879087
L_2: 0.018846 ss: 0.961491
L_2: 0.014544 ss: 0.972420
L_2: 0.064134 ss: 0.832347
L_2: 0.052761 ss: 0.867334
silver-metallic-paint2
L_2: N.A. ss: N.A.
L_2: 0.107842 ss: 0.910845
L_2: 0.082169 ss: 0.959051
L_2: 0.089202 ss: 0.928848
L_2: 0.204731 ss: 0.780259
L_2: 0.195640 ss: 0.926797
silver-paint
L_2: 0.135206 ss: 0.896462
L_2: 0.022441 ss: 0.987118
L_2: 0.019090 ss: 0.990850
L_2: 0.018529 ss: 0.986307
L_2: 0.033144 ss: 0.987619
L_2: 0.046318 ss: 0.958858
steel
Training BRDF
L_2: 0.049557 ss: 0.836990
L_2: 0.037937 ss: 0.871876
L_2: 0.017551 ss: 0.962440
L_2: 0.017414 ss: 0.945810
L_2: 0.040867 ss: 0.871641
L_2: 0.027020 ss: 0.898535
tungsten-carbide
L_2: 0.085936 ss: 0.736661
L_2: 0.029125 ss: 0.890214
L_2: 0.013549 ss: 0.976174
L_2: 0.015162 ss: 0.953047
L_2: 0.041256 ss: 0.845792
L_2: 0.023128 ss: 0.909211
two-layer-gold
L_2: N.A. ss: N.A.
L_2: 0.036503 ss: 0.936832
L_2: 0.027223 ss: 0.962585
L_2: 0.037479 ss: 0.950498
L_2: 0.117367 ss: 0.853119
L_2: 0.091725 ss: 0.877070

Material		p0	p1	ρ_d	ρ_s	R_0
alum-bronze	R	1.51756361e-01	1.87977597e-01	5.30453101e-02	1.55850613e+00	2.20401317e-01
	G	2.50202686e-01	9.49472785e-02	4.80954200e-02	6.86971605e-01	1.35429665e-01
	B	3.15483958e-01	4.54820357e-02	4.19174992e-02	5.83132684e-01	5.78756146e-02
aluminium	R	2.35521212e-01	4.36258735e-03	1.20540392e-02	3.05644810e-01	1.32218194e+00
	G	1.75729379e-01	5.10489475e-03	7.90805928e-03	1.61512911e-01	3.37654591e+00
	B	1.61176741e-01	7.58256577e-03	7.97391497e-03	1.25173718e-01	4.76979923e+00
black-oxidized-steel	R	1.40629494e+00	3.66018981e-01	1.22055653e-02	3.17976512e-02	1.36726454e-01
	G	1.33703256e+00	4.00439739e-01	9.80020594e-03	3.12596560e-02	1.47388563e-01
	B	1.27148485e+00	4.38416600e-01	8.20378866e-03	3.20542417e-02	1.52015015e-01
blue-metallic-paint	R	1.30493069e+00	3.67153406e-01	7.52289779e-03	1.41840005e-07	8.49945781e+04
	G	1.24355042e+00	3.58156323e-01	4.95160511e-03	9.99565444e-08	1.18493953e+05
	B	1.32469916e+00	3.18881750e-01	3.04875895e-02	8.94093954e-09	2.59370175e+06
blue-metallic-paint2	R	3.31064671e-01	1.18183959e-02	4.49618604e-03	3.77568573e-01	2.38291517e-01
	G	2.67775744e-01	1.18703563e-02	2.26610876e-03	4.01657999e-01	4.49426323e-01
	B	2.39389420e-01	1.36863263e-02	5.18701854e-04	4.76087332e-01	8.39811683e-01
brass	R	2.59488344e-01	4.31755325e-03	1.67918429e-02	5.41150689e-01	5.42370796e-01
	G	1.96558297e-01	5.21744834e-03	1.33105079e-02	5.74194193e-01	4.42097187e-01
	B	1.59653530e-01	3.70522239e-03	1.12071717e-02	9.44830894e-01	1.76275104e-01
chrome	R	5.16861379e-01	2.30449857e-03	3.63047072e-03	1.99009919e+00	1.42759353e-01
	G	4.83177423e-01	1.73503521e-03	3.21524567e-03	2.71378064e+00	1.04790874e-01
	B	4.82853562e-01	1.77454983e-03	3.55172204e-03	3.22547960e+00	7.84588680e-02
gold-metallic-paint	R	9.05637741e-01	5.45421541e-01	2.35884339e-02	7.99365067e-15	8.01346893e+12
	G	1.05078936e+00	4.25727993e-01	2.35570390e-02	1.77977779e-15	1.92897928e+13
	B	1.07583833e+00	4.35414404e-01	2.27878662e-03	2.58914242e-03	5.21416712e+00
gold-metallic-paint2	R	2.07976684e-01	6.06971323e-01	4.39129323e-02	4.76572097e-08	8.48341600e+06
	G	1.72711313e-01	6.90263510e-01	3.85713354e-02	3.27254702e-06	1.46433844e+05
	B	5.25255746e-06	1.63146656e+08	4.02889512e-02	1.74168944e+08	1.98414958e+00
gold-paint	R	1.30424607e+00	3.13601077e-01	1.66113570e-01	1.27370551e-03	1.67511692e+01
	G	1.32481086e+00	3.09709191e-01	9.44056883e-02	1.03423083e-02	1.60474741e+00
	B	1.15611589e+00	2.96893030e-01	3.52330282e-02	3.13768722e-02	3.35139573e-01
green-metallic-paint	R	1.58223832e+00	2.11920753e-01	4.61767986e-03	4.41544987e-02	1.41830876e-01
	G	1.38069570e+00	2.65809566e-01	3.06351669e-02	2.58495323e-02	5.80981553e-01
	B	1.35746324e+00	2.70080209e-01	3.79878208e-02	2.48904303e-02	6.52780533e-01
green-metallic-paint2	R	2.84339786e-01	1.45660462e-02	2.33617052e-03	4.42190766e-01	1.08449690e-01
	G	1.19680732e-01	4.18336950e-02	1.02715177e-42	9.96566355e-01	4.35441107e-01
	B	2.02897549e-01	1.85950566e-02	1.30356499e-03	6.17598355e-01	1.64784014e-01
hematite	R	2.05253661e-01	4.66650072e-03	5.74361207e-03	6.16878033e-01	2.05196008e-01
	G	1.24066159e-01	6.20562164e-03	3.52067780e-03	9.55646515e-01	2.71043837e-01
	B	1.00630276e-01	8.58028699e-03	2.52223900e-03	1.39212894e+00	2.75483966e-01
nickel	R	7.81188846e-01	4.56290320e-02	1.41237332e-02	4.66176502e-08	3.18977825e+06
	G	7.99389839e-01	4.83467393e-02	1.22252814e-02	8.54886509e-03	1.49225245e+01
	B	8.23288977e-01	5.09391390e-02	1.15394555e-02	4.20140103e-02	2.55659604e+00
red-metallic-paint	R	1.25899762e-01	3.76782529e-02	1.77299262e-06	1.15768921e+00	8.95989537e-01
	G	1.97608992e-01	1.02376016e-02	1.16717489e-03	8.20588589e-01	1.05081618e-01
	B	2.04615295e-01	7.55781727e-03	7.80757633e-04	8.65564346e-01	5.27764000e-02
silver-metallic-paint2	R	7.05562234e-01	7.00464725e-01	9.26000327e-02	3.20174678e-07	3.02207688e+05
	G	7.67737985e-01	6.66782260e-01	9.88763943e-02	3.36185281e-07	2.31228562e+05
	B	8.92628729e-01	5.89488029e-01	1.02839038e-01	6.76166892e-12	8.32608358e+09
silver-paint	R	1.25996876e+00	3.11423957e-01	1.76073283e-01	1.63265647e-36	1.60173373e+34
	G	1.26538885e+00	3.04031014e-01	1.47229314e-01	2.56988166e-36	1.05128443e+34
	B	1.30154037e+00	2.95242131e-01	1.30788222e-01	3.34042290e-36	8.10036409e+33
steel	R	3.95482987e-01	1.82066020e-03	1.05315177e-02	1.52283418e+00	1.63786680e-01
	G	3.37011129e-01	1.42540690e-03	1.07058967e-02	1.33359587e+00	1.73003301e-01
	B	3.57827604e-01	2.15692539e-03	1.24807861e-02	1.10657322e+00	1.53975084e-01

RGB Parameters for genBRDF 070-001002

Material		p0	p1	ρ_d	ρ_s	R_0
tungsten-carbide	R	5.14322519e-01	2.78835301e-03	4.65528388e-03	1.14311802e+00	1.62792757e-01
	G	4.61237878e-01	2.07125070e-03	4.31815861e-03	1.23215139e+00	1.39003143e-01
	B	4.35349494e-01	1.50675420e-03	4.83127218e-03	2.56711698e+00	8.21902007e-02
two-layer-gold	R	2.28403628e-01	6.68173552e-01	3.31894159e-02	7.63074013e-07	5.01768219e+05
	G	1.94534481e-01	7.34747589e-01	2.83040144e-02	1.02972072e-05	4.34130938e+04
	B	1.45674735e-01	7.81516850e-01	2.51823366e-02	9.59400460e-03	6.07708092e+01

RGB Parameters for genBRDF 070-001002

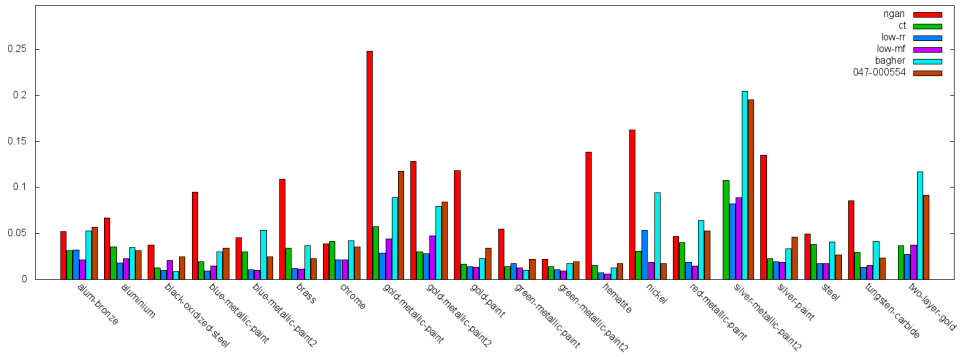
047-000554

Fitness: 0.000115978263

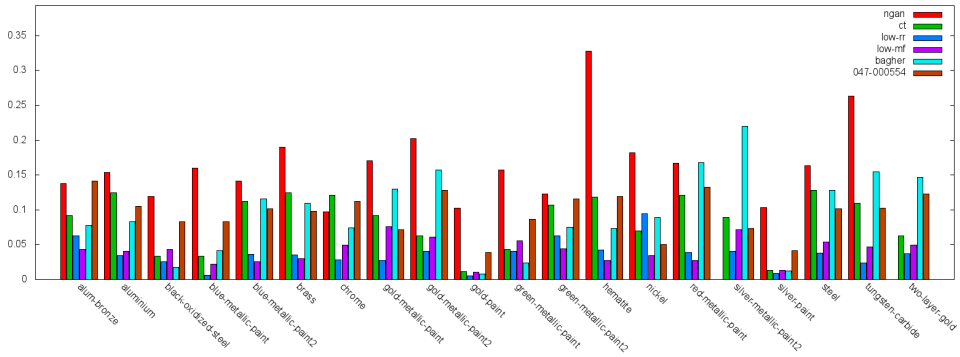
Length: 177

Reciprocity Error: 7.057552384e-15

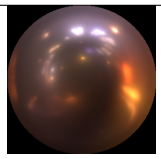
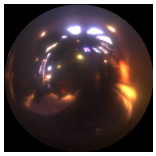
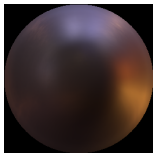
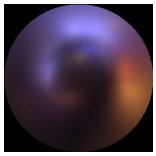
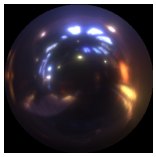
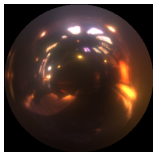
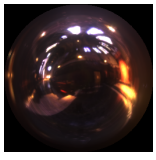
$$f'_n(\omega_i, \omega_o) = \left[\left([p_1 * e^{-\left(\left(\frac{tan(cos^{-1}(clamp(\omega_{hz})))}{p_1}\right)^{p_0}\right)}\right] / \left[\left(\left(\frac{tan(cos^{-1}(clamp(\omega_{hz})))}{p_0}\right)^{2.0} + [p_1 * (cos(1.0))^{4.0}]\right) * p_0\right]\right) * p_1\right]$$

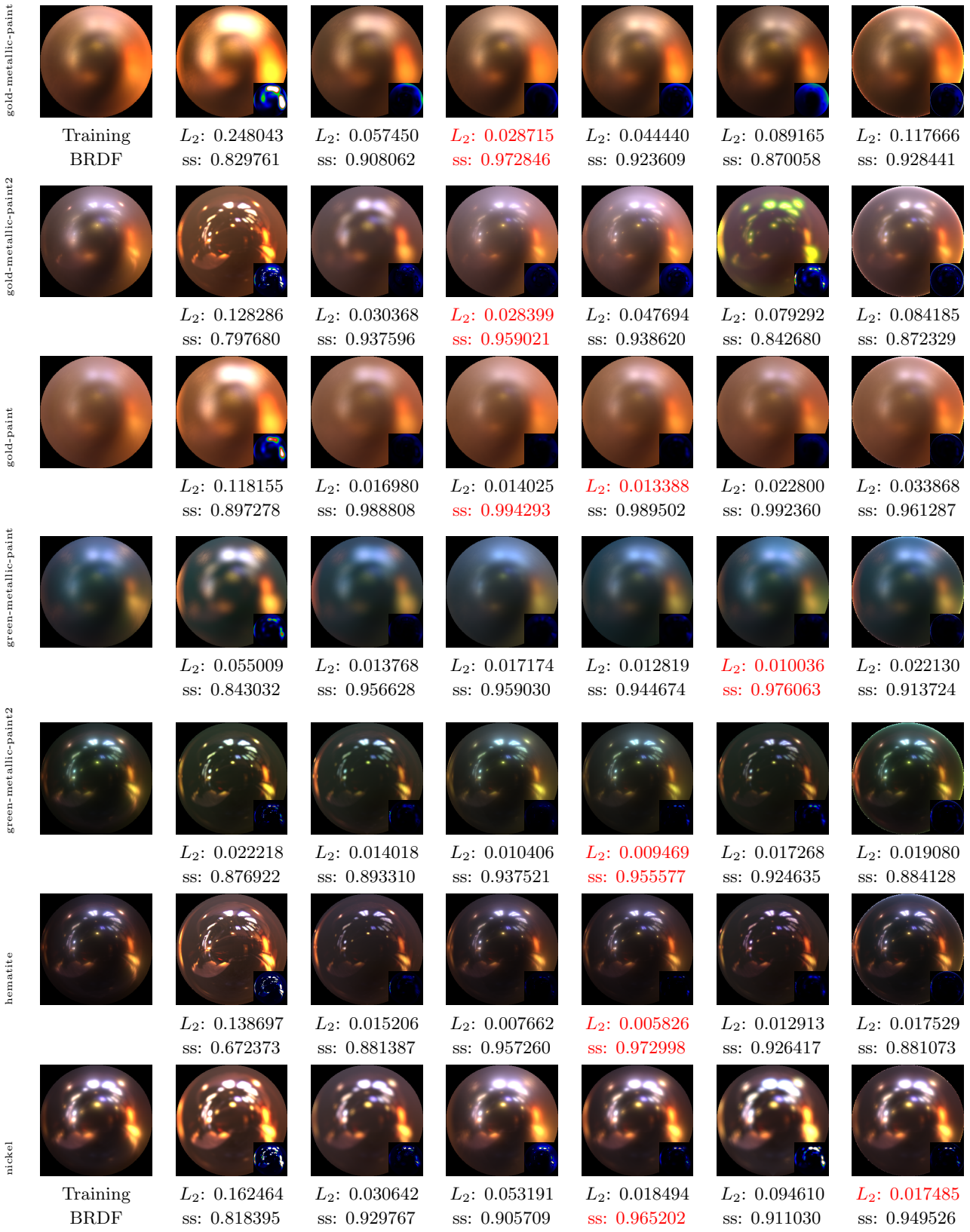


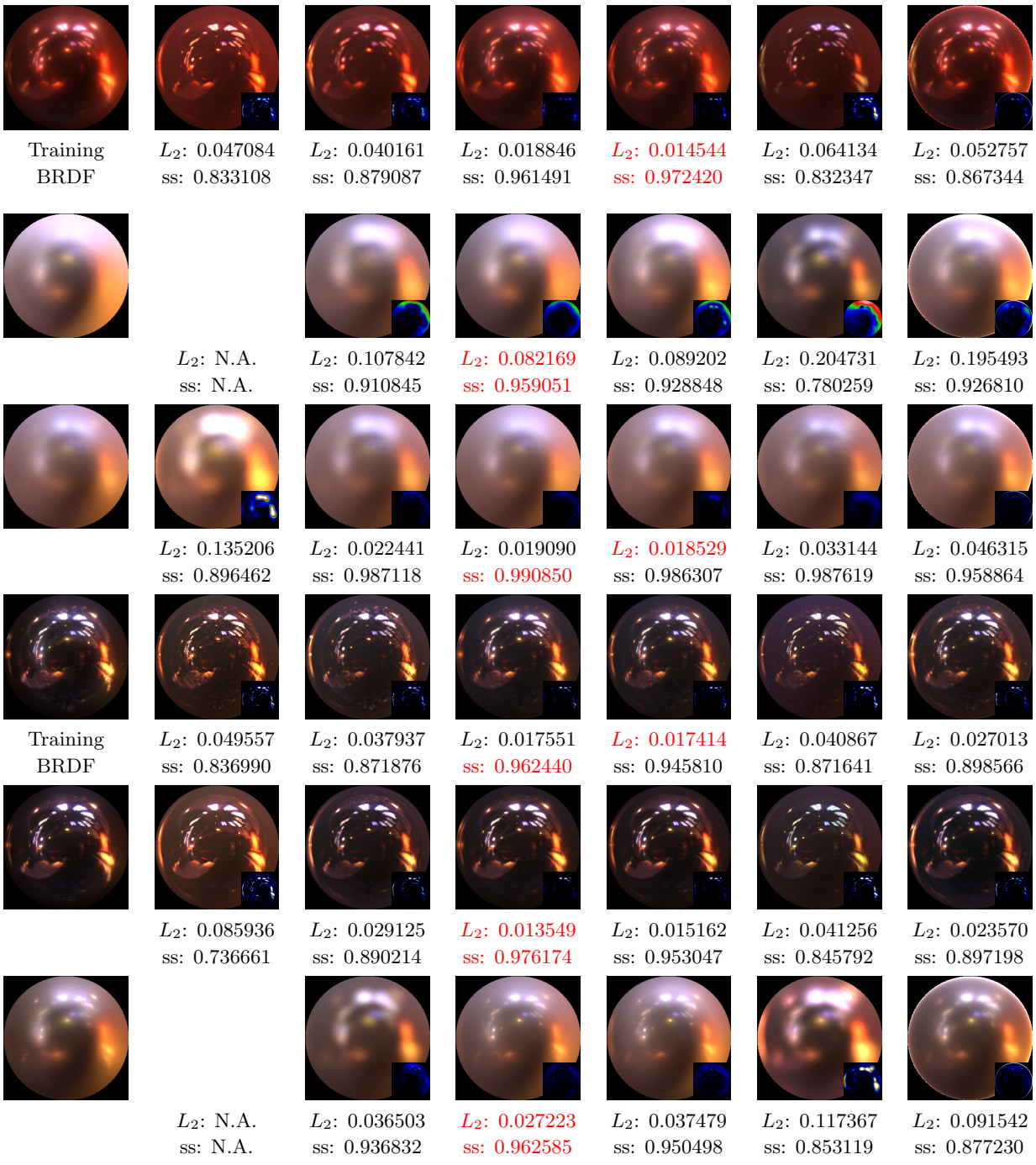
L_2 error.



SSIM error (= 100% - ssim).

	MERL	CT(Ngan) 0(2)/0(2)	CT(E_2 fit) 0(13)/0(11)	Löw SS 7(19)/11(19)	Löw MF 10(19)/7(19)	Bagher 2(10)/2(10)	genBRDF 1/0
alum-bronze		L_2: 0.052284 ss: 0.862223	L_2: 0.031392 ss: 0.907766	L_2: 0.032159 ss: 0.937667	L_2: 0.021146 ss: 0.956962	L_2: 0.053167 ss: 0.922395	L_2: 0.056834 ss: 0.858207
aluminium		Training BRDF	L_2: 0.067099 ss: 0.846399	L_2: 0.035146 ss: 0.875113	L_2: 0.018044 ss: 0.965309	L_2: 0.022431 ss: 0.959087	L_2: 0.034724 ss: 0.917355	L_2: 0.031285 ss: 0.894499
black-oxidized-steel		L_2: 0.037563 ss: 0.881117	L_2: 0.012395 ss: 0.966402	L_2: 0.009959 ss: 0.974466	L_2: 0.021000 ss: 0.956823	L_2: 0.009017 ss: 0.982697	L_2: 0.024980 ss: 0.916907
blue-metallic-paint		Training BRDF	L_2: 0.094791 ss: 0.840025	L_2: 0.019657 ss: 0.966125	L_2: 0.009161 ss: 0.993984	L_2: 0.015014 ss: 0.978181	L_2: 0.030206 ss: 0.958517	L_2: 0.033962 ss: 0.917122
blue-metallic-paint2		Training BRDF	L_2: 0.045753 ss: 0.859062	L_2: 0.030359 ss: 0.888022	L_2: 0.010992 ss: 0.963478	L_2: 0.009785 ss: 0.974119	L_2: 0.053468 ss: 0.884442	L_2: 0.025025 ss: 0.898013
brass		Training BRDF	L_2: 0.109247 ss: 0.809906	L_2: 0.034378 ss: 0.875335	L_2: 0.011813 ss: 0.965002	L_2: 0.011450 ss: 0.970392	L_2: 0.036857 ss: 0.890152	L_2: 0.022822 ss: 0.902065
chrome		L_2: 0.038555 ss: 0.902465	L_2: 0.041371 ss: 0.879025	L_2: 0.021593 ss: 0.972071	L_2: 0.021446 ss: 0.950898	L_2: 0.042031 ss: 0.925449	L_2: 0.035237 ss: 0.887898


gold-metallic-paint
Training BRDF
L_2: 0.248043 ss: 0.829761
L_2: 0.057450 ss: 0.908062
L_2: 0.028715 ss: 0.972846
L_2: 0.044440 ss: 0.923609
L_2: 0.089165 ss: 0.870058
L_2: 0.117666 ss: 0.928441
gold-metallic-paint2
L_2: 0.128286 ss: 0.797680
L_2: 0.030368 ss: 0.937596
L_2: 0.028399 ss: 0.959021
L_2: 0.047694 ss: 0.938620
L_2: 0.079292 ss: 0.842680
L_2: 0.084185 ss: 0.872329
gold-paint
L_2: 0.118155 ss: 0.897278
L_2: 0.016980 ss: 0.988808
L_2: 0.014025 ss: 0.994293
L_2: 0.013388 ss: 0.989502
L_2: 0.022800 ss: 0.992360
L_2: 0.033868 ss: 0.961287
green-metallic-paint
L_2: 0.055009 ss: 0.843032
L_2: 0.013768 ss: 0.956628
L_2: 0.017174 ss: 0.959030
L_2: 0.012819 ss: 0.944674
L_2: 0.010036 ss: 0.976063
L_2: 0.022130 ss: 0.913724
green-metallic-paint2
L_2: 0.022218 ss: 0.876922
L_2: 0.014018 ss: 0.893310
L_2: 0.010406 ss: 0.937521
L_2: 0.009469 ss: 0.955577
L_2: 0.017268 ss: 0.924635
L_2: 0.019080 ss: 0.884128
hematite
L_2: 0.138697 ss: 0.672373
L_2: 0.015206 ss: 0.881387
L_2: 0.007662 ss: 0.957260
L_2: 0.005826 ss: 0.972998
L_2: 0.012913 ss: 0.926417
L_2: 0.017529 ss: 0.881073
nickel
Training BRDF
L_2: 0.162464 ss: 0.818395
L_2: 0.030642 ss: 0.929767
L_2: 0.053191 ss: 0.905709
L_2: 0.018494 ss: 0.965202
L_2: 0.094610 ss: 0.911030
L_2: 0.017485 ss: 0.949526


red-metallic-paint
Training BRDF
L_2: 0.047084 ss: 0.833108
L_2: 0.040161 ss: 0.879087
L_2: 0.018846 ss: 0.961491
L_2: 0.014544 ss: 0.972420
L_2: 0.064134 ss: 0.832347
L_2: 0.052757 ss: 0.867344
silver-metallic-paint2
L_2: N.A. ss: N.A.
L_2: 0.107842 ss: 0.910845
L_2: 0.082169 ss: 0.959051
L_2: 0.089202 ss: 0.928848
L_2: 0.204731 ss: 0.780259
L_2: 0.195493 ss: 0.926810
silver-paint
L_2: 0.135206 ss: 0.896462
L_2: 0.022441 ss: 0.987118
L_2: 0.019090 ss: 0.990850
L_2: 0.018529 ss: 0.986307
L_2: 0.033144 ss: 0.987619
L_2: 0.046315 ss: 0.958864
steel
Training BRDF
L_2: 0.049557 ss: 0.836990
L_2: 0.037937 ss: 0.871876
L_2: 0.017551 ss: 0.962440
L_2: 0.017414 ss: 0.945810
L_2: 0.040867 ss: 0.871641
L_2: 0.027013 ss: 0.898566
tungsten-carbide
L_2: 0.085936 ss: 0.736661
L_2: 0.029125 ss: 0.890214
L_2: 0.013549 ss: 0.976174
L_2: 0.015162 ss: 0.953047
L_2: 0.041256 ss: 0.845792
L_2: 0.023570 ss: 0.897198
two-layer-gold
L_2: N.A. ss: N.A.
L_2: 0.036503 ss: 0.936832
L_2: 0.027223 ss: 0.962585
L_2: 0.037479 ss: 0.950498
L_2: 0.117367 ss: 0.853119
L_2: 0.091542 ss: 0.877230

Material		p0	p1	ρ_d	ρ_s	R_0
alum-bronze	R	1.52466521e-01	1.86622962e-01	5.30449338e-02	6.75161648e+00	2.20674098e-01
	G	2.50387877e-01	9.46573988e-02	4.81455326e-02	1.91681576e+01	1.35230973e-01
	B	3.15059751e-01	4.55276892e-02	4.18615118e-02	8.87543335e+01	5.78970723e-02
aluminium	R	2.35454455e-01	4.35988791e-03	1.20372102e-02	3.78591626e+03	1.32293689e+00
	G	1.75766468e-01	5.10182837e-03	7.94356596e-03	1.09732263e+03	3.35478497e+00
	B	1.61423102e-01	7.57999206e-03	7.92863406e-03	3.53804626e+02	4.73007822e+00
black-oxidized-steel	R	1.36417174e+00	3.50467294e-01	1.22088417e-02	3.40471923e-01	1.36800021e-01
	G	1.29685926e+00	3.82519603e-01	9.84156597e-03	2.66616404e-01	1.47296846e-01
	B	1.23305202e+00	4.17328596e-01	8.26480892e-03	2.18060166e-01	1.51616946e-01
blue-metallic-paint	R	1.26899183e+00	3.52766156e-01	7.52096437e-03	4.06282407e-30	2.92783582e+28
	G	1.21436405e+00	3.44670147e-01	4.97753173e-03	3.96156943e-30	2.96090206e+28
	B	1.29473710e+00	3.07590425e-01	3.05353831e-02	3.13387321e-29	9.83016839e+27
blue-metallic-paint2	R	3.31040561e-01	1.18213268e-02	4.48069489e-03	8.94147522e+02	2.38372356e-01
	G	2.67715663e-01	1.18644033e-02	2.27682292e-03	7.63503357e+02	4.49798137e-01
	B	2.39432693e-01	1.36823338e-02	4.79516777e-04	6.07304260e+02	8.41763914e-01
brass	R	2.59443164e-01	4.31805337e-03	1.67840850e-02	7.52243262e+03	5.43045759e-01
	G	1.96674764e-01	5.21648536e-03	1.33165140e-02	4.15093555e+03	4.41554129e-01
	B	1.59630418e-01	3.71118658e-03	1.11919623e-02	1.09593320e+04	1.76118940e-01
chrome	R	5.16795993e-01	2.30253558e-03	3.66527680e-03	1.94366297e+05	1.42596841e-01
	G	4.83068973e-01	1.73462485e-03	3.25865299e-03	4.35592625e+05	1.04786731e-01
	B	4.82900053e-01	1.77655136e-03	3.52779124e-03	4.92245719e+05	7.85786957e-02
gold-metallic-paint	R	8.83889139e-01	5.24824262e-01	2.37911195e-02	4.01257495e-07	4.97294938e+05
	G	1.02600193e+00	4.10349667e-01	2.35419143e-02	2.74635653e-07	7.40408562e+05
	B	1.05155623e+00	4.17891294e-01	2.33815867e-03	1.51415681e-02	5.19149542e+00
gold-metallic-paint2	R	2.08306238e-01	6.02609515e-01	4.39513065e-02	5.23999030e-13	4.38707356e+11
	G	1.74288571e-01	6.79829359e-01	3.85310836e-02	6.49999887e-10	2.72219456e+08
	B	2.82341057e-06	5.66172544e+08	4.04088162e-02	5.33604245e-15	1.97271943e+00
gold-paint	R	1.27624679e+00	3.02696586e-01	1.66178778e-01	1.70383919e-02	1.69474869e+01
	G	1.29500031e+00	2.99219668e-01	9.43979248e-02	1.45410463e-01	1.60509872e+00
	B	1.13662410e+00	2.88235873e-01	3.52485478e-02	4.19609219e-01	3.34912181e-01
green-metallic-paint	R	1.55772662e+00	2.06355661e-01	4.63115517e-03	1.57851350e+00	1.41841188e-01
	G	1.35484421e+00	2.57681698e-01	3.06548364e-02	5.13922572e-01	5.81239164e-01
	B	1.33255458e+00	2.61749208e-01	3.80173922e-02	4.71387833e-01	6.53245687e-01
green-metallic-paint2	R	2.84034312e-01	1.45684006e-02	2.31170305e-03	5.92443420e+02	1.08456820e-01
	G	1.19793691e-01	4.18014415e-02	7.87834765e-21	6.82028580e+01	4.35471207e-01
	B	2.03058735e-01	1.85791403e-02	1.32054067e-03	3.62594391e+02	1.64904162e-01
hematite	R	1.92454576e-01	4.94149327e-03	7.05624174e-04	5.11259326e+03	2.13213772e-01
	G	1.23877645e-01	6.21821312e-03	3.52061912e-03	3.06846753e+03	2.71059126e-01
	B	1.00488923e-01	8.59262329e-03	2.50847335e-03	1.89918481e+03	2.75514394e-01
nickel	R	7.80969799e-01	4.54973057e-02	1.40660005e-02	7.06293434e-03	7.92500684e+03
	G	7.98431456e-01	4.81851399e-02	1.22224493e-02	2.95377803e+00	1.48242769e+01
	B	8.21833551e-01	5.07567562e-02	1.15217566e-02	1.33045702e+01	2.57164717e+00
red-metallic-paint	R	1.25998050e-01	3.76458019e-02	1.23673561e-14	1.02881645e+02	8.94927919e-01
	G	1.97556630e-01	1.02468412e-02	1.18241401e-03	1.54408008e+03	1.05156556e-01
	B	2.04415962e-01	7.56086688e-03	7.95807515e-04	3.09672461e+03	5.28168194e-02
silver-metallic-paint2	R	6.89515889e-01	6.78888381e-01	9.26164314e-02	2.16884022e-08	6.53358150e+06
	G	7.46788263e-01	6.47259176e-01	9.85737443e-02	2.35024284e-08	5.78518150e+06
	B	8.68198097e-01	5.67322731e-01	1.02896892e-01	2.32981900e-08	6.33254600e+06
silver-paint	R	1.23289013e+00	3.01300198e-01	1.76042169e-01	6.65830066e-06	5.19721016e+04
	G	1.23994100e+00	2.94441223e-01	1.47246391e-01	2.56092721e-06	1.46955250e+05
	B	1.27389038e+00	2.85848469e-01	1.30745232e-01	2.34383113e-09	1.75459984e+08
steel	R	3.95385802e-01	1.81970990e-03	1.05022155e-02	1.81799656e+05	1.63795844e-01
	G	3.37107629e-01	1.42605137e-03	1.06791798e-02	2.21013438e+05	1.72959238e-01
	B	3.57844263e-01	2.15235562e-03	1.24971988e-02	8.53732266e+04	1.54406667e-01

RGB Parameters for genBRDF 047-000554

Material		p0	p1	ρ_d	ρ_s	R_0
tungsten-carbide	R	5.12434363e-01	2.78457161e-03	2.05258286e-04	7.53528203e+04	1.62905112e-01
	G	4.61080760e-01	2.06769630e-03	4.30699438e-03	1.33130562e+05	1.39167517e-01
	B	4.35232073e-01	1.50542054e-03	4.81047528e-03	4.93657969e+05	8.21334720e-02
two-layer-gold	R	2.30264917e-01	6.55338824e-01	3.32454219e-02	3.29992076e-07	6.07895688e+05
	G	1.96193710e-01	7.20823765e-01	2.85165533e-02	3.08738777e-07	5.34452062e+05
	B	1.45867899e-01	7.77272761e-01	2.51789372e-02	2.17182003e-03	6.43988800e+01

RGB Parameters for genBRDF 047-000554

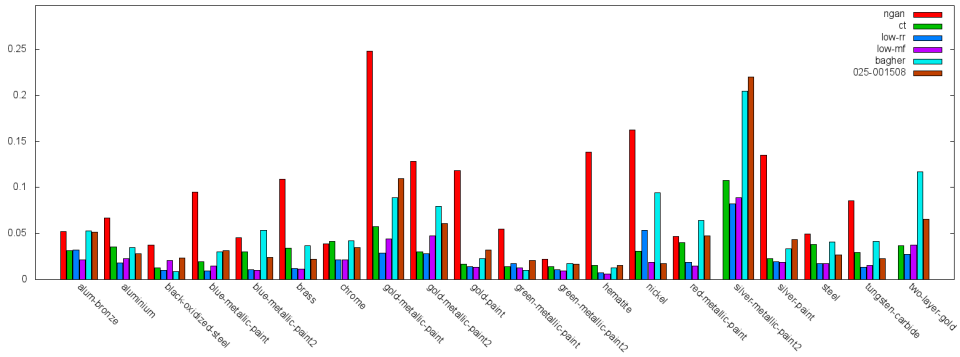
025-001508

Fitness: 0.000116255186

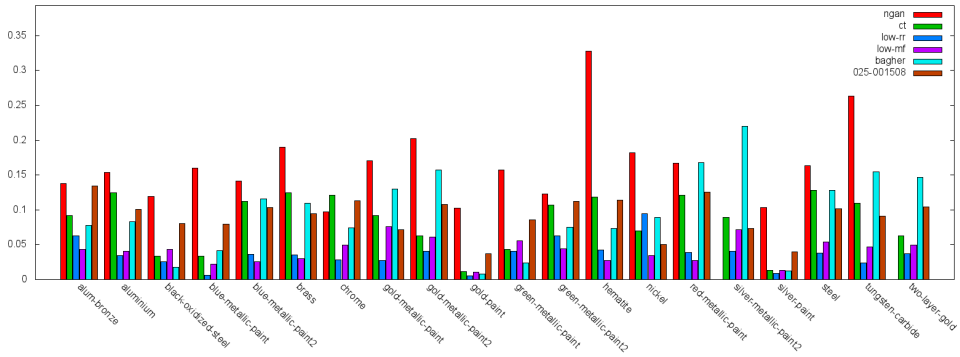
Length: 157

Reciprocity Error: 4.904004584e-15

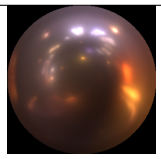
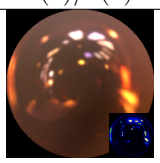
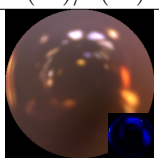
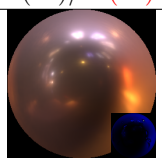
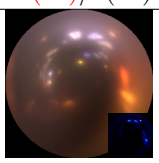
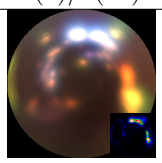
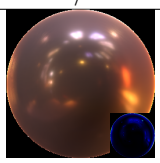
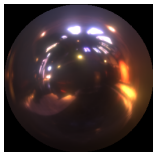
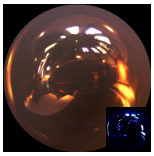
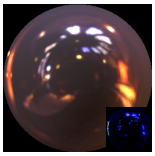
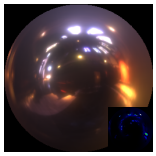
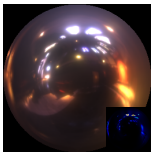
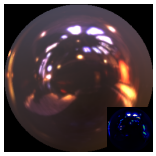
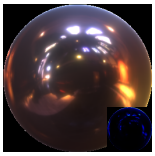
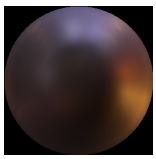
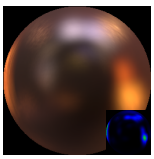
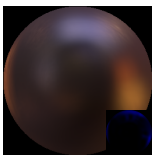
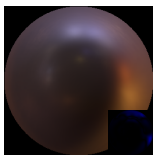
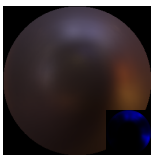
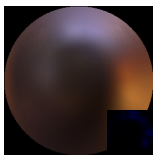
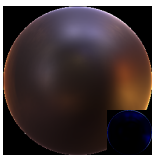
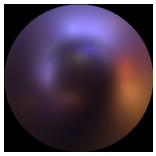
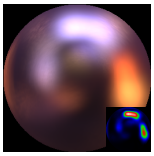
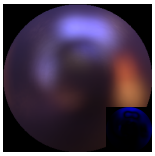
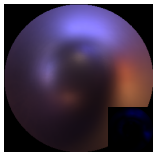
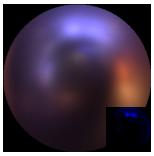
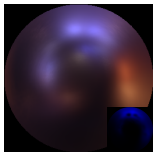
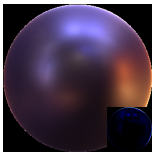
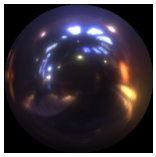
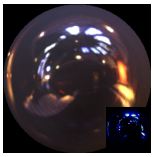
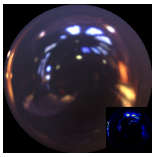
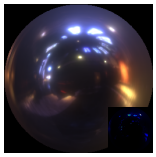
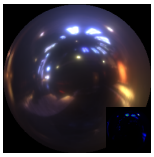
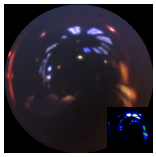
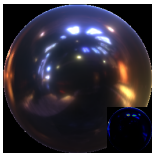
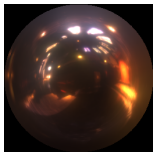
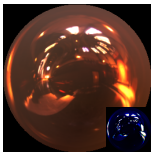
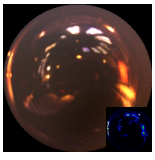
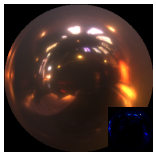
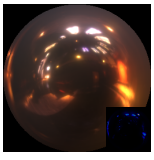
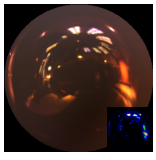
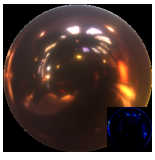
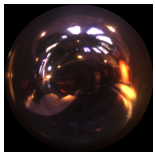
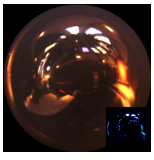
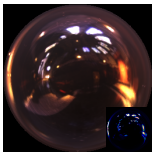
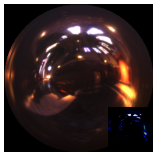
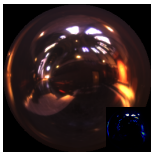
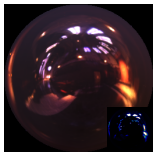
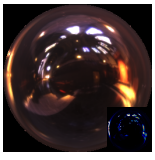
$$f'_n(\omega_i, \omega_o) = \left[\left([\omega_{h_z} * e^{-\left(\left(\frac{tan(cos^{-1}(clamp(\omega_{h_z})))}{p_0}\right)^{p_1}\right)}\right] / \left[\left(\left(\frac{tan(cos^{-1}(clamp(\omega_{h_z})))}{p_0}\right)^{2.0} + [p_0 + 2.0]\right) * p_0\right] * p_0\right]$$

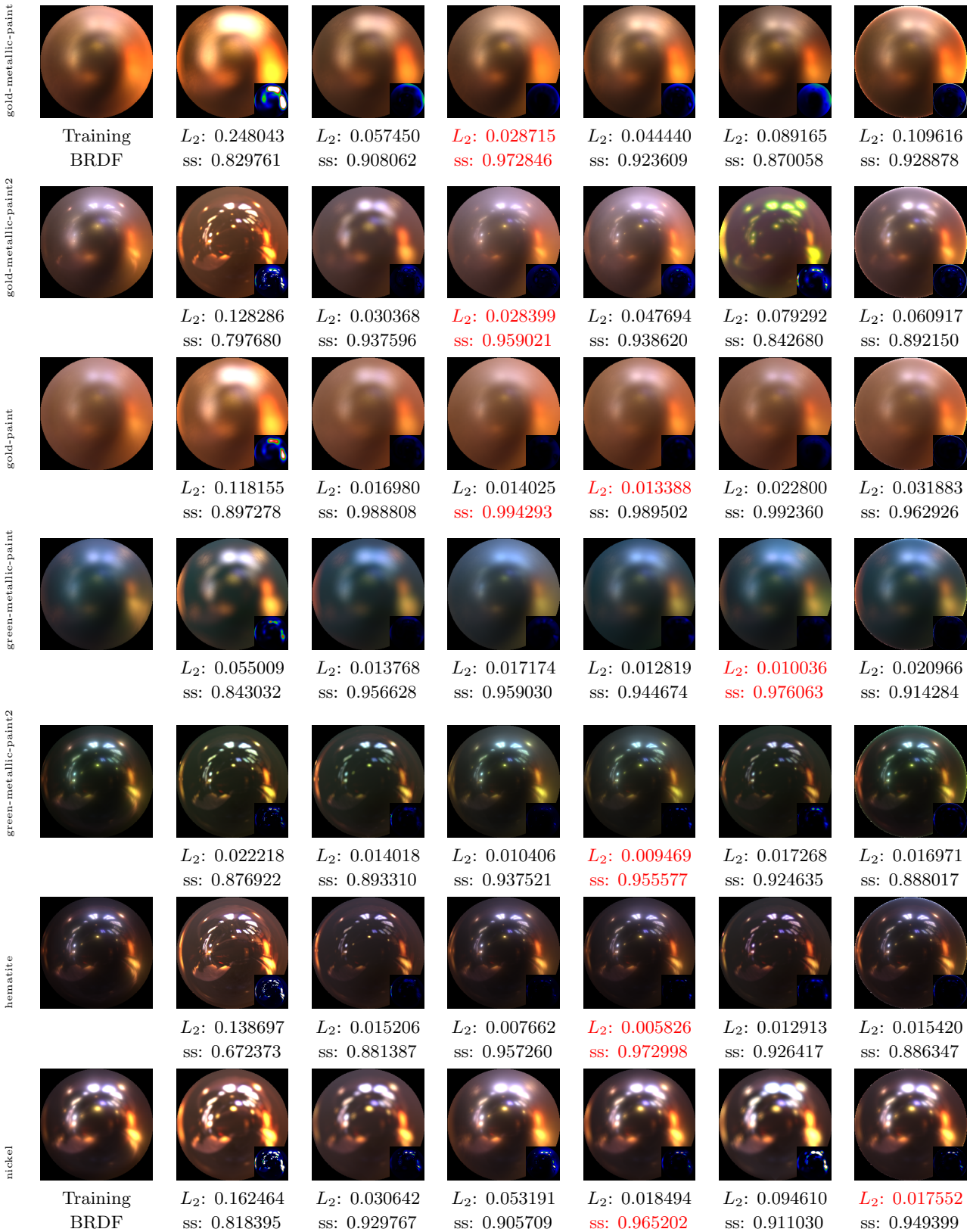


L_2 error.



SSIM error (= 100% - ssim).

	MERL	CT(Ngan) 0(1)/0(1)	CT(E_2 fit) 0(13)/0(10)	Löw SS 7(19)/11(19)	Löw MF 10(19)/7(19)	Bagher 2(8)/2(10)	genBRDF 1/0
alum-bronze		 L_2: 0.052284 ss: 0.862223	 L_2: 0.031392 ss: 0.907766	 L_2: 0.032159 ss: 0.937667	 L_2: 0.021146 ss: 0.956962	 L_2: 0.053167 ss: 0.922395	 L_2: 0.051383 ss: 0.866053
aluminium	 Training BRDF	 L_2: 0.067099 ss: 0.846399	 L_2: 0.035146 ss: 0.875113	 L_2: 0.018044 ss: 0.965309	 L_2: 0.022431 ss: 0.959087	 L_2: 0.034724 ss: 0.917355	 L_2: 0.028136 ss: 0.899315
black-oxidized-steel		 L_2: 0.037563 ss: 0.881117	 L_2: 0.012395 ss: 0.966402	 L_2: 0.009959 ss: 0.974466	 L_2: 0.021000 ss: 0.956823	 L_2: 0.009017 ss: 0.982697	 L_2: 0.023234 ss: 0.919487
blue-metallic-paint	 Training BRDF	 L_2: 0.094791 ss: 0.840025	 L_2: 0.019657 ss: 0.966125	 L_2: 0.009161 ss: 0.993984	 L_2: 0.015014 ss: 0.978181	 L_2: 0.030206 ss: 0.958517	 L_2: 0.031739 ss: 0.920548
blue-metallic-paint2	 Training BRDF	 L_2: 0.045753 ss: 0.859062	 L_2: 0.030359 ss: 0.888022	 L_2: 0.010992 ss: 0.963478	 L_2: 0.009785 ss: 0.974119	 L_2: 0.053468 ss: 0.884442	 L_2: 0.024109 ss: 0.896811
brass	 Training BRDF	 L_2: 0.109247 ss: 0.809906	 L_2: 0.034378 ss: 0.875335	 L_2: 0.011813 ss: 0.965002	 L_2: 0.011450 ss: 0.970392	 L_2: 0.036857 ss: 0.890152	 L_2: 0.021872 ss: 0.905543
chrome		 L_2: 0.038555 ss: 0.902465	 L_2: 0.041371 ss: 0.879025	 L_2: 0.021593 ss: 0.972071	 L_2: 0.021446 ss: 0.950898	 L_2: 0.042031 ss: 0.925449	 L_2: 0.034911 ss: 0.887224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Training BRDF
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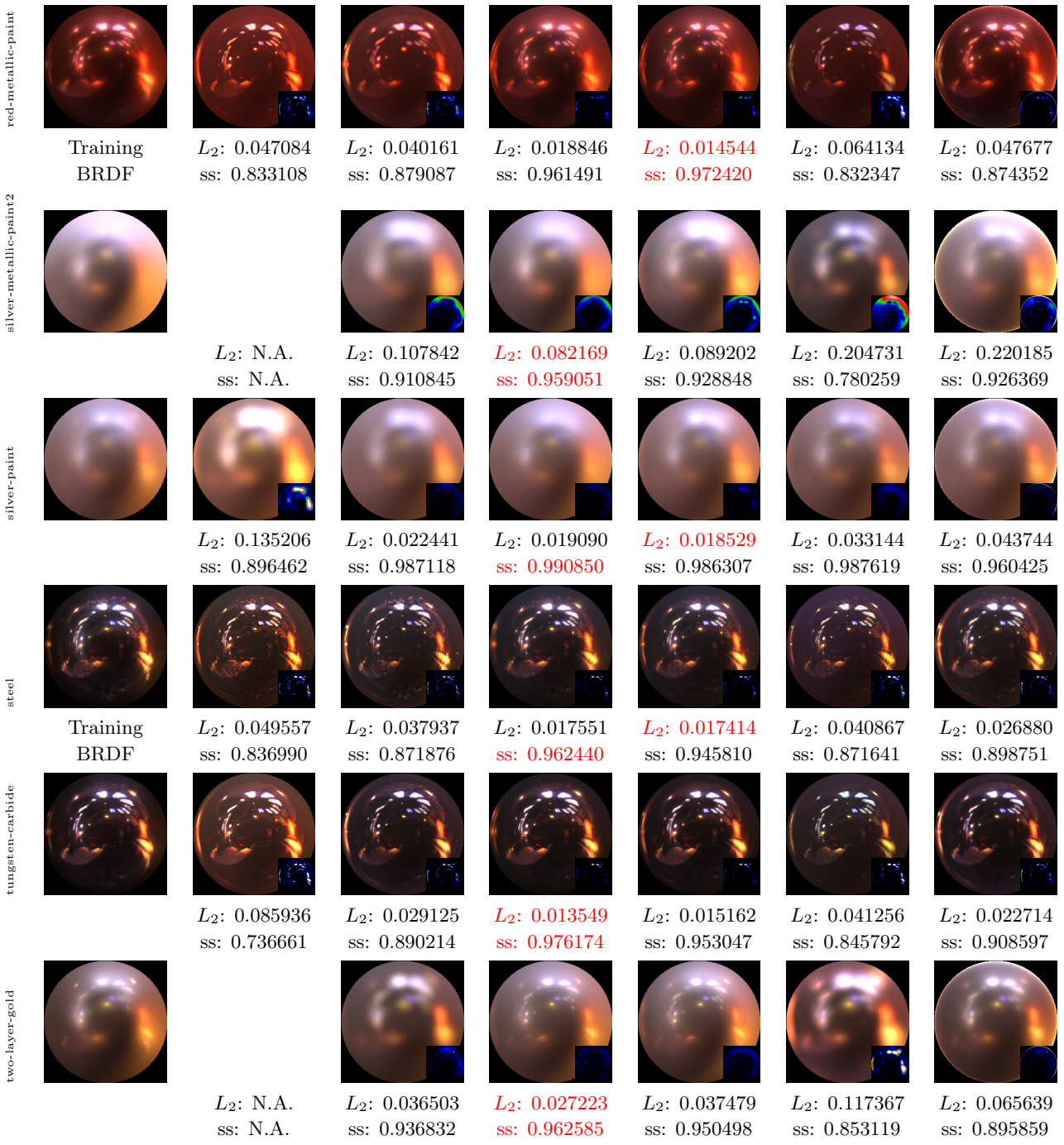
L_2: 0.057450 ss: 0.908062
L_2: 0.028715 ss: 0.972846
L_2: 0.044440 ss: 0.923609
L_2: 0.089165 ss: 0.870058
L_2: 0.109616 ss: 0.928878
gold-metallic-paint2
L_2: 0.128286 ss: 0.797680
L_2: 0.030368 ss: 0.937596
L_2: 0.028399 ss: 0.959021
L_2: 0.047694 ss: 0.938620
L_2: 0.079292 ss: 0.842680
L_2: 0.060917 ss: 0.892150
gold-paint
L_2: 0.118155 ss: 0.897278
L_2: 0.016980 ss: 0.988808
L_2: 0.014025 ss: 0.994293
L_2: 0.013388 ss: 0.989502
L_2: 0.022800 ss: 0.992360
L_2: 0.031883 ss: 0.962926
green-metallic-paint
L_2: 0.055009 ss: 0.843032
L_2: 0.013768 ss: 0.956628
L_2: 0.017174 ss: 0.959030
L_2: 0.012819 ss: 0.944674
L_2: 0.010036 ss: 0.976063
L_2: 0.020966 ss: 0.914284
green-metallic-paint2
L_2: 0.022218 ss: 0.876922
L_2: 0.014018 ss: 0.893310
L_2: 0.010406 ss: 0.937521
L_2: 0.009469 ss: 0.955577
L_2: 0.017268 ss: 0.924635
L_2: 0.016971 ss: 0.888017
hematite
L_2: 0.138697 ss: 0.672373
L_2: 0.015206 ss: 0.881387
L_2: 0.007662 ss: 0.957260
L_2: 0.005826 ss: 0.972998
L_2: 0.012913 ss: 0.926417
L_2: 0.015420 ss: 0.886347
nickel
Training BRDF
L_2: 0.162464 ss: 0.818395
L_2: 0.030642 ss: 0.929767
L_2: 0.053191 ss: 0.905709
L_2: 0.018494 ss: 0.965202
L_2: 0.094610 ss: 0.911030
L_2: 0.017552 ss: 0.949399


red-metallic-paint
Training BRDF
L_2: 0.047084 ss: 0.833108
L_2: 0.040161 ss: 0.879087
L_2: 0.018846 ss: 0.961491
L_2: 0.014544 ss: 0.972420
L_2: 0.064134 ss: 0.832347
L_2: 0.047677 ss: 0.874352
silver-metallic-paint2
L_2: N.A. ss: N.A.
L_2: 0.107842 ss: 0.910845
L_2: 0.082169 ss: 0.959051
L_2: 0.089202 ss: 0.928848
L_2: 0.204731 ss: 0.780259
L_2: 0.220185 ss: 0.926369
silver-paint
L_2: 0.135206 ss: 0.896462
L_2: 0.022441 ss: 0.987118
L_2: 0.019090 ss: 0.990850
L_2: 0.018529 ss: 0.986307
L_2: 0.033144 ss: 0.987619
L_2: 0.043744 ss: 0.960425
steel
Training BRDF
L_2: 0.049557 ss: 0.836990
L_2: 0.037937 ss: 0.871876
L_2: 0.017551 ss: 0.962440
L_2: 0.017414 ss: 0.945810
L_2: 0.040867 ss: 0.871641
L_2: 0.026880 ss: 0.898751
tungsten-carbide
L_2: 0.085936 ss: 0.736661
L_2: 0.029125 ss: 0.890214
L_2: 0.013549 ss: 0.976174
L_2: 0.015162 ss: 0.953047
L_2: 0.041256 ss: 0.845792
L_2: 0.022714 ss: 0.908597
two-layer-gold
L_2: N.A. ss: N.A.
L_2: 0.036503 ss: 0.936832
L_2: 0.027223 ss: 0.962585
L_2: 0.037479 ss: 0.950498
L_2: 0.117367 ss: 0.853119
L_2: 0.065639 ss: 0.895859

Material		p0	p1	ρ_d	ρ_s	R_0
alum-bronze	R	1.40715083e-02	1.15037397e-01	5.47551215e-02	2.59788269e+02	2.20094651e-01
	G	1.72664076e-02	2.02554151e-01	4.92169559e-02	2.23230637e+02	1.35487229e-01
	B	1.53788626e-02	2.72818118e-01	4.22907248e-02	3.66340607e+02	5.81658892e-02
aluminium	R	3.25227901e-03	2.24524468e-01	1.26101365e-02	1.73756567e+03	1.31239939e+00
	G	2.64008669e-03	1.60490707e-01	8.90208781e-03	8.19654419e+02	3.30118203e+00
	B	2.95792031e-03	1.43657908e-01	9.32725798e-03	4.48773468e+02	4.58152056e+00
black-oxidized-steel	R	2.46950418e-01	1.21563268e+00	1.28189642e-02	2.43769097e+00	1.35177180e-01
	G	2.52593786e-01	1.15308201e+00	1.06546534e-02	2.21908498e+00	1.44877076e-01
	B	2.57077008e-01	1.09635568e+00	9.33634397e-03	2.10950327e+00	1.48463935e-01
blue-metallic-paint	R	2.29761302e-01	1.06187606e+00	8.34977254e-03	2.19915523e-06	4.30319156e+05
	G	2.17415616e-01	1.01682544e+00	5.85497636e-03	2.08354072e-06	4.58299562e+05
	B	2.12062910e-01	1.09485900e+00	3.14533003e-02	1.13416014e-08	1.81925504e+08
blue-metallic-paint2	R	7.50561291e-03	2.93200076e-01	8.77787097e-05	8.27354370e+02	2.45156705e-01
	G	6.17410196e-03	2.37977073e-01	2.52308929e-03	9.03696655e+02	4.49991465e-01
	B	5.89125417e-03	2.06867576e-01	1.25486415e-03	9.53699585e+02	8.41850519e-01
brass	R	3.54477344e-03	2.50343651e-01	1.70847494e-02	3.06143188e+03	5.42242765e-01
	G	2.96942634e-03	1.79614514e-01	1.36620123e-02	2.78958496e+03	4.43647504e-01
	B	2.05576536e-03	1.50616810e-01	1.15751717e-02	6.35900684e+03	1.74861878e-01
chrome	R	4.26108111e-03	5.96345484e-01	3.68302059e-03	1.64643379e+04	1.42028406e-01
	G	3.40525806e-03	5.57829678e-01	3.28120240e-03	2.99400820e+04	1.04742296e-01
	B	3.48912296e-03	5.59695125e-01	3.56939971e-03	3.44052617e+04	7.80850574e-02
gold-metallic-paint	R	1.83469370e-01	5.86017907e-01	2.79557016e-02	1.10097326e-05	3.76844594e+05
	G	2.01681584e-01	8.02855015e-01	2.67645121e-02	2.28261115e-06	1.09362700e+06
	B	2.14751542e-01	8.71794879e-01	4.31623776e-03	2.01972902e-01	4.57950735e+00
gold-metallic-paint2	R	4.49883044e-02	2.52282679e-01	5.09566292e-02	3.41101724e-04	5.39857695e+04
	G	4.05730046e-02	2.36718714e-01	4.43596654e-02	1.45092854e-04	1.25395172e+05
	B	2.41595190e-02	1.40716031e-01	3.95106338e-02	3.55089092e+00	7.75536919e+00
gold-paint	R	2.06943437e-01	1.07718205e+00	1.66956827e-01	1.15437537e-01	1.67518082e+01
	G	2.08598152e-01	1.11264729e+00	9.52577516e-02	9.42986906e-01	1.59923172e+00
	B	1.84272960e-01	1.01264584e+00	3.64386588e-02	2.96668744e+00	3.32421839e-01
green-metallic-paint	R	1.80883080e-01	1.47186065e+00	4.79894225e-03	5.44364262e+00	1.41714394e-01
	G	1.95736304e-01	1.22111785e+00	3.14905457e-02	2.65499187e+00	5.77563822e-01
	B	1.95622772e-01	1.19815385e+00	3.90436910e-02	2.52271438e+00	6.48912311e-01
green-metallic-paint2	R	7.53132533e-03	2.60470003e-01	2.57804012e-03	7.97966003e+02	1.07752673e-01
	G	5.22047421e-03	9.93136689e-02	3.88555167e-31	6.70293213e+02	4.31877911e-01
	B	6.12115208e-03	1.84212640e-01	1.97139010e-03	8.92927673e+02	1.62296906e-01
hematite	R	2.97428994e-03	1.95272699e-01	6.09916355e-03	3.29669775e+03	2.03507826e-01
	G	2.09548208e-03	1.17110468e-01	4.33992594e-03	3.96138306e+03	2.66093612e-01
	B	1.95973832e-03	8.63805711e-02	3.06961429e-03	4.21170996e+03	2.74733931e-01
nickel	R	3.69597450e-02	7.25230038e-01	1.40940510e-02	4.29607375e-04	1.97955016e+05
	G	3.92865464e-02	7.45485365e-01	1.23514365e-02	4.22081041e+00	1.62458496e+01
	B	4.16875333e-02	7.69331276e-01	1.16815660e-02	2.08774986e+01	2.61804032e+00
red-metallic-paint	R	4.97306697e-03	8.96526054e-02	1.15252868e-11	8.82243713e+02	9.18014109e-01
	G	4.25702939e-03	1.73512354e-01	4.18766786e-06	2.10021313e+03	1.05659254e-01
	B	3.82200582e-03	1.87442794e-01	8.86764436e-04	2.90104688e+03	5.28027676e-02
silver-metallic-paint2	R	8.65091980e-02	2.79888172e-05	7.95550346e-02	1.91344437e-26	4.54840262e+26
	G	8.98769572e-02	4.78420734e-05	8.49527493e-02	1.63006966e-26	4.61184171e+26
	B	1.87820718e-01	5.65693915e-01	1.06378704e-01	1.14292553e-14	2.98972069e+14
silver-paint	R	1.99028417e-01	1.02420890e+00	1.76873118e-01	4.77081194e-05	5.06665469e+04
	G	1.96907520e-01	1.03583491e+00	1.48131251e-01	3.23231943e-05	7.87127578e+04
	B	1.98186532e-01	1.08392406e+00	1.31778568e-01	3.05054556e-07	8.49746500e+06
steel	R	3.15921707e-03	4.39201206e-01	1.06325103e-02	1.70003086e+04	1.63258165e-01
	G	2.43007857e-03	3.66915643e-01	1.07163107e-02	1.94469844e+04	1.73719093e-01
	B	3.26853176e-03	3.87818426e-01	1.26017630e-02	1.08799590e+04	1.52869850e-01

RGB Parameters for genBRDF 025-001508

Material		p0	p1	ρ_d	ρ_s	R_0
tungsten-carbide	R	4.85430891e-03	5.88977277e-01	4.74033551e-03	7.90556885e+03	1.62023216e-01
	G	3.76481516e-03	5.25321901e-01	4.36791778e-03	1.16662822e+04	1.38370126e-01
	B	2.96593946e-03	4.98931736e-01	4.85970080e-03	3.34447539e+04	8.17738101e-02
two-layer-gold	R	5.08652553e-02	2.60752261e-01	4.14515547e-02	4.57201054e-07	3.64016880e+07
	G	4.58432361e-02	2.46369451e-01	3.60058509e-02	4.94193330e-07	3.43544280e+07
	B	3.65903042e-02	2.18056187e-01	3.01833842e-02	4.93049868e-07	3.80738440e+07

RGB Parameters for genBRDF 025-001508

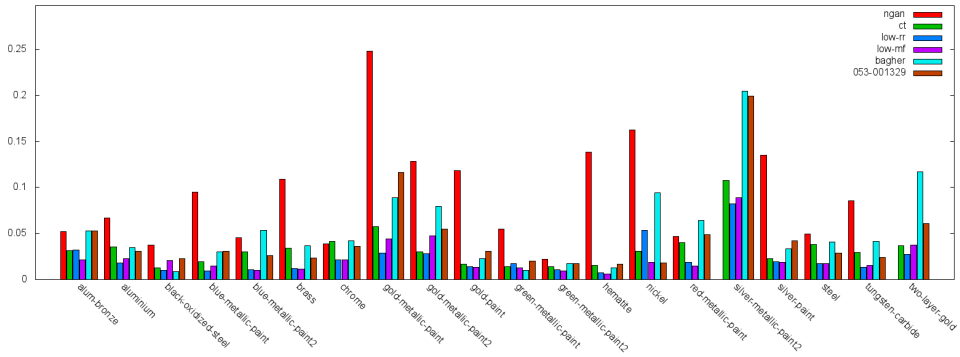
053-001329

Fitness: 0.000116637407

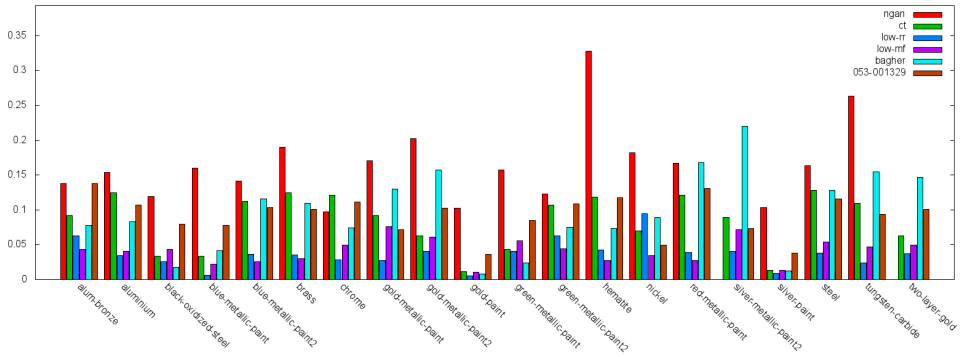
Length: 156

Reciprocity Error: 4.98243973e-15

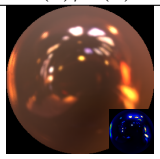
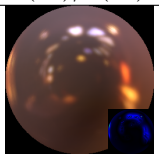
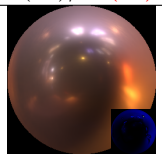
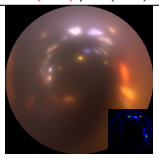
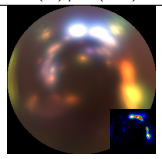
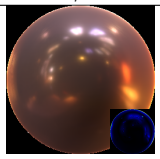
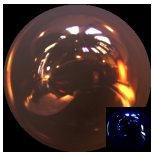
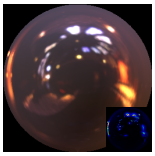
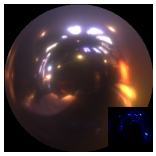
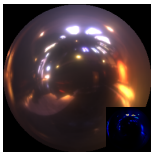
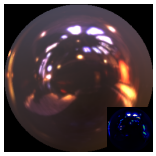
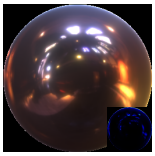
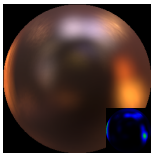
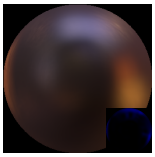
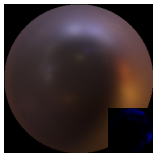
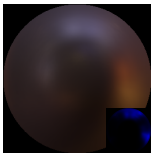
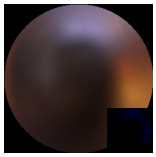
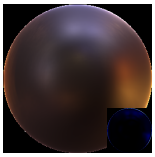
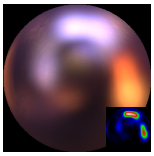
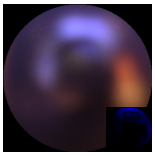
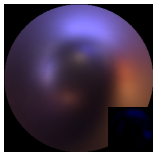
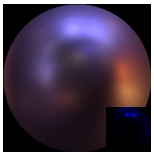
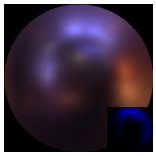
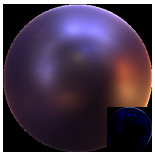
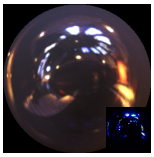
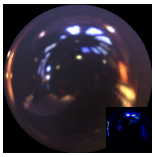
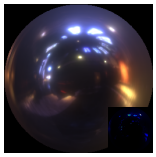
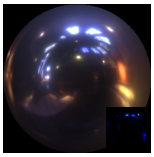
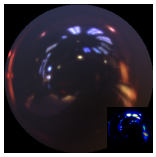
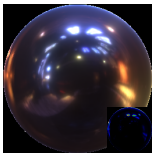
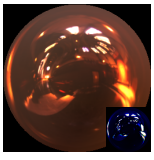
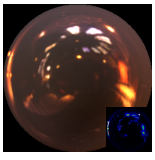
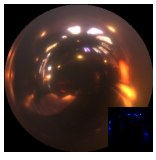
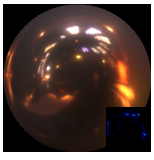
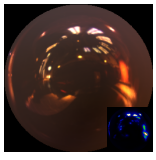
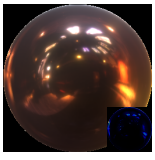
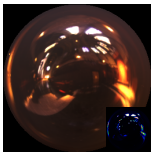
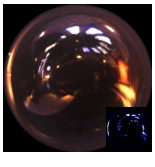
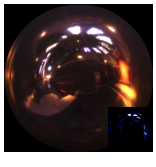
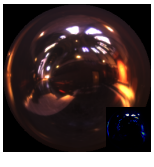
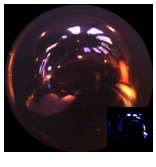
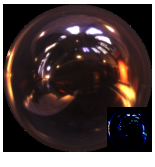
$$f'_n(\omega_i, \omega_o) = \left[\left([p_0 * e^{-\left(\left(\frac{tan(cos^{-1}(clamp(\omega_{hz})))}{p_1}\right)^{p_0}\right)}\right] / \left[\left(\left(\frac{tan(cos^{-1}(clamp(\omega_{hz})))}{p_0}\right)^{2.0} + [p_1 * 1.0]\right) * 1.0\right] * p_0\right]$$

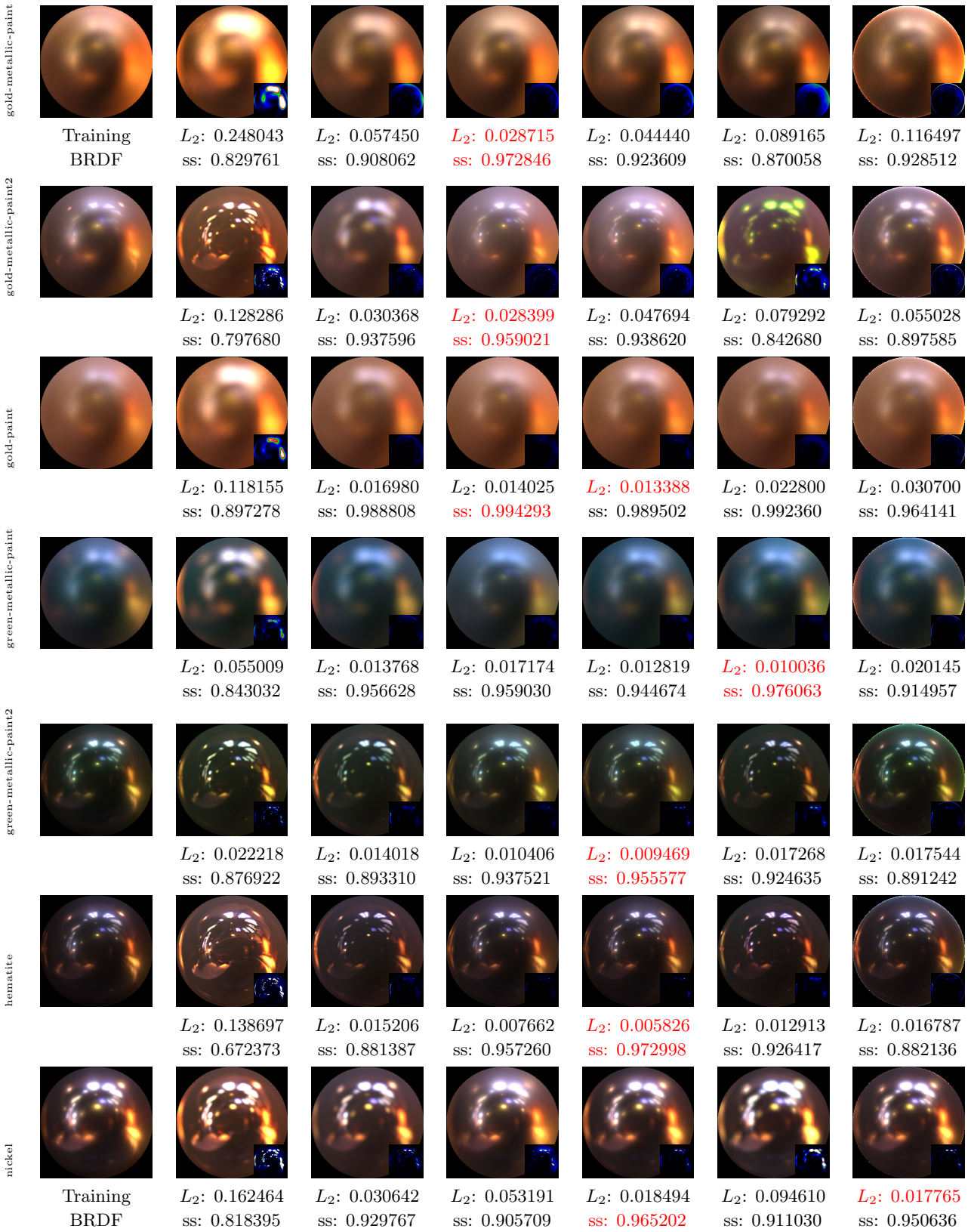


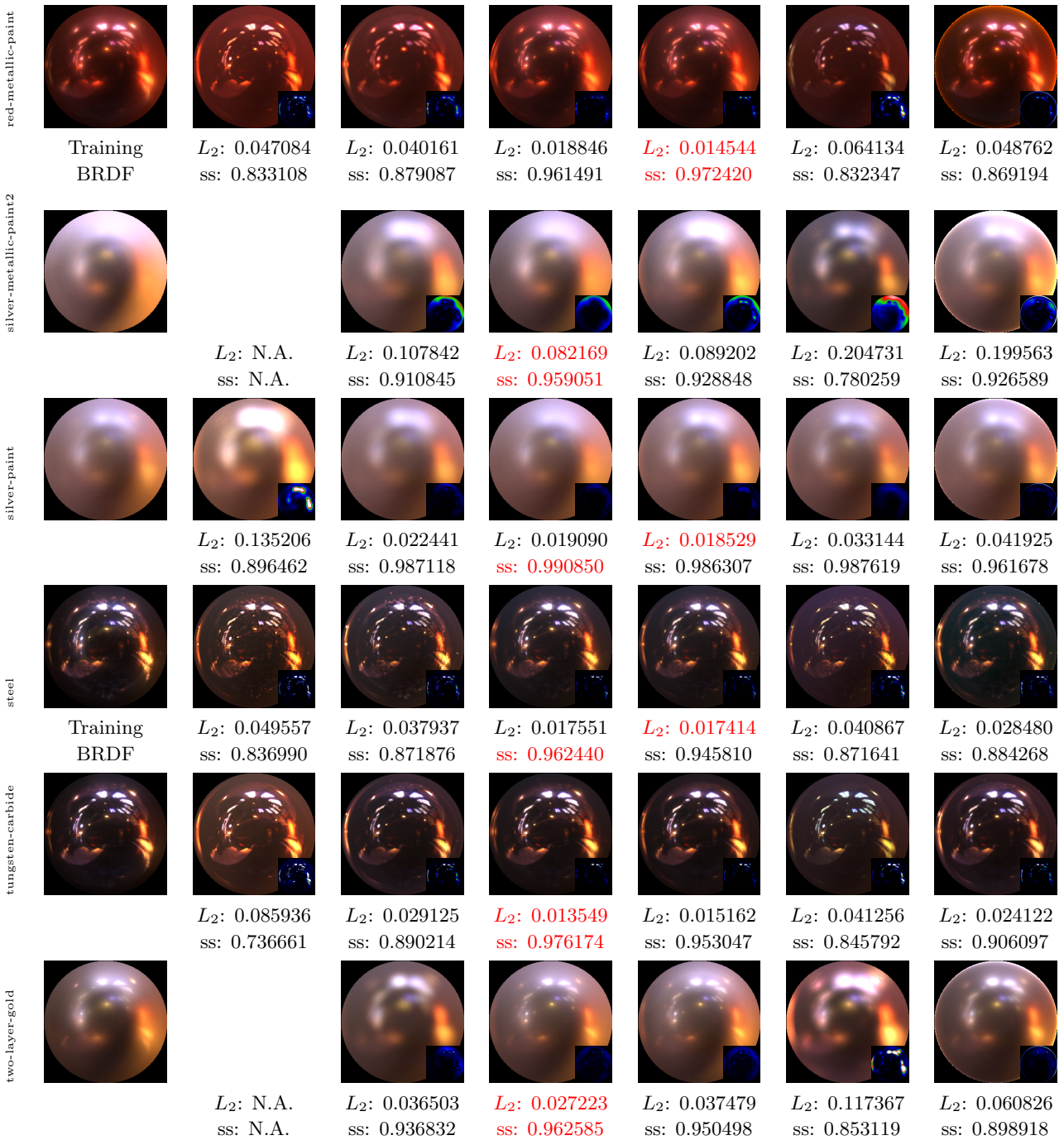
L_2 error.



SSIM error (= 100% - ssim).

	MERL	CT(Ngan) 0(2)/0(1)	CT(E_2 fit) 0(13)/0(10)	Löw SS 7(19)/11(19)	Löw MF 10(19)/7(19)	Bagher 2(8)/2(10)	genBRDF 1/0
alum-bronze		 L_2: 0.052284 ss: 0.862223	 L_2: 0.031392 ss: 0.907766	 L_2: 0.032159 ss: 0.937667	 L_2: 0.021146 ss: 0.956962	 L_2: 0.053167 ss: 0.922395	 L_2: 0.053069 ss: 0.862285
aluminium	Training BRDF	 L_2: 0.067099 ss: 0.846399	 L_2: 0.035146 ss: 0.875113	 L_2: 0.018044 ss: 0.965309	 L_2: 0.022431 ss: 0.959087	 L_2: 0.034724 ss: 0.917355	 L_2: 0.031081 ss: 0.893403
black-oxidized-steel		 L_2: 0.037563 ss: 0.881117	 L_2: 0.012395 ss: 0.966402	 L_2: 0.009959 ss: 0.974466	 L_2: 0.021000 ss: 0.956823	 L_2: 0.009017 ss: 0.982697	 L_2: 0.022751 ss: 0.920624
blue-metallic-paint	Training BRDF	 L_2: 0.094791 ss: 0.840025	 L_2: 0.019657 ss: 0.966125	 L_2: 0.009161 ss: 0.993984	 L_2: 0.015014 ss: 0.978181	 L_2: 0.030206 ss: 0.958517	 L_2: 0.030562 ss: 0.922169
blue-metallic-paint2	Training BRDF	 L_2: 0.045753 ss: 0.859062	 L_2: 0.030359 ss: 0.888022	 L_2: 0.010992 ss: 0.963478	 L_2: 0.009785 ss: 0.974119	 L_2: 0.053468 ss: 0.884442	 L_2: 0.025968 ss: 0.896677
brass	Training BRDF	 L_2: 0.109247 ss: 0.809906	 L_2: 0.034378 ss: 0.875335	 L_2: 0.011813 ss: 0.965002	 L_2: 0.011450 ss: 0.970392	 L_2: 0.036857 ss: 0.890152	 L_2: 0.023698 ss: 0.899646
chrome		 L_2: 0.038555 ss: 0.902465	 L_2: 0.041371 ss: 0.879025	 L_2: 0.021593 ss: 0.972071	 L_2: 0.021446 ss: 0.950898	 L_2: 0.042031 ss: 0.925449	 L_2: 0.036191 ss: 0.888414


gold-metallic-paint
Training BRDF
L_2: 0.248043 ss: 0.829761
L_2: 0.057450 ss: 0.908062
L_2: 0.028715 ss: 0.972846
L_2: 0.044440 ss: 0.923609
L_2: 0.089165 ss: 0.870058
L_2: 0.116497 ss: 0.928512
gold-metallic-paint2
L_2: 0.128286 ss: 0.797680
L_2: 0.030368 ss: 0.937596
L_2: 0.028399 ss: 0.959021
L_2: 0.047694 ss: 0.938620
L_2: 0.079292 ss: 0.842680
L_2: 0.055028 ss: 0.897585
gold-paint
L_2: 0.118155 ss: 0.897278
L_2: 0.016980 ss: 0.988808
L_2: 0.014025 ss: 0.994293
L_2: 0.013388 ss: 0.989502
L_2: 0.022800 ss: 0.992360
L_2: 0.030700 ss: 0.964141
green-metallic-paint
L_2: 0.055009 ss: 0.843032
L_2: 0.013768 ss: 0.956628
L_2: 0.017174 ss: 0.959030
L_2: 0.012819 ss: 0.944674
L_2: 0.010036 ss: 0.976063
L_2: 0.020145 ss: 0.914957
green-metallic-paint2
L_2: 0.022218 ss: 0.876922
L_2: 0.014018 ss: 0.893310
L_2: 0.010406 ss: 0.937521
L_2: 0.009469 ss: 0.955577
L_2: 0.017268 ss: 0.924635
L_2: 0.017544 ss: 0.891242
hematite
L_2: 0.138697 ss: 0.672373
L_2: 0.015206 ss: 0.881387
L_2: 0.007662 ss: 0.957260
L_2: 0.005826 ss: 0.972998
L_2: 0.012913 ss: 0.926417
L_2: 0.016787 ss: 0.882136
nickel
Training BRDF
L_2: 0.162464 ss: 0.818395
L_2: 0.030642 ss: 0.929767
L_2: 0.053191 ss: 0.905709
L_2: 0.018494 ss: 0.965202
L_2: 0.094610 ss: 0.911030
L_2: 0.017765 ss: 0.950636


red-metallic-paint
Training BRDF
L_2: 0.047084 ss: 0.833108
L_2: 0.040161 ss: 0.879087
L_2: 0.018846 ss: 0.961491
L_2: 0.014544 ss: 0.972420
L_2: 0.064134 ss: 0.832347
L_2: 0.048762 ss: 0.869194
silver-metallic-paint2
L_2: N.A. ss: N.A.
L_2: 0.107842 ss: 0.910845
L_2: 0.082169 ss: 0.959051
L_2: 0.089202 ss: 0.928848
L_2: 0.204731 ss: 0.780259
L_2: 0.199563 ss: 0.926589
silver-paint
L_2: 0.135206 ss: 0.896462
L_2: 0.022441 ss: 0.987118
L_2: 0.019090 ss: 0.990850
L_2: 0.018529 ss: 0.986307
L_2: 0.033144 ss: 0.987619
L_2: 0.041925 ss: 0.961678
steel
Training BRDF
L_2: 0.049557 ss: 0.836990
L_2: 0.037937 ss: 0.871876
L_2: 0.017551 ss: 0.962440
L_2: 0.017414 ss: 0.945810
L_2: 0.040867 ss: 0.871641
L_2: 0.028480 ss: 0.884268
tungsten-carbide
L_2: 0.085936 ss: 0.736661
L_2: 0.029125 ss: 0.890214
L_2: 0.013549 ss: 0.976174
L_2: 0.015162 ss: 0.953047
L_2: 0.041256 ss: 0.845792
L_2: 0.024122 ss: 0.906097
two-layer-gold
L_2: N.A. ss: N.A.
L_2: 0.036503 ss: 0.936832
L_2: 0.027223 ss: 0.962585
L_2: 0.037479 ss: 0.950498
L_2: 0.117367 ss: 0.853119
L_2: 0.060826 ss: 0.898918

Material		p0	p1	ρ_d	ρ_s	R_0
alum-bronze	R	1.56171232e-01	1.87581107e-02	5.49082346e-02	9.14615097e+01	2.15358764e-01
	G	2.28233621e-01	1.34192482e-02	4.95718792e-02	2.89095631e+01	1.33287996e-01
	B	2.77868718e-01	7.90229999e-03	4.26454470e-02	2.08768463e+01	5.75570017e-02
aluminium	R	1.92621902e-01	7.06856081e-04	1.21304970e-02	2.08927155e+01	1.27768803e+00
	G	1.47768185e-01	7.44225865e-04	8.15075543e-03	1.60636559e+01	3.17910504e+00
	B	1.33971497e-01	1.06332905e-03	7.86493346e-03	1.45247622e+01	4.56999731e+00
black-oxidized-steel	R	1.26267517e+00	2.08808526e-01	1.30686853e-02	1.44045219e-01	1.34358823e-01
	G	1.20206702e+00	2.14155436e-01	1.09091727e-02	1.48137540e-01	1.44174755e-01
	B	1.14332914e+00	2.19039768e-01	9.49998945e-03	1.58964083e-01	1.47825301e-01
blue-metallic-paint	R	1.09884071e+00	1.93053037e-01	8.68182629e-03	5.91315024e-17	1.17110028e+15
	G	1.05576658e+00	1.82036996e-01	6.19068136e-03	5.62045536e-17	1.27820012e+15
	B	1.12450063e+00	1.75862879e-01	3.20627429e-02	1.44122063e-14	9.23617408e+12
blue-metallic-paint2	R	2.58200288e-01	2.16372940e-03	4.50422661e-03	1.81017570e+01	2.35648826e-01
	G	2.11912796e-01	1.96140050e-03	2.29426217e-03	2.44892921e+01	4.42136675e-01
	B	1.88482955e-01	2.16051168e-03	1.98919050e-04	3.41618919e+01	8.32233191e-01
brass	R	2.07119897e-01	7.08889042e-04	1.64865907e-02	3.37611580e+01	5.38443208e-01
	G	1.61963806e-01	7.68307189e-04	1.33861620e-02	4.90372658e+01	4.35560137e-01
	B	1.38197020e-01	5.14184474e-04	1.14413481e-02	9.67088013e+01	1.72051668e-01
chrome	R	4.05986100e-01	5.84891532e-04	3.09271598e-03	6.71589508e+01	1.43816575e-01
	G	3.86058360e-01	4.34943067e-04	3.13321524e-03	9.49195786e+01	1.05144396e-01
	B	3.83203417e-01	4.36809903e-04	3.44889774e-03	1.12696732e+02	7.93770924e-02
gold-metallic-paint	R	6.05573356e-01	1.87156141e-01	2.38081999e-02	3.82821241e-07	2.51395475e+06
	G	8.13371539e-01	1.73085406e-01	2.60235053e-02	2.10657234e-07	1.46203962e+06
	B	8.81984413e-01	1.82404697e-01	4.04421054e-03	2.22485475e-02	4.57116747e+00
gold-metallic-paint2	R	3.60673487e-01	4.66540381e-02	5.49343824e-02	1.17684465e-06	2.38668350e+06
	G	3.44286561e-01	4.19577733e-02	4.79129627e-02	1.13049828e-06	2.42141700e+06
	B	2.30588883e-01	3.33092585e-02	3.93005423e-02	3.41348410e-01	1.97682705e+01
gold-paint	R	1.10437942e+00	1.71013802e-01	1.67501748e-01	7.91121274e-03	1.59647532e+01
	G	1.14390695e+00	1.72764644e-01	9.57789645e-02	5.81150167e-02	1.58874381e+00
	B	1.06260586e+00	1.51766419e-01	3.68765146e-02	1.86487570e-01	3.31377864e-01
green-metallic-paint	R	1.48183382e+00	1.51152790e-01	5.02666831e-03	1.74181521e-01	1.41516700e-01
	G	1.25382638e+00	1.61956087e-01	3.21083963e-02	1.27398953e-01	5.75194299e-01
	B	1.23225176e+00	1.61734655e-01	3.96786854e-02	1.25186339e-01	6.46486998e-01
green-metallic-paint2	R	2.57832319e-01	2.52717850e-03	3.19991563e-03	1.83516846e+01	1.03055567e-01
	G	1.17838122e-01	4.41276003e-03	3.04249198e-07	1.05136414e+02	4.20278072e-01
	B	1.97599694e-01	2.53593503e-03	2.74811615e-03	3.20162239e+01	1.54692486e-01
hematite	R	1.72530383e-01	7.11439992e-04	5.93181141e-03	4.69991302e+01	2.00766474e-01
	G	1.00310564e-01	8.56040919e-04	3.20044975e-03	1.79399002e+02	2.72806674e-01
	B	9.86202881e-02	9.00126935e-04	3.23798112e-03	2.03351730e+02	2.66159475e-01
nickel	R	6.14824474e-01	1.66664273e-02	1.45723820e-02	2.87522980e-05	9.48355781e+04
	G	6.61351979e-01	1.93363260e-02	1.32745821e-02	5.69344722e-02	3.64022369e+01
	B	7.15341032e-01	2.24019159e-02	1.29980976e-02	5.36301434e-01	2.86312580e+00
red-metallic-paint	R	1.09252796e-01	4.65278700e-03	3.39285355e-09	1.70867554e+02	8.79177213e-01
	G	1.79272979e-01	1.46488287e-03	1.82543788e-03	5.37048759e+01	1.00724898e-01
	B	1.64648475e-10	3.40554903e+14	3.18025428e-08	3.30756586e+37	5.46595156e-02
silver-metallic-paint2	R	4.20559853e-01	2.14051336e-01	9.02679116e-02	4.79391886e-08	5.92448920e+07
	G	4.71079141e-01	2.09871665e-01	9.68836546e-02	3.51448470e-08	5.24864600e+07
	B	5.98678112e-01	1.99221596e-01	1.03067338e-01	1.49879022e-17	5.63751351e+16
silver-paint	R	1.05211616e+00	1.63915545e-01	1.77491859e-01	8.89122248e-07	1.88711734e+05
	G	1.06477392e+00	1.61852717e-01	1.48793876e-01	3.08293160e-08	5.52761300e+06
	B	1.11190724e+00	1.62959158e-01	1.32565007e-01	3.16490834e-08	5.05339900e+06
steel	R	3.09559137e-01	3.74279509e-04	1.36205184e-04	6.08237724e+01	1.68594092e-01
	G	2.71851629e-01	2.76909937e-04	1.06366482e-02	6.13208160e+01	1.71549380e-01
	B	2.76842058e-01	4.02748876e-04	1.21297678e-02	4.94962044e+01	1.58485174e-01

RGB Parameters for genBRDF 053-001329

Material		p0	p1	ρ_d	ρ_s	R_0
tungsten-carbide	R	3.89143854e-01	6.48616056e-04	6.81874389e-03	3.86046333e+01	1.69613078e-01
	G	3.61122638e-01	4.76884947e-04	4.17989772e-03	4.46198959e+01	1.40346095e-01
	B	3.49579066e-01	3.52706295e-04	4.76170983e-03	9.52968597e+01	8.22692439e-02
two-layer-gold	R	3.59279513e-01	5.53020053e-02	4.46516573e-02	5.50362991e-08	5.56478880e+07
	G	3.42801869e-01	4.95632738e-02	3.88582014e-02	1.83477096e-05	1.68060078e+05
	B	3.07177365e-01	3.97637188e-02	3.21293250e-02	1.99484311e-05	1.69862344e+05

RGB Parameters for genBRDF 053-001329

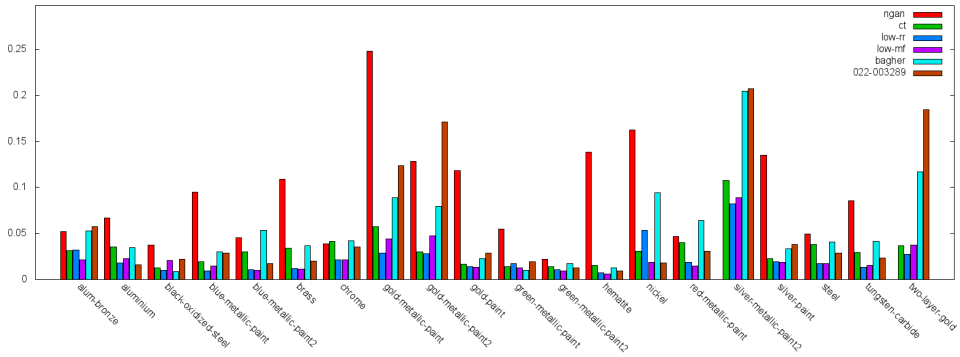
022-003289

Fitness: 0.000116737332

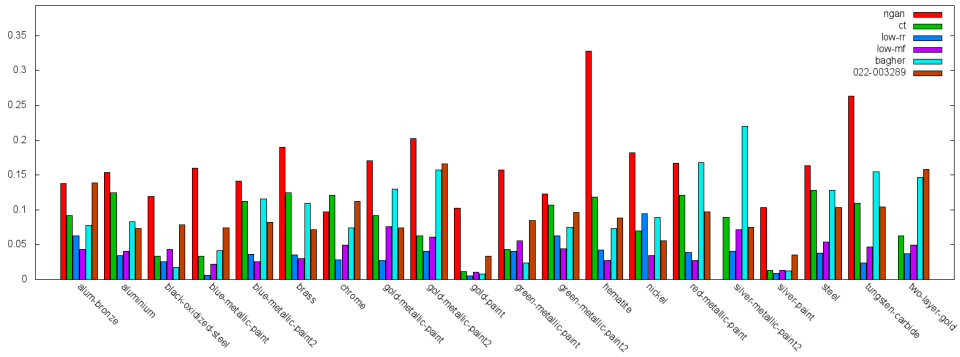
Length: 150

Reciprocity Error: 6.5757883424e-15

$$f'_n(\omega_i, \omega_o) = [e^{-\left(\left(\frac{tan(cos^{-1}(clamp(\omega_{hz})))}{p_0}\right)^{p_1}\right)} * \min(1.0,\ \min(\frac{(\pi * p_0)}{tan(cos^{-1}(clamp(\omega_{hz})))},\ \frac{1.0}{1.0}))]$$

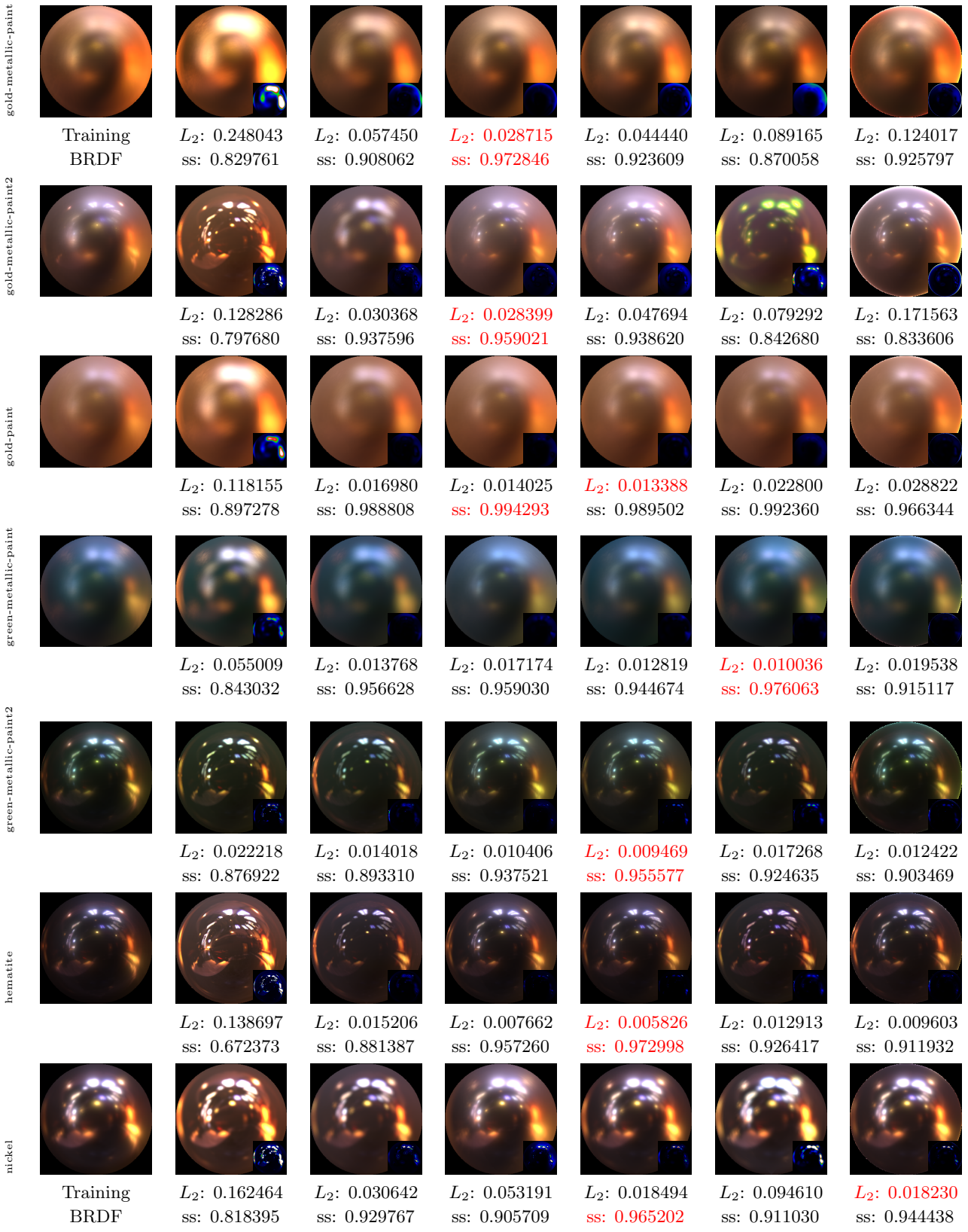


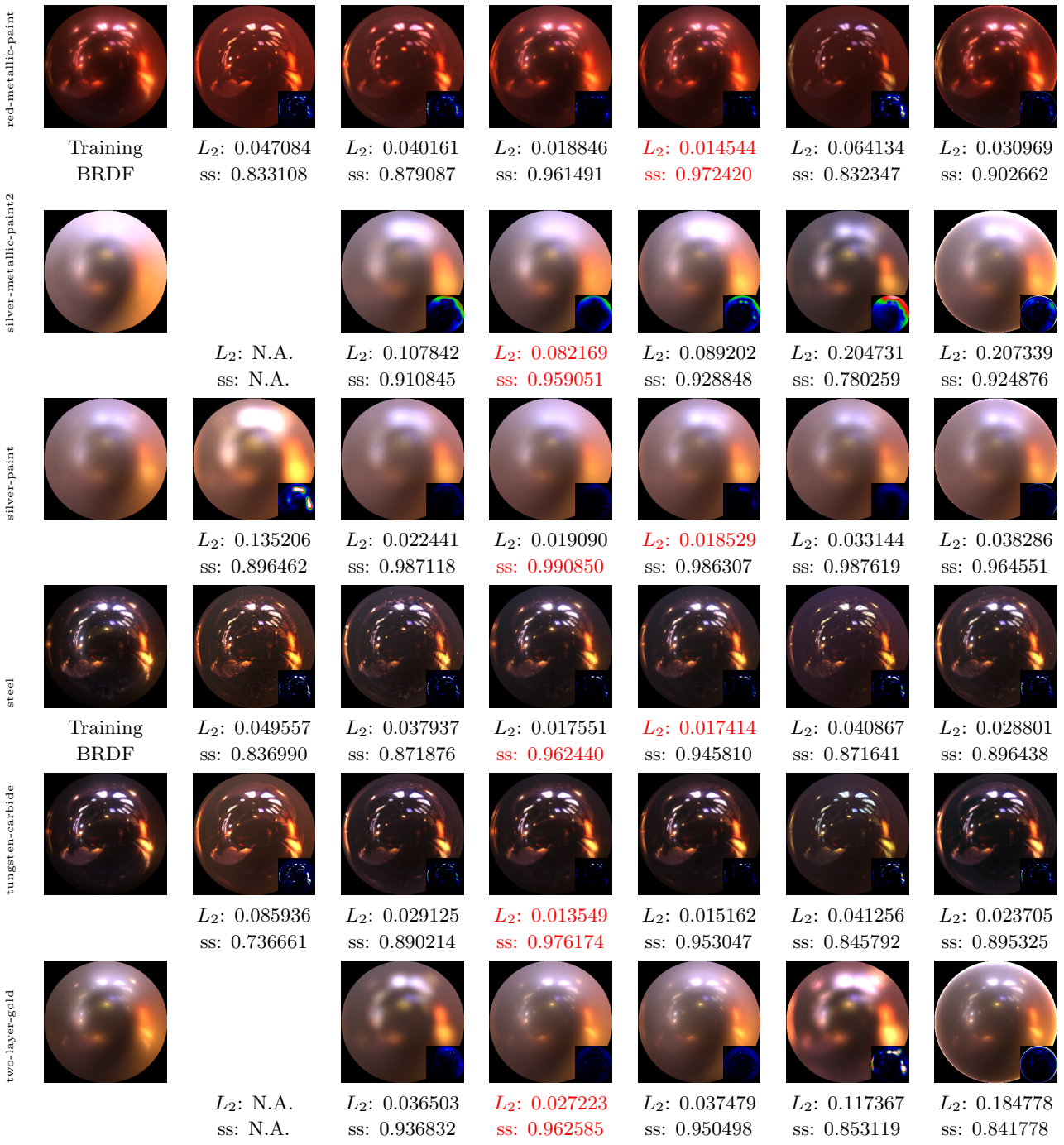
L_2 error.



SSIM error (= 100% - ssim).

	MERL	CT(Ngan) 0(2)/0(2)	CT(E_2 fit) 0(10)/0(8)	Löw SS 6(18)/11(19)	Löw MF 10(18)/7(19)	Bagher 2(9)/2(11)	genBRDF 2/0
alum-bronze		L_2: 0.052284 ss: 0.862223	L_2: 0.031392 ss: 0.907766	L_2: 0.032159 ss: 0.937667	L_2: 0.021146 ss: 0.956962	L_2: 0.053167 ss: 0.922395	L_2: 0.057430 ss: 0.861431
aluminium	Training BRDF	L_2: 0.067099 ss: 0.846399	L_2: 0.035146 ss: 0.875113	L_2: 0.018044 ss: 0.965309	L_2: 0.022431 ss: 0.959087	L_2: 0.034724 ss: 0.917355	L_2: 0.015974 ss: 0.926950
black-oxidized-steel		L_2: 0.037563 ss: 0.881117	L_2: 0.012395 ss: 0.966402	L_2: 0.009959 ss: 0.974466	L_2: 0.021000 ss: 0.956823	L_2: 0.009017 ss: 0.982697	L_2: 0.022032 ss: 0.921791
blue-metallic-paint	Training BRDF	L_2: 0.094791 ss: 0.840025	L_2: 0.019657 ss: 0.966125	L_2: 0.009161 ss: 0.993984	L_2: 0.015014 ss: 0.978181	L_2: 0.030206 ss: 0.958517	L_2: 0.028564 ss: 0.925845
blue-metallic-paint2	Training BRDF	L_2: 0.045753 ss: 0.859062	L_2: 0.030359 ss: 0.888022	L_2: 0.010992 ss: 0.963478	L_2: 0.009785 ss: 0.974119	L_2: 0.053468 ss: 0.884442	L_2: 0.017695 ss: 0.918189
brass	Training BRDF	L_2: 0.109247 ss: 0.809906	L_2: 0.034378 ss: 0.875335	L_2: 0.011813 ss: 0.965002	L_2: 0.011450 ss: 0.970392	L_2: 0.036857 ss: 0.890152	L_2: 0.019951 ss: 0.928729
chrome		L_2: 0.038555 ss: 0.902465	L_2: 0.041371 ss: 0.879025	L_2: 0.021593 ss: 0.972071	L_2: 0.021446 ss: 0.950898	L_2: 0.042031 ss: 0.925449	L_2: 0.035294 ss: 0.888219


gold-metallic-paint
Training BRDF
L_2: 0.248043 ss: 0.829761
L_2: 0.057450 ss: 0.908062
L_2: 0.028715 ss: 0.972846
L_2: 0.044440 ss: 0.923609
L_2: 0.089165 ss: 0.870058
L_2: 0.124017 ss: 0.925797
gold-metallic-paint2
L_2: 0.128286 ss: 0.797680
L_2: 0.030368 ss: 0.937596
L_2: 0.028399 ss: 0.959021
L_2: 0.047694 ss: 0.938620
L_2: 0.079292 ss: 0.842680
L_2: 0.171563 ss: 0.833606
gold-paint
L_2: 0.118155 ss: 0.897278
L_2: 0.016980 ss: 0.988808
L_2: 0.014025 ss: 0.994293
L_2: 0.013388 ss: 0.989502
L_2: 0.022800 ss: 0.992360
L_2: 0.028822 ss: 0.966344
green-metallic-paint
L_2: 0.055009 ss: 0.843032
L_2: 0.013768 ss: 0.956628
L_2: 0.017174 ss: 0.959030
L_2: 0.012819 ss: 0.944674
L_2: 0.010036 ss: 0.976063
L_2: 0.019538 ss: 0.915117
green-metallic-paint2
L_2: 0.022218 ss: 0.876922
L_2: 0.014018 ss: 0.893310
L_2: 0.010406 ss: 0.937521
L_2: 0.009469 ss: 0.955577
L_2: 0.017268 ss: 0.924635
L_2: 0.012422 ss: 0.903469
hematite
L_2: 0.138697 ss: 0.672373
L_2: 0.015206 ss: 0.881387
L_2: 0.007662 ss: 0.957260
L_2: 0.005826 ss: 0.972998
L_2: 0.012913 ss: 0.926417
L_2: 0.009603 ss: 0.911932
nickel
Training BRDF
L_2: 0.162464 ss: 0.818395
L_2: 0.030642 ss: 0.929767
L_2: 0.053191 ss: 0.905709
L_2: 0.018494 ss: 0.965202
L_2: 0.094610 ss: 0.911030
L_2: 0.018230 ss: 0.944438


red-metallic-paint
Training BRDF
L_2: 0.047084 ss: 0.833108
L_2: 0.040161 ss: 0.879087
L_2: 0.018846 ss: 0.961491
L_2: 0.014544 ss: 0.972420
L_2: 0.064134 ss: 0.832347
L_2: 0.030969 ss: 0.902662
silver-metallic-paint2
L_2: N.A. ss: N.A.
L_2: 0.107842 ss: 0.910845
L_2: 0.082169 ss: 0.959051
L_2: 0.089202 ss: 0.928848
L_2: 0.204731 ss: 0.780259
L_2: 0.207339 ss: 0.924876
silver-paint
L_2: 0.135206 ss: 0.896462
L_2: 0.022441 ss: 0.987118
L_2: 0.019090 ss: 0.990850
L_2: 0.018529 ss: 0.986307
L_2: 0.033144 ss: 0.987619
L_2: 0.038286 ss: 0.964551
steel
Training BRDF
L_2: 0.049557 ss: 0.836990
L_2: 0.037937 ss: 0.871876
L_2: 0.017551 ss: 0.962440
L_2: 0.017414 ss: 0.945810
L_2: 0.040867 ss: 0.871641
L_2: 0.028801 ss: 0.896438
tungsten-carbide
L_2: 0.085936 ss: 0.736661
L_2: 0.029125 ss: 0.890214
L_2: 0.013549 ss: 0.976174
L_2: 0.015162 ss: 0.953047
L_2: 0.041256 ss: 0.845792
L_2: 0.023705 ss: 0.895325
two-layer-gold
L_2: N.A. ss: N.A.
L_2: 0.036503 ss: 0.936832
L_2: 0.027223 ss: 0.962585
L_2: 0.037479 ss: 0.950498
L_2: 0.117367 ss: 0.853119
L_2: 0.184778 ss: 0.841778

Material		p0	p1	ρ_d	ρ_s	R_0
alum-bronze	R	3.81802954e-03	3.03843260e-01	4.73662093e-02	1.56735352e+02	2.71038771e-01
	G	6.13303436e-03	3.59578282e-01	4.71684113e-02	1.17740173e+02	1.47304535e-01
	B	6.04252145e-03	4.04775321e-01	4.22037765e-02	1.91340408e+02	6.07423820e-02
aluminium	R	9.21024766e-04	3.52748364e-01	1.85546502e-02	1.53031824e+03	1.07632983e+00
	G	6.51169219e-04	3.19684535e-01	1.69317275e-02	9.49682495e+02	2.27407265e+00
	B	8.01719492e-04	3.20543438e-01	1.78251080e-02	4.74819977e+02	3.06653500e+00
black-oxidized-steel	R	1.94666967e-01	1.35884607e+00	1.32997604e-02	1.08001745e+00	1.33868173e-01
	G	1.98583007e-01	1.32436383e+00	1.12981303e-02	9.74444151e-01	1.43049702e-01
	B	2.02196941e-01	1.29561663e+00	1.00587169e-02	9.15744305e-01	1.46286324e-01
blue-metallic-paint	R	1.75245211e-01	1.21731639e+00	9.49593633e-03	8.44061333e-07	5.00644969e+05
	G	1.65165186e-01	1.18632603e+00	7.07733631e-03	6.11481767e-07	6.97787188e+05
	B	1.59673974e-01	1.21263361e+00	3.29539254e-02	8.42420832e-07	1.12493425e+06
blue-metallic-paint2	R	2.88309134e-03	4.15424377e-01	5.76225761e-03	4.64011261e+02	2.48600304e-01
	G	2.38556648e-03	3.90564173e-01	6.21860474e-03	4.80339813e+02	4.52358991e-01
	B	2.21032556e-03	3.73295635e-01	9.24540590e-03	5.17659729e+02	8.21707845e-01
brass	R	1.40886346e-03	3.92689526e-01	2.25119758e-02	1.79999414e+03	4.44878250e-01
	G	1.20576145e-03	3.65678191e-01	1.95963457e-02	1.51895227e+03	3.64920646e-01
	B	6.05128065e-04	3.26895744e-01	1.44445691e-02	4.38120215e+03	1.61956549e-01
chrome	R	1.85708213e-03	5.76280475e-01	3.85497930e-03	9.66025684e+03	1.43553436e-01
	G	1.52365561e-03	5.59859812e-01	3.50815454e-03	1.67987090e+04	1.02040097e-01
	B	1.44592882e-03	5.47576189e-01	3.72952805e-03	2.13908457e+04	7.63999075e-02
gold-metallic-paint	R	6.23483844e-02	4.97536153e-01	2.00149585e-02	5.57290923e-06	5.04405562e+05
	G	1.57203153e-01	1.08844054e+00	3.31036858e-02	4.25263670e-06	2.44768391e+05
	B	1.68333977e-01	1.14783061e+00	6.81143859e-03	9.74675864e-02	3.97546124e+00
gold-metallic-paint2	R	6.05232548e-04	1.80050343e-01	1.92492343e-02	8.55075717e-02	4.01747729e+03
	G	3.91224283e-04	1.70330703e-01	1.38107352e-02	1.19284621e-07	4.05230208e+09
	B	3.87922541e-04	1.73267841e-01	8.43540020e-03	1.04825139e+00	4.01161774e+02
gold-paint	R	1.55502379e-01	1.19894433e+00	1.68427840e-01	5.84770665e-02	1.51879797e+01
	G	1.59627736e-01	1.24486101e+00	9.66193452e-02	4.35049117e-01	1.57312739e+00
	B	1.42852440e-01	1.20655596e+00	3.77195068e-02	1.33203340e+00	3.28962237e-01
green-metallic-paint	R	1.45200491e-01	1.51574409e+00	5.07376390e-03	2.52357388e+00	1.41389623e-01
	G	1.52623743e-01	1.33026230e+00	3.25521454e-02	1.22165132e+00	5.73474169e-01
	B	1.52285814e-01	1.31488740e+00	4.02271673e-02	1.15986550e+00	6.43474102e-01
green-metallic-paint2	R	2.64352700e-03	3.83531332e-01	2.72903778e-03	4.40832916e+02	1.17606618e-01
	G	1.66142476e-03	3.22886854e-01	2.86709773e-03	3.92923035e+02	4.64177907e-01
	B	1.74876826e-03	3.35747272e-01	5.51546866e-04	5.73440979e+02	1.84263602e-01
hematite	R	9.39372228e-04	3.50267023e-01	8.28806963e-03	2.18378345e+03	1.92640737e-01
	G	6.48781541e-04	3.18996072e-01	7.79398112e-03	2.50774170e+03	2.47394457e-01
	B	6.64620951e-04	3.17974061e-01	7.91498180e-03	2.51131494e+03	2.44243219e-01
nickel	R	1.48907294e-02	6.14215851e-01	1.25332316e-02	1.44729391e-04	4.12199250e+05
	G	1.55142834e-02	6.15550399e-01	1.04704238e-02	2.87440443e+00	1.72143269e+01
	B	1.64195746e-02	6.24210477e-01	9.98399034e-03	1.50637331e+01	2.65831137e+00
red-metallic-paint	R	1.70091516e-03	3.26792270e-01	1.07954377e-02	5.20841858e+02	8.84539664e-01
	G	1.51262258e-03	3.53132039e-01	2.80893873e-03	1.15591614e+03	1.07213989e-01
	B	1.36754510e-03	3.54819834e-01	1.53915607e-03	1.54122522e+03	5.47536612e-02
silver-metallic-paint2	R	5.08198924e-02	4.30695921e-01	8.89700428e-02	3.33361891e-06	9.99253750e+05
	G	5.23913279e-02	4.31490242e-01	9.37380195e-02	3.13850978e-06	9.23557750e+05
	B	6.53244406e-02	4.99547333e-01	1.00923412e-01	1.72516252e-06	1.30563375e+06
silver-paint	R	1.48559287e-01	1.16107440e+00	1.78857759e-01	8.56921033e-05	1.29480742e+04
	G	1.47375494e-01	1.17207885e+00	1.50312707e-01	1.40123375e-05	8.34311953e+04
	B	1.50525838e-01	1.21700227e+00	1.33972004e-01	9.02855663e-06	1.31244188e+05
steel	R	1.33723754e-03	4.88340497e-01	1.13880020e-02	9.75175586e+03	1.47509500e-01
	G	9.15715529e-04	4.36969668e-01	1.18760969e-02	1.23537129e+04	1.50936067e-01
	B	1.39181782e-03	4.65370268e-01	1.36994245e-02	6.15948828e+03	1.34451538e-01

RGB Parameters for genBRDF 022-003289

Material		p0	p1	ρ_d	ρ_s	R_0
tungsten-carbide	R	2.06518359e-03	5.67088127e-01	1.19352335e-05	4.64512256e+03	1.67182803e-01
	G	1.53811788e-03	5.28711617e-01	4.55104280e-03	7.19270215e+03	1.36324406e-01
	B	1.16035098e-03	5.05902469e-01	5.03933290e-03	2.11254121e+04	7.82179460e-02
two-layer-gold	R	1.61608204e-03	1.97140589e-01	9.00043733e-03	3.21997283e-03	3.39656016e+04
	G	5.95992489e-04	1.73777223e-01	1.90594862e-03	2.06259791e-08	1.50641142e+10
	B	8.16180429e-04	1.83654428e-01	2.90657425e-14	5.53322978e-11	3.35887938e+12

RGB Parameters for genBRDF 022-003289

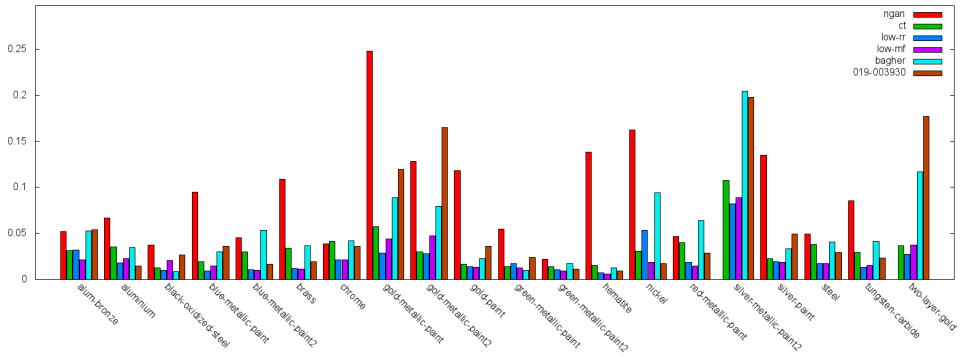
019-003930

Fitness: 0.000117863847

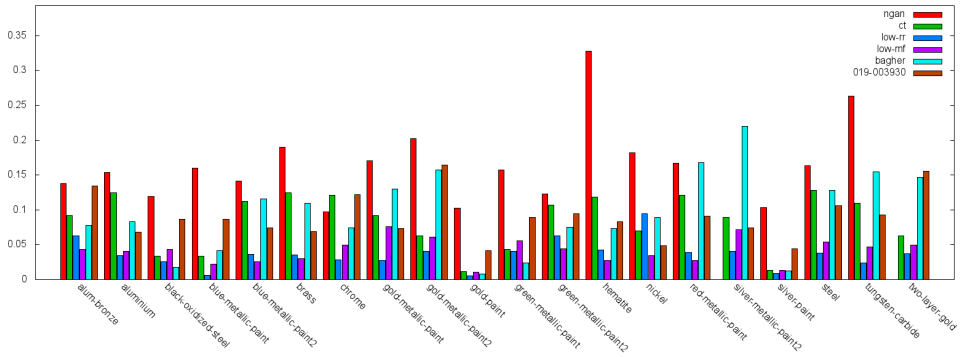
Length: 143

Reciprocity Error: 4.692744677e-15

$$f'_n(\omega_i, \omega_o) = [e^{-\left(\left(\frac{tan(cos^{-1}(clamp(\omega_{hz})))}{p_0}\right)^{p_1}\right)} * \min(1.0,\ \min(\frac{(1.0 * p_0)}{tan(cos^{-1}(clamp(\omega_{hz})))},\ 1.0))]$$

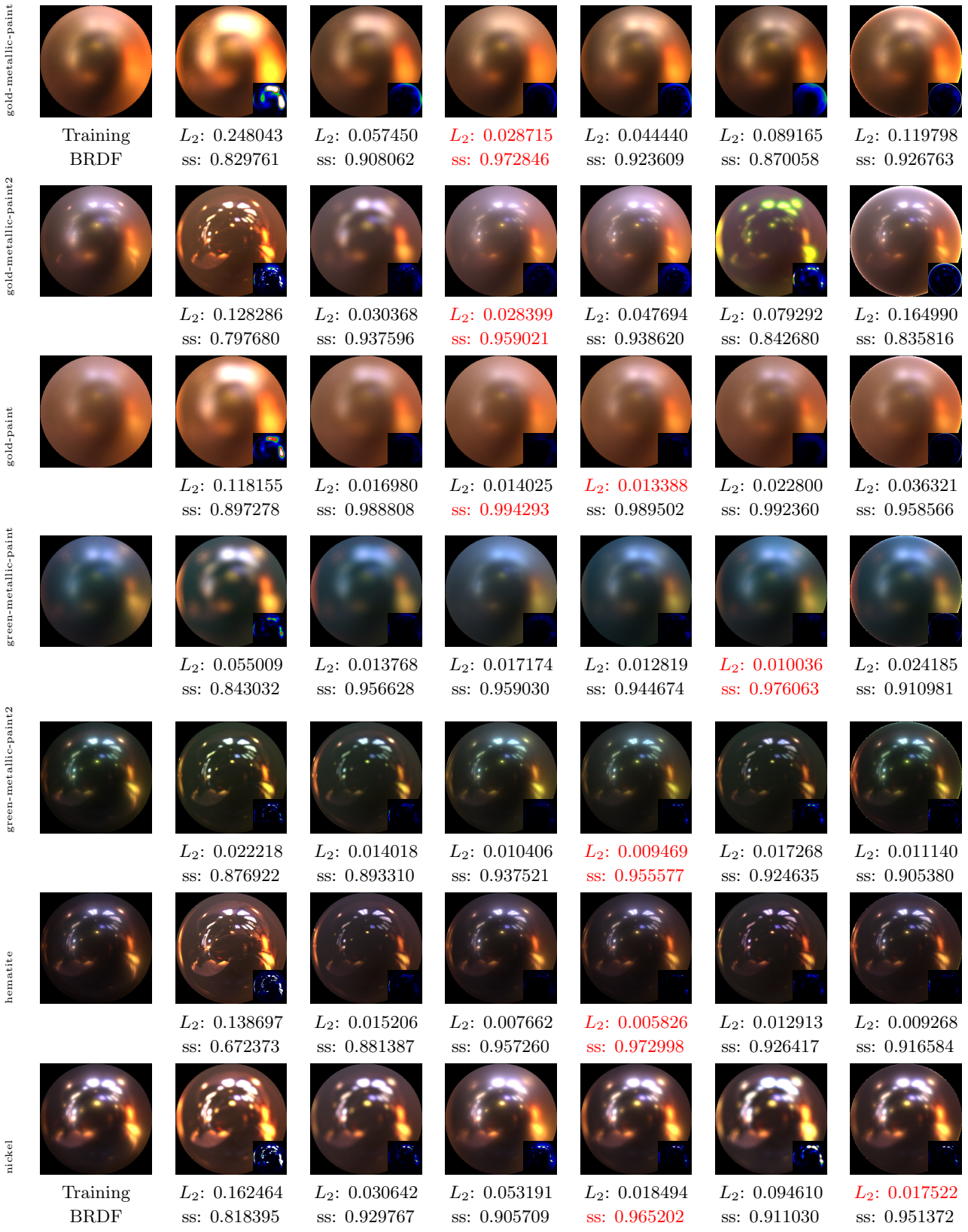


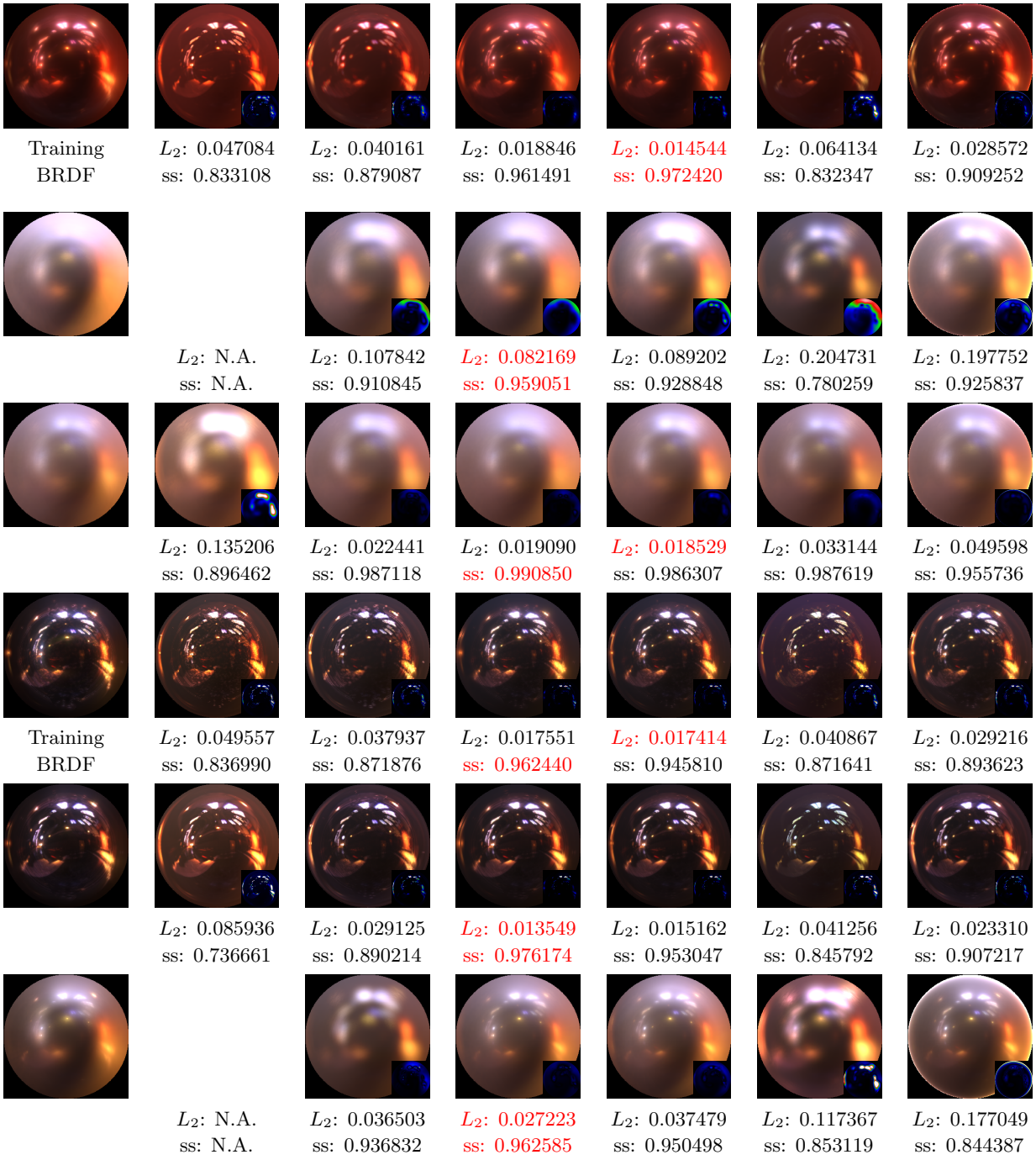
L_2 error.



SSIM error (= 100% - ssim).

	MERL	CT(Ngan) 0(2)/0(1)	CT(E_2 fit) 0(10)/0(9)	Löw SS 6(18)/11(19)	Löw MF 10(18)/7(19)	Bagher 2(9)/2(11)	genBRDF 2/0
alum-bronze		L_2: 0.052284 ss: 0.862223	L_2: 0.031392 ss: 0.907766	L_2: 0.032159 ss: 0.937667	L_2: 0.021146 ss: 0.956962	L_2: 0.053167 ss: 0.922395	L_2: 0.054327 ss: 0.865706
aluminium	Training BRDF	L_2: 0.067099 ss: 0.846399	L_2: 0.035146 ss: 0.875113	L_2: 0.018044 ss: 0.965309	L_2: 0.022431 ss: 0.959087	L_2: 0.034724 ss: 0.917355	L_2: 0.014996 ss: 0.931651
black-oxidized-steel		L_2: 0.037563 ss: 0.881117	L_2: 0.012395 ss: 0.966402	L_2: 0.009959 ss: 0.974466	L_2: 0.021000 ss: 0.956823	L_2: 0.009017 ss: 0.982697	L_2: 0.026733 ss: 0.913512
blue-metallic-paint	Training BRDF	L_2: 0.094791 ss: 0.840025	L_2: 0.019657 ss: 0.966125	L_2: 0.009161 ss: 0.993984	L_2: 0.015014 ss: 0.978181	L_2: 0.030206 ss: 0.958517	L_2: 0.035941 ss: 0.913311
blue-metallic-paint2	Training BRDF	L_2: 0.045753 ss: 0.859062	L_2: 0.030359 ss: 0.888022	L_2: 0.010992 ss: 0.963478	L_2: 0.009785 ss: 0.974119	L_2: 0.053468 ss: 0.884442	L_2: 0.016932 ss: 0.925386
brass	Training BRDF	L_2: 0.109247 ss: 0.809906	L_2: 0.034378 ss: 0.875335	L_2: 0.011813 ss: 0.965002	L_2: 0.011450 ss: 0.970392	L_2: 0.036857 ss: 0.890152	L_2: 0.019696 ss: 0.930918
chrome		L_2: 0.038555 ss: 0.902465	L_2: 0.041371 ss: 0.879025	L_2: 0.021593 ss: 0.972071	L_2: 0.021446 ss: 0.950898	L_2: 0.042031 ss: 0.925449	L_2: 0.035957 ss: 0.878345


gold-metallic-paint
Training BRDF
L_2: 0.248043 ss: 0.829761
L_2: 0.057450 ss: 0.908062
L_2: 0.028715 ss: 0.972846
L_2: 0.044440 ss: 0.923609
L_2: 0.089165 ss: 0.870058
L_2: 0.119798 ss: 0.926763
gold-metallic-paint2
L_2: 0.128286 ss: 0.797680
L_2: 0.030368 ss: 0.937596
L_2: 0.028399 ss: 0.959021
L_2: 0.047694 ss: 0.938620
L_2: 0.079292 ss: 0.842680
L_2: 0.164990 ss: 0.835816
gold-paint
L_2: 0.118155 ss: 0.897278
L_2: 0.016980 ss: 0.988808
L_2: 0.014025 ss: 0.994293
L_2: 0.013388 ss: 0.989502
L_2: 0.022800 ss: 0.992360
L_2: 0.036321 ss: 0.958566
green-metallic-paint
L_2: 0.055009 ss: 0.843032
L_2: 0.013768 ss: 0.956628
L_2: 0.017174 ss: 0.959030
L_2: 0.012819 ss: 0.944674
L_2: 0.010036 ss: 0.976063
L_2: 0.024185 ss: 0.910981
green-metallic-paint2
L_2: 0.022218 ss: 0.876922
L_2: 0.014018 ss: 0.893310
L_2: 0.010406 ss: 0.937521
L_2: 0.009469 ss: 0.955577
L_2: 0.017268 ss: 0.924635
L_2: 0.011140 ss: 0.905380
hematite
L_2: 0.138697 ss: 0.672373
L_2: 0.015206 ss: 0.881387
L_2: 0.007662 ss: 0.957260
L_2: 0.005826 ss: 0.972998
L_2: 0.012913 ss: 0.926417
L_2: 0.009268 ss: 0.916584
nickel
Training BRDF
L_2: 0.162464 ss: 0.818395
L_2: 0.030642 ss: 0.929767
L_2: 0.053191 ss: 0.905709
L_2: 0.018494 ss: 0.965202
L_2: 0.094610 ss: 0.911030
L_2: 0.017522 ss: 0.951372


red-metallic-paint
Training BRDF
L_2: 0.047084 ss: 0.833108
L_2: 0.040161 ss: 0.879087
L_2: 0.018846 ss: 0.961491
L_2: 0.014544 ss: 0.972420
L_2: 0.064134 ss: 0.832347
L_2: 0.028572 ss: 0.909252
silver-metallic-paint2
L_2: N.A. ss: N.A.
L_2: 0.107842 ss: 0.910845
L_2: 0.082169 ss: 0.959051
L_2: 0.089202 ss: 0.928848
L_2: 0.204731 ss: 0.780259
L_2: 0.197752 ss: 0.925837
silver-paint
L_2: 0.135206 ss: 0.896462
L_2: 0.022441 ss: 0.987118
L_2: 0.019090 ss: 0.990850
L_2: 0.018529 ss: 0.986307
L_2: 0.033144 ss: 0.987619
L_2: 0.049598 ss: 0.955736
steel
Training BRDF
L_2: 0.049557 ss: 0.836990
L_2: 0.037937 ss: 0.871876
L_2: 0.017551 ss: 0.962440
L_2: 0.017414 ss: 0.945810
L_2: 0.040867 ss: 0.871641
L_2: 0.029216 ss: 0.893623
tungsten-carbide
L_2: 0.085936 ss: 0.736661
L_2: 0.029125 ss: 0.890214
L_2: 0.013549 ss: 0.976174
L_2: 0.015162 ss: 0.953047
L_2: 0.041256 ss: 0.845792
L_2: 0.023310 ss: 0.907217
two-layer-gold
L_2: N.A. ss: N.A.
L_2: 0.036503 ss: 0.936832
L_2: 0.027223 ss: 0.962585
L_2: 0.037479 ss: 0.950498
L_2: 0.117367 ss: 0.853119
L_2: 0.177049 ss: 0.844387

Material		p0	p1	ρ_d	ρ_s	R_0
alum-bronze	R	1.01123098e-02	3.58324677e-01	4.81055714e-02	1.20409546e+02	2.79437661e-01
	G	1.57962590e-02	4.29712057e-01	4.70384508e-02	8.56036606e+01	1.52141780e-01
	B	1.18952701e-02	4.36397672e-01	4.10030819e-02	1.70952301e+02	6.50989041e-02
aluminium	R	2.05730088e-03	4.04322594e-01	1.96194407e-02	1.43122620e+03	1.03236341e+00
	G	1.51151873e-03	3.63432020e-01	1.81783922e-02	8.84614075e+02	2.14958191e+00
	B	1.87063206e-03	3.66176695e-01	1.92906018e-02	4.89217987e+02	2.62865520e+00
black-oxidized-steel	R	1.88403085e-01	9.18732464e-01	1.16115361e-02	1.21747017e+00	1.37751088e-01
	G	1.90695107e-01	8.69491160e-01	9.22435243e-03	1.10718715e+00	1.48534521e-01
	B	1.90578014e-01	8.14995825e-01	7.61431595e-03	1.06077147e+00	1.53160721e-01
blue-metallic-paint	R	1.82056442e-01	9.10578728e-01	7.06569664e-03	5.38813140e-07	8.38728812e+05
	G	1.71623707e-01	8.77289474e-01	4.54719272e-03	5.42969701e-07	8.43763875e+05
	B	1.73418000e-01	9.78302598e-01	3.03186662e-02	5.18270383e-07	1.85204125e+06
blue-metallic-paint2	R	7.40126707e-03	5.15343726e-01	6.51583588e-03	3.25012299e+02	2.44324684e-01
	G	5.75205637e-03	4.68218684e-01	7.25048967e-03	3.84759186e+02	4.40623313e-01
	B	5.20657282e-03	4.40070331e-01	1.10449586e-02	4.44198700e+02	7.87603796e-01
brass	R	2.94280378e-03	4.50252712e-01	2.30783392e-02	1.73715808e+03	4.32610393e-01
	G	2.53151800e-03	4.16348100e-01	2.00921260e-02	1.48924707e+03	3.62314343e-01
	B	1.43210730e-03	3.75400096e-01	1.48489736e-02	3.79619507e+03	1.60651714e-01
chrome	R	3.83850746e-03	7.02999830e-01	4.01971567e-10	7.60820947e+03	1.34661049e-01
	G	2.87349755e-03	6.55794799e-01	3.56076052e-03	1.50986582e+04	9.96687636e-02
	B	3.19013186e-03	6.74649358e-01	3.90902814e-03	1.54107607e+04	7.22133294e-02
gold-metallic-paint	R	1.61271259e-01	6.76961124e-01	2.36455183e-02	1.26658836e-06	1.35276275e+06
	G	1.63849041e-01	7.65570521e-01	2.31518559e-02	9.06966477e-07	1.25659075e+06
	B	1.69183835e-01	7.71790385e-01	1.99175416e-03	7.98492506e-02	5.51115131e+00
gold-metallic-paint2	R	1.79065065e-03	2.02700317e-01	2.09831689e-02	1.91448536e-02	1.49574053e+04
	G	1.14500697e-03	1.90026030e-01	1.51416119e-02	7.09196739e-03	5.82904844e+04
	B	1.12225721e-03	1.93355247e-01	9.58622526e-03	6.21412881e-03	5.84853164e+04
gold-paint	R	1.66162416e-01	9.45275664e-01	1.65718079e-01	5.20394184e-02	1.76723232e+01
	G	1.67107165e-01	9.55558658e-01	9.37721953e-02	4.44186896e-01	1.62771225e+00
	B	1.41148433e-01	8.25603187e-01	3.44211571e-02	1.47442877e+00	3.38233531e-01
green-metallic-paint	R	1.44525826e-01	1.13622844e+00	3.96784581e-03	2.72847724e+00	1.43165633e-01
	G	1.56488866e-01	1.00976801e+00	2.98857465e-02	1.28305435e+00	5.85230052e-01
	B	1.55253440e-01	9.85771298e-01	3.71356420e-02	1.22415090e+00	6.59232736e-01
green-metallic-paint2	R	5.50451269e-03	4.33974415e-01	2.58065248e-03	4.08410522e+02	1.20735638e-01
	G	4.32554213e-03	3.82554740e-01	4.31859493e-03	3.16459869e+02	4.48327005e-01
	B	4.52951249e-03	4.02358830e-01	3.55204218e-03	4.61814941e+02	1.77236781e-01
hematite	R	2.18742224e-03	4.07341272e-01	8.77169613e-03	1.91573486e+03	1.90524042e-01
	G	1.54809258e-03	3.66333216e-01	8.30794405e-03	2.18098608e+03	2.46066466e-01
	B	1.59041258e-03	3.64908040e-01	8.37715343e-03	2.17051172e+03	2.43377477e-01
nickel	R	3.55488062e-02	8.28780949e-01	1.41671849e-02	9.84681770e-04	3.44035898e+04
	G	3.69024687e-02	8.30538750e-01	1.21379951e-02	2.92220044e+00	9.63726807e+00
	B	3.84249166e-02	8.36697400e-01	1.11900093e-02	9.93962288e+00	2.31464052e+00
red-metallic-paint	R	4.29748138e-03	3.82698536e-01	1.32413795e-02	4.29495239e+02	8.51208150e-01
	G	2.74995784e-03	3.83850396e-01	2.57363822e-03	1.33953528e+03	1.10243566e-01
	B	2.27973866e-03	3.76766622e-01	1.26396341e-03	1.95146924e+03	5.77888303e-02
silver-metallic-paint2	R	1.40799597e-01	5.84646761e-01	9.28685293e-02	1.20512778e-09	1.72244672e+09
	G	1.44630030e-01	5.87367117e-01	9.80761349e-02	4.15298902e-37	4.36141527e+36
	B	1.66389614e-01	6.69972599e-01	1.03374615e-01	2.41911335e-09	5.75393472e+08
silver-paint	R	1.60528973e-01	9.17272627e-01	1.75532788e-01	2.33485625e-05	4.88529844e+04
	G	1.60093442e-01	9.31455851e-01	1.46629110e-01	9.70037127e-06	1.22978602e+05
	B	1.61098868e-01	9.57974374e-01	1.29966259e-01	5.89812316e-06	2.07261078e+05
steel	R	2.71036429e-03	5.72937131e-01	1.15688648e-02	8.64535449e+03	1.42973974e-01
	G	1.89287204e-03	5.06066978e-01	1.21422391e-02	1.12054531e+04	1.48571074e-01
	B	3.41783767e-03	5.76294541e-01	1.42060146e-02	4.37422607e+03	1.23829693e-01

RGB Parameters for genBRDF 019-003930

Material		p0	p1	ρ_d	ρ_s	R_0
tungsten-carbide	R	4.44811629e-03	7.06224024e-01	4.74555511e-03	3.54607739e+03	1.57039031e-01
	G	3.43146175e-03	6.51502848e-01	4.75095771e-03	5.29961719e+03	1.28643751e-01
	B	2.63490388e-03	6.19215071e-01	5.29523334e-03	1.53716729e+04	7.52947405e-02
two-layer-gold	R	4.87552350e-03	2.26717830e-01	1.12393238e-02	1.80624793e-05	4.84731800e+06
	G	1.75980851e-03	1.95027784e-01	3.42989457e-03	3.63409823e-12	7.22086931e+13
	B	2.37109116e-03	2.07195565e-01	9.32456693e-04	3.55336940e-12	4.44874181e+13

RGB Parameters for genBRDF 019-003930

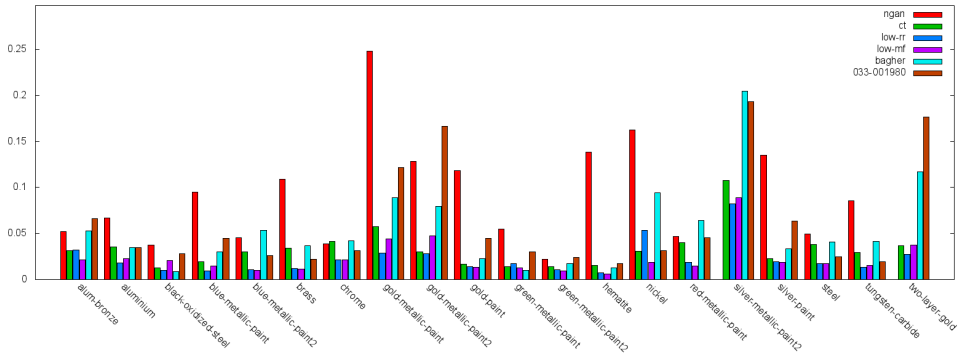
033-001980

Fitness: 0.000121382548

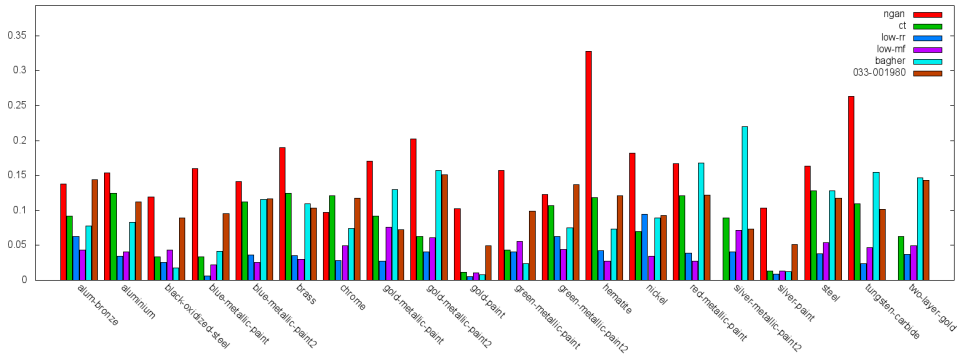
Length: 125

Reciprocity Error: 4.73020984563e-15

$$f'_n(\omega_i, \omega_o) = \left(\left[[\omega_{hz} * e^{1.0}] \; / \; \left([\left(\frac{tan(cos^{-1}(clamp(\omega_{hz})))}{p_0} \right)^{p_1} + (p_1 * [p_0 + 2.0])] * p_0 \right) \right] * [2.0 * \omega_{hz}] \right)$$

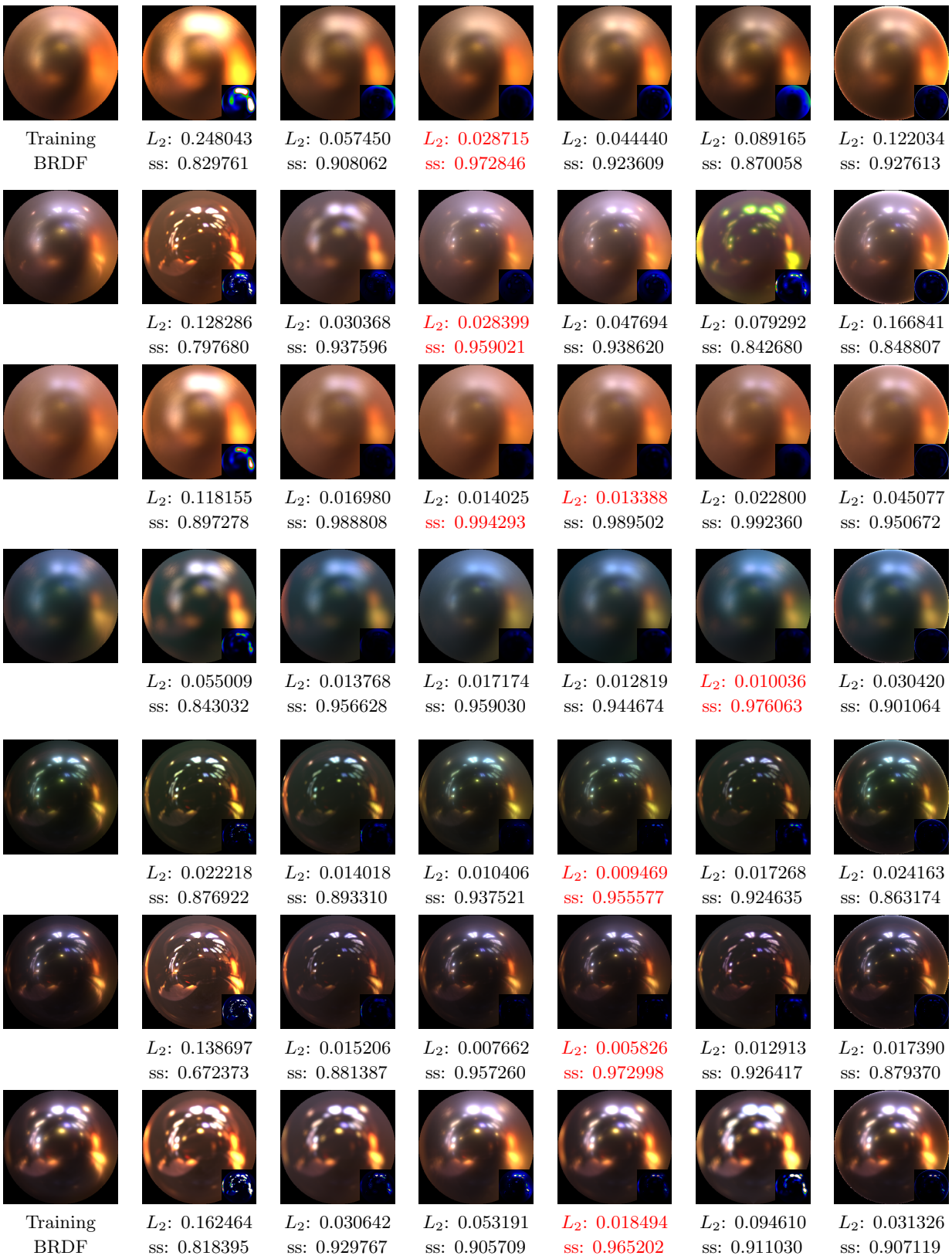


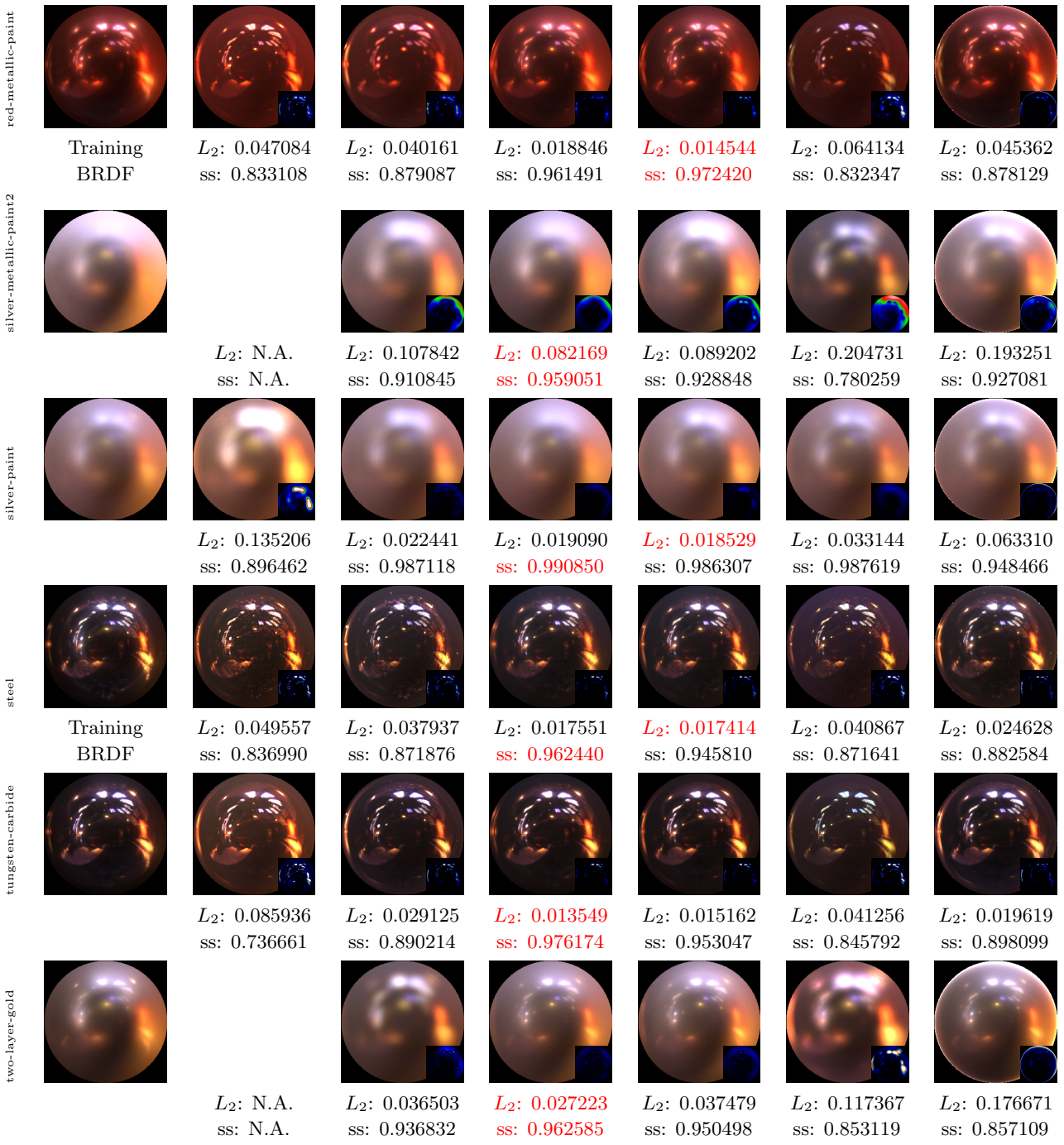
L_2 error.



SSIM error (= 100% - ssim).

	MERL	CT(Ngan) 0(3)/0(3)	CT(E_2 fit) 0(14)/0(13)	Löw SS 7(19)/11(19)	Löw MF 11(20)/7(19)	Bagher 2(12)/2(12)	genBRDF 0/0
alum-bronze		L_2: 0.052284 ss: 0.862223	L_2: 0.031392 ss: 0.907766	L_2: 0.032159 ss: 0.937667	L_2: 0.021146 ss: 0.956962	L_2: 0.053167 ss: 0.922395	L_2: 0.066177 ss: 0.855950
aluminium	Training BRDF	L_2: 0.067099 ss: 0.846399	L_2: 0.035146 ss: 0.875113	L_2: 0.018044 ss: 0.965309	L_2: 0.022431 ss: 0.959087	L_2: 0.034724 ss: 0.917355	L_2: 0.035044 ss: 0.887789
black-oxidized-steel		L_2: 0.037563 ss: 0.881117	L_2: 0.012395 ss: 0.966402	L_2: 0.009959 ss: 0.974466	L_2: 0.021000 ss: 0.956823	L_2: 0.009017 ss: 0.982697	L_2: 0.027873 ss: 0.910473
blue-metallic-paint	Training BRDF	L_2: 0.094791 ss: 0.840025	L_2: 0.019657 ss: 0.966125	L_2: 0.009161 ss: 0.993984	L_2: 0.015014 ss: 0.978181	L_2: 0.030206 ss: 0.958517	L_2: 0.044547 ss: 0.904423
blue-metallic-paint2	Training BRDF	L_2: 0.045753 ss: 0.859062	L_2: 0.030359 ss: 0.888022	L_2: 0.010992 ss: 0.963478	L_2: 0.009785 ss: 0.974119	L_2: 0.053468 ss: 0.884442	L_2: 0.026368 ss: 0.883331
brass	Training BRDF	L_2: 0.109247 ss: 0.809906	L_2: 0.034378 ss: 0.875335	L_2: 0.011813 ss: 0.965002	L_2: 0.011450 ss: 0.970392	L_2: 0.036857 ss: 0.890152	L_2: 0.021818 ss: 0.896954
chrome		L_2: 0.038555 ss: 0.902465	L_2: 0.041371 ss: 0.879025	L_2: 0.021593 ss: 0.972071	L_2: 0.021446 ss: 0.950898	L_2: 0.042031 ss: 0.925449	L_2: 0.031338 ss: 0.882313


gold-metallic-paint
Training BRDF
L_2: 0.248043 ss: 0.829761
L_2: 0.057450 ss: 0.908062
L_2: 0.028715 ss: 0.972846
L_2: 0.044440 ss: 0.923609
L_2: 0.089165 ss: 0.870058
L_2: 0.122034 ss: 0.927613
gold-metallic-paint2
L_2: 0.128286 ss: 0.797680
L_2: 0.030368 ss: 0.937596
L_2: 0.028399 ss: 0.959021
L_2: 0.047694 ss: 0.938620
L_2: 0.079292 ss: 0.842680
L_2: 0.166841 ss: 0.848807
gold-paint
L_2: 0.118155 ss: 0.897278
L_2: 0.016980 ss: 0.988808
L_2: 0.014025 ss: 0.994293
L_2: 0.013388 ss: 0.989502
L_2: 0.022800 ss: 0.992360
L_2: 0.045077 ss: 0.950672
green-metallic-paint
L_2: 0.055009 ss: 0.843032
L_2: 0.013768 ss: 0.956628
L_2: 0.017174 ss: 0.959030
L_2: 0.012819 ss: 0.944674
L_2: 0.010036 ss: 0.976063
L_2: 0.030420 ss: 0.901064
green-metallic-paint2
L_2: 0.022218 ss: 0.876922
L_2: 0.014018 ss: 0.893310
L_2: 0.010406 ss: 0.937521
L_2: 0.009469 ss: 0.955577
L_2: 0.017268 ss: 0.924635
L_2: 0.024163 ss: 0.863174
hematite
L_2: 0.138697 ss: 0.672373
L_2: 0.015206 ss: 0.881387
L_2: 0.007662 ss: 0.957260
L_2: 0.005826 ss: 0.972998
L_2: 0.012913 ss: 0.926417
L_2: 0.017390 ss: 0.879370
nickel
Training BRDF
L_2: 0.162464 ss: 0.818395
L_2: 0.030642 ss: 0.929767
L_2: 0.053191 ss: 0.905709
L_2: 0.018494 ss: 0.965202
L_2: 0.094610 ss: 0.911030
L_2: 0.031326 ss: 0.907119


red-metallic-paint
Training BRDF
L_2: 0.047084 ss: 0.833108
L_2: 0.040161 ss: 0.879087
L_2: 0.018846 ss: 0.961491
L_2: 0.014544 ss: 0.972420
L_2: 0.064134 ss: 0.832347
L_2: 0.045362 ss: 0.878129
silver-metallic-paint2
L_2: N.A. ss: N.A.
L_2: 0.107842 ss: 0.910845
L_2: 0.082169 ss: 0.959051
L_2: 0.089202 ss: 0.928848
L_2: 0.204731 ss: 0.780259
L_2: 0.193251 ss: 0.927081
silver-paint
L_2: 0.135206 ss: 0.896462
L_2: 0.022441 ss: 0.987118
L_2: 0.019090 ss: 0.990850
L_2: 0.018529 ss: 0.986307
L_2: 0.033144 ss: 0.987619
L_2: 0.063310 ss: 0.948466
steel
Training BRDF
L_2: 0.049557 ss: 0.836990
L_2: 0.037937 ss: 0.871876
L_2: 0.017551 ss: 0.962440
L_2: 0.017414 ss: 0.945810
L_2: 0.040867 ss: 0.871641
L_2: 0.024628 ss: 0.882584
tungsten-carbide
L_2: 0.085936 ss: 0.736661
L_2: 0.029125 ss: 0.890214
L_2: 0.013549 ss: 0.976174
L_2: 0.015162 ss: 0.953047
L_2: 0.041256 ss: 0.845792
L_2: 0.019619 ss: 0.898099
two-layer-gold
L_2: N.A. ss: N.A.
L_2: 0.036503 ss: 0.936832
L_2: 0.027223 ss: 0.962585
L_2: 0.037479 ss: 0.950498
L_2: 0.117367 ss: 0.853119
L_2: 0.176671 ss: 0.857109

Material		p0	p1	ρ_d	ρ_s	R_0
alum-bronze	R	5.42589324e-03	1.80317521e+00	4.23048511e-02	2.35855445e-01	2.91528881e-01
	G	6.74413797e-03	1.87688768e+00	4.01198827e-02	2.74314582e-01	1.69520736e-01
	B	6.33116439e-03	2.02052093e+00	3.80466469e-02	4.84217167e-01	6.80393651e-02
aluminium	R	1.76738715e-03	2.28113270e+00	1.40843085e-05	5.26387811e-01	1.94406390e+00
	G	1.33302168e-03	2.16187978e+00	4.92318161e-03	1.57106668e-01	6.02006197e+00
	B	1.52349425e-03	2.12741113e+00	5.84144844e-03	7.55282938e-02	1.00175734e+01
black-oxidized-steel	R	9.83069837e-02	2.80375338e+00	1.08622489e-02	9.32834968e-02	1.41015068e-01
	G	9.94012430e-02	2.71464872e+00	8.70928355e-03	8.22123438e-02	1.51324421e-01
	B	1.00500301e-01	2.64454770e+00	7.47497194e-03	7.60022029e-02	1.55211374e-01
blue-metallic-paint	R	9.09618959e-02	2.69226122e+00	4.87248134e-03	4.98321511e-15	6.42297155e+12
	G	8.55625570e-02	2.64161086e+00	2.44065328e-03	2.54139618e-13	1.16529357e+11
	B	8.56835321e-02	2.80351949e+00	2.51699109e-02	2.18601096e-10	3.13390208e+08
blue-metallic-paint2	R	4.35276097e-03	2.35865021e+00	1.32182206e-03	7.19819546e-01	2.65945762e-01
	G	3.64597165e-03	2.28158164e+00	8.80050209e-07	6.08077884e-01	5.01675725e-01
	B	3.67946783e-03	2.26506424e+00	3.08014100e-11	6.16091132e-01	9.17932332e-01
brass	R	2.30121310e-03	2.40032339e+00	1.41535932e-02	1.32653093e+00	6.08759046e-01
	G	1.81254977e-03	2.24031663e+00	1.22816367e-02	9.76228833e-01	4.75012302e-01
	B	9.82516794e-04	2.10382557e+00	9.16892663e-03	1.38280213e+00	2.07338899e-01
chrome	R	3.30325868e-03	3.47306228e+00	2.24149204e-03	1.36640787e+01	1.65637031e-01
	G	2.72640656e-03	3.42617774e+00	2.01466936e-03	2.06596012e+01	1.18270926e-01
	B	2.71496666e-03	3.41872025e+00	2.42041540e-03	2.47044773e+01	9.02059078e-02
gold-metallic-paint	R	7.93093666e-02	2.27020025e+00	2.25282870e-02	7.48427331e-19	1.11153779e+17
	G	8.05755183e-02	2.43378711e+00	1.99710857e-02	4.37622540e-19	1.42283951e+17
	B	8.45722109e-02	2.47247171e+00	1.02845137e-03	4.21827333e-03	6.03847837e+00
gold-metallic-paint2	R	6.35551638e-04	1.32244551e+00	1.01640364e-02	1.05645711e-06	5.05039727e+04
	G	3.69908434e-04	1.30233681e+00	5.55075426e-03	1.15152728e-10	4.22439584e+08
	B	3.88768822e-04	1.32564926e+00	2.11154576e-03	4.11102909e-15	1.09332639e+13
gold-paint	R	8.38224441e-02	2.79920721e+00	1.61431834e-01	3.05530638e-03	2.04201069e+01
	G	8.51944387e-02	2.84044766e+00	9.05245095e-02	3.03152837e-02	1.66167307e+00
	B	7.32527077e-02	2.68093228e+00	3.31045389e-02	7.84386247e-02	3.39979708e-01
green-metallic-paint	R	7.58140758e-02	3.22296238e+00	1.99935236e-03	1.93754897e-01	1.45206749e-01
	G	8.12133253e-02	2.99735975e+00	2.67406199e-02	8.88303667e-02	5.93450129e-01
	B	8.10219795e-02	2.97212458e+00	3.39773558e-02	8.30176473e-02	6.68097138e-01
green-metallic-paint2	R	2.99697137e-03	2.07908273e+00	3.06768499e-09	5.51760375e-01	1.32402971e-01
	G	2.35375692e-03	1.96392488e+00	8.81106039e-12	3.04851443e-01	5.16583323e-01
	B	2.24392163e-03	1.97402763e+00	2.69154978e-13	4.70008373e-01	2.05115408e-01
hematite	R	1.40278146e-03	2.15320134e+00	1.67195348e-03	1.05154741e+00	2.43352801e-01
	G	9.92439804e-04	2.04610395e+00	1.97804184e-03	8.31016898e-01	3.11911076e-01
	B	1.06988277e-03	2.05811167e+00	2.36448622e-03	8.80316496e-01	2.96764761e-01
nickel	R	2.09718961e-02	3.07035851e+00	3.38071771e-03	3.52191855e-05	1.50077148e+04
	G	2.15282477e-02	3.05094409e+00	2.07407051e-03	5.05595282e-02	8.95072746e+00
	B	2.21819170e-02	3.03815484e+00	6.91457710e-04	1.66426629e-01	2.30050397e+00
red-metallic-paint	R	2.94899708e-03	2.06226468e+00	1.62952983e-06	4.33897018e-01	9.89212990e-01
	G	1.83413248e-03	2.05294180e+00	2.16102148e-06	8.73779595e-01	1.25632629e-01
	B	1.44948810e-03	2.03308487e+00	2.24669638e-09	1.08900142e+00	6.50176927e-02
silver-metallic-paint2	R	6.88519031e-02	2.10276365e+00	9.48594362e-02	2.47240604e-18	3.16100767e+16
	G	7.23003745e-02	2.11910987e+00	9.95232537e-02	2.21638578e-18	3.20743197e+16
	B	7.93559328e-02	2.20452142e+00	1.01718962e-01	2.22343129e-18	3.01557578e+16
silver-paint	R	8.08153376e-02	2.75553513e+00	1.70704827e-01	2.42861518e-08	2.99785125e+06
	G	8.02279040e-02	2.77118945e+00	1.41361654e-01	3.01317584e-08	2.54140600e+06
	B	8.18222761e-02	2.84830880e+00	1.24653786e-01	3.07570147e-08	2.67209725e+06
steel	R	2.35734438e-03	2.99172735e+00	8.57384596e-03	8.88960934e+00	1.92442283e-01
	G	1.71626278e-03	2.77788639e+00	8.66343640e-03	7.60915709e+00	2.01126292e-01
	B	2.35753437e-03	2.82257652e+00	1.09831858e-02	5.75465345e+00	1.69321314e-01

RGB Parameters for genBRDF 033-001980

Material		p0	p1	ρ_d	ρ_s	R_0
tungsten-carbide	R	3.47233308e-03	3.32805133e+00	1.95894134e-03	7.22821045e+00	1.86147124e-01
	G	2.68032355e-03	3.18265057e+00	3.02897207e-03	8.23001862e+00	1.57620743e-01
	B	2.14260700e-03	3.18976736e+00	3.66063952e-03	1.99304752e+01	9.54941735e-02
two-layer-gold	R	1.15701335e-03	1.31901503e+00	1.10223998e-13	3.13315496e-07	1.50897406e+05
	G	6.19868923e-04	1.30569708e+00	9.37816878e-07	3.43303332e-30	1.36401341e+28
	B	8.70259944e-04	1.34284794e+00	8.35734405e-18	5.98823704e-07	7.00169219e+04

RGB Parameters for genBRDF 033-001980

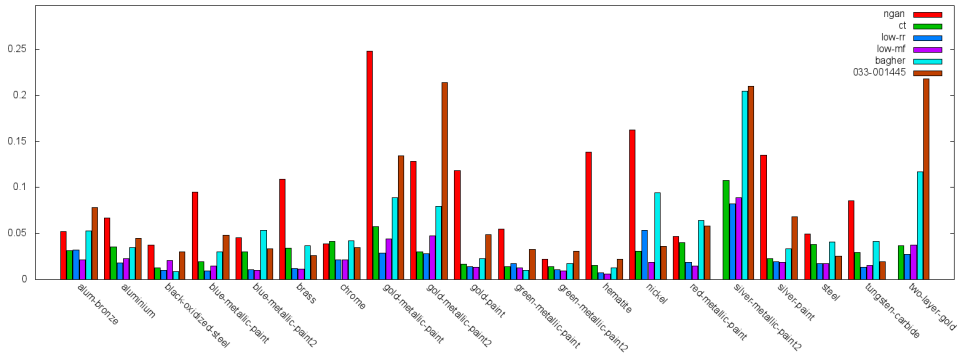
033-001445

Fitness: 0.000125018834

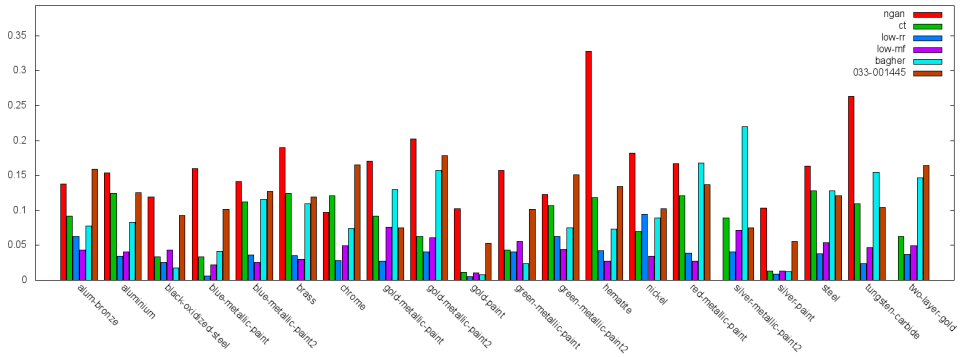
Length: 98

Reciprocity Error: 5.17097642e-15

$$f'_n(\omega_i, \omega_o) = \left[\left(p_0 \ / \ \left[\left(\left(\frac{tan(cos^{-1}(clamp(\omega_{hz})))}{p_0}\right)^{p_1} + [2.0 * \omega_{hz}]\right) * p_0\right]\right) * [p_0 + 2.0]\right]$$

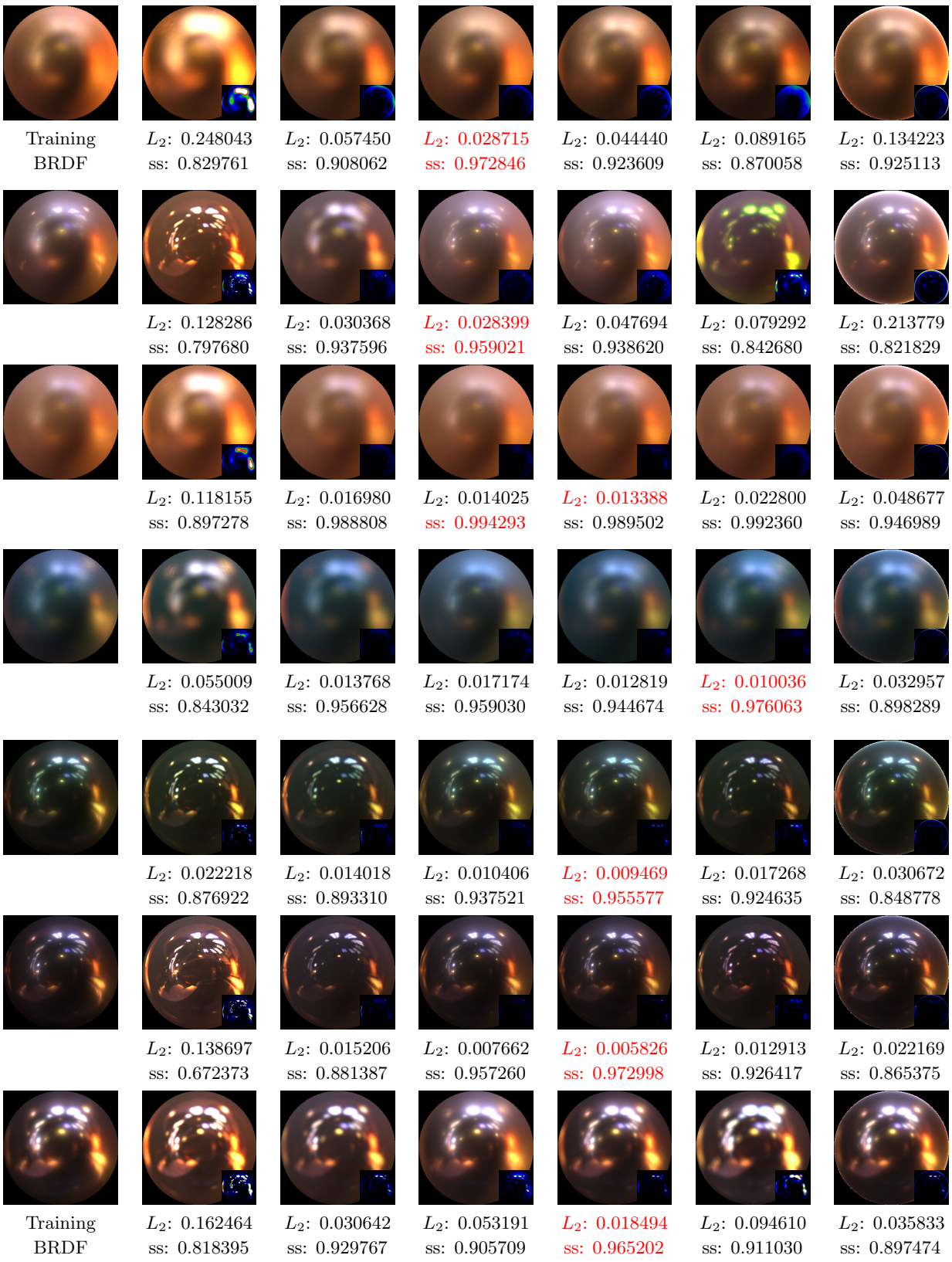


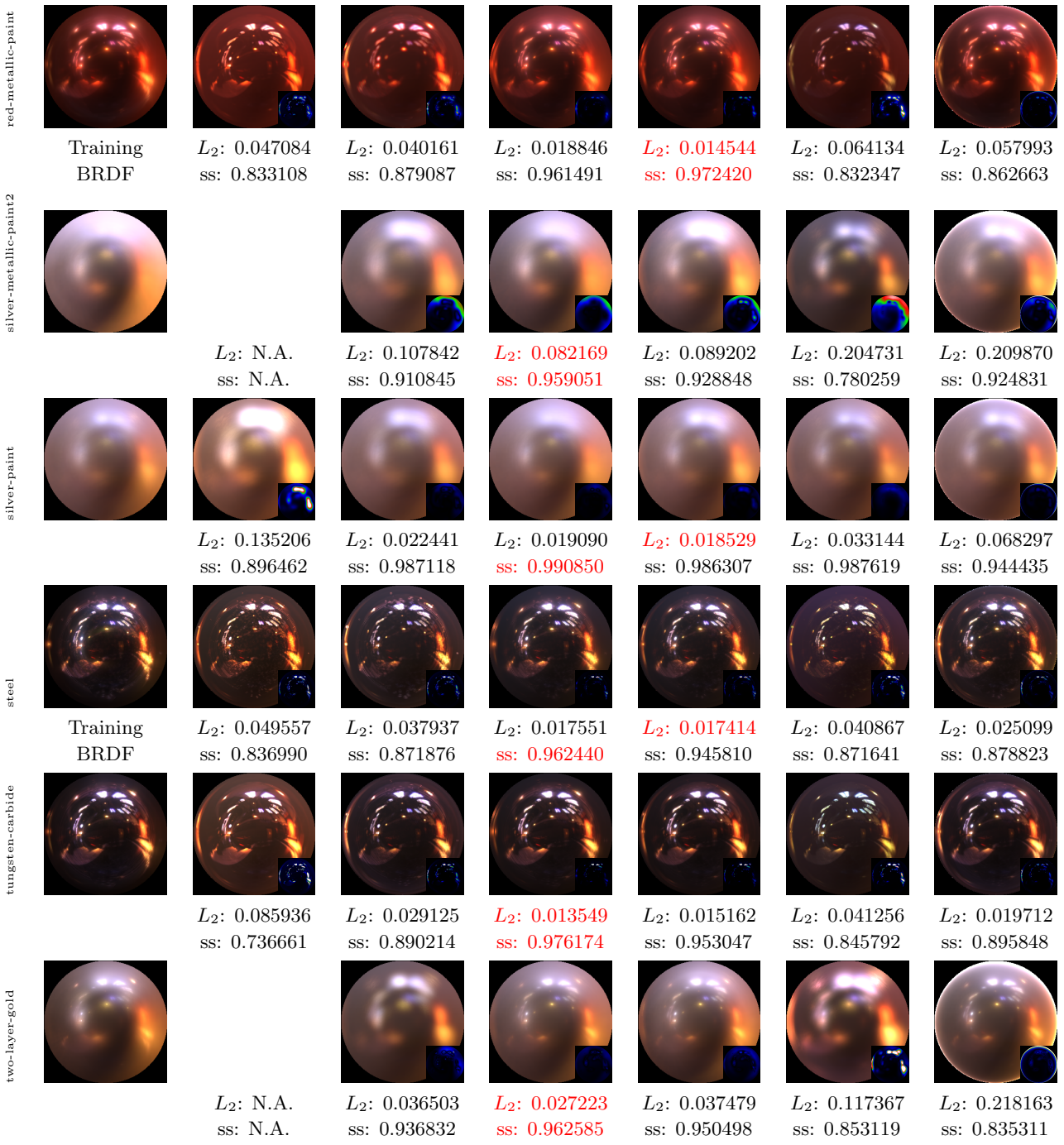
L_2 error.



SSIM error (= 100% - ssim).

	MERL	CT(Ngan) 0(4)/0(3)	CT(E_2 fit) 0(16)/0(15)	Löw SS 7(19)/11(20)	Löw MF 11(20)/7(19)	Bagher 2(13)/2(15)	genBRDF 0/0
alum-bronze		L_2: 0.052284 ss: 0.862223	L_2: 0.031392 ss: 0.907766	L_2: 0.032159 ss: 0.937667	L_2: 0.021146 ss: 0.956962	L_2: 0.053167 ss: 0.922395	L_2: 0.078374 ss: 0.840985
aluminium	Training BRDF	L_2: 0.067099 ss: 0.846399	L_2: 0.035146 ss: 0.875113	L_2: 0.018044 ss: 0.965309	L_2: 0.022431 ss: 0.959087	L_2: 0.034724 ss: 0.917355	L_2: 0.045116 ss: 0.874599
black-oxidized-steel		L_2: 0.037563 ss: 0.881117	L_2: 0.012395 ss: 0.966402	L_2: 0.009959 ss: 0.974466	L_2: 0.021000 ss: 0.956823	L_2: 0.009017 ss: 0.982697	L_2: 0.029870 ss: 0.907207
blue-metallic-paint	Training BRDF	L_2: 0.094791 ss: 0.840025	L_2: 0.019657 ss: 0.966125	L_2: 0.009161 ss: 0.993984	L_2: 0.015014 ss: 0.978181	L_2: 0.030206 ss: 0.958517	L_2: 0.048254 ss: 0.898731
blue-metallic-paint2	Training BRDF	L_2: 0.045753 ss: 0.859062	L_2: 0.030359 ss: 0.888022	L_2: 0.010992 ss: 0.963478	L_2: 0.009785 ss: 0.974119	L_2: 0.053468 ss: 0.884442	L_2: 0.033196 ss: 0.872375
brass	Training BRDF	L_2: 0.109247 ss: 0.809906	L_2: 0.034378 ss: 0.875335	L_2: 0.011813 ss: 0.965002	L_2: 0.011450 ss: 0.970392	L_2: 0.036857 ss: 0.890152	L_2: 0.026348 ss: 0.880336
chrome		L_2: 0.038555 ss: 0.902465	L_2: 0.041371 ss: 0.879025	L_2: 0.021593 ss: 0.972071	L_2: 0.021446 ss: 0.950898	L_2: 0.042031 ss: 0.925449	L_2: 0.034804 ss: 0.835040


gold-metallic-paint
Training BRDF
L_2: 0.248043 ss: 0.829761
L_2: 0.057450 ss: 0.908062
L_2: 0.028715 ss: 0.972846
L_2: 0.044440 ss: 0.923609
L_2: 0.089165 ss: 0.870058
L_2: 0.134223 ss: 0.925113
gold-metallic-paint2
L_2: 0.128286 ss: 0.797680
L_2: 0.030368 ss: 0.937596
L_2: 0.028399 ss: 0.959021
L_2: 0.047694 ss: 0.938620
L_2: 0.079292 ss: 0.842680
L_2: 0.213779 ss: 0.821829
gold-paint
L_2: 0.118155 ss: 0.897278
L_2: 0.016980 ss: 0.988808
L_2: 0.014025 ss: 0.994293
L_2: 0.013388 ss: 0.989502
L_2: 0.022800 ss: 0.992360
L_2: 0.048677 ss: 0.946989
green-metallic-paint
L_2: 0.055009 ss: 0.843032
L_2: 0.013768 ss: 0.956628
L_2: 0.017174 ss: 0.959030
L_2: 0.012819 ss: 0.944674
L_2: 0.010036 ss: 0.976063
L_2: 0.032957 ss: 0.898289
green-metallic-paint2
L_2: 0.022218 ss: 0.876922
L_2: 0.014018 ss: 0.893310
L_2: 0.010406 ss: 0.937521
L_2: 0.009469 ss: 0.955577
L_2: 0.017268 ss: 0.924635
L_2: 0.030672 ss: 0.848778
hematite
L_2: 0.138697 ss: 0.672373
L_2: 0.015206 ss: 0.881387
L_2: 0.007662 ss: 0.957260
L_2: 0.005826 ss: 0.972998
L_2: 0.012913 ss: 0.926417
L_2: 0.022169 ss: 0.865375
nickel
Training BRDF
L_2: 0.162464 ss: 0.818395
L_2: 0.030642 ss: 0.929767
L_2: 0.053191 ss: 0.905709
L_2: 0.018494 ss: 0.965202
L_2: 0.094610 ss: 0.911030
L_2: 0.035833 ss: 0.897474


red-metallic-paint
Training BRDF
L_2: 0.047084 ss: 0.833108
L_2: 0.040161 ss: 0.879087
L_2: 0.018846 ss: 0.961491
L_2: 0.014544 ss: 0.972420
L_2: 0.064134 ss: 0.832347
L_2: 0.057993 ss: 0.862663
silver-metallic-paint2
L_2: N.A. ss: N.A.
L_2: 0.107842 ss: 0.910845
L_2: 0.082169 ss: 0.959051
L_2: 0.089202 ss: 0.928848
L_2: 0.204731 ss: 0.780259
L_2: 0.209870 ss: 0.924831
silver-paint
L_2: 0.135206 ss: 0.896462
L_2: 0.022441 ss: 0.987118
L_2: 0.019090 ss: 0.990850
L_2: 0.018529 ss: 0.986307
L_2: 0.033144 ss: 0.987619
L_2: 0.068297 ss: 0.944435
steel
Training BRDF
L_2: 0.049557 ss: 0.836990
L_2: 0.037937 ss: 0.871876
L_2: 0.017551 ss: 0.962440
L_2: 0.017414 ss: 0.945810
L_2: 0.040867 ss: 0.871641
L_2: 0.025099 ss: 0.878823
tungsten-carbide
L_2: 0.085936 ss: 0.736661
L_2: 0.029125 ss: 0.890214
L_2: 0.013549 ss: 0.976174
L_2: 0.015162 ss: 0.953047
L_2: 0.041256 ss: 0.845792
L_2: 0.019712 ss: 0.895848
two-layer-gold
L_2: N.A. ss: N.A.
L_2: 0.036503 ss: 0.936832
L_2: 0.027223 ss: 0.962585
L_2: 0.037479 ss: 0.950498
L_2: 0.117367 ss: 0.853119
L_2: 0.218163 ss: 0.835311

Material		p0	p1	ρ_d	ρ_s	R_0
alum-bronze	R	8.85370560e-03	1.89405239e+00	4.12112288e-02	6.19270477e+01	2.68751770e-01
	G	1.07005481e-02	1.96676481e+00	3.98400612e-02	5.68278847e+01	1.57673582e-01
	B	9.67137236e-03	2.08604121e+00	3.79121602e-02	1.00617599e+02	6.45234436e-02
aluminium	R	2.67236400e-03	2.31068206e+00	5.54194208e-03	3.61469360e+02	1.80965161e+00
	G	1.93386676e-03	2.16891646e+00	4.95955776e-11	1.29280106e+02	6.80221128e+00
	B	2.24068202e-03	2.14176488e+00	2.29719607e-03	5.55170555e+01	1.10996332e+01
black-oxidized-steel	R	1.45202428e-01	2.96736264e+00	1.02664093e-02	7.96813369e-01	1.42316103e-01
	G	1.47004351e-01	2.88452911e+00	8.04993231e-03	7.14731932e-01	1.53313443e-01
	B	1.48901507e-01	2.82283378e+00	6.73556328e-03	6.69245899e-01	1.57239437e-01
blue-metallic-paint	R	1.37095243e-01	2.90577865e+00	4.02303785e-03	7.29834994e-07	4.22607781e+05
	G	1.29284501e-01	2.84812784e+00	1.60190673e-03	1.38152050e-08	2.25135180e+07
	B	1.29429549e-01	3.01854229e+00	2.41758488e-02	4.20749089e-08	1.60544930e+07
blue-metallic-paint2	R	6.34229602e-03	2.37046528e+00	3.44779924e-04	1.87654663e+02	2.66112894e-01
	G	5.36869746e-03	2.30151033e+00	2.47953210e-07	1.95520142e+02	4.96406287e-01
	B	5.48933866e-03	2.29215074e+00	2.85594950e-07	1.97531723e+02	8.96588564e-01
brass	R	3.42424703e-03	2.44382811e+00	2.26748474e-02	6.60152710e+02	6.04055822e-01
	G	2.63210107e-03	2.24934483e+00	1.08679226e-02	6.45283264e+02	4.75939661e-01
	B	1.41744560e-03	2.11233974e+00	8.13809503e-03	1.80310388e+03	2.07701832e-01
chrome	R	4.43904754e-03	3.48157310e+00	2.11674701e-02	3.31116968e+03	2.06376970e-01
	G	3.91475670e-03	3.42953062e+00	2.93601141e-03	6.00099951e+03	1.17840312e-01
	B	3.89179285e-03	3.41982412e+00	2.38871737e-03	7.20625537e+03	9.03636888e-02
gold-metallic-paint	R	1.23624317e-01	2.52076244e+00	1.78295448e-02	1.61324465e-06	6.72463500e+05
	G	1.24016538e-01	2.66534805e+00	1.75415929e-02	6.64323249e-26	1.12905084e+25
	B	1.28477961e-01	2.68493223e+00	8.09941127e-07	4.42748405e-02	6.53151321e+00
gold-metallic-paint2	R	1.60449371e-03	1.44246960e+00	9.08845477e-03	7.86044169e-04	1.27994766e+05
	G	7.46186648e-04	1.40434265e+00	3.63978418e-03	3.90312493e-09	5.44573727e+10
	B	7.08462263e-04	1.41706157e+00	7.98231781e-07	3.75152040e+00	5.33386002e+01
gold-paint	R	1.26612335e-01	3.01324606e+00	1.60679832e-01	3.15353088e-02	2.00181484e+01
	G	1.27876610e-01	3.03686523e+00	8.96420032e-02	2.96896845e-01	1.67021167e+00
	B	1.09571174e-01	2.83185291e+00	3.21819410e-02	9.66303051e-01	3.42120081e-01
green-metallic-paint	R	1.10300094e-01	3.30815148e+00	1.51192816e-03	1.94330311e+00	1.45965204e-01
	G	1.20490171e-01	3.15494514e+00	2.58682258e-02	8.78090501e-01	5.95052481e-01
	B	1.20327458e-01	3.13197041e+00	3.30656916e-02	8.29158723e-01	6.70009553e-01
green-metallic-paint2	R	4.41961642e-03	2.10326958e+00	1.47983297e-12	2.35256561e+02	1.30760625e-01
	G	3.57163348e-03	1.99935997e+00	5.07908277e-13	1.72928757e+02	4.99458432e-01
	B	3.35049559e-03	2.00298357e+00	0.00000000e+00	2.78371979e+02	2.01384678e-01
hematite	R	2.04802700e-03	2.16722751e+00	2.20057159e-03	9.38646118e+02	2.40710437e-01
	G	1.42909144e-03	2.05499148e+00	5.93482109e-04	1.09921521e+03	3.13165367e-01
	B	1.54160638e-03	2.06704259e+00	9.38782934e-04	1.07527368e+03	2.97513247e-01
nickel	R	3.05997636e-02	3.09856057e+00	1.71852950e-03	3.11552663e-04	6.92014609e+04
	G	3.14130858e-02	3.07924843e+00	5.06007171e-04	1.99138618e+00	9.08645153e+00
	B	3.24612074e-02	3.07408094e+00	6.53347350e-04	6.56416702e+00	2.26427889e+00
red-metallic-paint	R	4.52011405e-03	2.10174632e+00	3.41565627e-32	1.89636414e+02	9.38588858e-01
	G	2.68820045e-03	2.07180572e+00	1.25972275e-31	6.18968445e+02	1.24321640e-01
	B	2.11305358e-03	2.05001497e+00	9.24843654e-27	9.91602661e+02	6.42420575e-02
silver-metallic-paint2	R	1.08569831e-01	2.34939837e+00	8.92215744e-02	7.43697228e-06	1.71664141e+05
	G	1.13870576e-01	2.37421918e+00	9.45748091e-02	6.81125266e-06	1.60378891e+05
	B	1.24649450e-01	2.47164083e+00	9.79293063e-02	3.02984586e-06	2.95199188e+05
silver-paint	R	1.22516014e-01	2.97064686e+00	1.69795305e-01	3.30379196e-10	2.35461555e+09
	G	1.21390231e-01	2.97754478e+00	1.40249088e-01	4.27048563e-10	1.92320384e+09
	B	1.23135336e-01	3.04584742e+00	1.23471588e-01	4.34081493e-10	1.94004083e+09
steel	R	3.40805366e-03	2.99449968e+00	8.42262711e-03	3.40196558e+03	1.93027735e-01
	G	2.48725200e-03	2.78092933e+00	8.39643739e-03	4.30395850e+03	2.01788843e-01
	B	3.41410772e-03	2.82548380e+00	1.07906871e-02	2.33854053e+03	1.69450566e-01

RGB Parameters for genBRDF 033-001445

Material		p0	p1	ρ_d	ρ_s	R_0
tungsten-carbide	R	4.99191182e-03	3.33011103e+00	3.22769443e-03	1.68518042e+03	1.86581194e-01
	G	3.86014068e-03	3.18436551e+00	2.99641700e-03	2.61449902e+03	1.57528251e-01
	B	3.08961025e-03	3.19252849e+00	3.59907793e-03	7.88786377e+03	9.54810828e-02
two-layer-gold	R	4.84057469e-03	1.49771333e+00	4.39591190e-07	8.16022803e-05	3.44994781e+05
	G	1.47644815e-03	1.42373955e+00	8.31731768e-07	1.27950113e-06	7.72803680e+07
	B	1.74988608e-03	1.45118368e+00	2.98631910e-08	2.43104950e-07	2.96081536e+08

RGB Parameters for genBRDF 033-001445

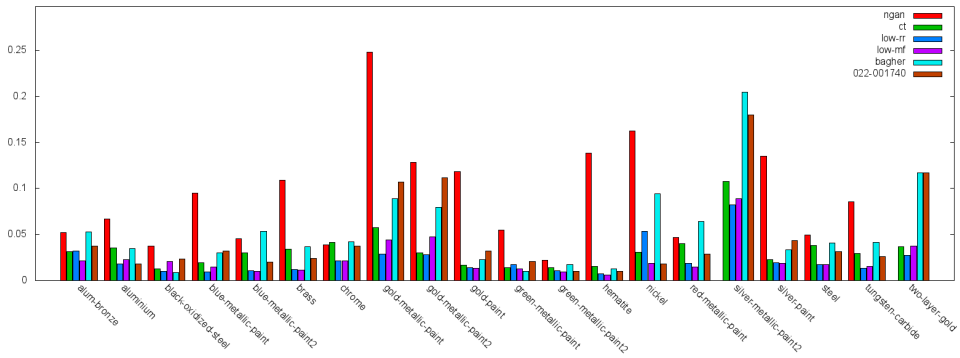
022-001740

Fitness: 0.000125811749

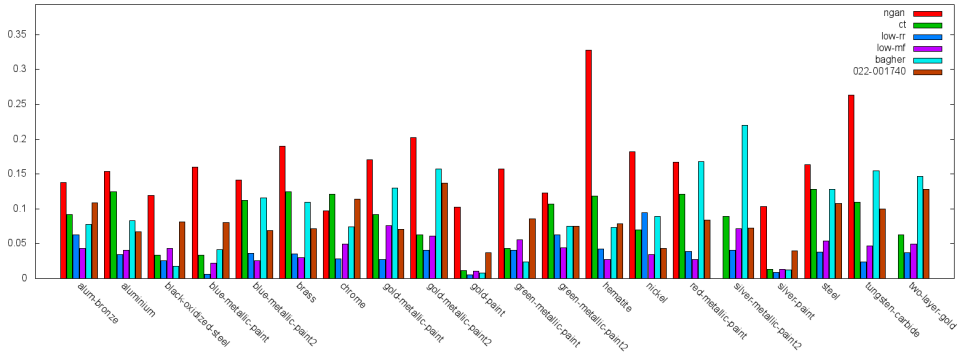
Length: 86

Reciprocity Error: 5.113423919e-15

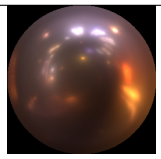
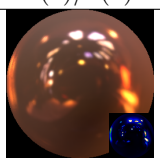
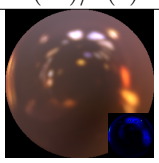
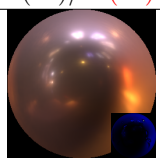
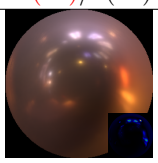
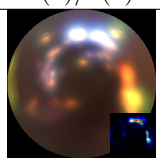
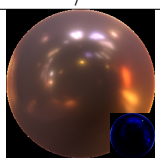
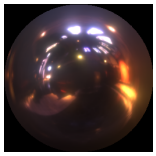
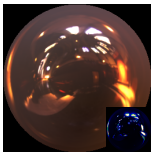
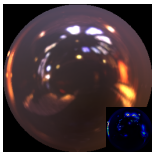
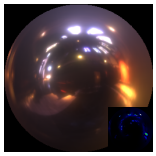
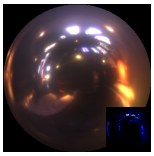
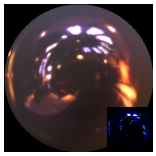
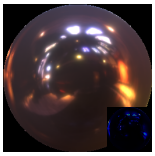
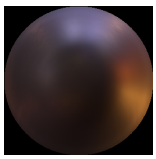
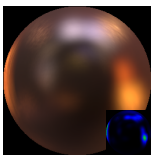
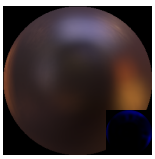
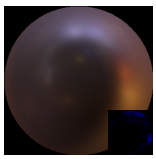
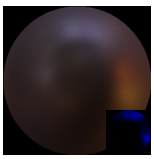
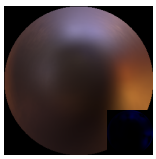
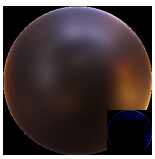
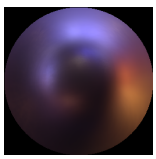
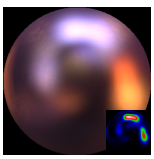
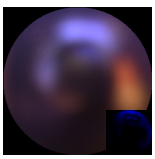
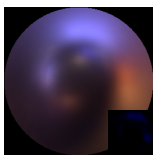
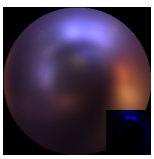
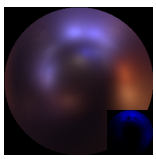
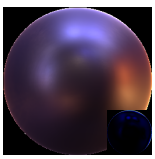
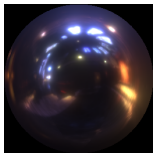
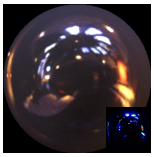
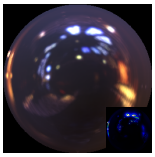
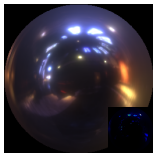
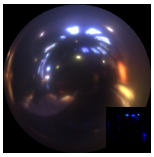
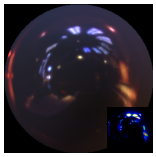
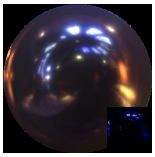
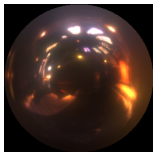
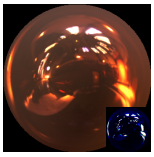
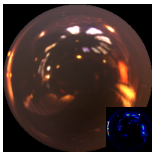
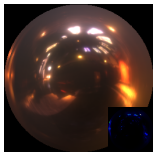
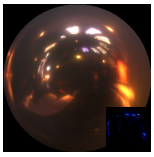
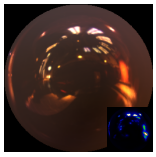
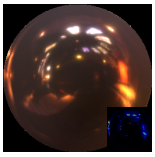
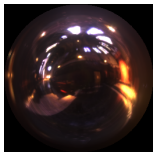
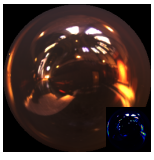
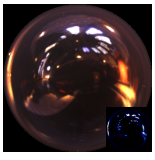
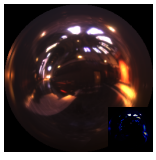
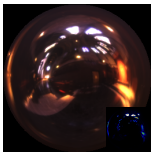
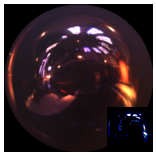
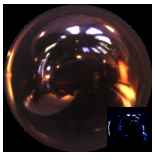
$$f'_n(\omega_i, \omega_o) = [\frac{\left(\omega_{h_z} * e^{-\left(\left(\frac{cos^{-1}(clamp(\omega_{h_z}))}{p_1}\right)^{p_0}\right)}\right)}{(p_0 * p_0)} * 1.0]$$

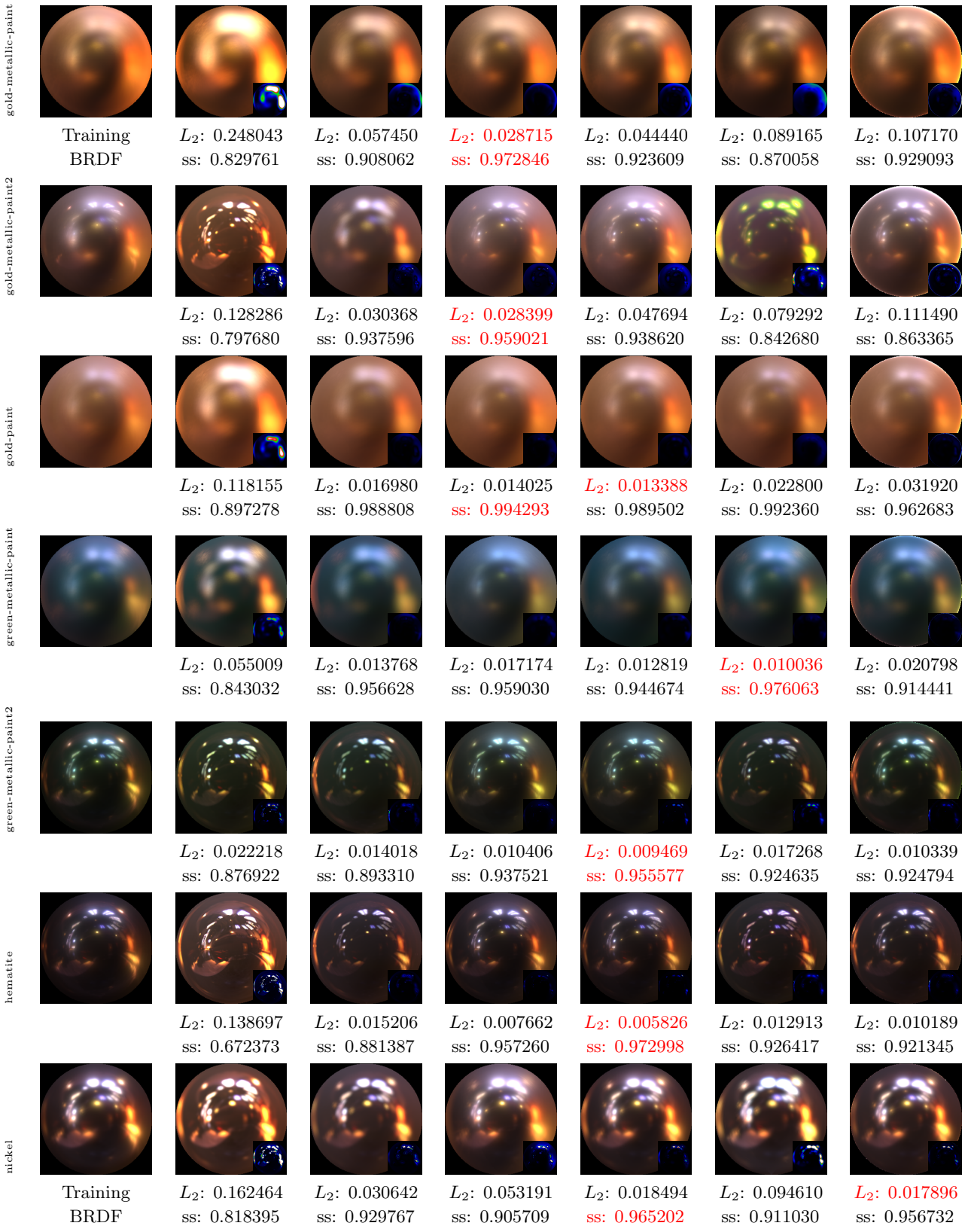


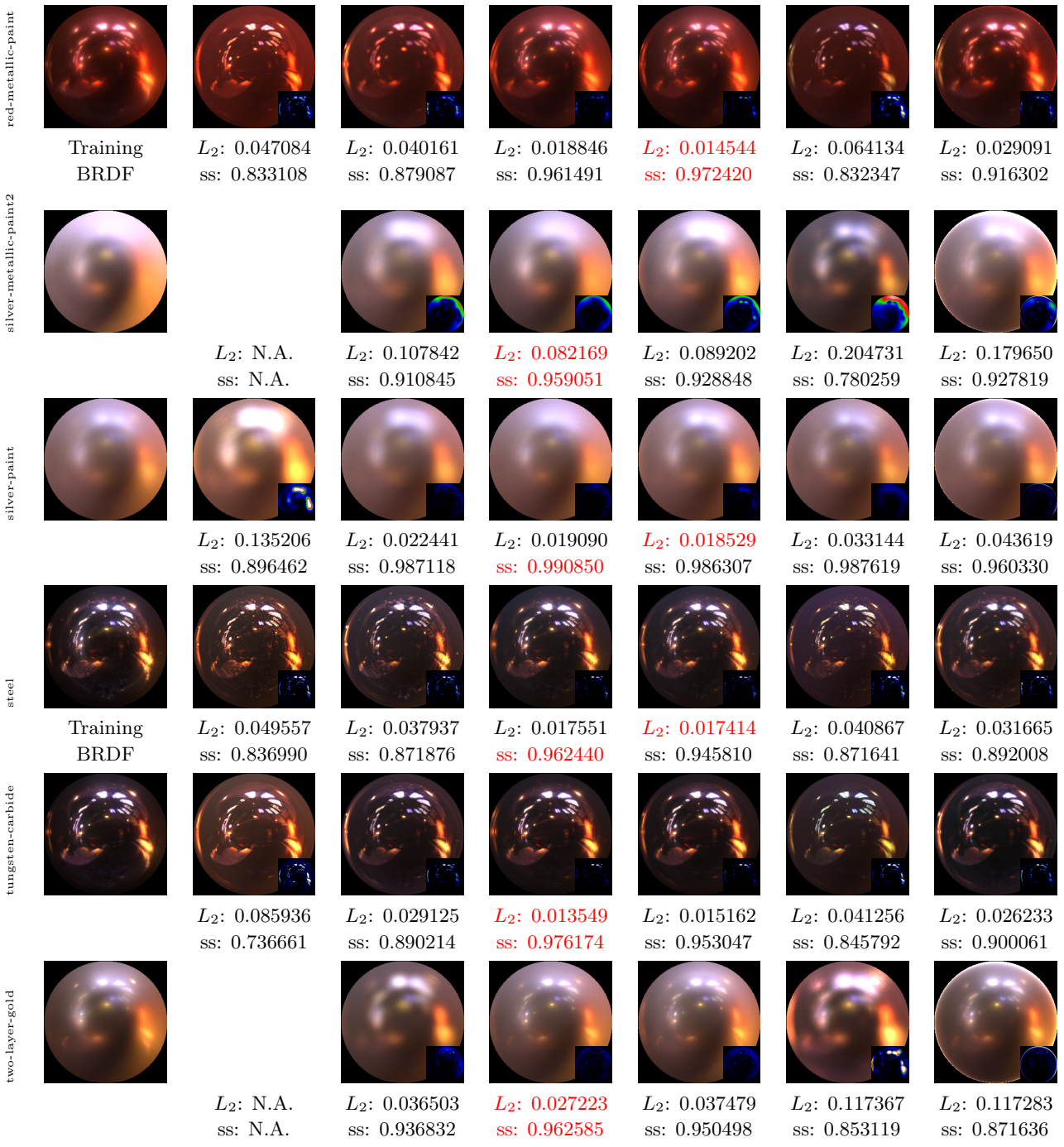
L_2 error.



SSIM error (= 100% - ssim).

	MERL	CT(Ngan) 0(0)/0(1)	CT(E_2 fit) 0(10)/0(8)	Löw SS 6(17)/11(19)	Löw MF 10(18)/7(19)	Bagher 2(7)/2(8)	genBRDF 2/0
alum-bronze							
		L_2: 0.052284 ss: 0.862223	L_2: 0.031392 ss: 0.907766	L_2: 0.032159 ss: 0.937667	L_2: 0.021146 ss: 0.956962	L_2: 0.053167 ss: 0.922395	L_2: 0.037546 ss: 0.891360
aluminium							
	Training BRDF	L_2: 0.067099 ss: 0.846399	L_2: 0.035146 ss: 0.875113	L_2: 0.018044 ss: 0.965309	L_2: 0.022431 ss: 0.959087	L_2: 0.034724 ss: 0.917355	L_2: 0.017879 ss: 0.933217
black-oxidized-steel							
		L_2: 0.037563 ss: 0.881117	L_2: 0.012395 ss: 0.966402	L_2: 0.009959 ss: 0.974466	L_2: 0.021000 ss: 0.956823	L_2: 0.009017 ss: 0.982697	L_2: 0.023467 ss: 0.919019
blue-metallic-paint							
	Training BRDF	L_2: 0.094791 ss: 0.840025	L_2: 0.019657 ss: 0.966125	L_2: 0.009161 ss: 0.993984	L_2: 0.015014 ss: 0.978181	L_2: 0.030206 ss: 0.958517	L_2: 0.032051 ss: 0.919495
blue-metallic-paint2							
	Training BRDF	L_2: 0.045753 ss: 0.859062	L_2: 0.030359 ss: 0.888022	L_2: 0.010992 ss: 0.963478	L_2: 0.009785 ss: 0.974119	L_2: 0.053468 ss: 0.884442	L_2: 0.020168 ss: 0.931446
brass							
	Training BRDF	L_2: 0.109247 ss: 0.809906	L_2: 0.034378 ss: 0.875335	L_2: 0.011813 ss: 0.965002	L_2: 0.011450 ss: 0.970392	L_2: 0.036857 ss: 0.890152	L_2: 0.023889 ss: 0.928800
chrome							
		L_2: 0.038555 ss: 0.902465	L_2: 0.041371 ss: 0.879025	L_2: 0.021593 ss: 0.972071	L_2: 0.021446 ss: 0.950898	L_2: 0.042031 ss: 0.925449	L_2: 0.037638 ss: 0.886198


gold-metallic-paint
Training BRDF
L_2: 0.248043 ss: 0.829761
L_2: 0.057450 ss: 0.908062
L_2: 0.028715 ss: 0.972846
L_2: 0.044440 ss: 0.923609
L_2: 0.089165 ss: 0.870058
L_2: 0.107170 ss: 0.929093
gold-metallic-paint2
L_2: 0.128286 ss: 0.797680
L_2: 0.030368 ss: 0.937596
L_2: 0.028399 ss: 0.959021
L_2: 0.047694 ss: 0.938620
L_2: 0.079292 ss: 0.842680
L_2: 0.111490 ss: 0.863365
gold-paint
L_2: 0.118155 ss: 0.897278
L_2: 0.016980 ss: 0.988808
L_2: 0.014025 ss: 0.994293
L_2: 0.013388 ss: 0.989502
L_2: 0.022800 ss: 0.992360
L_2: 0.031920 ss: 0.962683
green-metallic-paint
L_2: 0.055009 ss: 0.843032
L_2: 0.013768 ss: 0.956628
L_2: 0.017174 ss: 0.959030
L_2: 0.012819 ss: 0.944674
L_2: 0.010036 ss: 0.976063
L_2: 0.020798 ss: 0.914441
green-metallic-paint2
L_2: 0.022218 ss: 0.876922
L_2: 0.014018 ss: 0.893310
L_2: 0.010406 ss: 0.937521
L_2: 0.009469 ss: 0.955577
L_2: 0.017268 ss: 0.924635
L_2: 0.010339 ss: 0.924794
hematite
L_2: 0.138697 ss: 0.672373
L_2: 0.015206 ss: 0.881387
L_2: 0.007662 ss: 0.957260
L_2: 0.005826 ss: 0.972998
L_2: 0.012913 ss: 0.926417
L_2: 0.010189 ss: 0.921345
nickel
Training BRDF
L_2: 0.162464 ss: 0.818395
L_2: 0.030642 ss: 0.929767
L_2: 0.053191 ss: 0.905709
L_2: 0.018494 ss: 0.965202
L_2: 0.094610 ss: 0.911030
L_2: 0.017896 ss: 0.956732


red-metallic-paint
Training BRDF
L_2: 0.047084 ss: 0.833108
L_2: 0.040161 ss: 0.879087
L_2: 0.018846 ss: 0.961491
L_2: 0.014544 ss: 0.972420
L_2: 0.064134 ss: 0.832347
L_2: 0.029091 ss: 0.916302
silver-metallic-paint2
L_2: N.A. ss: N.A.
L_2: 0.107842 ss: 0.910845
L_2: 0.082169 ss: 0.959051
L_2: 0.089202 ss: 0.928848
L_2: 0.204731 ss: 0.780259
L_2: 0.179650 ss: 0.927819
silver-paint
L_2: 0.135206 ss: 0.896462
L_2: 0.022441 ss: 0.987118
L_2: 0.019090 ss: 0.990850
L_2: 0.018529 ss: 0.986307
L_2: 0.033144 ss: 0.987619
L_2: 0.043619 ss: 0.960330
steel
Training BRDF
L_2: 0.049557 ss: 0.836990
L_2: 0.037937 ss: 0.871876
L_2: 0.017551 ss: 0.962440
L_2: 0.017414 ss: 0.945810
L_2: 0.040867 ss: 0.871641
L_2: 0.031665 ss: 0.892008
tungsten-carbide
L_2: 0.085936 ss: 0.736661
L_2: 0.029125 ss: 0.890214
L_2: 0.013549 ss: 0.976174
L_2: 0.015162 ss: 0.953047
L_2: 0.041256 ss: 0.845792
L_2: 0.026233 ss: 0.900061
two-layer-gold
L_2: N.A. ss: N.A.
L_2: 0.036503 ss: 0.936832
L_2: 0.027223 ss: 0.962585
L_2: 0.037479 ss: 0.950498
L_2: 0.117367 ss: 0.853119
L_2: 0.117283 ss: 0.871636

Material		p0	p1	ρ_d	ρ_s	R_0
alum-bronze	R	3.91032219e-01	1.56594813e-03	5.61646633e-02	3.43521805e+01	2.80548930e-01
	G	4.43297267e-01	3.12167872e-03	4.90371063e-02	3.15367565e+01	1.71714321e-01
	B	4.67846870e-01	3.13350209e-03	4.19563539e-02	5.77927742e+01	7.31189400e-02
aluminium	R	3.43696296e-01	1.31704612e-04	2.26028450e-02	5.25636963e+02	7.97790766e-01
	G	3.09335113e-01	6.20951905e-05	2.20619384e-02	3.04351135e+02	1.42542291e+00
	B	3.17997783e-01	9.09118535e-05	2.41199452e-02	1.75156509e+02	1.72565246e+00
black-oxidized-steel	R	1.41365492e+00	1.96089163e-01	1.27342800e-02	2.12526822e+00	1.35470122e-01
	G	1.37309122e+00	1.99870959e-01	1.05144717e-02	1.80835795e+00	1.45474017e-01
	B	1.33885622e+00	2.03173131e-01	9.13709588e-03	1.61743462e+00	1.49152398e-01
blue-metallic-paint	R	1.28960323e+00	1.79724053e-01	8.14097840e-03	2.01363105e-06	3.41538500e+05
	G	1.24697435e+00	1.68847114e-01	5.68366563e-03	3.95335064e-07	1.64933650e+06
	B	1.29377043e+00	1.64970309e-01	3.12786214e-02	5.10037808e-07	3.01838025e+06
blue-metallic-paint2	R	4.94757026e-01	1.75186049e-03	8.46781768e-03	1.81221558e+02	2.13428348e-01
	G	4.18105870e-01	7.36158865e-04	1.01053882e-02	2.03952347e+02	3.75236422e-01
	B	3.63661706e-01	3.30357201e-04	1.51556395e-02	2.48470383e+02	6.68427289e-01
brass	R	3.80749375e-01	2.56527361e-04	2.52918322e-02	8.11955261e+02	3.66350055e-01
	G	3.55691910e-01	1.72325192e-04	2.23172922e-02	6.24899048e+02	3.06850702e-01
	B	3.52833062e-01	1.40722856e-04	1.67477410e-02	9.32914062e+02	1.31311730e-01
chrome	R	6.28615260e-01	1.40637136e-03	2.65978719e-03	4.98955225e+03	1.35642096e-01
	G	5.76288521e-01	8.93879624e-04	3.88028566e-03	8.43039941e+03	1.00793943e-01
	B	5.71533561e-01	8.85434274e-04	4.10979614e-03	9.89080566e+03	7.37068504e-02
gold-metallic-paint	R	1.01580942e+00	1.51573494e-01	2.93368846e-02	2.42377246e-06	6.76868250e+05
	G	1.11095750e+00	1.56721219e-01	2.65789442e-02	2.90321191e-06	4.49156312e+05
	B	1.16492212e+00	1.67790830e-01	4.17911634e-03	1.15856230e-01	4.60449123e+00
gold-metallic-paint2	R	2.66669065e-01	1.61695367e-04	3.03805619e-02	3.23318677e-10	3.73197578e+10
	G	2.45558843e-01	6.52246963e-05	2.40313187e-02	1.47232504e-11	9.79598639e+11
	B	2.38017187e-01	4.00356184e-05	1.83894113e-02	1.15323870e-03	1.39489766e+04
gold-paint	R	1.27763009e+00	1.60573646e-01	1.66896880e-01	8.34999532e-02	1.68758469e+01
	G	1.30908930e+00	1.63060278e-01	9.52565745e-02	7.19754994e-01	1.59946239e+00
	B	1.22594178e+00	1.42569721e-01	3.65645625e-02	1.99494767e+00	3.32203776e-01
green-metallic-paint	R	1.55556083e+00	1.45834655e-01	4.86691995e-03	6.05473804e+00	1.41598448e-01
	G	1.37913728e+00	1.54333860e-01	3.16062458e-02	2.28320789e+00	5.77235460e-01
	B	1.36204469e+00	1.53923795e-01	3.91575471e-02	2.11243606e+00	6.48941636e-01
green-metallic-paint2	R	4.48581636e-01	1.26024184e-03	4.18837136e-03	1.44906540e+02	1.10991932e-01
	G	3.56360584e-01	3.50723945e-04	8.73792358e-03	1.17036072e+02	3.86412024e-01
	B	3.94988000e-01	6.31063536e-04	5.28990338e-03	1.54319595e+02	1.61449537e-01
hematite	R	3.90961826e-01	3.17159836e-04	1.04827834e-02	5.36859314e+02	1.63570076e-01
	G	3.56150955e-01	1.73926543e-04	1.07675269e-02	4.94075897e+02	2.02061877e-01
	B	3.18658173e-01	7.60480543e-05	1.03555284e-02	6.25708557e+02	2.12065175e-01
nickel	R	8.44907224e-01	2.10893955e-02	1.72811281e-02	5.56081592e-04	6.33595273e+04
	G	8.76015186e-01	2.36384943e-02	1.52884685e-02	1.44169378e+00	2.03331070e+01
	B	9.01394546e-01	2.58575398e-02	1.41760921e-02	9.02049828e+00	2.69074678e+00
red-metallic-paint	R	3.09102386e-01	1.17547519e-04	1.92153584e-02	2.20109467e+02	7.32834220e-01
	G	3.81090850e-01	3.93533468e-04	4.30439692e-03	3.31472076e+02	9.99729410e-02
	B	3.76946837e-01	3.44335480e-04	2.02981033e-03	3.98660828e+02	5.56032434e-02
silver-metallic-paint2	R	8.99995983e-01	1.27348483e-01	9.97513756e-02	2.99895100e-06	5.25012750e+05
	G	9.34023798e-01	1.38339460e-01	1.03983641e-01	2.21778826e-08	6.37832160e+07
	B	1.00335324e+00	1.55051395e-01	1.06707945e-01	1.86265225e-08	7.04018960e+07
silver-paint	R	1.23563111e+00	1.53556928e-01	1.76883280e-01	8.34698076e-05	1.97338730e+04
	G	1.24223077e+00	1.51966274e-01	1.48214698e-01	1.53032283e-06	1.14826212e+06
	B	1.27972782e+00	1.54088706e-01	1.31900236e-01	4.72596503e-06	4.02253812e+05
steel	R	4.82482702e-01	5.10582177e-04	1.19900294e-02	4.51806543e+03	1.37311444e-01
	G	4.12490219e-01	2.11758132e-04	1.24643771e-02	4.97935596e+03	1.40410587e-01
	B	4.84717011e-01	6.21246640e-04	1.46721005e-02	2.60892993e+03	1.18411630e-01

RGB Parameters for genBRDF 022-001740

Material		p0	p1	ρ_d	ρ_s	R_0
tungsten-carbide	R	6.65479898e-01	1.95722608e-03	1.02288229e-03	2.29125195e+03	1.55777872e-01
	G	5.85642159e-01	1.12502626e-03	5.06635429e-03	3.06202173e+03	1.30554542e-01
	B	5.28671384e-01	6.46463304e-04	5.48354397e-03	8.21301562e+03	7.50008896e-02
two-layer-gold	R	2.95636684e-01	4.79630660e-04	2.01229509e-02	5.99173347e-07	1.34675080e+07
	G	2.66151726e-01	1.70375541e-04	1.41108623e-02	9.36010167e-07	1.12123760e+07
	B	2.76447088e-01	2.21040667e-04	1.16402358e-02	8.00976977e-07	1.13782620e+07

RGB Parameters for genBRDF 022-001740

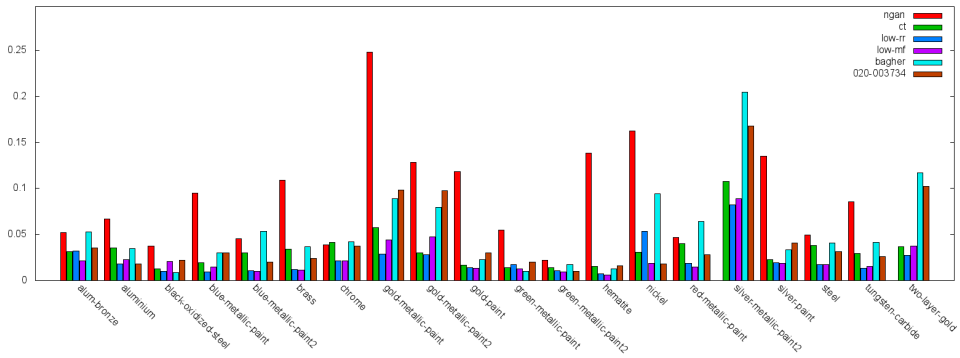
020-003734

Fitness: 0.000126267363

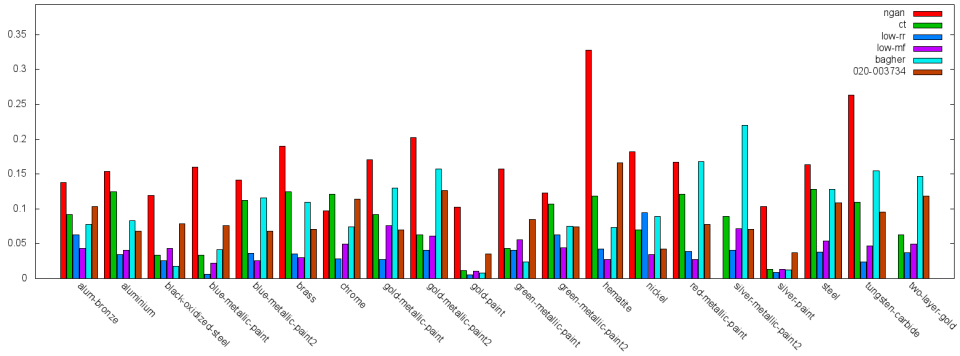
Length: 79

Reciprocity Error: 5.48677361e-15

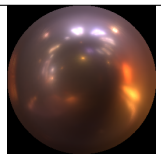
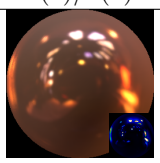
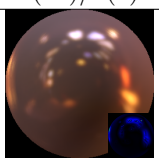
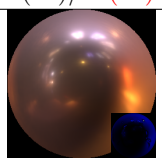
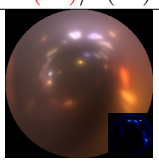
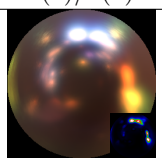
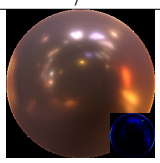
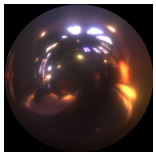
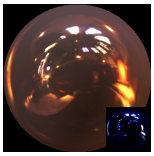
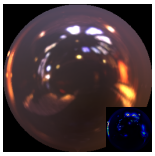
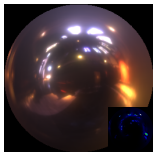
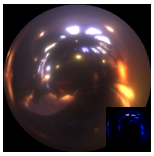
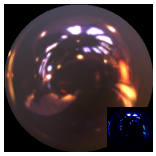
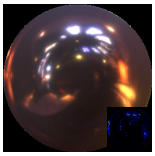
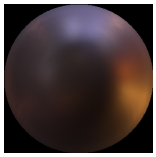
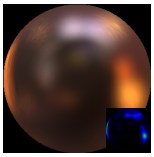
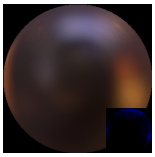
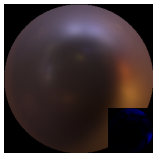
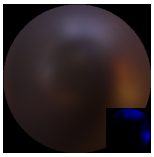
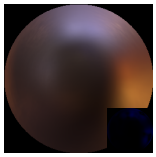
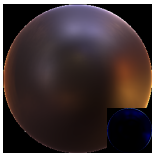
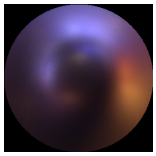
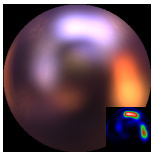
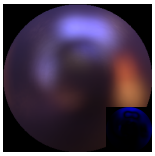
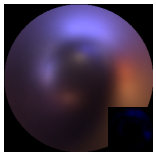
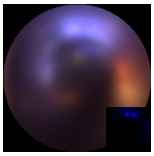
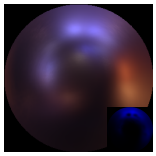
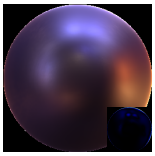
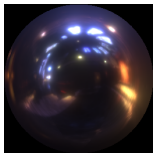
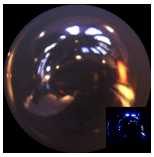
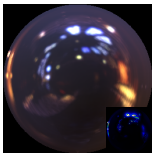
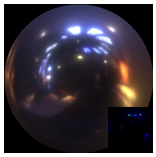
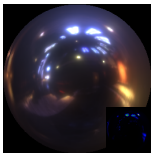
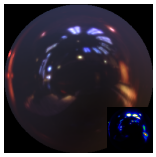
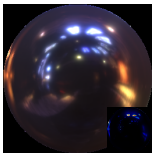
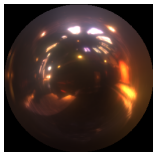
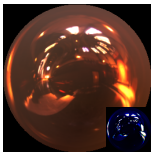
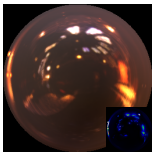
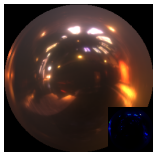
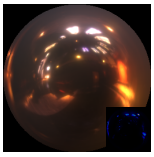
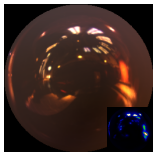
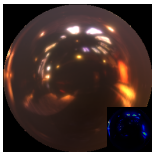
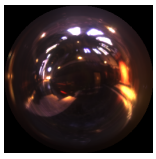
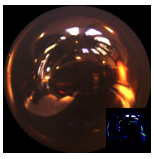
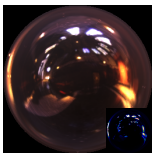
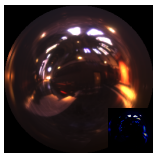
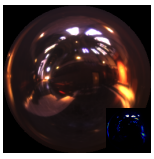
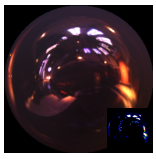
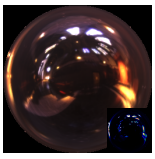
$$f'_n(\omega_i, \omega_o) = [e^{-\left(\left(\frac{tan(cos^{-1}(clamp(\omega_{h_z})))}{p_0}\right)^{(1.0 * p_1)}\right)} * 4.0]$$

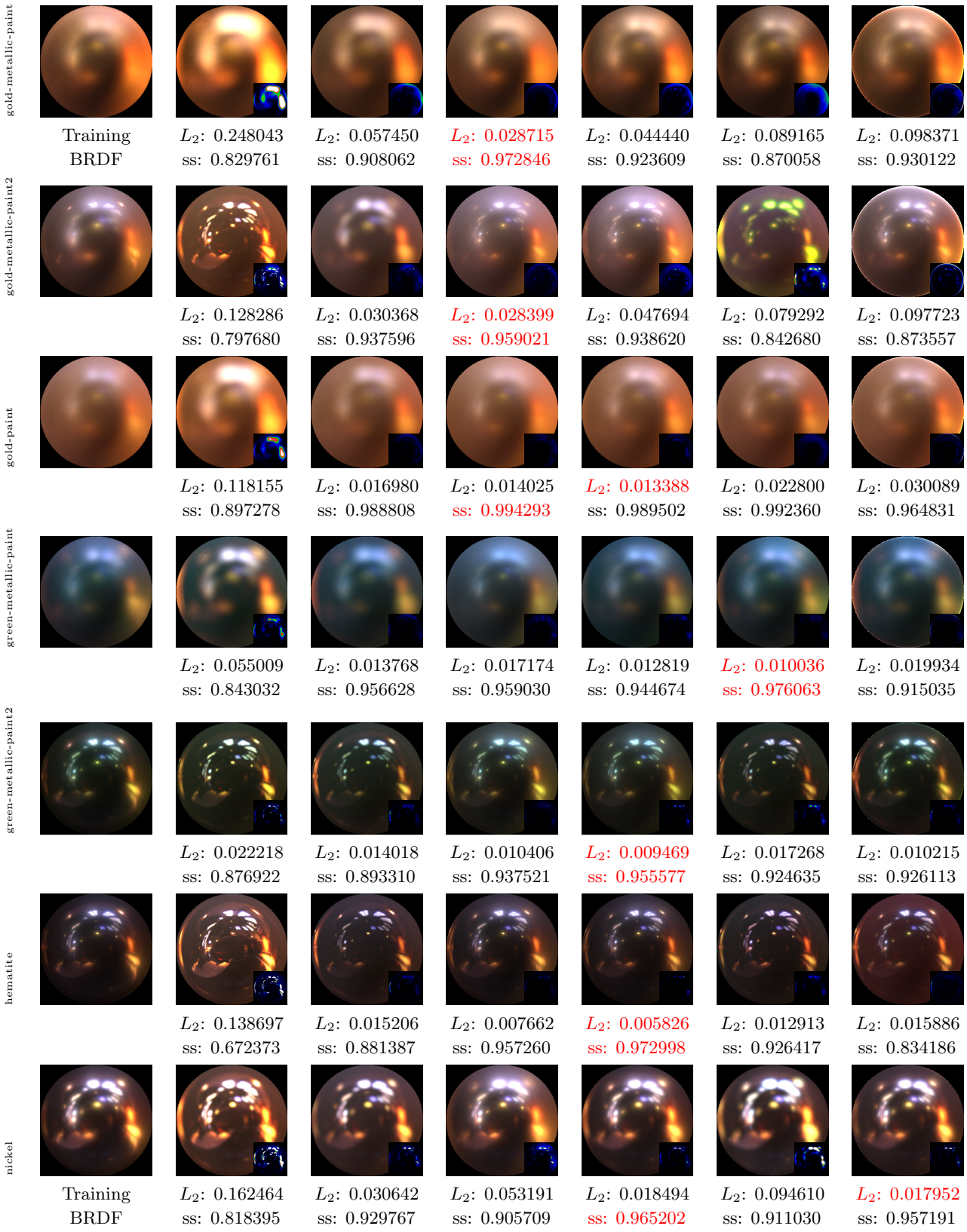


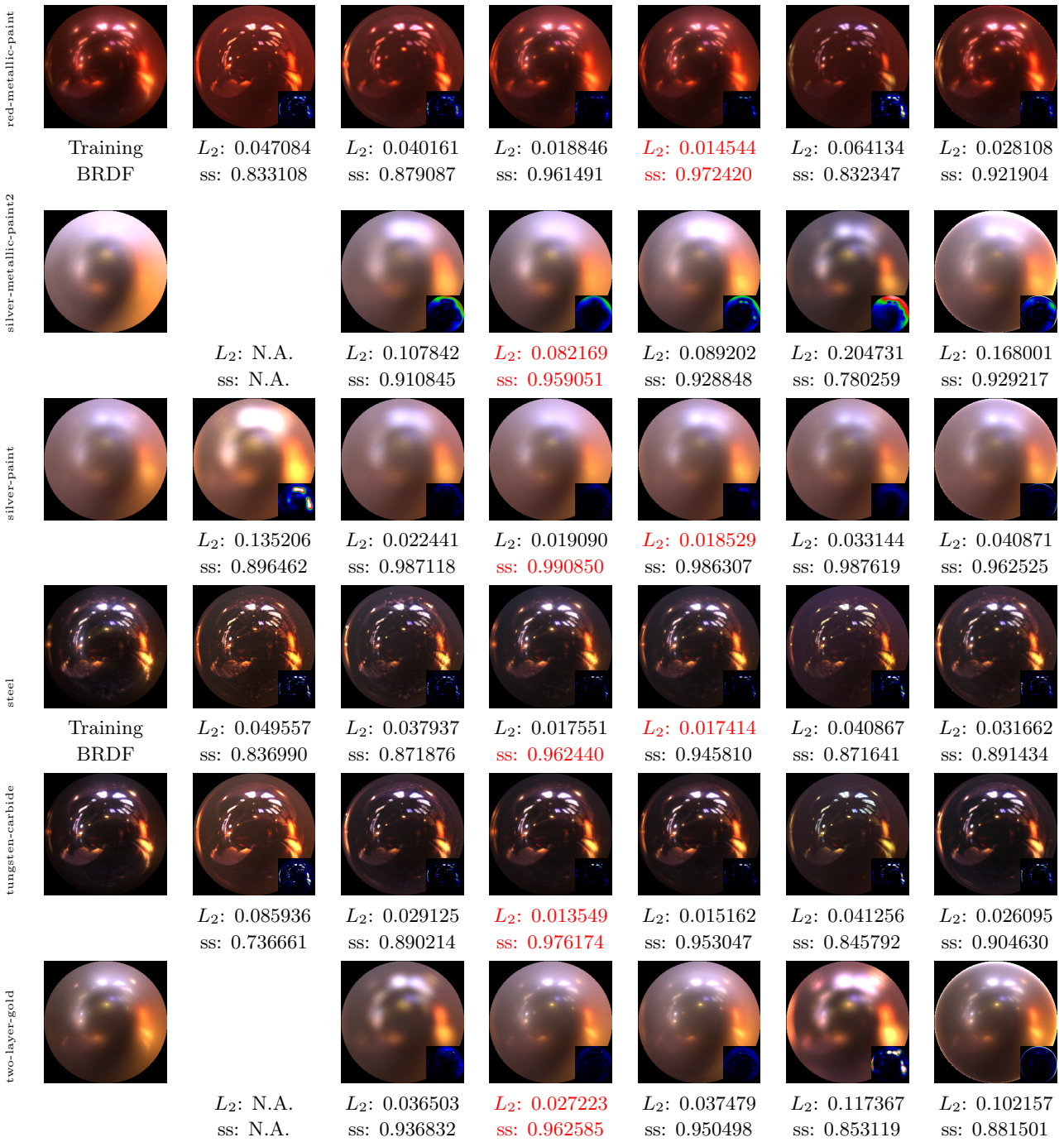
L_2 error.



SSIM error (= 100% - ssim).

	MERL	CT(Ngan) 0(0)/0(1)	CT(E_2 fit) 0(11)/0(9)	Löw SS 6(17)/11(19)	Löw MF 10(18)/7(18)	Bagher 2(7)/2(8)	genBRDF 2/0
alum-bronze		 L_2: 0.052284 ss: 0.862223	 L_2: 0.031392 ss: 0.907766	 L_2: 0.032159 ss: 0.937667	 L_2: 0.021146 ss: 0.956962	 L_2: 0.053167 ss: 0.922395	 L_2: 0.035491 ss: 0.896716
aluminium	 Training BRDF	 L_2: 0.067099 ss: 0.846399	 L_2: 0.035146 ss: 0.875113	 L_2: 0.018044 ss: 0.965309	 L_2: 0.022431 ss: 0.959087	 L_2: 0.034724 ss: 0.917355	 L_2: 0.018020 ss: 0.931777
black-oxidized-steel		 L_2: 0.037563 ss: 0.881117	 L_2: 0.012395 ss: 0.966402	 L_2: 0.009959 ss: 0.974466	 L_2: 0.021000 ss: 0.956823	 L_2: 0.009017 ss: 0.982697	 L_2: 0.022326 ss: 0.921290
blue-metallic-paint	 Training BRDF	 L_2: 0.094791 ss: 0.840025	 L_2: 0.019657 ss: 0.966125	 L_2: 0.009161 ss: 0.993984	 L_2: 0.015014 ss: 0.978181	 L_2: 0.030206 ss: 0.958517	 L_2: 0.029832 ss: 0.923713
blue-metallic-paint2	 Training BRDF	 L_2: 0.045753 ss: 0.859062	 L_2: 0.030359 ss: 0.888022	 L_2: 0.010992 ss: 0.963478	 L_2: 0.009785 ss: 0.974119	 L_2: 0.053468 ss: 0.884442	 L_2: 0.020111 ss: 0.931976
brass	 Training BRDF	 L_2: 0.109247 ss: 0.809906	 L_2: 0.034378 ss: 0.875335	 L_2: 0.011813 ss: 0.965002	 L_2: 0.011450 ss: 0.970392	 L_2: 0.036857 ss: 0.890152	 L_2: 0.023901 ss: 0.929305
chrome		 L_2: 0.038555 ss: 0.902465	 L_2: 0.041371 ss: 0.879025	 L_2: 0.021593 ss: 0.972071	 L_2: 0.021446 ss: 0.950898	 L_2: 0.042031 ss: 0.925449	 L_2: 0.037591 ss: 0.886391


gold-metallic-paint
Training BRDF
L_2: 0.248043 ss: 0.829761
L_2: 0.057450 ss: 0.908062
L_2: 0.028715 ss: 0.972846
L_2: 0.044440 ss: 0.923609
L_2: 0.089165 ss: 0.870058
L_2: 0.098371 ss: 0.930122
gold-metallic-paint2
L_2: 0.128286 ss: 0.797680
L_2: 0.030368 ss: 0.937596
L_2: 0.028399 ss: 0.959021
L_2: 0.047694 ss: 0.938620
L_2: 0.079292 ss: 0.842680
L_2: 0.097723 ss: 0.873557
gold-paint
L_2: 0.118155 ss: 0.897278
L_2: 0.016980 ss: 0.988808
L_2: 0.014025 ss: 0.994293
L_2: 0.013388 ss: 0.989502
L_2: 0.022800 ss: 0.992360
L_2: 0.030089 ss: 0.964831
green-metallic-paint
L_2: 0.055009 ss: 0.843032
L_2: 0.013768 ss: 0.956628
L_2: 0.017174 ss: 0.959030
L_2: 0.012819 ss: 0.944674
L_2: 0.010036 ss: 0.976063
L_2: 0.019934 ss: 0.915035
green-metallic-paint2
L_2: 0.022218 ss: 0.876922
L_2: 0.014018 ss: 0.893310
L_2: 0.010406 ss: 0.937521
L_2: 0.009469 ss: 0.955577
L_2: 0.017268 ss: 0.924635
L_2: 0.010215 ss: 0.926113
hematite
L_2: 0.138697 ss: 0.672373
L_2: 0.015206 ss: 0.881387
L_2: 0.007662 ss: 0.957260
L_2: 0.005826 ss: 0.972998
L_2: 0.012913 ss: 0.926417
L_2: 0.015886 ss: 0.834186
nickel
Training BRDF
L_2: 0.162464 ss: 0.818395
L_2: 0.030642 ss: 0.929767
L_2: 0.053191 ss: 0.905709
L_2: 0.018494 ss: 0.965202
L_2: 0.094610 ss: 0.911030
L_2: 0.017952 ss: 0.957191


red-metallic-paint
Training BRDF
L_2: 0.047084 ss: 0.833108
L_2: 0.040161 ss: 0.879087
L_2: 0.018846 ss: 0.961491
L_2: 0.014544 ss: 0.972420
L_2: 0.064134 ss: 0.832347
L_2: 0.028108 ss: 0.921904
silver-metallic-paint2
L_2: N.A. ss: N.A.
L_2: 0.107842 ss: 0.910845
L_2: 0.082169 ss: 0.959051
L_2: 0.089202 ss: 0.928848
L_2: 0.204731 ss: 0.780259
L_2: 0.168001 ss: 0.929217
silver-paint
L_2: 0.135206 ss: 0.896462
L_2: 0.022441 ss: 0.987118
L_2: 0.019090 ss: 0.990850
L_2: 0.018529 ss: 0.986307
L_2: 0.033144 ss: 0.987619
L_2: 0.040871 ss: 0.962525
steel
Training BRDF
L_2: 0.049557 ss: 0.836990
L_2: 0.037937 ss: 0.871876
L_2: 0.017551 ss: 0.962440
L_2: 0.017414 ss: 0.945810
L_2: 0.040867 ss: 0.871641
L_2: 0.031662 ss: 0.891434
tungsten-carbide
L_2: 0.085936 ss: 0.736661
L_2: 0.029125 ss: 0.890214
L_2: 0.013549 ss: 0.976174
L_2: 0.015162 ss: 0.953047
L_2: 0.041256 ss: 0.845792
L_2: 0.026095 ss: 0.904630
two-layer-gold
L_2: N.A. ss: N.A.
L_2: 0.036503 ss: 0.936832
L_2: 0.027223 ss: 0.962585
L_2: 0.037479 ss: 0.950498
L_2: 0.117367 ss: 0.853119
L_2: 0.102157 ss: 0.881501

Material		p0	p1	ρ_d	ρ_s	R_0
alum-bronze	R	1.44560204e-03	3.85130942e-01	5.67831844e-02	5.79961510e+01	2.82687187e-01
	G	2.96695530e-03	4.37990695e-01	4.94030602e-02	4.09425201e+01	1.72656104e-01
	B	3.05342604e-03	4.64633197e-01	4.20620590e-02	6.66568756e+01	7.33951479e-02
aluminium	R	1.64982048e-04	3.55035007e-01	2.25332938e-02	1.35723828e+03	5.77232540e-01
	G	6.18845588e-05	3.09144169e-01	2.23230179e-02	7.99558044e+02	1.41663671e+00
	B	8.89688090e-05	3.17093998e-01	2.44137608e-02	4.37949127e+02	1.72320795e+00
black-oxidized-steel	R	1.93192124e-01	1.34459817e+00	1.32192168e-02	2.72054523e-01	1.34075880e-01
	G	1.96366757e-01	1.30446947e+00	1.11305136e-02	2.46086672e-01	1.43584788e-01
	B	1.99181512e-01	1.26889992e+00	9.81582142e-03	2.32002497e-01	1.46968603e-01
blue-metallic-paint	R	1.73571423e-01	1.20503402e+00	9.01570730e-03	2.66680700e-09	4.00438440e+07
	G	1.63169473e-01	1.17211473e+00	6.54806057e-03	2.70304845e-09	3.99895000e+07
	B	1.59057155e-01	1.20948565e+00	3.22804153e-02	4.20957260e-18	5.65662096e+16
blue-metallic-paint2	R	1.74355437e-03	4.94124383e-01	8.53677560e-03	1.85825439e+02	2.13077828e-01
	G	7.31359178e-04	4.17525113e-01	1.02119753e-02	2.92784607e+02	3.74924242e-01
	B	3.23279877e-04	3.62435609e-01	1.55353146e-02	4.75405609e+02	6.67959750e-01
brass	R	2.55998486e-04	3.80587220e-01	2.53497399e-02	1.40492114e+03	3.65281314e-01
	G	1.71743421e-04	3.55486542e-01	2.24364996e-02	1.23752612e+03	3.06561261e-01
	B	1.40326840e-04	3.52688909e-01	1.68011338e-02	1.87795032e+03	1.31197795e-01
chrome	R	1.43365352e-03	6.31457686e-01	4.38230019e-03	3.07908789e+03	1.36488989e-01
	G	8.91207717e-04	5.75886905e-01	3.82904895e-03	6.36041406e+03	1.00894488e-01
	B	9.31856630e-04	5.78377128e-01	4.13681474e-03	7.26504688e+03	7.33208656e-02
gold-metallic-paint	R	1.39501840e-01	9.35313523e-01	3.47227938e-02	2.45853748e-15	1.71529418e+14
	G	1.48579329e-01	1.03787208e+00	2.94853393e-02	1.03999023e-15	2.64713968e+14
	B	1.61884576e-01	1.10208499e+00	5.62016852e-03	2.41019689e-02	4.18450880e+00
gold-metallic-paint2	R	1.34700022e-04	2.61119157e-01	3.29798944e-02	2.52710457e-08	1.79975936e+09
	G	5.81314998e-05	2.42418796e-01	2.64357869e-02	3.11324513e-08	1.98821555e+09
	B	3.63948020e-05	2.35567898e-01	2.03948431e-02	2.74784892e-04	2.65289719e+05
gold-paint	R	1.54649973e-01	1.19484067e+00	1.67751700e-01	1.39809372e-02	1.59900999e+01
	G	1.58028409e-01	1.23214817e+00	9.61012617e-02	1.09256521e-01	1.58410192e+00
	B	1.39452755e-01	1.17661917e+00	3.71824540e-02	3.39972734e-01	3.30407232e-01
green-metallic-paint	R	1.44916981e-01	1.51151252e+00	5.05656749e-03	6.32417202e-01	1.41349450e-01
	G	1.51503623e-01	1.31814265e+00	3.22512686e-02	3.07167888e-01	5.75000525e-01
	B	1.50908753e-01	1.30122733e+00	3.98745574e-02	2.92184502e-01	6.45066679e-01
green-metallic-paint2	R	1.25252909e-03	4.47867662e-01	4.23570396e-03	1.80318390e+02	1.11083001e-01
	G	3.45645589e-04	3.55492353e-01	8.97443295e-03	2.32218903e+02	3.85760337e-01
	B	6.24197011e-04	3.94151241e-01	5.35165425e-03	2.48591858e+02	1.61451578e-01
hematite	R	1.61970325e-03	5.55039763e-01	3.33346128e-02	4.34073364e+02	1.32011145e-01
	G	1.73173466e-04	3.55907917e-01	1.07809510e-02	9.77482300e+02	2.01697975e-01
	B	7.57638481e-05	3.18478256e-01	1.04040178e-02	1.54353162e+03	2.11850151e-01
nickel	R	2.08519567e-02	8.39270175e-01	1.75710768e-02	7.12248804e-22	1.74844532e+22
	G	2.33819112e-02	8.69807303e-01	1.54185127e-02	4.84229833e-01	1.98879585e+01
	B	2.56006569e-02	8.95076394e-01	1.43629406e-02	2.78018999e+00	2.70800257e+00
red-metallic-paint	R	1.13990733e-04	3.07895869e-01	2.01322697e-02	5.86671204e+02	7.29664922e-01
	G	3.89948487e-04	3.80466908e-01	4.33713943e-03	5.73275818e+02	9.99247804e-02
	B	3.41454550e-04	3.76341671e-01	2.06031674e-03	7.03613098e+02	5.56148179e-02
silver-metallic-paint2	R	1.14523359e-01	8.28015864e-01	1.05653383e-01	6.45663434e-08	8.06524950e+06
	G	1.24757349e-01	8.55373263e-01	1.09196521e-01	4.56715341e-08	9.49949900e+06
	B	1.41406342e-01	9.15611565e-01	1.11076780e-01	4.20642365e-08	8.25785800e+06
silver-paint	R	1.47006318e-01	1.15308976e+00	1.77799895e-01	1.05847666e-05	2.65260762e+04
	G	1.46083131e-01	1.16481864e+00	1.49287194e-01	3.66273374e-12	8.05998346e+10
	B	1.48959026e-01	1.20520723e+00	1.33057684e-01	3.99056049e-12	7.51187149e+10
steel	R	5.02390787e-04	4.80958670e-01	1.21945413e-02	4.89758789e+03	1.37848958e-01
	G	2.10435071e-04	4.12033319e-01	1.25033800e-02	7.34057617e+03	1.40390873e-01
	B	6.19025028e-04	4.84356850e-01	1.46081559e-02	2.78349414e+03	1.18338481e-01

RGB Parameters for genBRDF 020-003734

Material		p0	p1	ρ_d	ρ_s	R_0
tungsten-carbide	R	1.97664811e-03	6.67436004e-01	1.77295727e-03	1.27984265e+03	1.56139627e-01
	G	1.12089457e-03	5.85055768e-01	5.05546806e-03	2.23911646e+03	1.30435839e-01
	B	6.46031287e-04	5.28580844e-01	5.45631116e-03	7.35554492e+03	7.49623477e-02
two-layer-gold	R	3.92107671e-04	2.87984401e-01	2.32636593e-02	3.10348085e-04	8.08505625e+04
	G	1.45097001e-04	2.61190623e-01	1.68104041e-02	3.14047706e-04	1.25000797e+05
	B	1.93432876e-04	2.71849364e-01	1.38715208e-02	2.53046426e-04	1.23602359e+05

RGB Parameters for genBRDF 020-003734

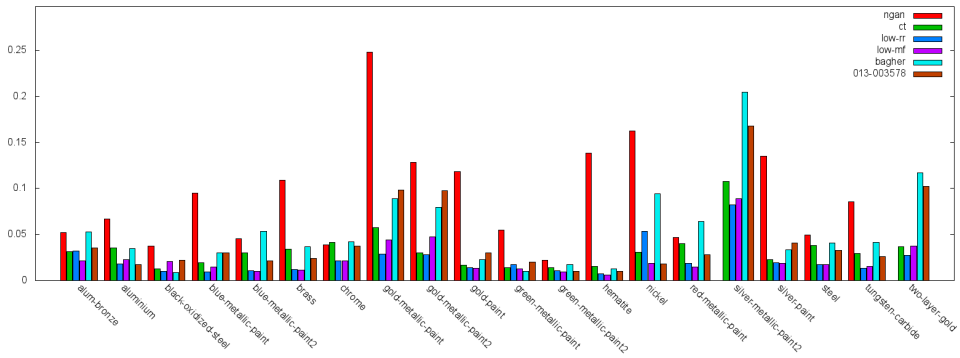
013-003578

Fitness: 0.000126303928

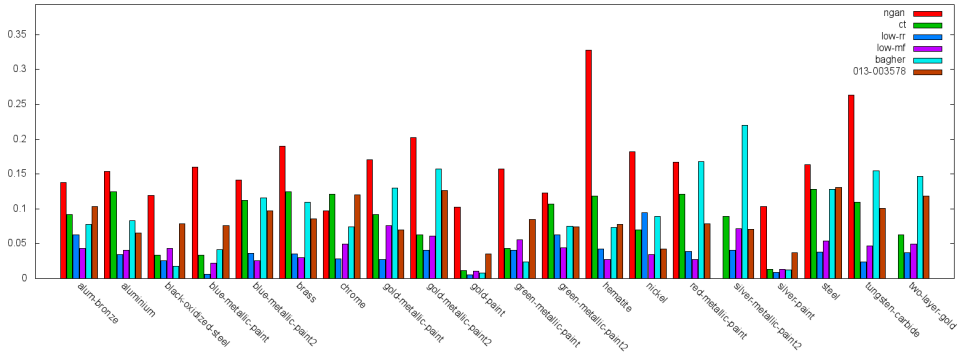
Length: 77

Reciprocity Error: 5.19096339e-15

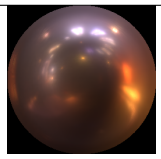
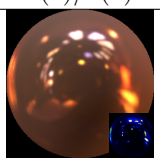
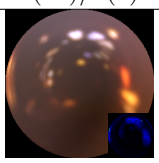
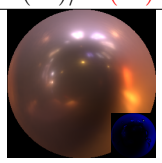
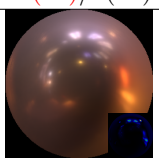
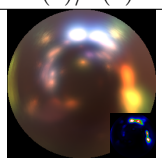
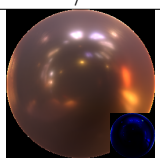
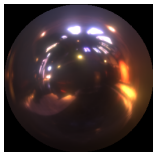
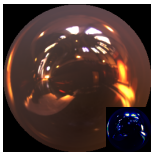
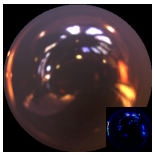
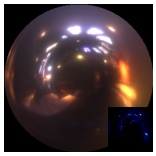
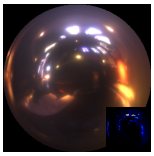
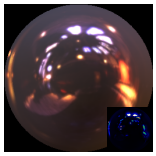
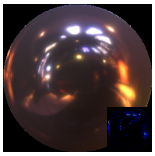
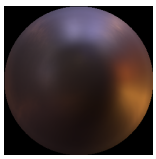
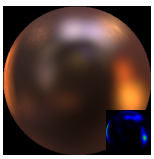
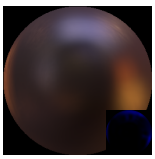
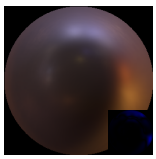
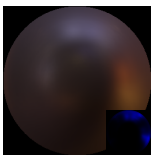
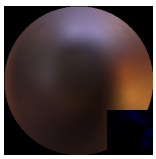
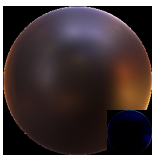
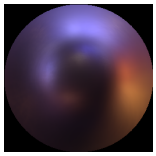
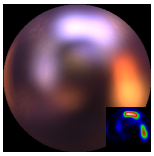
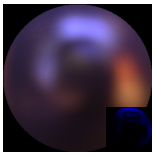
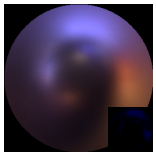
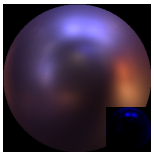
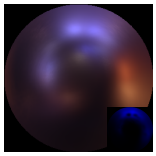
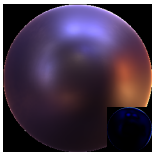
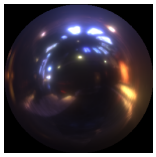
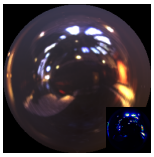
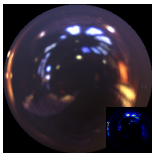
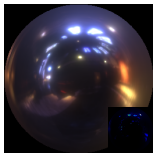
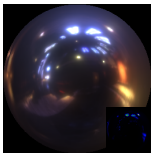
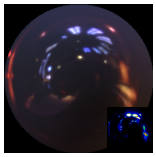
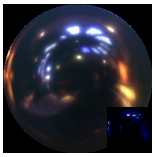
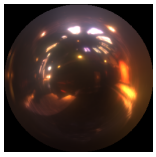
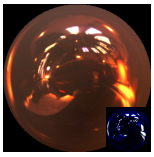
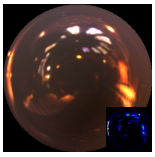
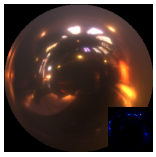
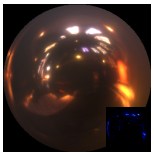
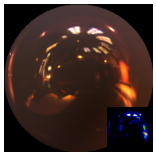
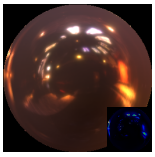
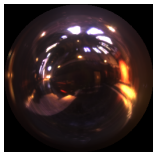
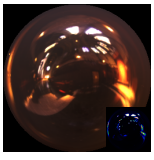
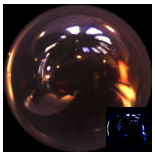
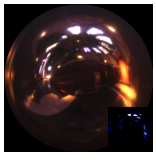
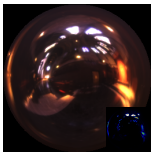
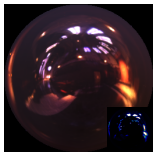
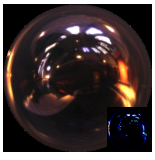
$$f'_n(\omega_i, \omega_o) = [e^{-\left(\left(\frac{tan(cos^{-1}(clamp(\omega_{h_z})))}{p_0}\right)^{(p_1 * p_1)}\right)} * 1.0]$$

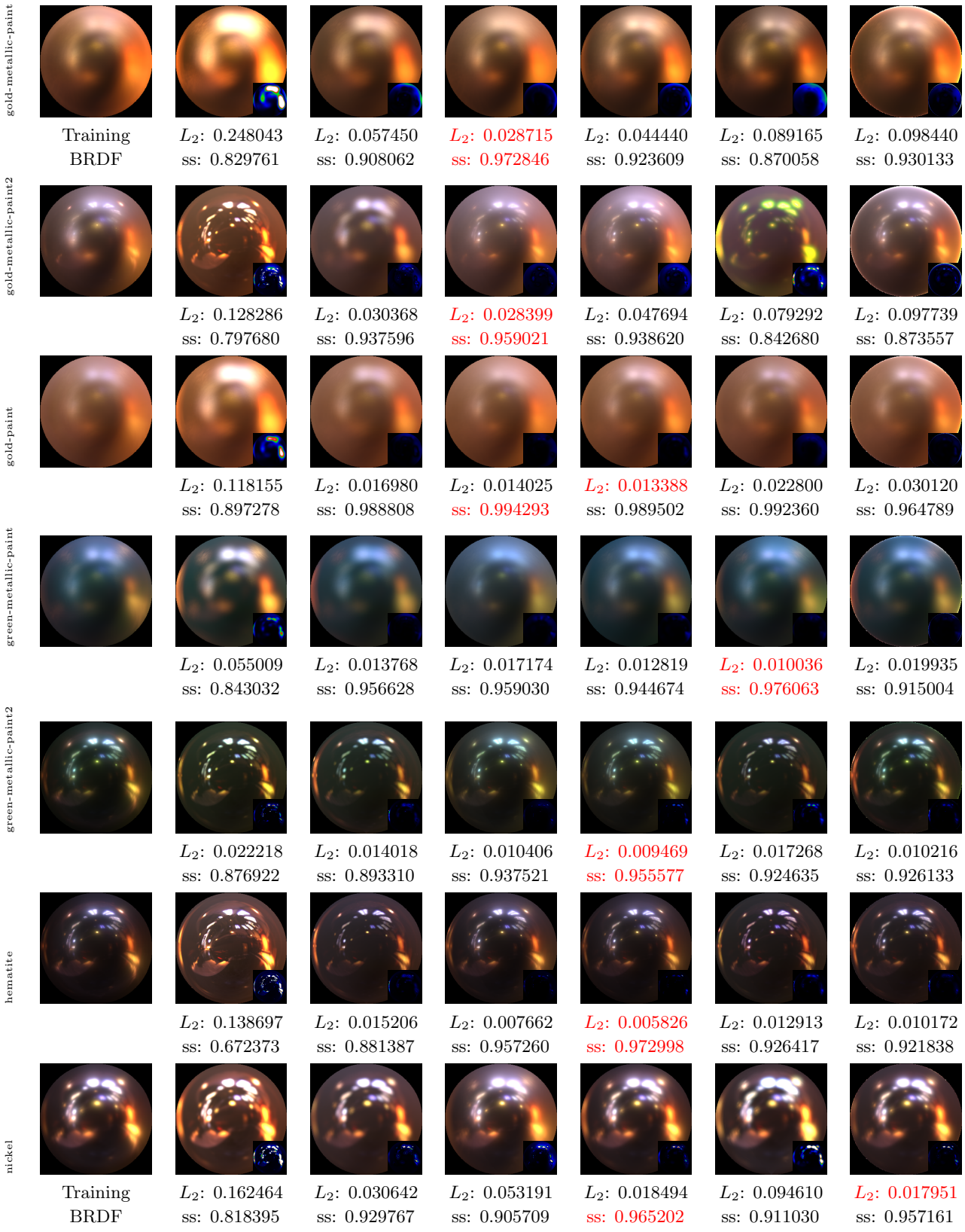


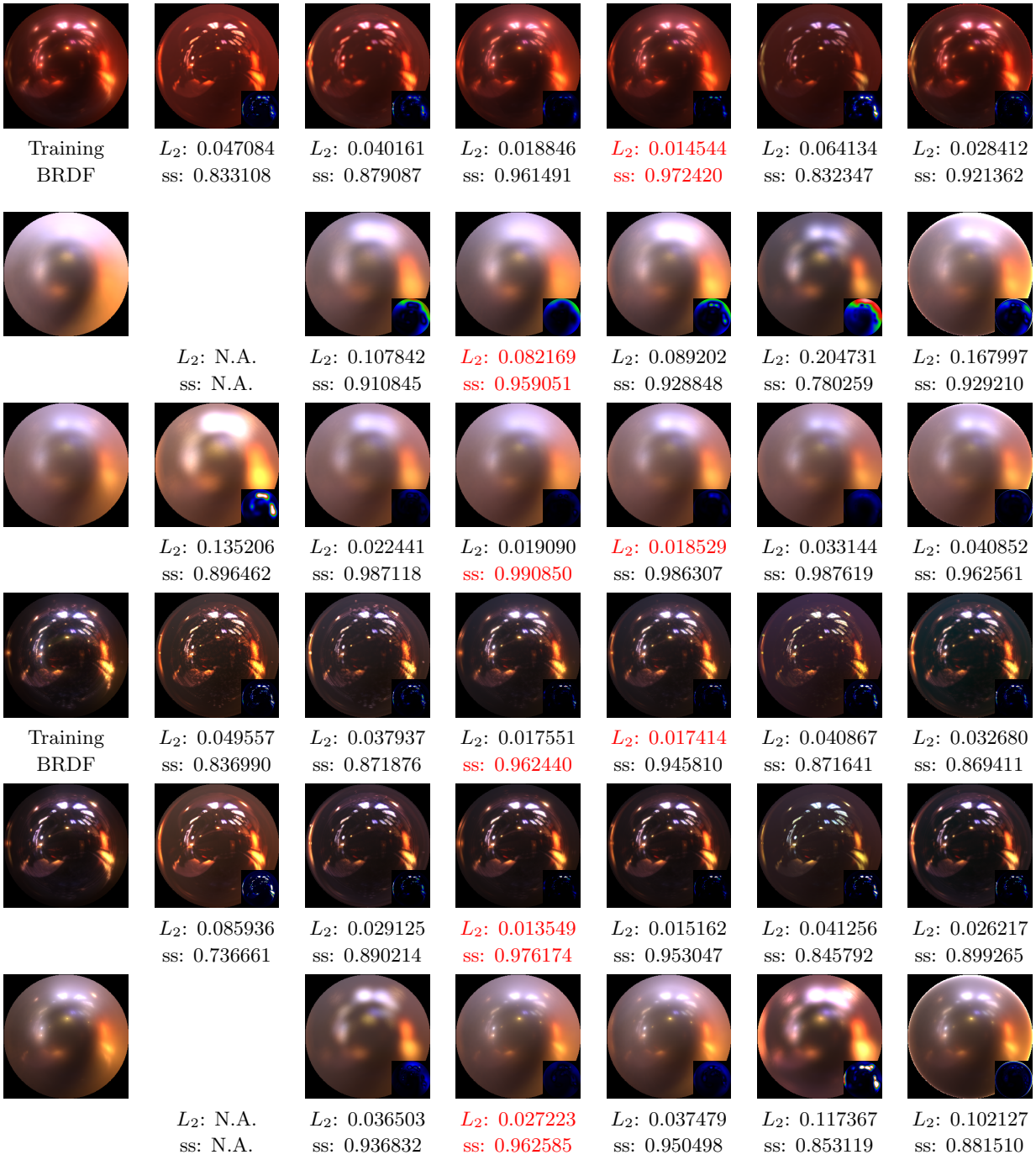
L_2 error.



SSIM error (= 100% - ssim).

	MERL	CT(Ngan) 0(0)/0(1)	CT(E_2 fit) 0(10)/0(9)	Löw SS 6(17)/11(19)	Löw MF 10(18)/7(18)	Bagher 2(6)/2(9)	genBRDF 2/0
alum-bronze							
		L_2: 0.052284 ss: 0.862223	L_2: 0.031392 ss: 0.907766	L_2: 0.032159 ss: 0.937667	L_2: 0.021146 ss: 0.956962	L_2: 0.053167 ss: 0.922395	L_2: 0.035472 ss: 0.896755
aluminium							
	Training BRDF	L_2: 0.067099 ss: 0.846399	L_2: 0.035146 ss: 0.875113	L_2: 0.018044 ss: 0.965309	L_2: 0.022431 ss: 0.959087	L_2: 0.034724 ss: 0.917355	L_2: 0.017638 ss: 0.934545
black-oxidized-steel							
		L_2: 0.037563 ss: 0.881117	L_2: 0.012395 ss: 0.966402	L_2: 0.009959 ss: 0.974466	L_2: 0.021000 ss: 0.956823	L_2: 0.009017 ss: 0.982697	L_2: 0.022322 ss: 0.921285
blue-metallic-paint							
	Training BRDF	L_2: 0.094791 ss: 0.840025	L_2: 0.019657 ss: 0.966125	L_2: 0.009161 ss: 0.993984	L_2: 0.015014 ss: 0.978181	L_2: 0.030206 ss: 0.958517	L_2: 0.029817 ss: 0.923739
blue-metallic-paint2							
	Training BRDF	L_2: 0.045753 ss: 0.859062	L_2: 0.030359 ss: 0.888022	L_2: 0.010992 ss: 0.963478	L_2: 0.009785 ss: 0.974119	L_2: 0.053468 ss: 0.884442	L_2: 0.021282 ss: 0.902852
brass							
	Training BRDF	L_2: 0.109247 ss: 0.809906	L_2: 0.034378 ss: 0.875335	L_2: 0.011813 ss: 0.965002	L_2: 0.011450 ss: 0.970392	L_2: 0.036857 ss: 0.890152	L_2: 0.024381 ss: 0.914659
chrome							
		L_2: 0.038555 ss: 0.902465	L_2: 0.041371 ss: 0.879025	L_2: 0.021593 ss: 0.972071	L_2: 0.021446 ss: 0.950898	L_2: 0.042031 ss: 0.925449	L_2: 0.037670 ss: 0.880280


gold-metallic-paint
Training BRDF
L_2: 0.248043 ss: 0.829761
L_2: 0.057450 ss: 0.908062
L_2: 0.028715 ss: 0.972846
L_2: 0.044440 ss: 0.923609
L_2: 0.089165 ss: 0.870058
L_2: 0.098440 ss: 0.930133
gold-metallic-paint2
L_2: 0.128286 ss: 0.797680
L_2: 0.030368 ss: 0.937596
L_2: 0.028399 ss: 0.959021
L_2: 0.047694 ss: 0.938620
L_2: 0.079292 ss: 0.842680
L_2: 0.097739 ss: 0.873557
gold-paint
L_2: 0.118155 ss: 0.897278
L_2: 0.016980 ss: 0.988808
L_2: 0.014025 ss: 0.994293
L_2: 0.013388 ss: 0.989502
L_2: 0.022800 ss: 0.992360
L_2: 0.030120 ss: 0.964789
green-metallic-paint
L_2: 0.055009 ss: 0.843032
L_2: 0.013768 ss: 0.956628
L_2: 0.017174 ss: 0.959030
L_2: 0.012819 ss: 0.944674
L_2: 0.010036 ss: 0.976063
L_2: 0.019935 ss: 0.915004
green-metallic-paint2
L_2: 0.022218 ss: 0.876922
L_2: 0.014018 ss: 0.893310
L_2: 0.010406 ss: 0.937521
L_2: 0.009469 ss: 0.955577
L_2: 0.017268 ss: 0.924635
L_2: 0.010216 ss: 0.926133
hematite
L_2: 0.138697 ss: 0.672373
L_2: 0.015206 ss: 0.881387
L_2: 0.007662 ss: 0.957260
L_2: 0.005826 ss: 0.972998
L_2: 0.012913 ss: 0.926417
L_2: 0.010172 ss: 0.921838
nickel
Training BRDF
L_2: 0.162464 ss: 0.818395
L_2: 0.030642 ss: 0.929767
L_2: 0.053191 ss: 0.905709
L_2: 0.018494 ss: 0.965202
L_2: 0.094610 ss: 0.911030
L_2: 0.017951 ss: 0.957161


red-metallic-paint
Training BRDF
L_2: 0.047084 ss: 0.833108
L_2: 0.040161 ss: 0.879087
L_2: 0.018846 ss: 0.961491
L_2: 0.014544 ss: 0.972420
L_2: 0.064134 ss: 0.832347
L_2: 0.028412 ss: 0.921362
silver-metallic-paint2
L_2: N.A. ss: N.A.
L_2: 0.107842 ss: 0.910845
L_2: 0.082169 ss: 0.959051
L_2: 0.089202 ss: 0.928848
L_2: 0.204731 ss: 0.780259
L_2: 0.167997 ss: 0.929210
silver-paint
L_2: 0.135206 ss: 0.896462
L_2: 0.022441 ss: 0.987118
L_2: 0.019090 ss: 0.990850
L_2: 0.018529 ss: 0.986307
L_2: 0.033144 ss: 0.987619
L_2: 0.040852 ss: 0.962561
steel
Training BRDF
L_2: 0.049557 ss: 0.836990
L_2: 0.037937 ss: 0.871876
L_2: 0.017551 ss: 0.962440
L_2: 0.017414 ss: 0.945810
L_2: 0.040867 ss: 0.871641
L_2: 0.032680 ss: 0.869411
tungsten-carbide
L_2: 0.085936 ss: 0.736661
L_2: 0.029125 ss: 0.890214
L_2: 0.013549 ss: 0.976174
L_2: 0.015162 ss: 0.953047
L_2: 0.041256 ss: 0.845792
L_2: 0.026217 ss: 0.899265
two-layer-gold
L_2: N.A. ss: N.A.
L_2: 0.036503 ss: 0.936832
L_2: 0.027223 ss: 0.962585
L_2: 0.037479 ss: 0.950498
L_2: 0.117367 ss: 0.853119
L_2: 0.102127 ss: 0.881510

Material		p0	p1	ρ_d	ρ_s	R_0
alum-bronze	R	1.44917017e-03	6.20703101e-01	5.67659140e-02	2.31232849e+02	2.83192456e-01
	G	2.96573038e-03	6.61784053e-01	4.94051352e-02	1.63942688e+02	1.72521502e-01
	B	3.06819472e-03	6.81971014e-01	4.20839265e-02	2.65667694e+02	7.34553859e-02
aluminium	R	1.30886227e-04	5.85978568e-01	2.27891933e-02	4.48262354e+03	7.93812275e-01
	G	6.13745142e-05	5.55747032e-01	2.23116539e-02	3.20533765e+03	1.42089987e+00
	B	6.18073536e-05	5.51749647e-01	2.36752015e-02	2.09767188e+03	1.81593287e+00
black-oxidized-steel	R	1.93143860e-01	1.15941215e+00	1.32165765e-02	1.08842349e+00	1.34046033e-01
	G	1.96417734e-01	1.14213824e+00	1.11056808e-02	9.84484076e-01	1.43526539e-01
	B	1.99200794e-01	1.12679505e+00	9.84825008e-03	9.28098381e-01	1.46932200e-01
blue-metallic-paint	R	1.73565835e-01	1.09778953e+00	9.03166179e-03	2.02955766e-06	2.10424797e+05
	G	1.63108140e-01	1.08254790e+00	6.53937366e-03	1.05775155e-06	4.08936500e+05
	B	1.59072369e-01	1.09990835e+00	3.23248021e-02	1.09781888e-06	8.67516188e+05
blue-metallic-paint2	R	1.66470790e-03	6.98649168e-01	6.25311122e-06	7.45992493e+02	2.18140453e-01
	G	7.29636347e-04	6.46029413e-01	1.01928320e-02	1.17183167e+03	3.75313252e-01
	B	3.23116226e-04	6.02006495e-01	1.55318780e-02	1.90211401e+03	6.68203771e-01
brass	R	2.10620594e-04	6.09331906e-01	3.67508084e-02	6.65642627e+03	3.63135189e-01
	G	1.71849591e-04	5.96263230e-01	2.24293116e-02	4.95179492e+03	3.06571186e-01
	B	1.40350268e-04	5.93878329e-01	1.67986248e-02	7.51229590e+03	1.31169990e-01
chrome	R	1.42830529e-03	7.94160604e-01	3.68129462e-04	1.23482471e+04	1.36330932e-01
	G	8.92172044e-04	7.58969128e-01	3.88336391e-03	2.54225918e+04	1.00878060e-01
	B	8.95119971e-04	7.56986439e-01	4.18236014e-03	3.01182969e+04	7.34801665e-02
gold-metallic-paint	R	1.39491081e-01	9.66982782e-01	3.46854031e-02	8.99471990e-12	1.87543257e+11
	G	1.48436248e-01	1.01826084e+00	2.95000076e-02	7.25690143e-07	1.51817400e+06
	B	1.61918923e-01	1.04985845e+00	5.60616190e-03	9.57819372e-02	4.21138620e+00
gold-metallic-paint2	R	1.35120994e-04	5.11073232e-01	3.30391116e-02	1.78409403e-03	1.01830695e+05
	G	5.71729215e-05	4.92019743e-01	2.66263485e-02	3.60951200e-03	6.91660312e+04
	B	3.65792584e-05	4.85452294e-01	2.03892663e-02	2.85367249e-04	1.01924506e+06
gold-paint	R	1.54662281e-01	1.09297800e+00	1.67710811e-01	5.70000336e-02	1.56902332e+01
	G	1.58146113e-01	1.11036158e+00	9.60860923e-02	4.37377125e-01	1.58143437e+00
	B	1.39397681e-01	1.08445895e+00	3.71743888e-02	1.36045933e+00	3.30388904e-01
green-metallic-paint	R	1.44976094e-01	1.22961664e+00	5.04262606e-03	2.52758360e+00	1.41447052e-01
	G	1.51533529e-01	1.14838207e+00	3.22650038e-02	1.22970355e+00	5.74365497e-01
	B	1.50910735e-01	1.14057827e+00	3.98438796e-02	1.16852820e+00	6.45216703e-01
green-metallic-paint2	R	1.25160487e-03	6.69187903e-01	4.22403775e-03	7.21898376e+02	1.11040264e-01
	G	3.45932989e-04	5.96250772e-01	8.98068678e-03	9.27087036e+02	3.86184573e-01
	B	6.23820291e-04	6.27781808e-01	5.34642581e-03	9.94618286e+02	1.61459669e-01
hematite	R	3.15592129e-04	6.24971032e-01	1.05199683e-02	3.51804883e+03	1.63639620e-01
	G	1.73504421e-04	5.96652806e-01	1.07748816e-02	3.90563599e+03	2.01585263e-01
	B	7.57505550e-05	5.64329624e-01	1.04113631e-02	6.17747217e+03	2.11721390e-01
nickel	R	2.08175741e-02	9.15759742e-01	1.75715964e-02	1.30268815e-03	3.82916484e+04
	G	2.33886112e-02	9.32710052e-01	1.54899051e-02	1.86662674e+00	2.06371422e+01
	B	2.56186929e-02	9.46274579e-01	1.43220015e-02	1.11561947e+01	2.69809723e+00
red-metallic-paint	R	1.05655992e-04	5.52291334e-01	1.82833262e-02	2.32667236e+03	7.65676022e-01
	G	3.90285568e-04	6.16856396e-01	4.33729868e-03	2.29071875e+03	9.99528691e-02
	B	3.41189269e-04	6.13448322e-01	2.05121795e-03	2.81814941e+03	5.55699393e-02
silver-metallic-paint2	R	1.14651680e-01	9.10231650e-01	1.05697498e-01	2.62314254e-18	7.93063512e+17
	G	1.24913543e-01	9.25242305e-01	1.09316632e-01	2.37339438e-18	7.30760442e+17
	B	1.41214639e-01	9.56281006e-01	1.10982940e-01	2.02537655e-18	6.86682326e+17
silver-paint	R	1.47201702e-01	1.07442045e+00	1.77846447e-01	2.17653287e-05	5.15257188e+04
	G	1.45991907e-01	1.07906866e+00	1.49262458e-01	2.92881996e-05	4.03508086e+04
	B	1.48777515e-01	1.09725690e+00	1.33026600e-01	6.50980155e-06	1.84396844e+05
steel	R	4.91977378e-04	6.91763818e-01	2.97205294e-14	1.96422461e+04	1.38867646e-01
	G	3.07152193e-04	6.62142873e-01	1.28594134e-02	2.31103672e+04	1.34520829e-01
	B	6.19628350e-04	6.96045637e-01	1.46460002e-02	1.11421240e+04	1.18259594e-01

RGB Parameters for genBRDF 013-003578

Material		p0	p1	ρ_d	ρ_s	R_0
tungsten-carbide	R	1.95514411e-03	8.15629065e-01	9.21390252e-04	5.17606201e+03	1.55958369e-01
	G	1.12125115e-03	7.64895678e-01	5.04452595e-03	8.95445898e+03	1.30341053e-01
	B	6.45622902e-04	7.27045417e-01	5.47149824e-03	2.95097422e+04	7.49440119e-02
two-layer-gold	R	3.94762639e-04	5.36830425e-01	2.31648088e-02	1.11680524e-03	8.95378906e+04
	G	1.46111648e-04	5.11232078e-01	1.68809798e-02	1.39843905e-03	1.11838930e+05
	B	1.93450585e-04	5.21417916e-01	1.39291529e-02	2.83115194e-03	4.42152930e+04

RGB Parameters for genBRDF 013-003578

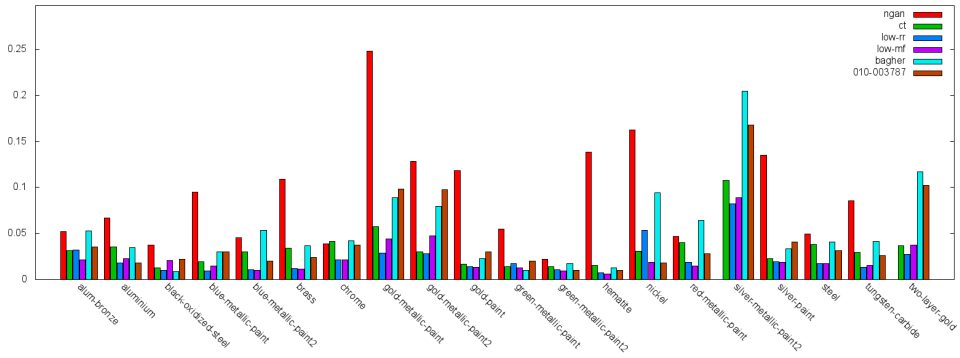
010-003787

Fitness: 0.000127343149

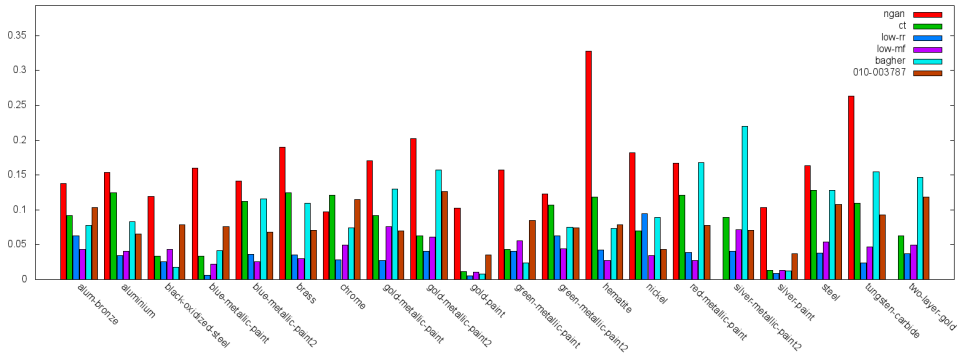
Length: 70

Reciprocity Error: 5.29879855e-15

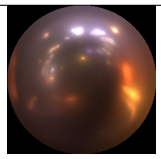
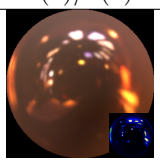
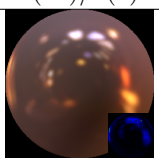
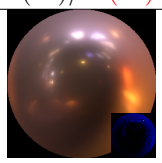
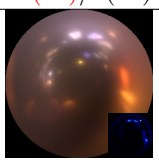
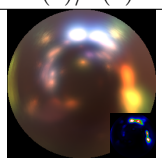
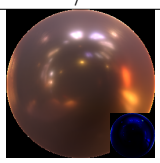
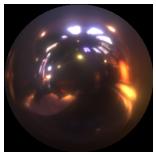
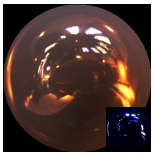
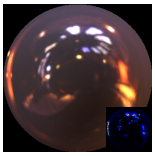
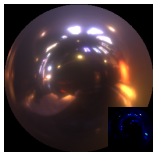
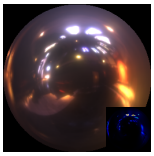
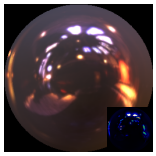
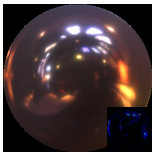
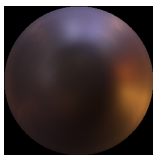
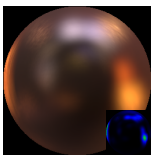
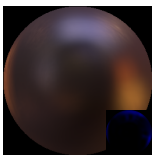
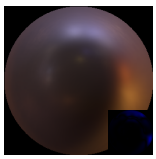
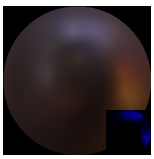
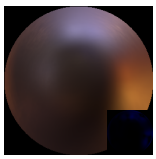
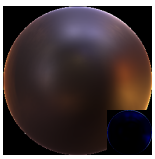
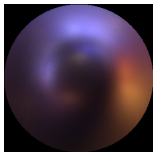
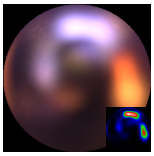
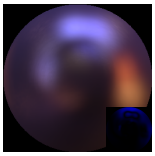
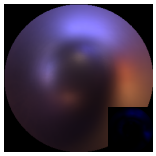
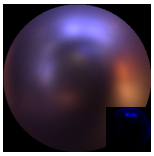
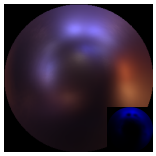
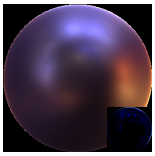
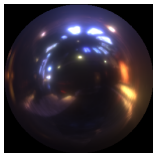
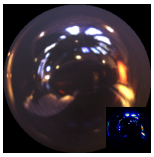
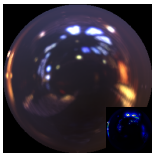
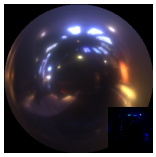
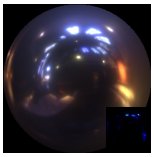
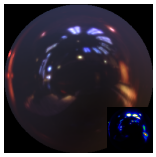
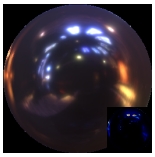
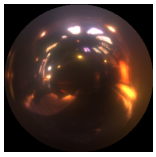
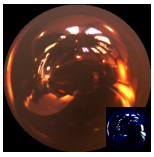
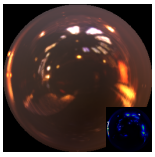
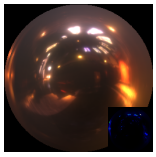
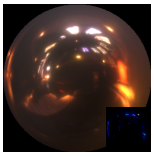
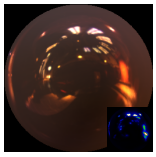
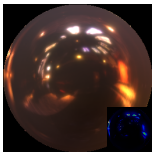
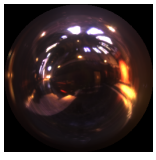
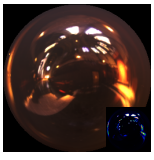
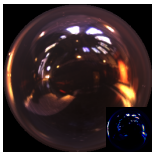
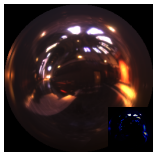
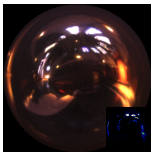
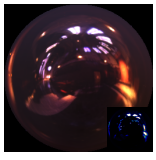
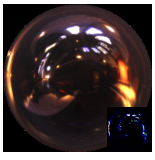
$$f'_n(\omega_i, \omega_o) = [e^{-\left(\left(\frac{tan(cos^{-1}(clamp(\omega_{hz})))}{p_0}\right)^{p_1}\right)} * 2.0]$$

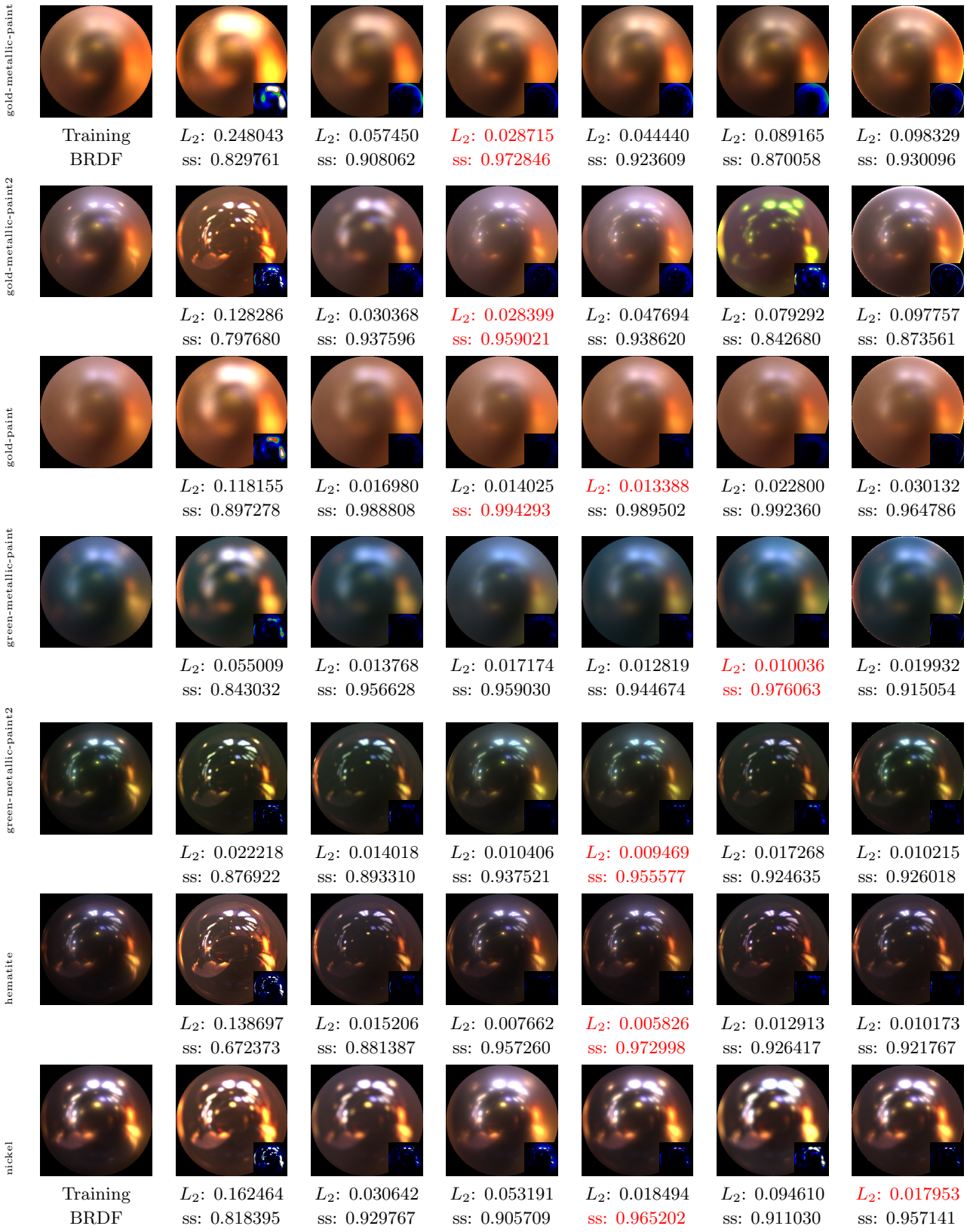


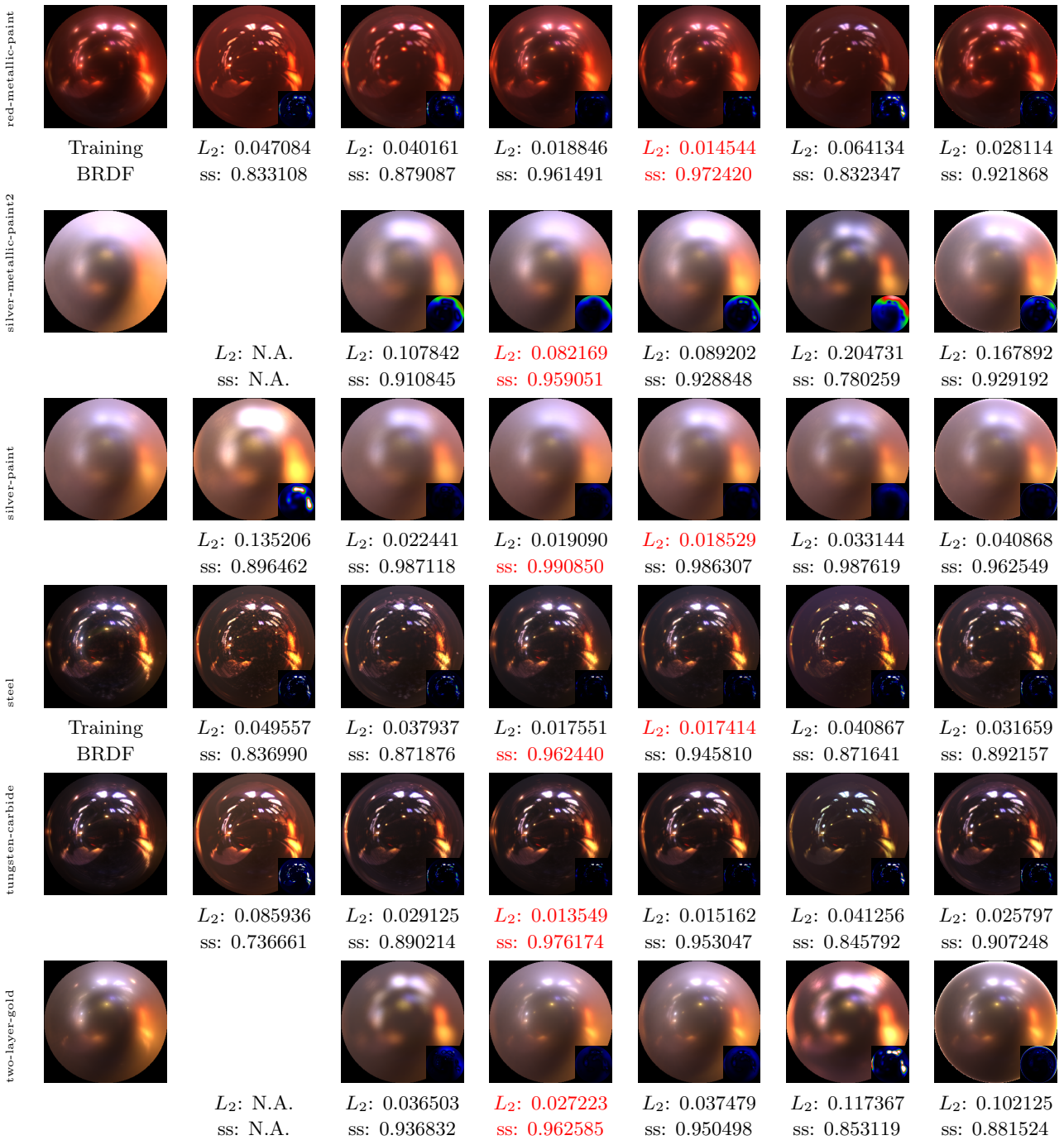
L_2 error.



SSIM error (= 100% - ssim).

	MERL	CT(Ngan) 0(0)/0(1)	CT(E_2 fit) 0(10)/0(8)	Löw SS 6(17)/11(19)	Löw MF 10(18)/7(18)	Bagher 2(6)/2(8)	genBRDF 2/0
alum-bronze							
		L_2: 0.052284 ss: 0.862223	L_2: 0.031392 ss: 0.907766	L_2: 0.032159 ss: 0.937667	L_2: 0.021146 ss: 0.956962	L_2: 0.053167 ss: 0.922395	L_2: 0.035487 ss: 0.896729
aluminium							
	Training BRDF	L_2: 0.067099 ss: 0.846399	L_2: 0.035146 ss: 0.875113	L_2: 0.018044 ss: 0.965309	L_2: 0.022431 ss: 0.959087	L_2: 0.034724 ss: 0.917355	L_2: 0.017726 ss: 0.934523
black-oxidized-steel							
		L_2: 0.037563 ss: 0.881117	L_2: 0.012395 ss: 0.966402	L_2: 0.009959 ss: 0.974466	L_2: 0.021000 ss: 0.956823	L_2: 0.009017 ss: 0.982697	L_2: 0.022318 ss: 0.921289
blue-metallic-paint							
	Training BRDF	L_2: 0.094791 ss: 0.840025	L_2: 0.019657 ss: 0.966125	L_2: 0.009161 ss: 0.993984	L_2: 0.015014 ss: 0.978181	L_2: 0.030206 ss: 0.958517	L_2: 0.029814 ss: 0.923711
blue-metallic-paint2							
	Training BRDF	L_2: 0.045753 ss: 0.859062	L_2: 0.030359 ss: 0.888022	L_2: 0.010992 ss: 0.963478	L_2: 0.009785 ss: 0.974119	L_2: 0.053468 ss: 0.884442	L_2: 0.020117 ss: 0.931969
brass							
	Training BRDF	L_2: 0.109247 ss: 0.809906	L_2: 0.034378 ss: 0.875335	L_2: 0.011813 ss: 0.965002	L_2: 0.011450 ss: 0.970392	L_2: 0.036857 ss: 0.890152	L_2: 0.023899 ss: 0.929287
chrome							
		L_2: 0.038555 ss: 0.902465	L_2: 0.041371 ss: 0.879025	L_2: 0.021593 ss: 0.972071	L_2: 0.021446 ss: 0.950898	L_2: 0.042031 ss: 0.925449	L_2: 0.037602 ss: 0.885562


gold-metallic-paint
Training BRDF
L_2: 0.248043 ss: 0.829761
L_2: 0.057450 ss: 0.908062
L_2: 0.028715 ss: 0.972846
L_2: 0.044440 ss: 0.923609
L_2: 0.089165 ss: 0.870058
L_2: 0.098329 ss: 0.930096
gold-metallic-paint2
L_2: 0.128286 ss: 0.797680
L_2: 0.030368 ss: 0.937596
L_2: 0.028399 ss: 0.959021
L_2: 0.047694 ss: 0.938620
L_2: 0.079292 ss: 0.842680
L_2: 0.097757 ss: 0.873561
gold-paint
L_2: 0.118155 ss: 0.897278
L_2: 0.016980 ss: 0.988808
L_2: 0.014025 ss: 0.994293
L_2: 0.013388 ss: 0.989502
L_2: 0.022800 ss: 0.992360
L_2: 0.030132 ss: 0.964786
green-metallic-paint
L_2: 0.055009 ss: 0.843032
L_2: 0.013768 ss: 0.956628
L_2: 0.017174 ss: 0.959030
L_2: 0.012819 ss: 0.944674
L_2: 0.010036 ss: 0.976063
L_2: 0.019932 ss: 0.915054
green-metallic-paint2
L_2: 0.022218 ss: 0.876922
L_2: 0.014018 ss: 0.893310
L_2: 0.010406 ss: 0.937521
L_2: 0.009469 ss: 0.955577
L_2: 0.017268 ss: 0.924635
L_2: 0.010215 ss: 0.926018
hematite
L_2: 0.138697 ss: 0.672373
L_2: 0.015206 ss: 0.881387
L_2: 0.007662 ss: 0.957260
L_2: 0.005826 ss: 0.972998
L_2: 0.012913 ss: 0.926417
L_2: 0.010173 ss: 0.921767
nickel
Training BRDF
L_2: 0.162464 ss: 0.818395
L_2: 0.030642 ss: 0.929767
L_2: 0.053191 ss: 0.905709
L_2: 0.018494 ss: 0.965202
L_2: 0.094610 ss: 0.911030
L_2: 0.017953 ss: 0.957141


red-metallic-paint
Training BRDF
L_2: 0.047084 ss: 0.833108
L_2: 0.040161 ss: 0.879087
L_2: 0.018846 ss: 0.961491
L_2: 0.014544 ss: 0.972420
L_2: 0.064134 ss: 0.832347
L_2: 0.028114 ss: 0.921868
silver-metallic-paint2
L_2: N.A. ss: N.A.
L_2: 0.107842 ss: 0.910845
L_2: 0.082169 ss: 0.959051
L_2: 0.089202 ss: 0.928848
L_2: 0.204731 ss: 0.780259
L_2: 0.167892 ss: 0.929192
silver-paint
L_2: 0.135206 ss: 0.896462
L_2: 0.022441 ss: 0.987118
L_2: 0.019090 ss: 0.990850
L_2: 0.018529 ss: 0.986307
L_2: 0.033144 ss: 0.987619
L_2: 0.040868 ss: 0.962549
steel
Training BRDF
L_2: 0.049557 ss: 0.836990
L_2: 0.037937 ss: 0.871876
L_2: 0.017551 ss: 0.962440
L_2: 0.017414 ss: 0.945810
L_2: 0.040867 ss: 0.871641
L_2: 0.031659 ss: 0.892157
tungsten-carbide
L_2: 0.085936 ss: 0.736661
L_2: 0.029125 ss: 0.890214
L_2: 0.013549 ss: 0.976174
L_2: 0.015162 ss: 0.953047
L_2: 0.041256 ss: 0.845792
L_2: 0.025797 ss: 0.907248
two-layer-gold
L_2: N.A. ss: N.A.
L_2: 0.036503 ss: 0.936832
L_2: 0.027223 ss: 0.962585
L_2: 0.037479 ss: 0.950498
L_2: 0.117367 ss: 0.853119
L_2: 0.102125 ss: 0.881524

Material		p0	p1	ρ_d	ρ_s	R_0
alum-bronze	R	1.44882477e-03	3.85261387e-01	5.68024665e-02	1.15776909e+02	2.82796115e-01
	G	2.96368892e-03	4.37830508e-01	4.93598282e-02	8.18516235e+01	1.72776759e-01
	B	3.06042726e-03	4.64860290e-01	4.20623198e-02	1.33126740e+02	7.33527094e-02
aluminium	R	1.30182496e-04	3.43142480e-01	2.28029434e-02	2.24707227e+03	7.94944763e-01
	G	6.17366604e-05	3.09050947e-01	2.23191455e-02	1.59483728e+03	1.42195559e+00
	B	8.94671466e-05	3.17330718e-01	2.43277438e-02	8.73008240e+02	1.72580218e+00
black-oxidized-steel	R	1.93102643e-01	1.34413123e+00	1.32161854e-02	5.44093490e-01	1.34155244e-01
	G	1.96414232e-01	1.30450630e+00	1.11230006e-02	4.91790444e-01	1.43722236e-01
	B	1.99148133e-01	1.26940918e+00	9.85052343e-03	4.64305341e-01	1.46822944e-01
blue-metallic-paint	R	1.73528641e-01	1.20481932e+00	9.01317131e-03	5.19920832e-07	4.10802969e+05
	G	1.63187996e-01	1.17220080e+00	6.53564231e-03	5.29489682e-07	4.08209812e+05
	B	1.59181133e-01	1.21055281e+00	3.23519073e-02	1.54024184e-35	3.08968467e+34
blue-metallic-paint2	R	1.74196123e-03	4.94018435e-01	8.54554772e-03	3.71370087e+02	2.13363662e-01
	G	7.30248925e-04	4.17406589e-01	1.01896394e-02	5.85857971e+02	3.75024706e-01
	B	3.24536813e-04	3.62626463e-01	1.54942116e-02	9.49632690e+02	6.66944087e-01
brass	R	2.56120577e-04	3.80620748e-01	2.53793225e-02	2.80695508e+03	3.65596384e-01
	G	1.72097731e-04	3.55602384e-01	2.24097688e-02	2.47481982e+03	3.06406438e-01
	B	1.39983065e-04	3.52553219e-01	1.67834777e-02	3.75767236e+03	1.31297484e-01
chrome	R	1.44550833e-03	6.32738829e-01	1.92185189e-03	6.11156104e+03	1.36321172e-01
	G	8.92436714e-04	5.76072216e-01	3.88009148e-03	1.27357158e+04	1.00633904e-01
	B	9.30911570e-04	5.78237057e-01	4.12367051e-03	1.45499854e+04	7.33167976e-02
gold-metallic-paint	R	1.39475301e-01	9.35373127e-01	3.47774178e-02	6.60103457e-22	1.27768233e+21
	G	1.48455888e-01	1.03688443e+00	2.94030085e-02	7.73843972e-22	7.11769644e+20
	B	1.61885187e-01	1.10221004e+00	5.62051171e-03	4.80867513e-02	4.19432116e+00
gold-metallic-paint2	R	1.35811395e-04	2.61295199e-01	3.30806188e-02	1.23299787e-10	7.33814260e+11
	G	5.80959750e-05	2.42410734e-01	2.63492782e-02	6.27521542e-04	1.97402266e+05
	B	3.64923944e-05	2.35637307e-01	2.04564650e-02	3.25628389e-06	4.47753560e+07
gold-paint	R	1.54630214e-01	1.19412804e+00	1.67693496e-01	2.74750181e-02	1.62807312e+01
	G	1.58013105e-01	1.23200381e+00	9.60763097e-02	2.18729362e-01	1.58262944e+00
	B	1.39432967e-01	1.17642033e+00	3.71938050e-02	6.80127740e-01	3.30351800e-01
green-metallic-paint	R	1.44992515e-01	1.51251686e+00	5.06302156e-03	1.26353407e+00	1.41421884e-01
	G	1.51507482e-01	1.31841731e+00	3.22464257e-02	6.14514351e-01	5.74828327e-01
	B	1.50928184e-01	1.30121899e+00	3.98562886e-02	5.84454179e-01	6.44931614e-01
green-metallic-paint2	R	1.25084713e-03	4.47746664e-01	4.25729947e-03	3.61034729e+02	1.11034945e-01
	G	3.45933164e-04	3.55534524e-01	8.99603963e-03	4.63891327e+02	3.86022747e-01
	B	6.24311913e-04	3.94142479e-01	5.34572732e-03	4.96852844e+02	1.61490694e-01
hematite	R	3.16234131e-04	3.90727878e-01	1.05415359e-02	1.75832922e+03	1.63524926e-01
	G	1.73272754e-04	3.55923831e-01	1.07897101e-02	1.95382483e+03	2.01627299e-01
	B	7.57195739e-05	3.18461984e-01	1.04019046e-02	3.09272241e+03	2.11615369e-01
nickel	R	2.08453164e-02	8.39141488e-01	1.76069401e-02	3.46057233e-04	7.19926641e+04
	G	2.34093200e-02	8.70345354e-01	1.54560832e-02	9.61338162e-01	2.00170403e+01
	B	2.56339312e-02	8.95689189e-01	1.43892569e-02	5.54670286e+00	2.71192312e+00
red-metallic-paint	R	1.13240720e-04	3.07667911e-01	2.00694557e-02	1.17767468e+03	7.30058253e-01
	G	3.90191795e-04	3.80492270e-01	4.35183942e-03	1.14548547e+03	9.99651924e-02
	B	3.41963896e-04	3.76432449e-01	2.05377722e-03	1.40626904e+03	5.55933416e-02
silver-metallic-paint2	R	1.14587516e-01	8.28505874e-01	1.05697423e-01	1.20912462e-13	8.61047305e+12
	G	1.24881320e-01	8.56103778e-01	1.09222457e-01	7.62683328e-07	1.13765312e+06
	B	1.41556114e-01	9.16264892e-01	1.10957272e-01	7.14680596e-07	9.71562750e+05
silver-paint	R	1.47120163e-01	1.15372431e+00	1.77866295e-01	3.87652358e-22	1.44730675e+21
	G	1.45971924e-01	1.16408420e+00	1.49225160e-01	3.49645404e-07	1.69075362e+06
	B	1.48933724e-01	1.20508707e+00	1.33044958e-01	3.24587688e-07	1.84713750e+06
steel	R	5.08912315e-04	4.82077390e-01	1.19494088e-02	9.70850488e+03	1.37470275e-01
	G	2.10558937e-04	4.12119210e-01	1.25219654e-02	1.47119941e+04	1.40211150e-01
	B	6.21340878e-04	4.84697402e-01	1.47102308e-02	5.55714062e+03	1.18174441e-01

RGB Parameters for genBRDF 010-003787

Material		p0	p1	ρ_d	ρ_s	R_0
tungsten-carbide	R	1.97273120e-03	6.67345822e-01	5.54171763e-03	2.57432349e+03	1.55850902e-01
	G	1.11838686e-03	5.84720612e-01	5.05096233e-03	4.47713330e+03	1.30739093e-01
	B	6.45824301e-04	5.28581500e-01	5.45870513e-03	1.47300342e+04	7.49403015e-02
two-layer-gold	R	3.93080001e-04	2.88053095e-01	2.33205017e-02	7.00882108e-09	7.14815898e+09
	G	1.45025624e-04	2.61179388e-01	1.68250874e-02	1.80288946e-04	4.35614219e+05
	B	1.95089655e-04	2.72100806e-01	1.38473138e-02	3.61212346e-06	1.72440080e+07

RGB Parameters for genBRDF 010-003787

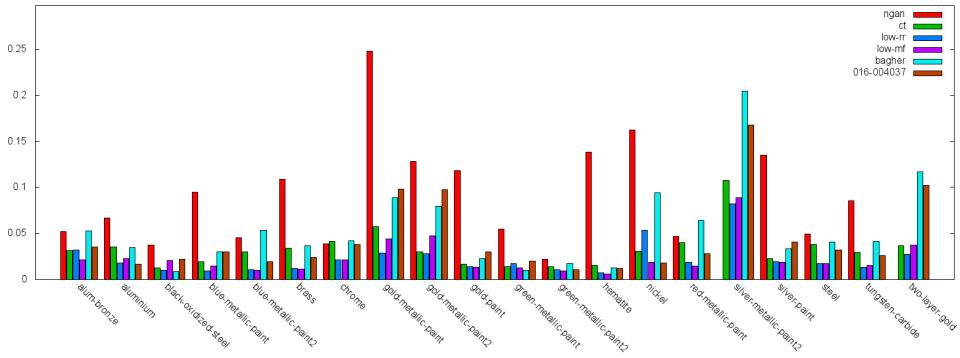
016-004037

Fitness: 0.000128334290

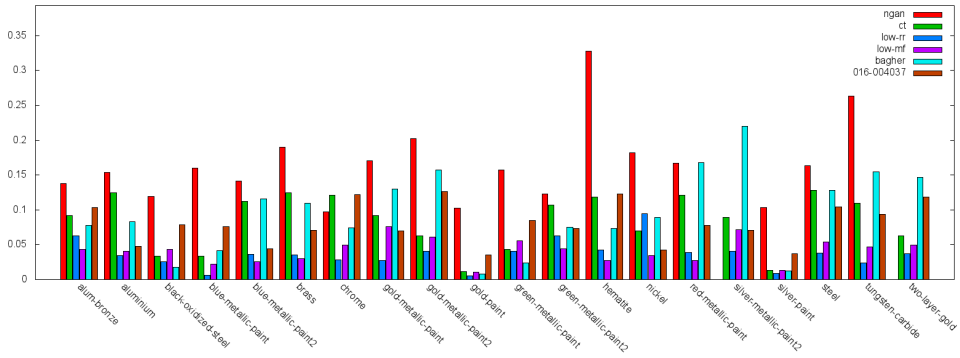
Length: 68

Reciprocity Error: 6.315912896e-15

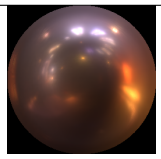
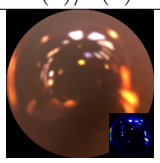
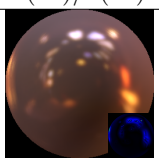
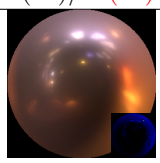
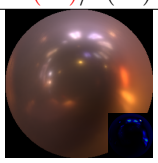
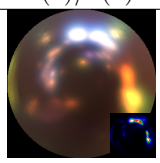
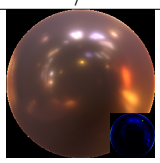
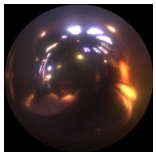
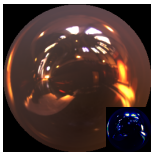
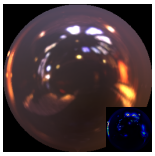
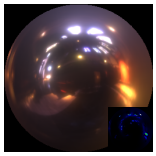
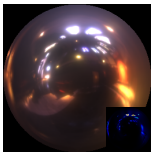
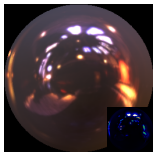
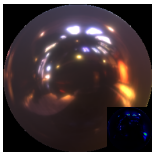
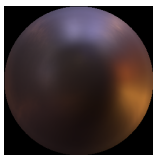
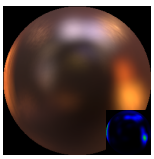
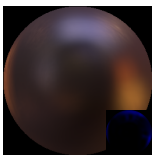
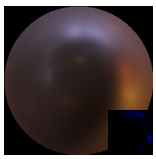
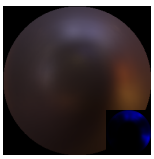
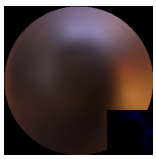
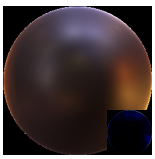
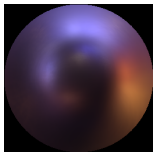
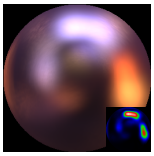
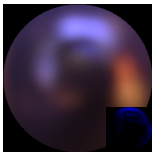
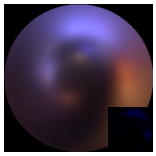
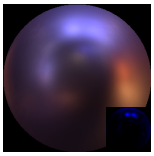
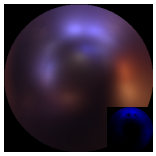
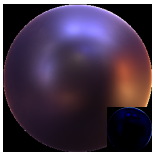
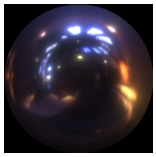
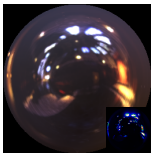
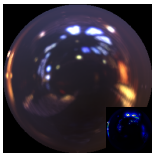
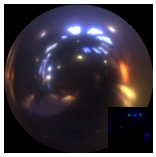
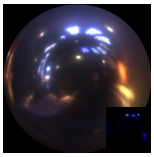
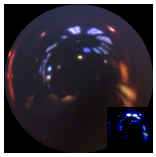
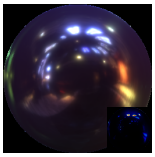
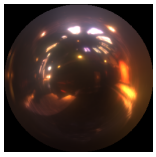
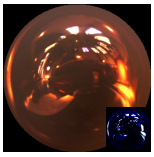
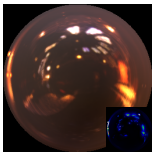
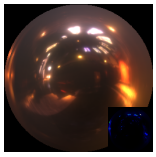
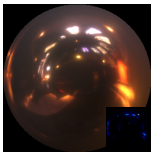
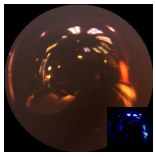
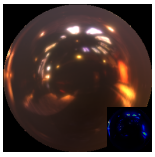
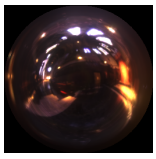
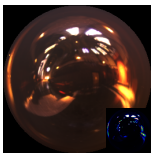
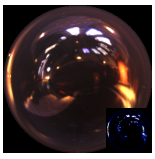
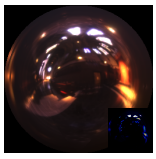
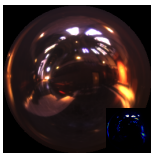
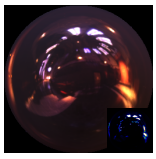
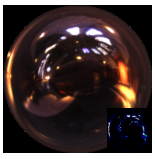
$$f'_n(\omega_i, \omega_o) = [e^{-\left(\left(\frac{tan(cos^{-1}(clamp(\omega_{hz})))}{p_0}\right)^{p_1}\right)} * p_0]$$

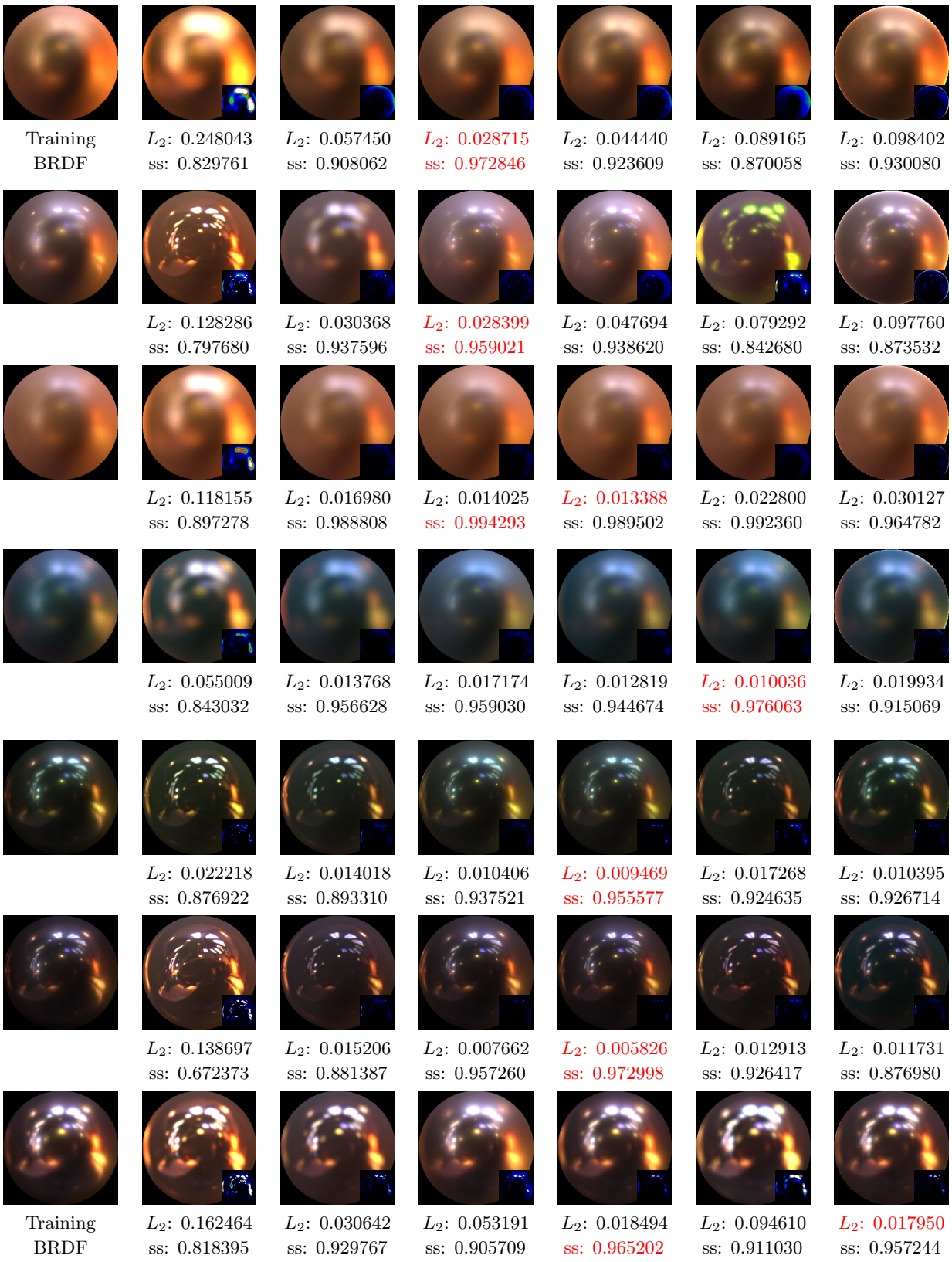


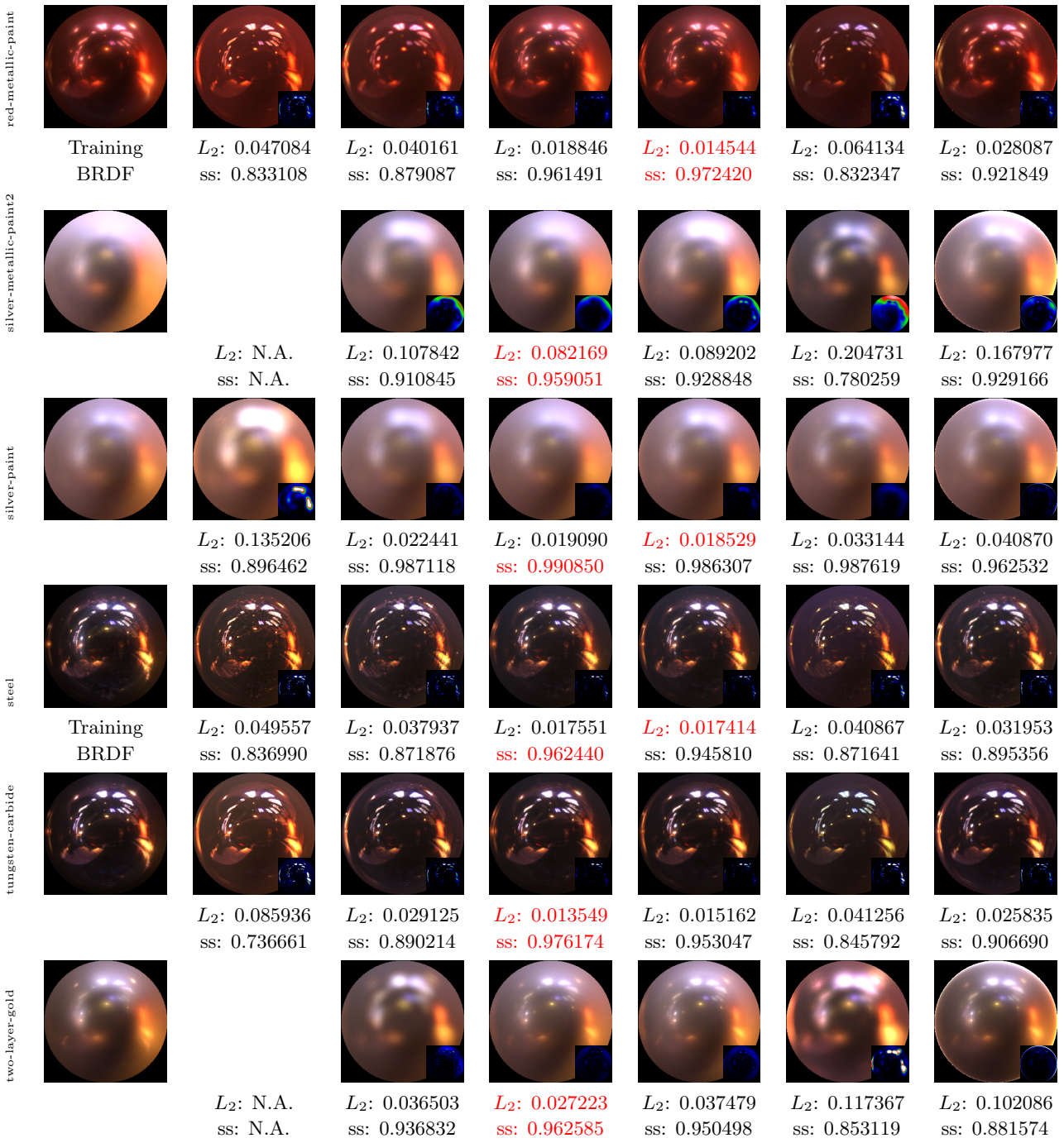
L_2 error.



SSIM error (= 100% - ssim).

	MERL	CT(Ngan) 0(0)/0(1)	CT(E_2 fit) 0(10)/0(10)	Löw SS 6(17)/11(19)	Löw MF 10(18)/7(18)	Bagher 2(6)/2(8)	genBRDF 2/0
alum-bronze							
		L_2: 0.052284 ss: 0.862223	L_2: 0.031392 ss: 0.907766	L_2: 0.032159 ss: 0.937667	L_2: 0.021146 ss: 0.956962	L_2: 0.053167 ss: 0.922395	L_2: 0.035479 ss: 0.896748
aluminium							
	Training BRDF	L_2: 0.067099 ss: 0.846399	L_2: 0.035146 ss: 0.875113	L_2: 0.018044 ss: 0.965309	L_2: 0.022431 ss: 0.959087	L_2: 0.034724 ss: 0.917355	L_2: 0.016689 ss: 0.952086
black-oxidized-steel							
		L_2: 0.037563 ss: 0.881117	L_2: 0.012395 ss: 0.966402	L_2: 0.009959 ss: 0.974466	L_2: 0.021000 ss: 0.956823	L_2: 0.009017 ss: 0.982697	L_2: 0.022330 ss: 0.921257
blue-metallic-paint							
	Training BRDF	L_2: 0.094791 ss: 0.840025	L_2: 0.019657 ss: 0.966125	L_2: 0.009161 ss: 0.993984	L_2: 0.015014 ss: 0.978181	L_2: 0.030206 ss: 0.958517	L_2: 0.029817 ss: 0.923727
blue-metallic-paint2							
	Training BRDF	L_2: 0.045753 ss: 0.859062	L_2: 0.030359 ss: 0.888022	L_2: 0.010992 ss: 0.963478	L_2: 0.009785 ss: 0.974119	L_2: 0.053468 ss: 0.884442	L_2: 0.019588 ss: 0.956256
brass							
	Training BRDF	L_2: 0.109247 ss: 0.809906	L_2: 0.034378 ss: 0.875335	L_2: 0.011813 ss: 0.965002	L_2: 0.011450 ss: 0.970392	L_2: 0.036857 ss: 0.890152	L_2: 0.023920 ss: 0.929333
chrome							
		L_2: 0.038555 ss: 0.902465	L_2: 0.041371 ss: 0.879025	L_2: 0.021593 ss: 0.972071	L_2: 0.021446 ss: 0.950898	L_2: 0.042031 ss: 0.925449	L_2: 0.037803 ss: 0.878208


gold-metallic-paint
Training BRDF
L_2: 0.248043 ss: 0.829761
L_2: 0.057450 ss: 0.908062
L_2: 0.028715 ss: 0.972846
L_2: 0.044440 ss: 0.923609
L_2: 0.089165 ss: 0.870058
L_2: 0.098402 ss: 0.930080
gold-metallic-paint2
L_2: 0.128286 ss: 0.797680
L_2: 0.030368 ss: 0.937596
L_2: 0.028399 ss: 0.959021
L_2: 0.047694 ss: 0.938620
L_2: 0.079292 ss: 0.842680
L_2: 0.097760 ss: 0.873532
gold-paint
L_2: 0.118155 ss: 0.897278
L_2: 0.016980 ss: 0.988808
L_2: 0.014025 ss: 0.994293
L_2: 0.013388 ss: 0.989502
L_2: 0.022800 ss: 0.992360
L_2: 0.030127 ss: 0.964782
green-metallic-paint
L_2: 0.055009 ss: 0.843032
L_2: 0.013768 ss: 0.956628
L_2: 0.017174 ss: 0.959030
L_2: 0.012819 ss: 0.944674
L_2: 0.010036 ss: 0.976063
L_2: 0.019934 ss: 0.915069
green-metallic-paint2
L_2: 0.022218 ss: 0.876922
L_2: 0.014018 ss: 0.893310
L_2: 0.010406 ss: 0.937521
L_2: 0.009469 ss: 0.955577
L_2: 0.017268 ss: 0.924635
L_2: 0.010395 ss: 0.926714
hematite
L_2: 0.138697 ss: 0.672373
L_2: 0.015206 ss: 0.881387
L_2: 0.007662 ss: 0.957260
L_2: 0.005826 ss: 0.972998
L_2: 0.012913 ss: 0.926417
L_2: 0.011731 ss: 0.876980
nickel
Training BRDF
L_2: 0.162464 ss: 0.818395
L_2: 0.030642 ss: 0.929767
L_2: 0.053191 ss: 0.905709
L_2: 0.018494 ss: 0.965202
L_2: 0.094610 ss: 0.911030
L_2: 0.017950 ss: 0.957244


red-metallic-paint
Training BRDF
L_2: 0.047084 ss: 0.833108
L_2: 0.040161 ss: 0.879087
L_2: 0.018846 ss: 0.961491
L_2: 0.014544 ss: 0.972420
L_2: 0.064134 ss: 0.832347
L_2: 0.028087 ss: 0.921849
silver-metallic-paint2
L_2: N.A. ss: N.A.
L_2: 0.107842 ss: 0.910845
L_2: 0.082169 ss: 0.959051
L_2: 0.089202 ss: 0.928848
L_2: 0.204731 ss: 0.780259
L_2: 0.167977 ss: 0.929166
silver-paint
L_2: 0.135206 ss: 0.896462
L_2: 0.022441 ss: 0.987118
L_2: 0.019090 ss: 0.990850
L_2: 0.018529 ss: 0.986307
L_2: 0.033144 ss: 0.987619
L_2: 0.040870 ss: 0.962532
steel
Training BRDF
L_2: 0.049557 ss: 0.836990
L_2: 0.037937 ss: 0.871876
L_2: 0.017551 ss: 0.962440
L_2: 0.017414 ss: 0.945810
L_2: 0.040867 ss: 0.871641
L_2: 0.031953 ss: 0.895356
tungsten-carbide
L_2: 0.085936 ss: 0.736661
L_2: 0.029125 ss: 0.890214
L_2: 0.013549 ss: 0.976174
L_2: 0.015162 ss: 0.953047
L_2: 0.041256 ss: 0.845792
L_2: 0.025835 ss: 0.906690
two-layer-gold
L_2: N.A. ss: N.A.
L_2: 0.036503 ss: 0.936832
L_2: 0.027223 ss: 0.962585
L_2: 0.037479 ss: 0.950498
L_2: 0.117367 ss: 0.853119
L_2: 0.102086 ss: 0.881574

Material		p0	p1	ρ_d	ρ_s	R_0
alum-bronze	R	1.44847797e-03	3.85302216e-01	5.68201020e-02	1.60189641e+05	2.82448143e-01
	G	2.96797976e-03	4.37969089e-01	4.93669398e-02	5.51563281e+04	1.72629058e-01
	B	3.06290598e-03	4.64997947e-01	4.19972874e-02	8.69437266e+04	7.33626261e-02
aluminium	R	1.04301056e-04	3.32748294e-01	2.15100236e-02	4.74051774e-01	8.43291760e+07
	G	5.36264852e-05	3.03658992e-01	2.14118641e-02	2.82595176e+04	3.27414160e+03
	B	8.96284691e-05	3.17357540e-01	2.42947973e-02	1.94666640e+07	1.72205496e+00
black-oxidized-steel	R	1.92984194e-01	1.34321344e+00	1.31924609e-02	5.64356613e+00	1.34156749e-01
	G	1.96497992e-01	1.30496097e+00	1.11216856e-02	5.00847769e+00	1.43508494e-01
	B	1.98993459e-01	1.26816273e+00	9.83195938e-03	4.67007399e+00	1.46892771e-01
blue-metallic-paint	R	1.73546389e-01	1.20512915e+00	9.01068281e-03	8.19370143e-06	3.00411750e+05
	G	1.63101569e-01	1.17183721e+00	6.53649913e-03	8.10326310e-06	3.27330219e+05
	B	1.59059539e-01	1.20966494e+00	3.23714614e-02	3.95535153e-06	1.51352488e+06
blue-metallic-paint2	R	1.08366762e-03	4.42976505e-01	6.27763988e-03	7.98016968e+02	2.76859558e+02
	G	6.99088792e-04	4.13125992e-01	1.60317903e-03	1.64347988e+06	3.88044864e-01
	B	3.23092187e-04	3.62406313e-01	1.55418497e-02	5.89688800e+06	6.67014182e-01
brass	R	2.56883563e-04	3.80754858e-01	2.53195986e-02	2.18045400e+07	3.65199327e-01
	G	1.71822379e-04	3.55533928e-01	2.24312898e-02	2.88498720e+07	3.06226313e-01
	B	1.40491276e-04	3.52726132e-01	1.67761315e-02	5.33864720e+07	1.31285965e-01
chrome	R	1.42349757e-03	6.30149364e-01	3.57087538e-06	8.69572500e+06	1.36588499e-01
	G	8.89668183e-04	5.75488329e-01	1.34130471e-06	2.85907660e+07	1.00913905e-01
	B	8.95213452e-04	5.72920144e-01	1.78861868e-04	3.34953020e+07	7.36585557e-02
gold-metallic-paint	R	1.39480025e-01	9.35132146e-01	3.46730985e-02	2.65719591e-05	4.55048875e+05
	G	1.48629963e-01	1.03802919e+00	2.94914488e-02	2.06472941e-06	3.58555025e+06
	B	1.61893547e-01	1.10220563e+00	5.62053593e-03	5.95906377e-01	4.18156481e+00
gold-metallic-paint2	R	1.35331720e-04	2.61208177e-01	3.30783129e-02	3.30296129e-01	4.05732675e+06
	G	5.84940317e-05	2.42572695e-01	2.64209043e-02	6.21493996e-07	6.79802464e+12
	B	3.67066714e-05	2.35751376e-01	2.04715803e-02	4.37190235e-02	1.81093584e+08
gold-paint	R	1.54632404e-01	1.19426441e+00	1.67727888e-01	3.65960658e-01	1.58074083e+01
	G	1.58132508e-01	1.23290980e+00	9.60959643e-02	2.76354384e+00	1.58304083e+00
	B	1.39442250e-01	1.17643714e+00	3.71843427e-02	9.75484276e+00	3.30382794e-01
green-metallic-paint	R	1.44960716e-01	1.51192796e+00	5.07076504e-03	1.74479370e+01	1.41281292e-01
	G	1.51508421e-01	1.31843340e+00	3.22707295e-02	8.10871124e+00	5.74956834e-01
	B	1.50941461e-01	1.30112314e+00	3.98534015e-02	7.74482393e+00	6.44726872e-01
green-metallic-paint2	R	1.19944091e-03	4.43426162e-01	2.17002910e-03	6.05784500e+05	1.12884909e-01
	G	3.45421344e-04	3.55441660e-01	8.99011735e-03	2.68515600e+06	3.86326522e-01
	B	6.25049113e-04	3.94235164e-01	5.37013356e-03	1.59027725e+06	1.61349535e-01
hematite	R	3.03015811e-04	3.87287676e-01	2.23115989e-04	1.15516700e+07	1.67246327e-01
	G	1.73140608e-04	3.55899543e-01	1.07689183e-02	2.25959440e+07	2.01563105e-01
	B	7.55928704e-05	3.18386018e-01	1.03957215e-02	8.18297920e+07	2.11715534e-01
nickel	R	2.08395720e-02	8.39017212e-01	1.75082013e-02	2.38181231e-17	1.00406197e+20
	G	2.34319568e-02	8.70787442e-01	1.54782832e-02	8.19020691e+01	2.00377789e+01
	B	2.56036352e-02	8.95154595e-01	1.43564763e-02	4.36265869e+02	2.69552898e+00
red-metallic-paint	R	1.10666253e-04	3.06837201e-01	2.00900324e-02	2.12136080e+07	7.42317677e-01
	G	3.90099507e-04	3.80480498e-01	4.34511295e-03	5.87146750e+06	1.00018121e-01
	B	3.42156854e-04	3.76450986e-01	2.03501550e-03	8.21380350e+06	5.56253195e-02
silver-metallic-paint2	R	1.14452831e-01	8.27866256e-01	1.05544016e-01	9.55455270e-10	1.90608486e+10
	G	1.25024557e-01	8.56504023e-01	1.09140851e-01	7.37600758e-10	1.87924152e+10
	B	1.41671926e-01	9.16685641e-01	1.10980213e-01	5.34366440e-10	1.83280517e+10
silver-paint	R	1.46974683e-01	1.15298581e+00	1.77835986e-01	4.35879812e-08	1.75287392e+08
	G	1.46026731e-01	1.16421115e+00	1.49203539e-01	4.22731965e-08	1.91401392e+08
	B	1.48858741e-01	1.20463765e+00	1.33042678e-01	5.11725275e-08	1.57522400e+08
steel	R	6.29997696e-04	5.02490342e-01	1.05878720e-02	2.71082540e+07	1.30530044e-01
	G	2.10713406e-04	4.12148714e-01	1.24856308e-02	1.39594112e+08	1.40128866e-01
	B	6.19008206e-04	4.84364569e-01	1.46102179e-02	1.79959960e+07	1.18350416e-01

RGB Parameters for genBRDF 016-004037

Material		p0	p1	ρ_d	ρ_s	R_0
tungsten-carbide	R	2.00729142e-03	6.70779765e-01	5.82126109e-03	2.52904650e+06	1.55490965e-01
	G	1.13104680e-03	5.86261213e-01	3.62649490e-03	7.90004900e+06	1.29391477e-01
	B	6.30324939e-04	5.25815248e-01	5.82029531e-03	4.74373760e+07	7.56480172e-02
two-layer-gold	R	3.97799973e-04	2.88430959e-01	2.32812259e-02	1.67465100e-06	1.49499134e+11
	G	1.45621001e-04	2.61279076e-01	1.68060213e-02	5.07572699e+00	2.12044438e+05
	B	1.95238565e-04	2.72107869e-01	1.39059061e-02	9.41400358e-05	6.77365555e+09

RGB Parameters for genBRDF 016-004037

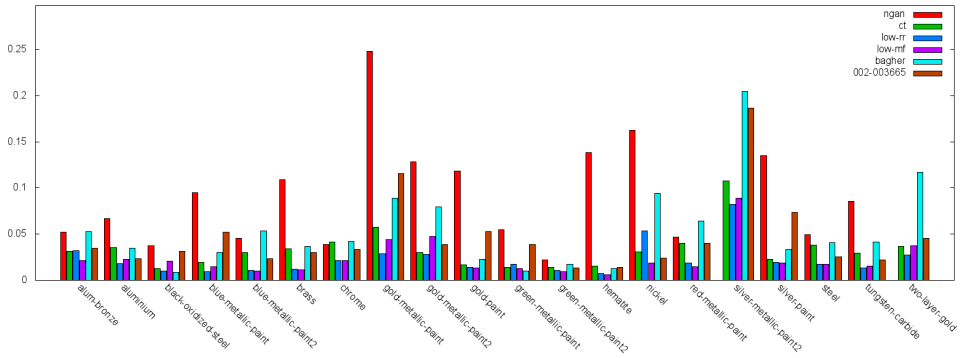
002-003665

Fitness: 0.000176029919

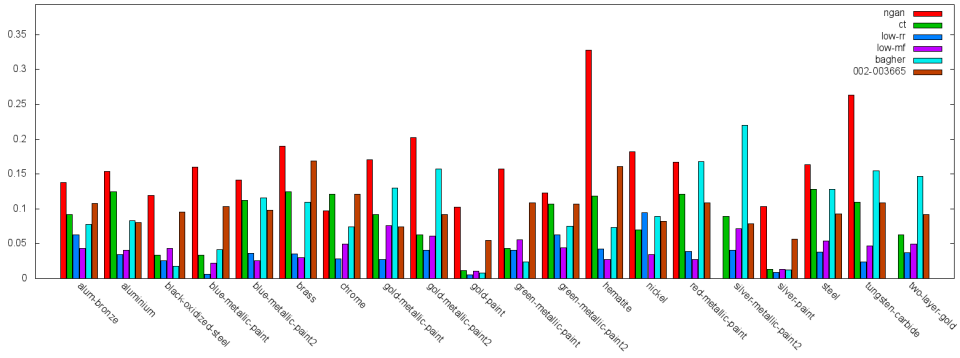
Length: 60

Reciprocity Error: 1.57372149188e-14

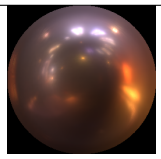
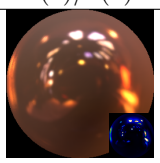
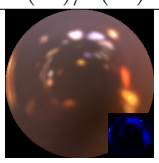
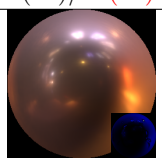
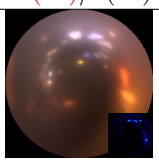
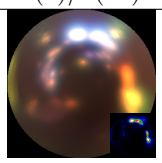
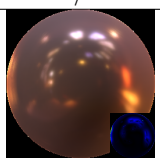
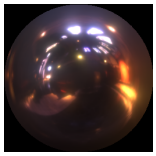
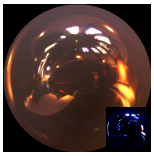
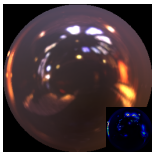
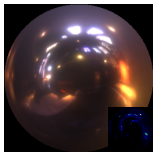
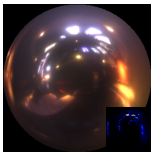
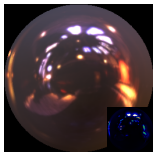
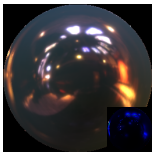
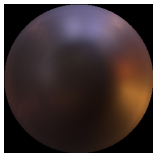
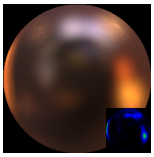
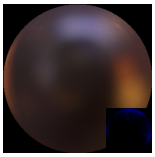
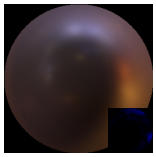
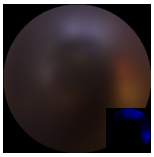
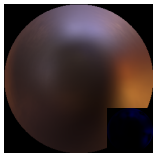
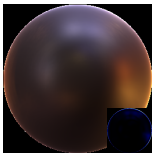
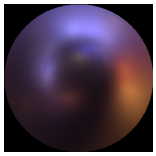
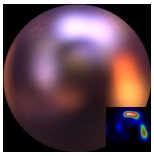
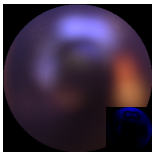
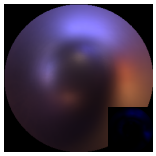
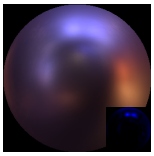
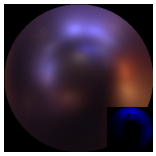
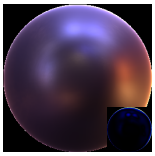
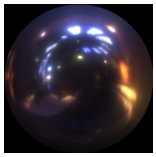
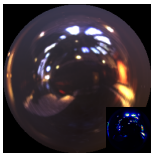
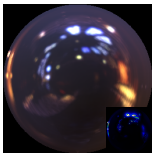
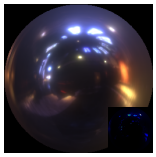
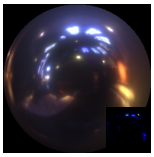
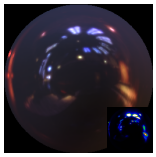
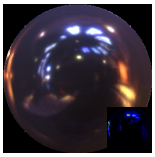
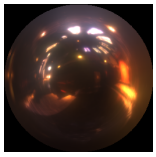
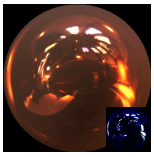
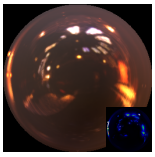
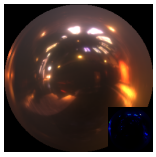
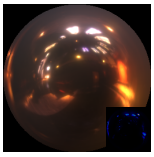
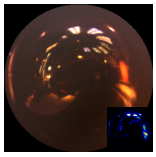
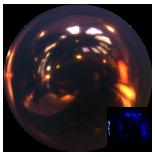
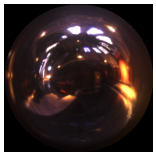
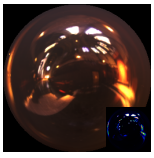
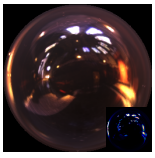
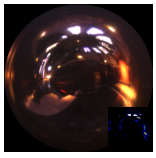
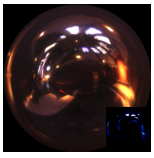
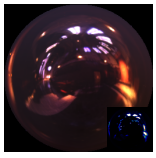
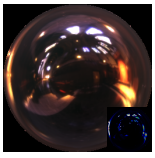
$$f'_n(\omega_i, \omega_o) = \left(\frac{tan((1.0 + (p_0 * (1.0 + \omega_{hz}))))}{p_0}\right)^{2.0}$$

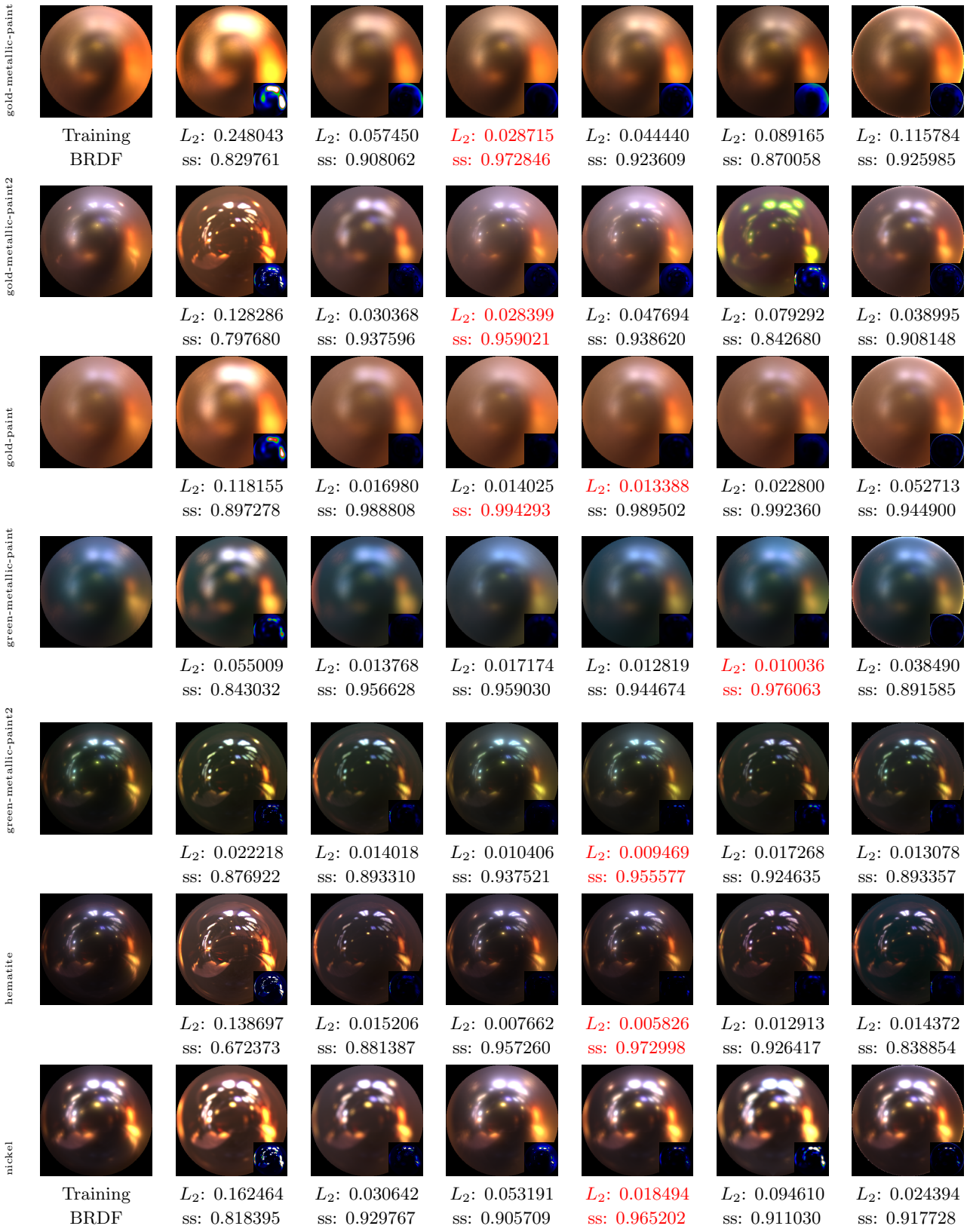


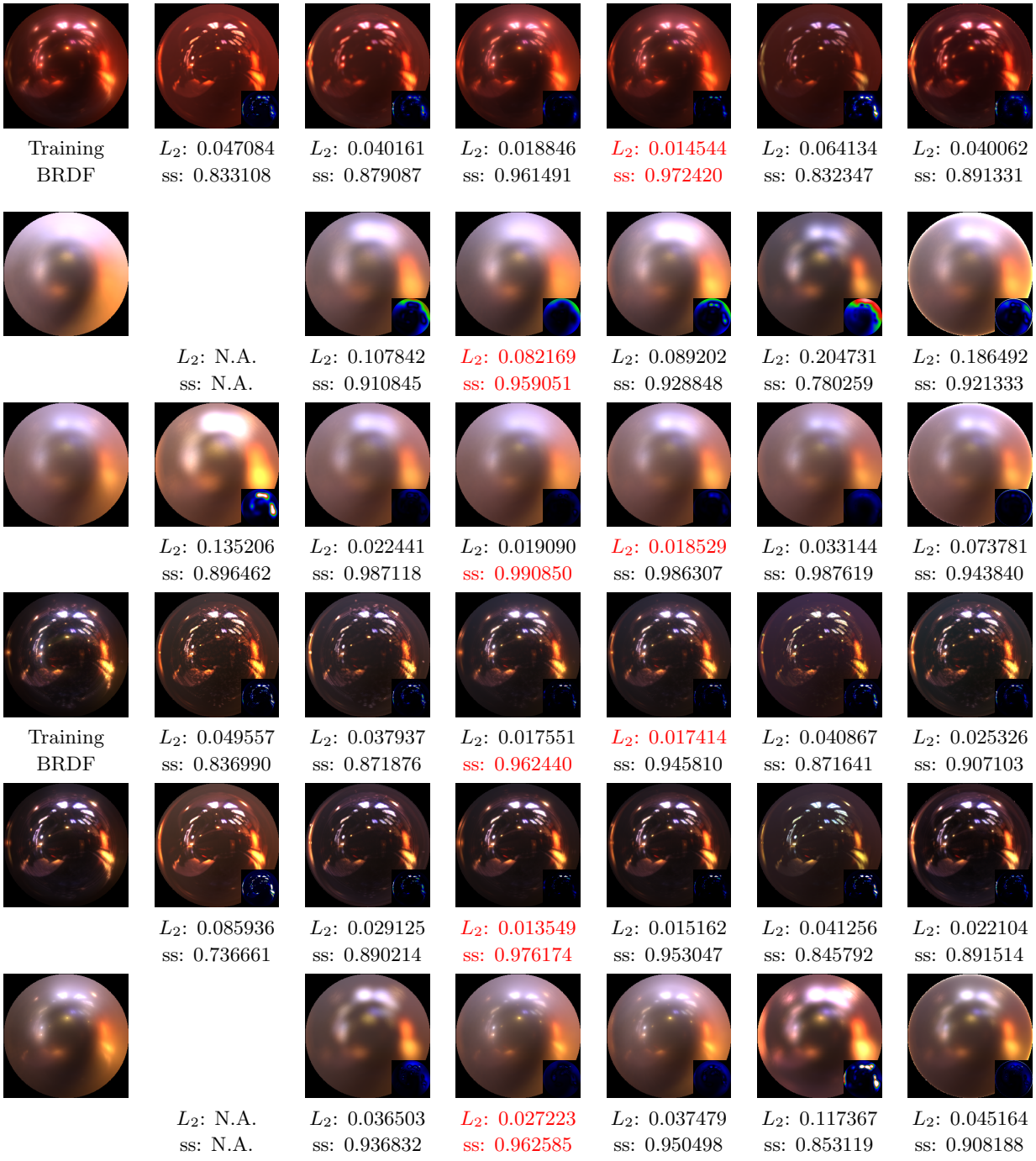
L_2 error.



SSIM error (= 100% - ssim).

	MERL	CT(Ngan) 0(0)/0(1)	CT(E_2 fit) 0(10)/0(11)	Löw SS 7(19)/11(19)	Löw MF 11(19)/7(19)	Bagher 2(7)/2(10)	genBRDF 0/0
alum-bronze		 L_2: 0.052284 ss: 0.862223	 L_2: 0.031392 ss: 0.907766	 L_2: 0.032159 ss: 0.937667	 L_2: 0.021146 ss: 0.956962	 L_2: 0.053167 ss: 0.922395	 L_2: 0.034762 ss: 0.892452
aluminium		 Training BRDF L_2: 0.067099 ss: 0.846399	 L_2: 0.035146 ss: 0.875113	 L_2: 0.018044 ss: 0.965309	 L_2: 0.022431 ss: 0.959087	 L_2: 0.034724 ss: 0.917355	 L_2: 0.023224 ss: 0.919714
black-oxidized-steel		 L_2: 0.037563 ss: 0.881117	 L_2: 0.012395 ss: 0.966402	 L_2: 0.009959 ss: 0.974466	 L_2: 0.021000 ss: 0.956823	 L_2: 0.009017 ss: 0.982697	 L_2: 0.031577 ss: 0.904270
blue-metallic-paint		 Training BRDF L_2: 0.094791 ss: 0.840025	 L_2: 0.019657 ss: 0.966125	 L_2: 0.009161 ss: 0.993984	 L_2: 0.015014 ss: 0.978181	 L_2: 0.030206 ss: 0.958517	 L_2: 0.051923 ss: 0.896631
blue-metallic-paint2		 Training BRDF L_2: 0.045753 ss: 0.859062	 L_2: 0.030359 ss: 0.888022	 L_2: 0.010992 ss: 0.963478	 L_2: 0.009785 ss: 0.974119	 L_2: 0.053468 ss: 0.884442	 L_2: 0.023641 ss: 0.902261
brass		 Training BRDF L_2: 0.109247 ss: 0.809906	 L_2: 0.034378 ss: 0.875335	 L_2: 0.011813 ss: 0.965002	 L_2: 0.011450 ss: 0.970392	 L_2: 0.036857 ss: 0.890152	 L_2: 0.030399 ss: 0.831507
chrome		 L_2: 0.038555 ss: 0.902465	 L_2: 0.041371 ss: 0.879025	 L_2: 0.021593 ss: 0.972071	 L_2: 0.021446 ss: 0.950898	 L_2: 0.042031 ss: 0.925449	 L_2: 0.033570 ss: 0.879287


gold-metallic-paint
Training BRDF
L_2: 0.248043 ss: 0.829761
L_2: 0.057450 ss: 0.908062
L_2: 0.028715 ss: 0.972846
L_2: 0.044440 ss: 0.923609
L_2: 0.089165 ss: 0.870058
L_2: 0.115784 ss: 0.925985
gold-metallic-paint2
L_2: 0.128286 ss: 0.797680
L_2: 0.030368 ss: 0.937596
L_2: 0.028399 ss: 0.959021
L_2: 0.047694 ss: 0.938620
L_2: 0.079292 ss: 0.842680
L_2: 0.038995 ss: 0.908148
gold-paint
L_2: 0.118155 ss: 0.897278
L_2: 0.016980 ss: 0.988808
L_2: 0.014025 ss: 0.994293
L_2: 0.013388 ss: 0.989502
L_2: 0.022800 ss: 0.992360
L_2: 0.052713 ss: 0.944900
green-metallic-paint
L_2: 0.055009 ss: 0.843032
L_2: 0.013768 ss: 0.956628
L_2: 0.017174 ss: 0.959030
L_2: 0.012819 ss: 0.944674
L_2: 0.010036 ss: 0.976063
L_2: 0.038490 ss: 0.891585
green-metallic-paint2
L_2: 0.022218 ss: 0.876922
L_2: 0.014018 ss: 0.893310
L_2: 0.010406 ss: 0.937521
L_2: 0.009469 ss: 0.955577
L_2: 0.017268 ss: 0.924635
L_2: 0.013078 ss: 0.893357
hematite
L_2: 0.138697 ss: 0.672373
L_2: 0.015206 ss: 0.881387
L_2: 0.007662 ss: 0.957260
L_2: 0.005826 ss: 0.972998
L_2: 0.012913 ss: 0.926417
L_2: 0.014372 ss: 0.838854
nickel
Training BRDF
L_2: 0.162464 ss: 0.818395
L_2: 0.030642 ss: 0.929767
L_2: 0.053191 ss: 0.905709
L_2: 0.018494 ss: 0.965202
L_2: 0.094610 ss: 0.911030
L_2: 0.024394 ss: 0.917728


red-metallic-paint
Training BRDF
L_2: 0.047084 ss: 0.833108
L_2: 0.040161 ss: 0.879087
L_2: 0.018846 ss: 0.961491
L_2: 0.014544 ss: 0.972420
L_2: 0.064134 ss: 0.832347
L_2: 0.040062 ss: 0.891331
silver-metallic-paint2
L_2: N.A. ss: N.A.
L_2: 0.107842 ss: 0.910845
L_2: 0.082169 ss: 0.959051
L_2: 0.089202 ss: 0.928848
L_2: 0.204731 ss: 0.780259
L_2: 0.186492 ss: 0.921333
silver-paint
L_2: 0.135206 ss: 0.896462
L_2: 0.022441 ss: 0.987118
L_2: 0.019090 ss: 0.990850
L_2: 0.018529 ss: 0.986307
L_2: 0.033144 ss: 0.987619
L_2: 0.073781 ss: 0.943840
steel
Training BRDF
L_2: 0.049557 ss: 0.836990
L_2: 0.037937 ss: 0.871876
L_2: 0.017551 ss: 0.962440
L_2: 0.017414 ss: 0.945810
L_2: 0.040867 ss: 0.871641
L_2: 0.025326 ss: 0.907103
tungsten-carbide
L_2: 0.085936 ss: 0.736661
L_2: 0.029125 ss: 0.890214
L_2: 0.013549 ss: 0.976174
L_2: 0.015162 ss: 0.953047
L_2: 0.041256 ss: 0.845792
L_2: 0.022104 ss: 0.891514
two-layer-gold
L_2: N.A. ss: N.A.
L_2: 0.036503 ss: 0.936832
L_2: 0.027223 ss: 0.962585
L_2: 0.037479 ss: 0.950498
L_2: 0.117367 ss: 0.853119
L_2: 0.045164 ss: 0.908188

Material		p0	p1	ρ_d	ρ_s	R_0
alum-bronze	R	1.85517442e+00	1.15067090e+03	7.50951171e-02	6.73882372e-04	1.30647972e-01
	G	1.85523832e+00	1.10718368e-12	6.08615428e-02	6.08970702e-04	8.70019943e-02
	B	1.85555828e+00	3.02872983e+31	4.75474708e-02	4.47960338e-04	3.97683941e-02
aluminium	R	1.85606706e+00	1.08157922e+03	7.74289202e-03	3.97448639e-05	6.28707767e-01
	G	1.85604799e+00	4.84929871e+02	3.17441002e-02	5.46381962e-05	4.54153299e-01
	B	1.85602939e+00	9.83064331e+02	3.50734852e-02	5.49203505e-05	5.04853189e-01
black-oxidized-steel	R	1.82879925e+00	1.59065781e+02	9.51848086e-03	9.92285088e-03	1.42635539e-01
	G	1.82669067e+00	1.01756064e-04	7.54183671e-03	1.01480410e-02	1.53315231e-01
	B	1.82472265e+00	8.23693454e-01	6.41158829e-03	1.06572546e-02	1.57080665e-01
blue-metallic-paint	R	1.83070588e+00	4.12995141e-05	2.93449848e-03	8.86573523e-11	3.70006120e+07
	G	1.83240759e+00	1.60046880e+07	1.22826674e-03	1.71598185e-08	1.64610172e+05
	B	1.83503914e+00	1.62515929e+20	2.11710483e-02	1.58033906e-08	3.22424188e+05
blue-metallic-paint2	R	1.85599315e+00	9.39154375e+05	1.08267907e-02	1.03566883e-04	1.39183208e-01
	G	1.85598409e+00	5.74246025e+00	1.39934886e-02	1.14235379e-04	2.03460723e-01
	B	1.85590160e+00	5.16158390e+00	2.64653694e-02	2.23415991e-04	2.80108273e-01
brass	R	1.85609519e+00	1.57678023e-01	7.51628886e-06	7.37627997e-05	2.10507229e-01
	G	1.85610521e+00	2.69454559e+02	9.20578744e-03	4.74187691e-05	1.79925829e-01
	B	1.85613859e+00	1.42483362e+03	2.01223940e-02	3.13539422e-05	7.44923577e-02
chrome	R	1.85617185e+00	2.26057559e-01	1.55661910e-04	3.03207889e-05	1.48474872e-01
	G	1.85617673e+00	2.23444963e+00	4.57009301e-03	2.99100666e-05	1.06288023e-01
	B	1.85617673e+00	7.29933548e+00	3.74283991e-03	3.71876631e-05	7.73001388e-02
gold-metallic-paint	R	1.82764971e+00	7.02148875e+05	2.73116753e-02	9.88332438e-09	1.28502162e+06
	G	1.83092082e+00	8.99295583e-02	2.06430554e-02	3.35214416e-08	2.16397047e+05
	B	1.82970858e+00	1.86830002e-05	8.09260644e-04	5.11590624e-04	6.06701040e+00
gold-metallic-paint2	R	1.84996688e+00	5.95905991e-10	6.47724122e-02	1.21438344e-08	1.18708625e+05
	G	1.85060585e+00	inf	5.66197447e-02	8.32537594e-08	1.30915342e+04
	B	1.85209739e+00	1.85607114e-05	4.79116850e-02	5.23336364e-26	1.14512420e+22
gold-paint	R	1.83574128e+00	6.59730083e-13	1.58076942e-01	1.91762170e-04	2.31012745e+01
	G	1.83563948e+00	1.28575993e+01	8.72670189e-02	2.08923453e-03	1.69090021e+00
	B	1.83852613e+00	6.12708984e+03	3.25851478e-02	4.77245729e-03	3.41188073e-01
green-metallic-paint	R	1.84291065e+00	8.46839990e+16	0.00000000e+00	6.03330508e-03	1.47166118e-01
	G	1.83897233e+00	1.83775795e+00	2.27974411e-02	4.41101799e-03	6.04979515e-01
	B	1.83878291e+00	1.16218364e+00	2.99917888e-02	4.23255423e-03	6.81359351e-01
green-metallic-paint2	R	1.85597789e+00	2.03134224e-01	8.00276548e-03	9.84621220e-05	6.98760077e-02
	G	1.85591447e+00	1.56631932e-01	1.58531629e-02	1.02444079e-04	2.05518574e-01
	B	2.85362214e-01	1.19500595e+02	1.35065289e-02	5.77577985e-08	9.50337425e-02
hematite	R	1.85611856e+00	2.13248350e+06	1.92139893e-07	3.41386658e-05	1.08098894e-01
	G	1.85612667e+00	1.10559149e+01	1.36208963e-02	2.51626243e-05	1.24952324e-01
	B	1.85612619e+00	2.47841206e+01	1.59771945e-02	2.69646025e-05	1.22849815e-01
nickel	R	1.85499132e+00	7.56922662e-01	9.51691903e-03	5.43625376e-08	9.34695605e+03
	G	1.85490835e+00	6.13296600e+07	7.97713641e-03	6.48387504e-05	7.47064829e+00
	B	1.85481870e+00	3.38631938e-03	6.90110493e-03	2.05677032e-04	2.21780705e+00
red-metallic-paint	R	1.85579622e+00	9.09511328e-01	1.72866732e-02	3.71645845e-04	2.07397267e-01
	G	1.85605276e+00	4.26072607e+03	1.23521313e-03	7.79091861e-05	5.92826568e-02
	B	1.85607803e+00	9.54583594e+03	2.16534687e-03	6.23167070e-05	3.43560576e-02
silver-metallic-paint2	R	2.81265110e-01	0.00000000e+00	1.01659633e-01	3.07225662e-10	2.22476914e+04
	G	2.81034440e-01	2.92598025e+06	1.03702642e-01	1.43241054e-32	4.63988150e+26
	B	1.82575619e+00	inf	1.06824905e-01	3.57380827e-08	3.27180094e+05
silver-paint	R	1.83640921e+00	1.04016130e+16	1.67535976e-01	1.36152252e-07	3.69813633e+04
	G	1.83689916e+00	5.02164644e+22	1.38002455e-01	8.78091342e-08	5.77728047e+04
	B	1.83723080e+00	8.61757506e+13	1.20141700e-01	1.06045590e-07	4.82189492e+04
steel	R	2.85393804e-01	4.18216919e+02	5.53158252e-03	1.52733826e-08	1.72683224e-01
	G	2.85394400e-01	5.69451782e+02	1.37784192e-02	1.33583971e-08	1.38382778e-01
	B	2.85393089e-01	1.30496948e+03	1.48380306e-02	1.98373993e-08	1.01970643e-01

RGB Parameters for genBRDF 002-003665

Material		p0	p1	ρ_d	ρ_s	R_0
tungsten-carbide	R	1.85616457e+00	3.10069380e+07	1.41089751e-09	2.59886201e-05	1.61464438e-01
	G	1.85617054e+00	1.78178800e+07	5.61378233e-09	2.26837237e-05	1.22539297e-01
	B	1.85617721e+00	8.47068281e+04	6.02495602e-05	3.04774258e-05	7.39440620e-02
two-layer-gold	R	1.84893739e+00	2.11108325e+06	5.65090515e-02	3.85758354e-14	4.81751982e+10
	G	1.84848249e+00	5.43849100e+06	4.27078009e-02	3.85530332e-14	4.81720771e+10
	B	1.85115612e+00	inf	4.17310297e-02	4.00259978e-07	2.16512012e+03

RGB Parameters for genBRDF 002-003665

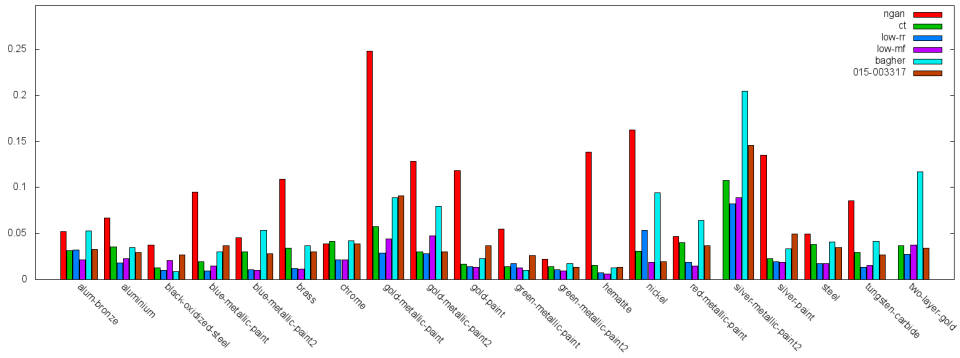
015-003317

Fitness: 0.000193964750

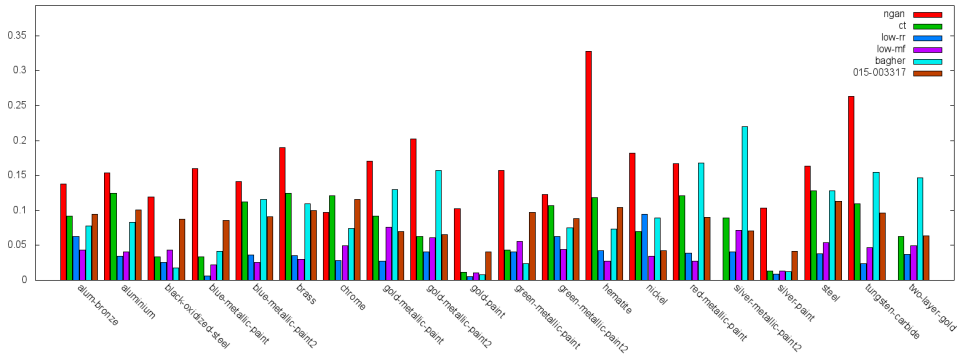
Length: 58

Reciprocity Error: 1.50416755e-14

$$f'_n(\omega_i, \omega_o) = [e^{-\left(\frac{tan(cos^{-1}(clamp(\omega_{hz})))}{p_0}\right)} * \omega_{hz}]$$

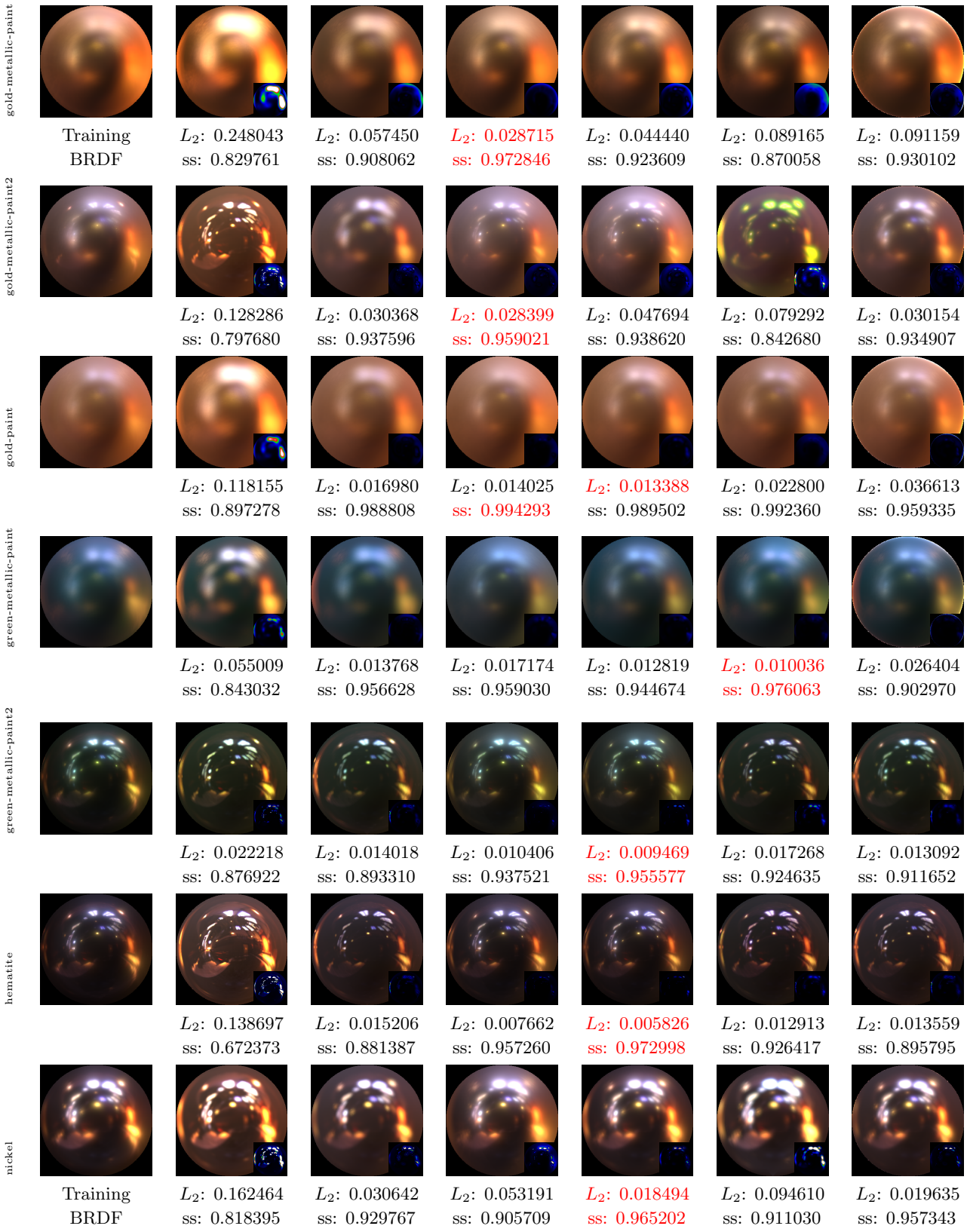


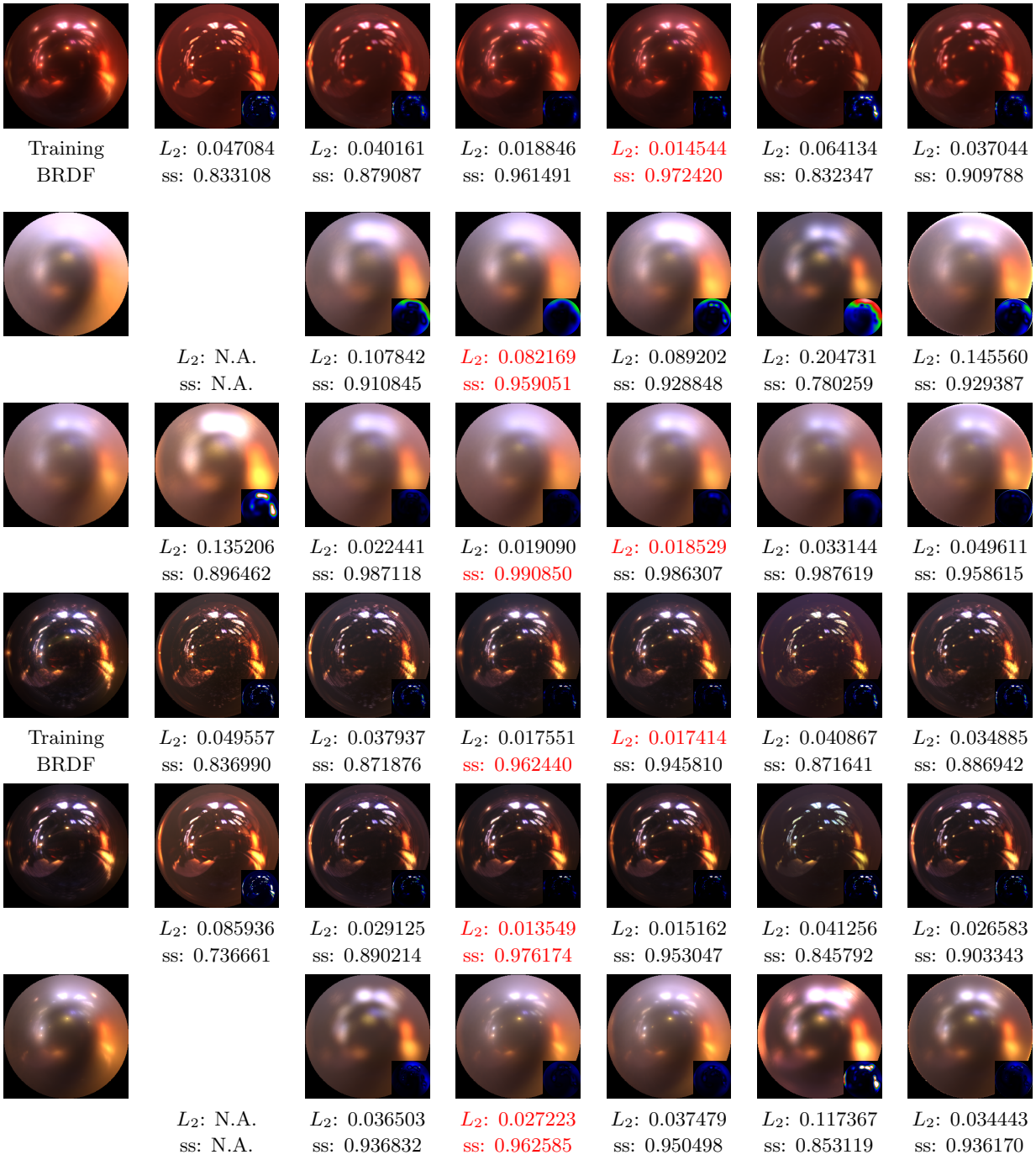
L_2 error.



SSIM error (= 100% - ssim).

	MERL	CT(Ngan) 0(1)/0(1)	CT(E_2 fit) 0(8)/0(8)	Löw SS 7(19)/11(19)	Löw MF 11(18)/7(18)	Bagher 2(7)/2(10)	genBRDF 0/0
alum-bronze		L_2: 0.052284 ss: 0.862223	L_2: 0.031392 ss: 0.907766	L_2: 0.032159 ss: 0.937667	L_2: 0.021146 ss: 0.956962	L_2: 0.053167 ss: 0.922395	L_2: 0.032616 ss: 0.905446
aluminium	Training BRDF	L_2: 0.067099 ss: 0.846399	L_2: 0.035146 ss: 0.875113	L_2: 0.018044 ss: 0.965309	L_2: 0.022431 ss: 0.959087	L_2: 0.034724 ss: 0.917355	L_2: 0.029594 ss: 0.898999
black-oxidized-steel		L_2: 0.037563 ss: 0.881117	L_2: 0.012395 ss: 0.966402	L_2: 0.009959 ss: 0.974466	L_2: 0.021000 ss: 0.956823	L_2: 0.009017 ss: 0.982697	L_2: 0.026640 ss: 0.912739
blue-metallic-paint	Training BRDF	L_2: 0.094791 ss: 0.840025	L_2: 0.019657 ss: 0.966125	L_2: 0.009161 ss: 0.993984	L_2: 0.015014 ss: 0.978181	L_2: 0.030206 ss: 0.958517	L_2: 0.036696 ss: 0.914630
blue-metallic-paint2	Training BRDF	L_2: 0.045753 ss: 0.859062	L_2: 0.030359 ss: 0.888022	L_2: 0.010992 ss: 0.963478	L_2: 0.009785 ss: 0.974119	L_2: 0.053468 ss: 0.884442	L_2: 0.027895 ss: 0.909260
brass	Training BRDF	L_2: 0.109247 ss: 0.809906	L_2: 0.034378 ss: 0.875335	L_2: 0.011813 ss: 0.965002	L_2: 0.011450 ss: 0.970392	L_2: 0.036857 ss: 0.890152	L_2: 0.030010 ss: 0.899755
chrome		L_2: 0.038555 ss: 0.902465	L_2: 0.041371 ss: 0.879025	L_2: 0.021593 ss: 0.972071	L_2: 0.021446 ss: 0.950898	L_2: 0.042031 ss: 0.925449	L_2: 0.038909 ss: 0.884125


gold-metallic-paint
Training BRDF
L_2: 0.248043 ss: 0.829761
L_2: 0.057450 ss: 0.908062
L_2: 0.028715 ss: 0.972846
L_2: 0.044440 ss: 0.923609
L_2: 0.089165 ss: 0.870058
L_2: 0.091159 ss: 0.930102
gold-metallic-paint2
L_2: 0.128286 ss: 0.797680
L_2: 0.030368 ss: 0.937596
L_2: 0.028399 ss: 0.959021
L_2: 0.047694 ss: 0.938620
L_2: 0.079292 ss: 0.842680
L_2: 0.030154 ss: 0.934907
gold-paint
L_2: 0.118155 ss: 0.897278
L_2: 0.016980 ss: 0.988808
L_2: 0.014025 ss: 0.994293
L_2: 0.013388 ss: 0.989502
L_2: 0.022800 ss: 0.992360
L_2: 0.036613 ss: 0.959335
green-metallic-paint
L_2: 0.055009 ss: 0.843032
L_2: 0.013768 ss: 0.956628
L_2: 0.017174 ss: 0.959030
L_2: 0.012819 ss: 0.944674
L_2: 0.010036 ss: 0.976063
L_2: 0.026404 ss: 0.902970
green-metallic-paint2
L_2: 0.022218 ss: 0.876922
L_2: 0.014018 ss: 0.893310
L_2: 0.010406 ss: 0.937521
L_2: 0.009469 ss: 0.955577
L_2: 0.017268 ss: 0.924635
L_2: 0.013092 ss: 0.911652
hematite
L_2: 0.138697 ss: 0.672373
L_2: 0.015206 ss: 0.881387
L_2: 0.007662 ss: 0.957260
L_2: 0.005826 ss: 0.972998
L_2: 0.012913 ss: 0.926417
L_2: 0.013559 ss: 0.895795
nickel
Training BRDF
L_2: 0.162464 ss: 0.818395
L_2: 0.030642 ss: 0.929767
L_2: 0.053191 ss: 0.905709
L_2: 0.018494 ss: 0.965202
L_2: 0.094610 ss: 0.911030
L_2: 0.019635 ss: 0.957343


red-metallic-paint
Training BRDF
L_2: 0.047084 ss: 0.833108
L_2: 0.040161 ss: 0.879087
L_2: 0.018846 ss: 0.961491
L_2: 0.014544 ss: 0.972420
L_2: 0.064134 ss: 0.832347
L_2: 0.037044 ss: 0.909788
silver-metallic-paint2
L_2: N.A. ss: N.A.
L_2: 0.107842 ss: 0.910845
L_2: 0.082169 ss: 0.959051
L_2: 0.089202 ss: 0.928848
L_2: 0.204731 ss: 0.780259
L_2: 0.145560 ss: 0.929387
silver-paint
L_2: 0.135206 ss: 0.896462
L_2: 0.022441 ss: 0.987118
L_2: 0.019090 ss: 0.990850
L_2: 0.018529 ss: 0.986307
L_2: 0.033144 ss: 0.987619
L_2: 0.049611 ss: 0.958615
steel
Training BRDF
L_2: 0.049557 ss: 0.836990
L_2: 0.037937 ss: 0.871876
L_2: 0.017551 ss: 0.962440
L_2: 0.017414 ss: 0.945810
L_2: 0.040867 ss: 0.871641
L_2: 0.034885 ss: 0.886942
tungsten-carbide
L_2: 0.085936 ss: 0.736661
L_2: 0.029125 ss: 0.890214
L_2: 0.013549 ss: 0.976174
L_2: 0.015162 ss: 0.953047
L_2: 0.041256 ss: 0.845792
L_2: 0.026583 ss: 0.903343
two-layer-gold
L_2: N.A. ss: N.A.
L_2: 0.036503 ss: 0.936832
L_2: 0.027223 ss: 0.962585
L_2: 0.037479 ss: 0.950498
L_2: 0.117367 ss: 0.853119
L_2: 0.034443 ss: 0.936170

Material		p0	p1	ρ_d	ρ_s	R_0
alum-bronze	R	2.99875550e-02	8.51816237e-02	7.51312897e-02	4.74458733e+01	1.62200689e-01
	G	2.89530866e-02	1.07687883e+01	6.09326251e-02	5.01939735e+01	1.07401602e-01
	B	2.36931127e-02	1.23642564e-01	4.74397279e-02	8.40691528e+01	4.93219271e-02
aluminium	R	1.12876352e-02	2.88991853e-14	3.23117636e-02	3.16707428e+02	2.99161524e-01
	G	1.19636338e-02	1.18421033e-01	3.42354663e-02	1.95523956e+02	3.99783850e-01
	B	1.28570525e-02	1.61296070e-01	3.74628231e-02	1.54355301e+02	4.37447816e-01
black-oxidized-steel	R	1.51835144e-01	1.31301057e+00	1.13562038e-02	1.36158311e+00	1.36761203e-01
	G	1.58710703e-01	7.58877606e-04	9.37441457e-03	1.19939613e+00	1.46452323e-01
	B	1.65098891e-01	2.19775486e+01	8.21298268e-03	1.10454857e+00	1.50032729e-01
blue-metallic-paint	R	1.46528572e-01	2.40575781e+03	6.68930355e-03	1.27296039e-06	3.95787906e+05
	G	1.41166270e-01	8.35359596e+15	4.67510195e-03	2.03969807e-06	2.43909953e+05
	B	1.31982565e-01	2.13117906e+05	2.82582715e-02	1.38513406e-06	8.23309938e+05
blue-metallic-paint2	R	1.32057155e-02	3.29723454e+00	1.24161681e-02	2.09778595e+02	1.39927953e-01
	G	1.38093326e-02	3.34024239e+00	1.72084849e-02	2.01943924e+02	2.00747475e-01
	B	1.66179650e-02	2.42280221e+00	2.98399515e-02	1.81408478e+02	2.93991208e-01
brass	R	1.00177536e-02	1.22537627e-03	3.24837342e-02	5.46367737e+02	1.80842161e-01
	G	9.43838339e-03	7.55967051e-02	2.91461889e-02	4.51575012e+02	1.53725356e-01
	B	7.43427500e-03	1.96853147e-08	2.07589995e-02	6.82203613e+02	7.59647712e-02
chrome	R	5.12540760e-03	3.70206661e-04	5.53519465e-03	3.49302563e+03	1.33755073e-01
	G	4.59970580e-03	1.20187877e-03	5.04828943e-03	5.35825879e+03	9.65048298e-02
	B	4.74695861e-03	1.85246021e-03	5.30099869e-03	6.53708008e+03	6.44515306e-02
gold-metallic-paint	R	1.57045901e-01	inf	4.02284786e-02	1.94864214e-31	7.88652067e+30
	G	1.46112069e-01	nan	2.91584618e-02	1.50243166e-31	7.50850952e+30
	B	1.49778008e-01	1.58368969e+01	4.51286277e-03	1.00497089e-01	4.34946251e+00
gold-metallic-paint2	R	6.89997301e-02	6.72836963e-04	7.01388791e-02	2.21559731e-05	1.70446047e+05
	G	6.53537735e-02	1.91062810e-08	6.08814955e-02	1.70303647e-05	2.08328203e+05
	B	5.65859787e-02	3.91914320e+07	5.02357148e-02	7.88893740e-05	4.53329023e+04
gold-paint	R	1.29966199e-01	1.58686325e-01	1.64162636e-01	5.79460710e-02	1.82518921e+01
	G	1.29559711e-01	4.05116845e-03	9.25861672e-02	5.19378245e-01	1.61302018e+00
	B	1.19670004e-01	7.05661952e-01	3.54787149e-02	1.55520773e+00	3.34012479e-01
green-metallic-paint	R	1.00496560e-01	2.84223843e+00	2.45396583e-03	3.55066752e+00	1.43932372e-01
	G	1.16932526e-01	7.93210983e+01	2.79789455e-02	1.53825271e+00	5.89084506e-01
	B	1.17806293e-01	1.07944679e+00	3.54596190e-02	1.44529128e+00	6.61734641e-01
green-metallic-paint2	R	1.41826775e-02	6.13373052e-03	7.09032407e-03	1.55367767e+02	7.84122273e-02
	G	1.59073640e-02	1.36090151e-03	1.78044401e-02	1.03368759e+02	2.08561003e-01
	B	1.45216612e-02	2.07114667e-01	9.87765379e-03	1.44854111e+02	1.03889331e-01
hematite	R	8.53614416e-03	7.04396896e+01	1.41322957e-02	4.22627686e+02	1.09654546e-01
	G	8.23730696e-03	4.44998711e-01	1.52208861e-02	3.68832001e+02	1.28359377e-01
	B	8.50161631e-03	9.12188888e-01	1.58098079e-02	3.60239929e+02	1.28979892e-01
nickel	R	2.93413345e-02	1.60454370e+03	2.08744500e-02	5.15578547e-04	6.92087891e+04
	G	3.02958619e-02	1.03394722e-03	1.81812793e-02	3.50950503e+00	8.52767467e+00
	B	3.12320497e-02	1.98187865e-03	1.64180789e-02	1.07758026e+01	2.30493712e+00
red-metallic-paint	R	1.93236880e-02	1.70811728e-01	4.16905060e-02	1.22738220e+02	3.06081504e-01
	G	1.19156735e-02	1.08282077e+00	7.79217156e-03	2.59864960e+02	6.65701553e-02
	B	1.13139264e-02	3.46992403e-01	4.18269308e-03	2.82807861e+02	4.07426059e-02
silver-metallic-paint2	R	1.54283971e-01	6.30709267e+00	1.20186366e-01	1.50945937e-06	1.08350938e+06
	G	1.59783959e-01	9.68854809e+00	1.20294899e-01	1.25066038e-06	1.13669225e+06
	B	1.64321229e-01	1.38641157e+01	1.17007345e-01	1.19179845e-06	1.03502638e+06
silver-paint	R	1.27624929e-01	2.02302999e-06	1.74648970e-01	4.00771250e-06	3.20909094e+05
	G	1.25364199e-01	3.06458446e-06	1.45703927e-01	3.54829399e-06	3.85461625e+05
	B	1.23650141e-01	5.79193497e+00	1.28488287e-01	5.76058665e-06	2.48747203e+05
steel	R	5.71846776e-03	4.77201945e-10	1.43399742e-02	2.75376636e+03	1.03392191e-01
	G	5.53831505e-03	2.95466137e+01	1.54897869e-02	2.60906299e+03	9.33739990e-02
	B	6.16002781e-03	1.49130881e+00	1.72426142e-02	2.19177026e+03	7.73779899e-02

RGB Parameters for genBRDF 015-003317

Material		p0	p1	ρ_d	ρ_s	R_0
tungsten-carbide	R	5.57026360e-03	5.54395996e+02	6.56970916e-03	1.88052563e+03	1.55420467e-01
	G	5.10933390e-03	9.98984743e-03	6.20585214e-03	2.25342651e+03	1.24880075e-01
	B	4.78503807e-03	7.11257629e+02	6.71577593e-03	5.11831104e+03	6.31594658e-02
two-layer-gold	R	7.43580312e-02	2.39023957e-02	6.30809963e-02	4.27925370e-05	8.41429922e+04
	G	7.00000525e-02	9.94229980e+03	5.52000739e-02	2.71299941e-05	1.29436977e+05
	B	6.22209907e-02	2.97506914e+04	4.54325490e-02	2.41240268e-05	1.43140234e+05

RGB Parameters for genBRDF 015-003317

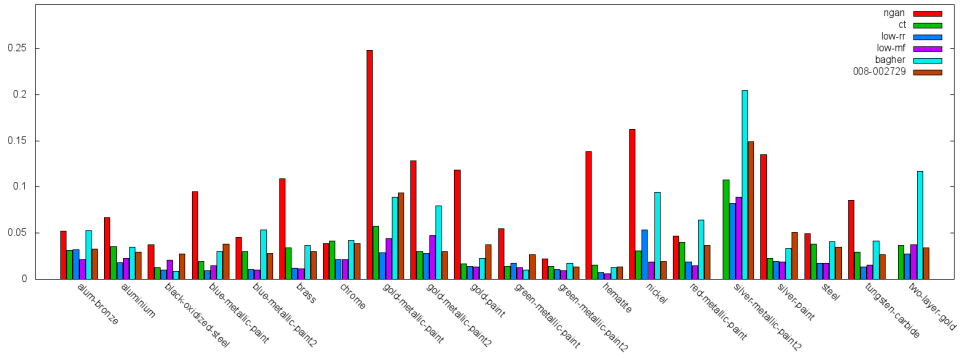
008-002729

Fitness: 0.000195149573

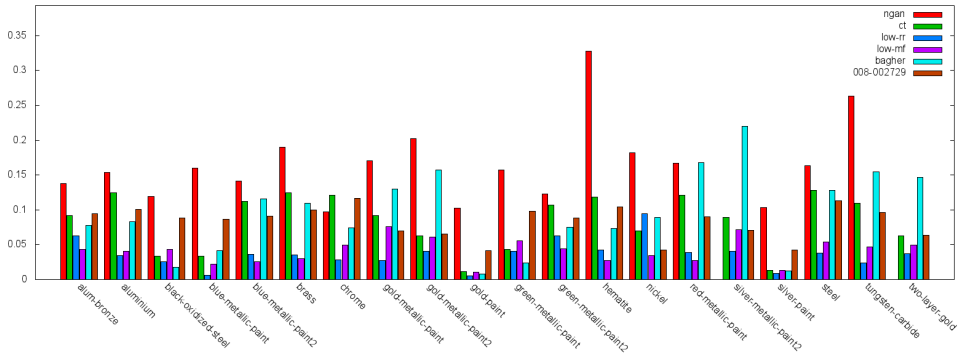
Length: 57

Reciprocity Error: 1.398632061e-14

$$f'_n(\omega_i, \omega_o) = [e^{-\left(\left(p_0 * tan(cos^{-1}(clamp(\omega_{hz})))\right)\right)} * 1.0]$$

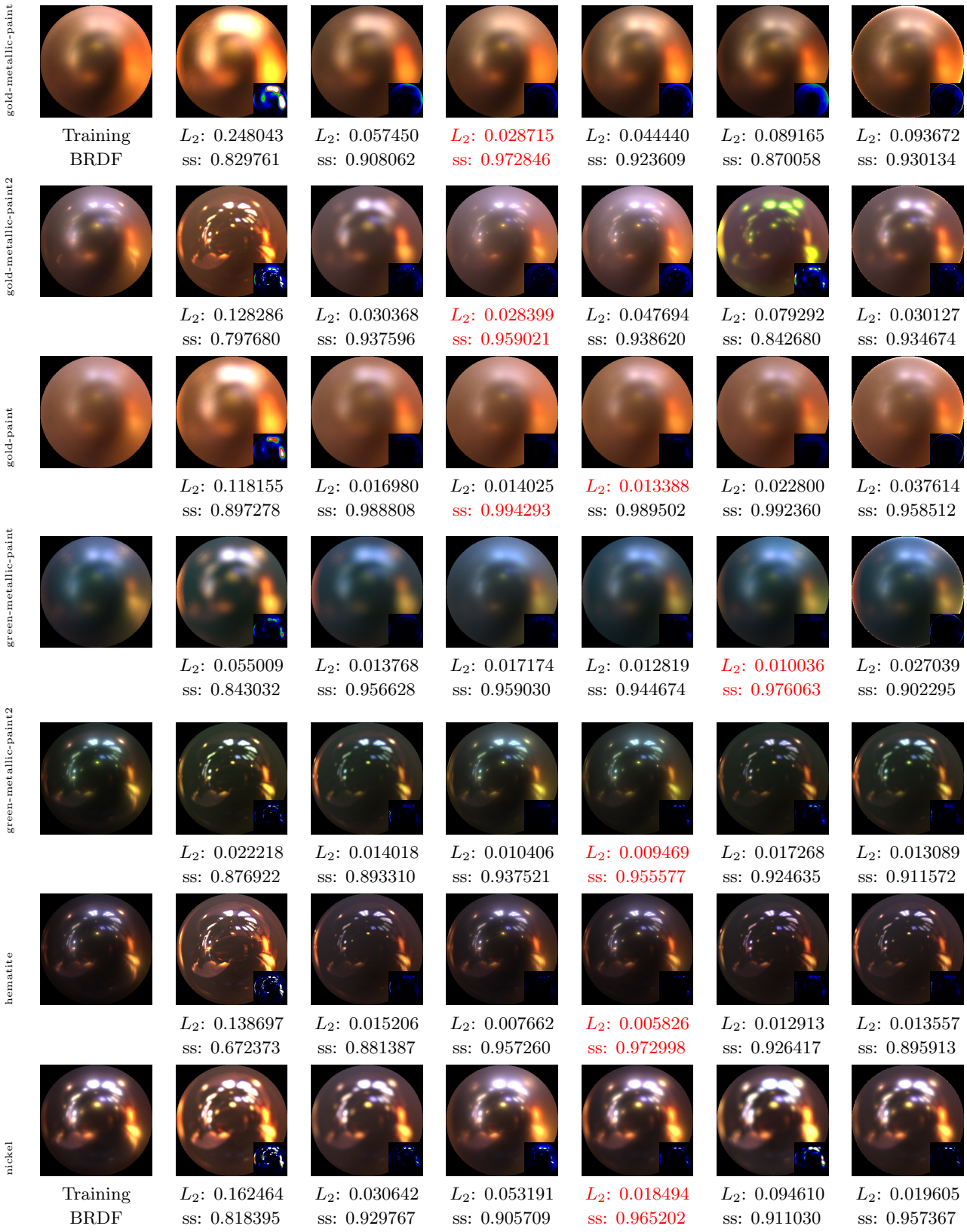


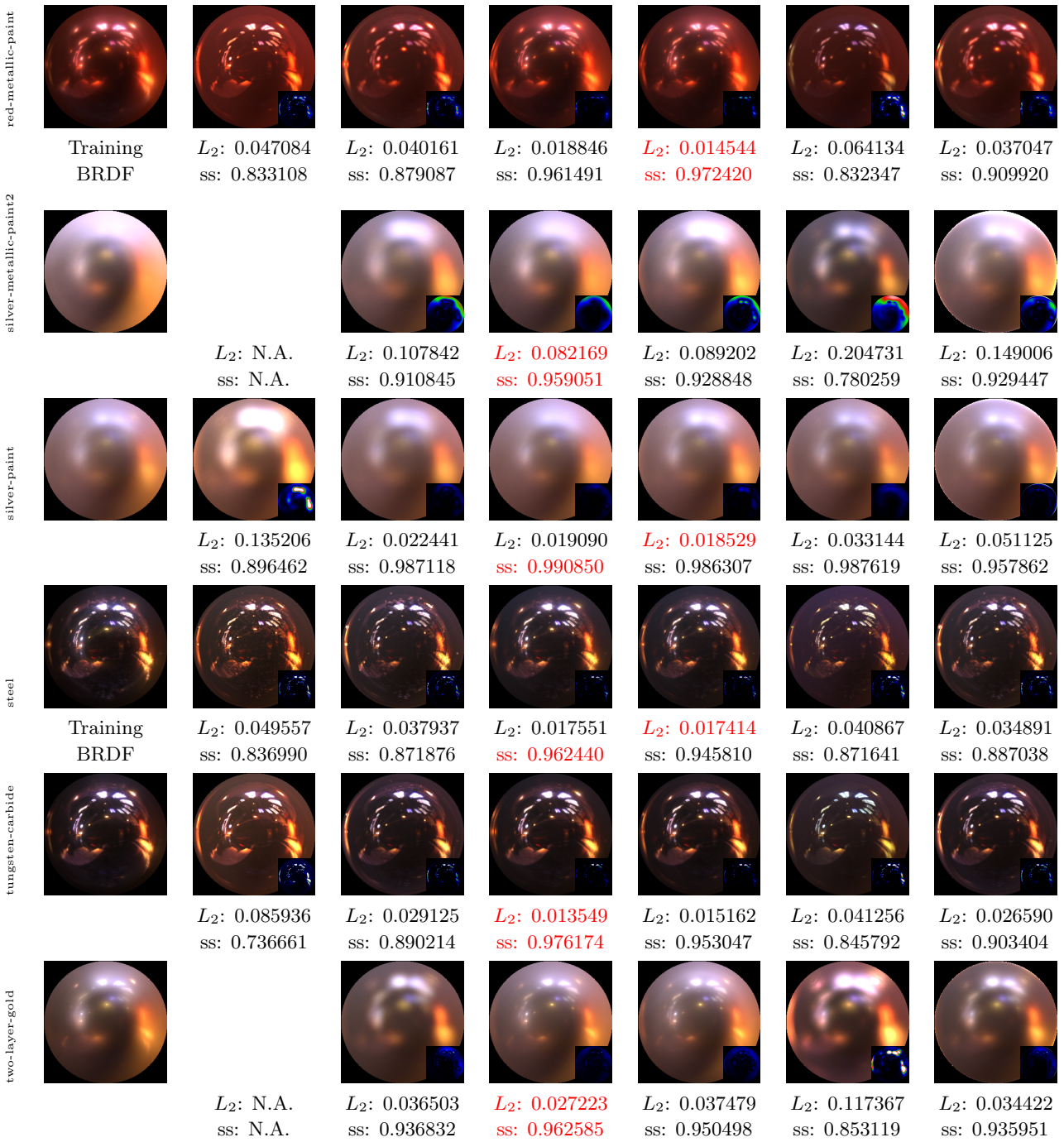
L_2 error.



SSIM error (= 100% - ssim).

	MERL	CT(Ngan) 0(1)/0(1)	CT(E_2 fit) 0(8)/0(8)	Löw SS 7(19)/11(19)	Löw MF 11(18)/7(18)	Bagher 2(7)/2(10)	genBRDF 0/0
alum-bronze		L_2: 0.052284 ss: 0.862223	L_2: 0.031392 ss: 0.907766	L_2: 0.032159 ss: 0.937667	L_2: 0.021146 ss: 0.956962	L_2: 0.053167 ss: 0.922395	L_2: 0.032600 ss: 0.905526
aluminium	Training BRDF	L_2: 0.067099 ss: 0.846399	L_2: 0.035146 ss: 0.875113	L_2: 0.018044 ss: 0.965309	L_2: 0.022431 ss: 0.959087	L_2: 0.034724 ss: 0.917355	L_2: 0.029580 ss: 0.899112
black-oxidized-steel		L_2: 0.037563 ss: 0.881117	L_2: 0.012395 ss: 0.966402	L_2: 0.009959 ss: 0.974466	L_2: 0.021000 ss: 0.956823	L_2: 0.009017 ss: 0.982697	L_2: 0.027203 ss: 0.911889
blue-metallic-paint	Training BRDF	L_2: 0.094791 ss: 0.840025	L_2: 0.019657 ss: 0.966125	L_2: 0.009161 ss: 0.993984	L_2: 0.015014 ss: 0.978181	L_2: 0.030206 ss: 0.958517	L_2: 0.037831 ss: 0.913155
blue-metallic-paint2	Training BRDF	L_2: 0.045753 ss: 0.859062	L_2: 0.030359 ss: 0.888022	L_2: 0.010992 ss: 0.963478	L_2: 0.009785 ss: 0.974119	L_2: 0.053468 ss: 0.884442	L_2: 0.027890 ss: 0.909344
brass	Training BRDF	L_2: 0.109247 ss: 0.809906	L_2: 0.034378 ss: 0.875335	L_2: 0.011813 ss: 0.965002	L_2: 0.011450 ss: 0.970392	L_2: 0.036857 ss: 0.890152	L_2: 0.030023 ss: 0.899773
chrome		L_2: 0.038555 ss: 0.902465	L_2: 0.041371 ss: 0.879025	L_2: 0.021593 ss: 0.972071	L_2: 0.021446 ss: 0.950898	L_2: 0.042031 ss: 0.925449	L_2: 0.039091 ss: 0.883185


gold-metallic-paint
Training BRDF
L_2: 0.248043 ss: 0.829761
L_2: 0.057450 ss: 0.908062
L_2: 0.028715 ss: 0.972846
L_2: 0.044440 ss: 0.923609
L_2: 0.089165 ss: 0.870058
L_2: 0.093672 ss: 0.930134
gold-metallic-paint2
L_2: 0.128286 ss: 0.797680
L_2: 0.030368 ss: 0.937596
L_2: 0.028399 ss: 0.959021
L_2: 0.047694 ss: 0.938620
L_2: 0.079292 ss: 0.842680
L_2: 0.030127 ss: 0.934674
gold-paint
L_2: 0.118155 ss: 0.897278
L_2: 0.016980 ss: 0.988808
L_2: 0.014025 ss: 0.994293
L_2: 0.013388 ss: 0.989502
L_2: 0.022800 ss: 0.992360
L_2: 0.037614 ss: 0.958512
green-metallic-paint
L_2: 0.055009 ss: 0.843032
L_2: 0.013768 ss: 0.956628
L_2: 0.017174 ss: 0.959030
L_2: 0.012819 ss: 0.944674
L_2: 0.010036 ss: 0.976063
L_2: 0.027039 ss: 0.902295
green-metallic-paint2
L_2: 0.022218 ss: 0.876922
L_2: 0.014018 ss: 0.893310
L_2: 0.010406 ss: 0.937521
L_2: 0.009469 ss: 0.955577
L_2: 0.017268 ss: 0.924635
L_2: 0.013089 ss: 0.911572
hematite
L_2: 0.138697 ss: 0.672373
L_2: 0.015206 ss: 0.881387
L_2: 0.007662 ss: 0.957260
L_2: 0.005826 ss: 0.972998
L_2: 0.012913 ss: 0.926417
L_2: 0.013557 ss: 0.895913
nickel
Training BRDF
L_2: 0.162464 ss: 0.818395
L_2: 0.030642 ss: 0.929767
L_2: 0.053191 ss: 0.905709
L_2: 0.018494 ss: 0.965202
L_2: 0.094610 ss: 0.911030
L_2: 0.019605 ss: 0.957367


red-metallic-paint
Training BRDF
L_2: 0.047084 ss: 0.833108
L_2: 0.040161 ss: 0.879087
L_2: 0.018846 ss: 0.961491
L_2: 0.014544 ss: 0.972420
L_2: 0.064134 ss: 0.832347
L_2: 0.037047 ss: 0.909920
silver-metallic-paint2
L_2: N.A. ss: N.A.
L_2: 0.107842 ss: 0.910845
L_2: 0.082169 ss: 0.959051
L_2: 0.089202 ss: 0.928848
L_2: 0.204731 ss: 0.780259
L_2: 0.149006 ss: 0.929447
silver-paint
L_2: 0.135206 ss: 0.896462
L_2: 0.022441 ss: 0.987118
L_2: 0.019090 ss: 0.990850
L_2: 0.018529 ss: 0.986307
L_2: 0.033144 ss: 0.987619
L_2: 0.051125 ss: 0.957862
steel
Training BRDF
L_2: 0.049557 ss: 0.836990
L_2: 0.037937 ss: 0.871876
L_2: 0.017551 ss: 0.962440
L_2: 0.017414 ss: 0.945810
L_2: 0.040867 ss: 0.871641
L_2: 0.034891 ss: 0.887038
tungsten-carbide
L_2: 0.085936 ss: 0.736661
L_2: 0.029125 ss: 0.890214
L_2: 0.013549 ss: 0.976174
L_2: 0.015162 ss: 0.953047
L_2: 0.041256 ss: 0.845792
L_2: 0.026590 ss: 0.903404
two-layer-gold
L_2: N.A. ss: N.A.
L_2: 0.036503 ss: 0.936832
L_2: 0.027223 ss: 0.962585
L_2: 0.037479 ss: 0.950498
L_2: 0.117367 ss: 0.853119
L_2: 0.034422 ss: 0.935951

Material		p0	p1	ρ_d	ρ_s	R_0
alum-bronze	R	3.33725395e+01	8.13613925e-03	7.50503689e-02	4.73368378e+01	1.62587255e-01
	G	3.45778351e+01	5.02254963e-01	6.08382262e-02	5.01589928e+01	1.07626639e-01
	B	4.22279778e+01	7.21000042e-03	4.74155396e-02	8.39558563e+01	4.93910387e-02
aluminium	R	8.86535797e+01	1.05754875e-01	3.22575420e-02	3.16785675e+02	2.99451262e-01
	G	8.35807877e+01	1.39890052e-02	3.41906026e-02	1.95148865e+02	4.00229186e-01
	B	7.78299255e+01	1.10892652e-04	3.73726040e-02	1.54184418e+02	4.38321650e-01
black-oxidized-steel	R	6.78170729e+00	1.66896999e+00	1.11846533e-02	1.38006616e+00	1.36915132e-01
	G	6.49827003e+00	4.76406908e+00	9.16919764e-03	1.21561658e+00	1.46863878e-01
	B	6.25794315e+00	7.00335073e+00	7.98907038e-03	1.12045026e+00	1.50266781e-01
blue-metallic-paint	R	7.02394724e+00	2.00924149e+02	6.34969771e-03	1.53638860e-06	3.32850719e+05
	G	7.27637959e+00	6.29991174e-01	4.35474142e-03	1.80907311e-09	2.78861600e+08
	B	7.77167988e+00	3.77775393e-02	2.77711544e-02	7.85551677e-08	1.47245090e+07
blue-metallic-paint2	R	7.57614059e+01	2.78479023e+01	1.23847937e-02	2.10027817e+02	1.39795303e-01
	G	7.24532394e+01	2.96320877e+01	1.72591228e-02	2.02289444e+02	2.00621411e-01
	B	6.01976547e+01	2.97592163e+01	2.98376754e-02	1.81622620e+02	2.93615669e-01
brass	R	9.98374863e+01	4.01143261e-08	3.24177407e-02	5.47812988e+02	1.80294096e-01
	G	1.05956154e+02	8.41479348e-08	2.91127469e-02	4.50796173e+02	1.53891325e-01
	B	1.34457733e+02	1.03370810e-04	2.07368881e-02	6.82494812e+02	7.57903457e-02
chrome	R	1.93484009e+02	3.09166739e-06	6.14270708e-03	3.43239038e+03	1.32738546e-01
	G	2.17505798e+02	1.47707196e-05	5.02560427e-03	5.36038477e+03	9.66334417e-02
	B	2.10629669e+02	1.00146635e-02	5.28809009e-03	6.54314258e+03	6.43116608e-02
gold-metallic-paint	R	6.56943560e+00	2.39136182e+03	3.85402739e-02	4.23261042e-07	3.69300175e+06
	G	7.03818417e+00	3.54740914e-05	2.82088909e-02	1.02723327e-07	1.11515060e+07
	B	6.86928558e+00	9.13061085e-04	4.09111567e-03	1.00725792e-01	4.40536833e+00
gold-metallic-paint2	R	1.45851364e+01	4.67172172e-03	6.98881075e-02	3.62166088e-06	1.04700519e+06
	G	1.53850288e+01	6.58805156e-03	6.06191047e-02	3.32965988e-06	1.06863138e+06
	B	1.77111874e+01	1.12223160e-02	5.00082709e-02	2.89015634e-06	1.23704312e+06
gold-paint	R	7.88797569e+00	1.64642322e+00	1.63748398e-01	5.89971170e-02	1.81803265e+01
	G	7.90202570e+00	1.55506349e+00	9.21751559e-02	5.25507748e-01	1.61471820e+00
	B	8.52173996e+00	1.77109051e+00	3.52424905e-02	1.56980991e+00	3.34380478e-01
green-metallic-paint	R	1.01044207e+01	1.91689096e-02	2.33136746e-03	3.57889843e+00	1.44000098e-01
	G	8.72419357e+00	5.73093130e-04	2.76448522e-02	1.55494952e+00	5.89316308e-01
	B	8.66126251e+00	3.29144783e-02	3.51130106e-02	1.45924652e+00	6.62879765e-01
green-metallic-paint2	R	7.05188751e+01	2.46078662e-06	7.10602570e-03	1.55411255e+02	7.83726946e-02
	G	6.28803940e+01	9.16492581e-07	1.77393071e-02	1.03223953e+02	2.09005460e-01
	B	6.89045181e+01	1.82577837e-02	9.84276738e-03	1.44916763e+02	1.03917547e-01
hematite	R	1.17125900e+02	4.57994267e-03	1.41094700e-02	4.21534027e+02	1.09909818e-01
	G	1.21384254e+02	6.27659785e-04	1.52380746e-02	3.67985260e+02	1.28602996e-01
	B	1.17657448e+02	6.60607032e-03	1.58515908e-02	3.60673401e+02	1.28785342e-01
nickel	R	3.41447754e+01	4.43889061e-03	2.08223332e-02	2.25139709e-04	1.58731578e+05
	G	3.30647087e+01	5.08288369e-02	1.81320515e-02	3.48034716e+00	8.60964489e+00
	B	3.20856400e+01	2.56623616e+08	1.63314808e-02	1.08191900e+01	2.29986334e+00
red-metallic-paint	R	5.17454872e+01	2.01596483e-03	4.15734500e-02	1.22382607e+02	3.06716859e-01
	G	8.39334030e+01	1.71807814e+00	7.80846644e-03	2.60034637e+02	6.65125400e-02
	B	8.84012299e+01	1.32725077e+01	4.17720806e-03	2.82943573e+02	4.07346897e-02
silver-metallic-paint2	R	6.66666985e+00	2.33257725e-03	1.18138358e-01	6.98115400e-06	2.37826641e+05
	G	6.44326830e+00	6.02870000e+07	1.18249387e-01	5.92975766e-06	2.43286875e+05
	B	6.29140997e+00	1.80405344e+05	1.15423478e-01	2.71149270e-06	4.62948469e+05
silver-paint	R	8.02361584e+00	0.00000000e+00	1.74093381e-01	7.61670890e-05	1.71183906e+04
	G	8.15949726e+00	1.39376205e+19	1.45137012e-01	8.12517828e-06	1.70452875e+05
	B	8.26911640e+00	3.41133326e-02	1.27913684e-01	1.00611678e-05	1.44198109e+05
steel	R	1.74923645e+02	1.44566468e-06	1.42856343e-02	2.75761646e+03	1.03284426e-01
	G	1.80571869e+02	3.58795000e-06	1.54587151e-02	2.61259229e+03	9.32774097e-02
	B	1.62313950e+02	3.87391122e-03	1.71882045e-02	2.18964771e+03	7.73976222e-02

RGB Parameters for genBRDF 008-002729

Material		p0	p1	ρ_d	ρ_s	R_0
tungsten-carbide	R	1.79456406e+02	2.04056007e-04	6.53601624e-03	1.87925098e+03	1.55307293e-01
	G	1.95680740e+02	5.48490381e-04	6.21939357e-03	2.25141577e+03	1.24984175e-01
	B	2.09016052e+02	2.27327211e-04	6.77228393e-03	5.12513477e+03	6.30792230e-02
two-layer-gold	R	1.35387087e+01	6.33942187e-01	6.26442134e-02	1.77178154e-05	2.03894312e+05
	G	1.43855333e+01	8.99425583e+01	5.49468137e-02	2.69096781e-05	1.31015328e+05
	B	1.61418343e+01	1.38397507e+02	4.50711660e-02	2.66294701e-05	1.29981875e+05

RGB Parameters for genBRDF 008-002729

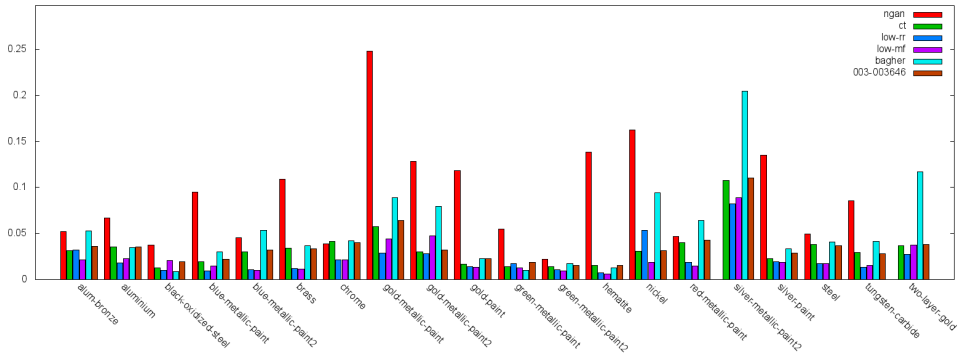
003-003646

Fitness: 0.000270793857

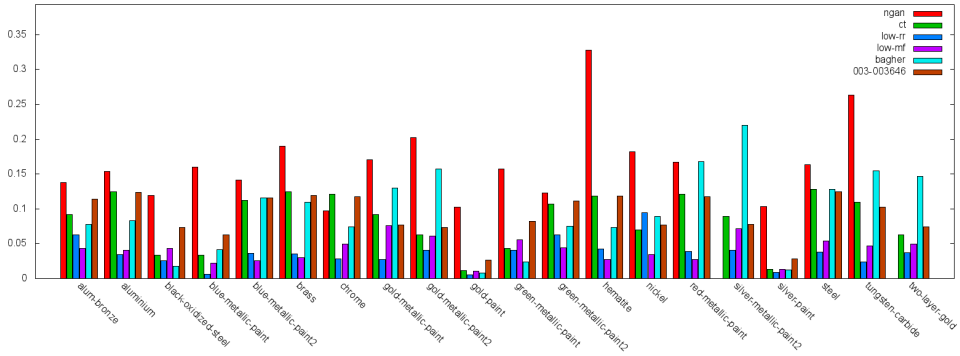
Length: 55

Reciprocity Error: 2.4037222e-14

$$f'_n(\omega_i, \omega_o) = e^{-\left(\left(\frac{cos^{-1}(clamp(\omega_{hz}))}{p_0}\right)^{2.0}\right)}$$

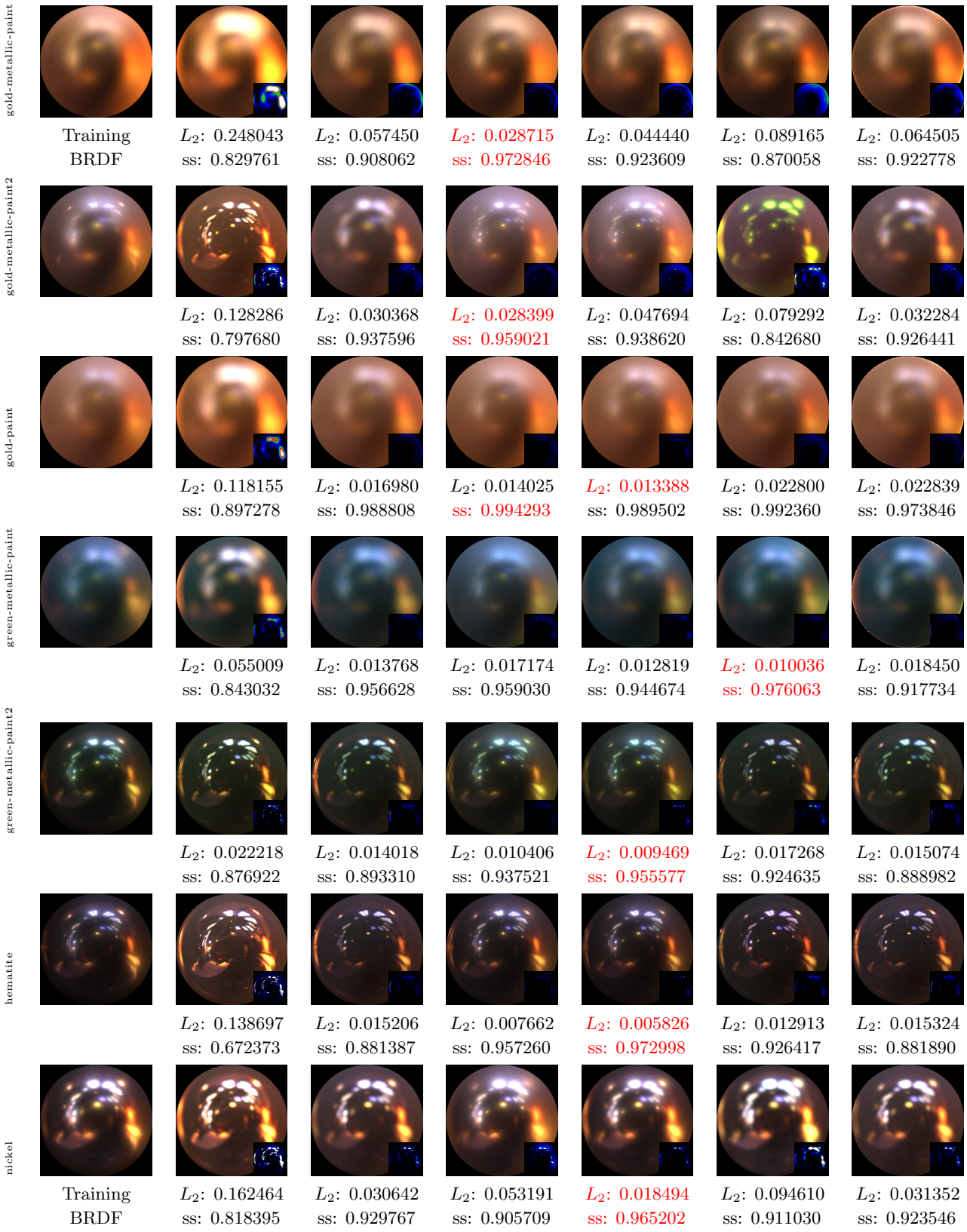


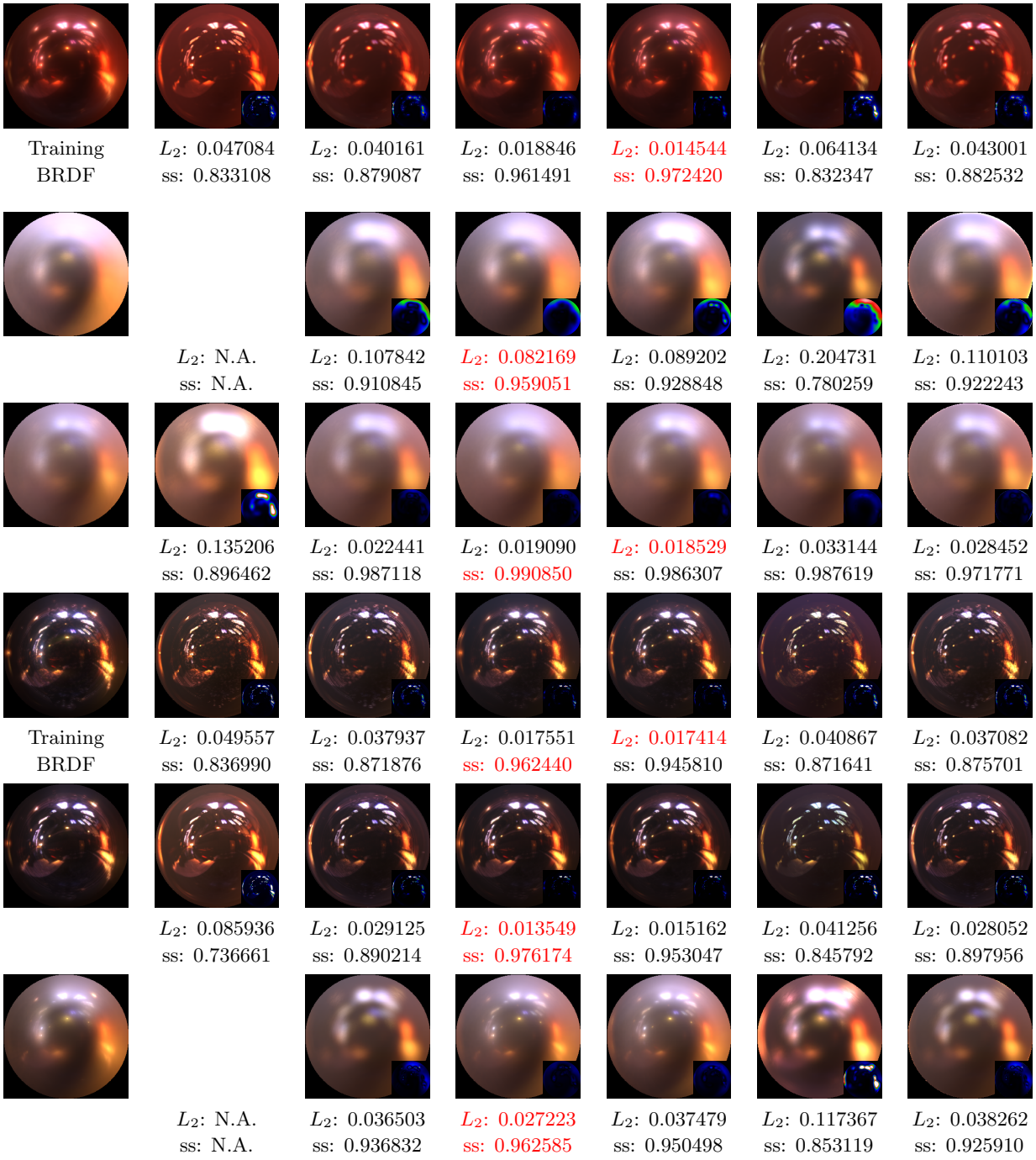
L_2 error.



SSIM error (= 100% - ssim).

	MERL	CT(Ngan) 0(1)/0(1)	CT(E_2 fit) 0(16)/0(11)	Löw SS 7(19)/11(19)	Löw MF 11(18)/7(20)	Bagher 2(5)/2(11)	genBRDF 0/0
alum-bronze		L_2: 0.052284 ss: 0.862223	L_2: 0.031392 ss: 0.907766	L_2: 0.032159 ss: 0.937667	L_2: 0.021146 ss: 0.956962	L_2: 0.053167 ss: 0.922395	L_2: 0.036361 ss: 0.886301
aluminium	Training BRDF	L_2: 0.067099 ss: 0.846399	L_2: 0.035146 ss: 0.875113	L_2: 0.018044 ss: 0.965309	L_2: 0.022431 ss: 0.959087	L_2: 0.034724 ss: 0.917355	L_2: 0.035752 ss: 0.876256
black-oxidized-steel		L_2: 0.037563 ss: 0.881117	L_2: 0.012395 ss: 0.966402	L_2: 0.009959 ss: 0.974466	L_2: 0.021000 ss: 0.956823	L_2: 0.009017 ss: 0.982697	L_2: 0.019605 ss: 0.927030
blue-metallic-paint	Training BRDF	L_2: 0.094791 ss: 0.840025	L_2: 0.019657 ss: 0.966125	L_2: 0.009161 ss: 0.993984	L_2: 0.015014 ss: 0.978181	L_2: 0.030206 ss: 0.958517	L_2: 0.022308 ss: 0.937220
blue-metallic-paint2	Training BRDF	L_2: 0.045753 ss: 0.859062	L_2: 0.030359 ss: 0.888022	L_2: 0.010992 ss: 0.963478	L_2: 0.009785 ss: 0.974119	L_2: 0.053468 ss: 0.884442	L_2: 0.032428 ss: 0.884636
brass	Training BRDF	L_2: 0.109247 ss: 0.809906	L_2: 0.034378 ss: 0.875335	L_2: 0.011813 ss: 0.965002	L_2: 0.011450 ss: 0.970392	L_2: 0.036857 ss: 0.890152	L_2: 0.033663 ss: 0.880703
chrome		L_2: 0.038555 ss: 0.902465	L_2: 0.041371 ss: 0.879025	L_2: 0.021593 ss: 0.972071	L_2: 0.021446 ss: 0.950898	L_2: 0.042031 ss: 0.925449	L_2: 0.040043 ss: 0.882574


gold-metallic-paint
Training BRDF
L_2: 0.248043 ss: 0.829761
L_2: 0.057450 ss: 0.908062
L_2: 0.028715 ss: 0.972846
L_2: 0.044440 ss: 0.923609
L_2: 0.089165 ss: 0.870058
L_2: 0.064505 ss: 0.922778
gold-metallic-paint2
L_2: 0.128286 ss: 0.797680
L_2: 0.030368 ss: 0.937596
L_2: 0.028399 ss: 0.959021
L_2: 0.047694 ss: 0.938620
L_2: 0.079292 ss: 0.842680
L_2: 0.032284 ss: 0.926441
gold-paint
L_2: 0.118155 ss: 0.897278
L_2: 0.016980 ss: 0.988808
L_2: 0.014025 ss: 0.994293
L_2: 0.013388 ss: 0.989502
L_2: 0.022800 ss: 0.992360
L_2: 0.022839 ss: 0.973846
green-metallic-paint
L_2: 0.055009 ss: 0.843032
L_2: 0.013768 ss: 0.956628
L_2: 0.017174 ss: 0.959030
L_2: 0.012819 ss: 0.944674
L_2: 0.010036 ss: 0.976063
L_2: 0.018450 ss: 0.917734
green-metallic-paint2
L_2: 0.022218 ss: 0.876922
L_2: 0.014018 ss: 0.893310
L_2: 0.010406 ss: 0.937521
L_2: 0.009469 ss: 0.955577
L_2: 0.017268 ss: 0.924635
L_2: 0.015074 ss: 0.888982
hematite
L_2: 0.138697 ss: 0.672373
L_2: 0.015206 ss: 0.881387
L_2: 0.007662 ss: 0.957260
L_2: 0.005826 ss: 0.972998
L_2: 0.012913 ss: 0.926417
L_2: 0.015324 ss: 0.881890
nickel
Training BRDF
L_2: 0.162464 ss: 0.818395
L_2: 0.030642 ss: 0.929767
L_2: 0.053191 ss: 0.905709
L_2: 0.018494 ss: 0.965202
L_2: 0.094610 ss: 0.911030
L_2: 0.031352 ss: 0.923546


red-metallic-paint
Training BRDF
L_2: 0.047084 ss: 0.833108
L_2: 0.040161 ss: 0.879087
L_2: 0.018846 ss: 0.961491
L_2: 0.014544 ss: 0.972420
L_2: 0.064134 ss: 0.832347
L_2: 0.043001 ss: 0.882532
silver-metallic-paint2
L_2: N.A. ss: N.A.
L_2: 0.107842 ss: 0.910845
L_2: 0.082169 ss: 0.959051
L_2: 0.089202 ss: 0.928848
L_2: 0.204731 ss: 0.780259
L_2: 0.110103 ss: 0.922243
silver-paint
L_2: 0.135206 ss: 0.896462
L_2: 0.022441 ss: 0.987118
L_2: 0.019090 ss: 0.990850
L_2: 0.018529 ss: 0.986307
L_2: 0.033144 ss: 0.987619
L_2: 0.028452 ss: 0.971771
steel
Training BRDF
L_2: 0.049557 ss: 0.836990
L_2: 0.037937 ss: 0.871876
L_2: 0.017551 ss: 0.962440
L_2: 0.017414 ss: 0.945810
L_2: 0.040867 ss: 0.871641
L_2: 0.037082 ss: 0.875701
tungsten-carbide
L_2: 0.085936 ss: 0.736661
L_2: 0.029125 ss: 0.890214
L_2: 0.013549 ss: 0.976174
L_2: 0.015162 ss: 0.953047
L_2: 0.041256 ss: 0.845792
L_2: 0.028052 ss: 0.897956
two-layer-gold
L_2: N.A. ss: N.A.
L_2: 0.036503 ss: 0.936832
L_2: 0.027223 ss: 0.962585
L_2: 0.037479 ss: 0.950498
L_2: 0.117367 ss: 0.853119
L_2: 0.038262 ss: 0.925910

Material		p0	p1	ρ_d	ρ_s	R_0
alum-bronze	R	5.13487197e-02	4.77056360e+00	8.17094371e-02	3.52499199e+01	1.11302219e-01
	G	4.89840470e-02	1.45086956e+01	6.56677485e-02	3.71977348e+01	7.41293356e-02
	B	4.41765487e-02	1.61481649e-01	4.93573807e-02	4.87634468e+01	3.94317918e-02
aluminium	R	2.40061097e-02	1.58342067e-02	3.58439870e-02	1.66241165e+02	2.15587735e-01
	G	2.48821881e-02	5.45412360e-04	3.79889421e-02	1.09968910e+02	2.79830635e-01
	B	2.61746123e-02	5.41193702e-04	4.16391380e-02	9.30882416e+01	2.96350420e-01
black-oxidized-steel	R	2.28727326e-01	2.87061036e-01	1.47582591e-02	8.73514473e-01	1.31189123e-01
	G	2.36277565e-01	3.94387131e+01	1.29455281e-02	7.78055727e-01	1.39661118e-01
	B	2.42897511e-01	8.72158468e-01	1.19262403e-02	7.24751651e-01	1.41873926e-01
blue-metallic-paint	R	2.27372721e-01	1.27384738e+06	1.38117364e-02	3.68294650e-07	8.23869188e+05
	G	2.19626755e-01	2.25568565e-05	1.14367716e-02	6.34486014e-07	4.71707594e+05
	B	2.11855188e-01	2.83730083e-06	4.06681113e-02	7.36447760e-07	9.03317188e+05
blue-metallic-paint2	R	2.55774725e-02	1.10778818e-02	1.50306439e-02	1.16292465e+02	1.14637576e-01
	G	2.74327341e-02	1.98252735e+01	2.06499565e-02	1.10389999e+02	1.57969266e-01
	B	3.51637118e-02	3.15497629e-03	3.47484574e-02	1.01614403e+02	1.96113646e-01
brass	R	2.12060176e-02	2.05775514e-01	3.54502536e-02	2.69319946e+02	1.41539156e-01
	G	1.93364080e-02	2.52089351e-01	3.15133482e-02	2.33726395e+02	1.21423170e-01
	B	1.40982391e-02	1.66944116e+03	2.22304072e-02	3.82766571e+02	6.46283031e-02
chrome	R	1.20612951e-02	4.69815063e+00	6.88065402e-03	1.07269055e+03	1.49281532e-01
	G	1.12274271e-02	4.17733155e-02	6.14906056e-03	1.83059412e+03	8.54141116e-02
	B	1.14015043e-02	2.43788122e-06	6.30416628e-03	2.25801294e+03	5.90347685e-02
gold-metallic-paint	R	2.40985885e-01	1.27304890e+07	6.69497102e-02	4.60631384e-07	1.97840738e+06
	G	2.27229893e-01	2.20394000e+07	4.57841083e-02	2.64123599e-07	2.53424700e+06
	B	2.27820337e-01	5.74667275e-01	1.17759984e-02	7.80251920e-02	3.40576816e+00
gold-metallic-paint2	R	1.27227217e-01	1.78672276e+01	7.98819214e-02	9.40694463e-06	1.95713703e+05
	G	1.21175416e-01	2.65250111e+01	6.89520091e-02	6.71356293e-06	2.55934484e+05
	B	1.08731709e-01	5.14281654e+01	5.55794276e-02	5.22882237e-06	3.16133375e+05
gold-paint	R	2.07496524e-01	2.82981014e+00	1.75996751e-01	5.99042438e-02	1.03484411e+01
	G	2.05022514e-01	3.26427035e-02	1.02233209e-01	3.32415044e-01	1.49814045e+00
	B	1.87428802e-01	5.59957922e-02	4.14512381e-02	9.81425405e-01	3.17974716e-01
green-metallic-paint	R	1.64579079e-01	1.81015930e+02	6.11254200e-03	2.14238071e+00	1.39942303e-01
	G	1.86775059e-01	8.11185464e-02	3.68195511e-02	9.73418951e-01	5.52002311e-01
	B	1.87770069e-01	6.82908237e-01	4.50236611e-02	9.21291530e-01	6.15890026e-01
green-metallic-paint2	R	2.64100842e-02	2.53823624e+01	8.78085662e-03	8.64610367e+01	6.79088905e-02
	G	3.06620728e-02	2.92538834e+00	2.06634104e-02	5.64748192e+01	1.71916977e-01
	B	2.73286179e-02	1.14419632e+01	1.18648447e-02	7.86386566e+01	9.04035717e-02
hematite	R	1.71313938e-02	5.83408438e-02	1.55888768e-02	2.06301468e+02	9.74338725e-02
	G	1.60841811e-02	1.46120012e-01	1.67286899e-02	1.90043121e+02	1.12839006e-01
	B	1.66990347e-02	2.14128911e-01	1.73792988e-02	1.82891891e+02	1.13379620e-01
nickel	R	5.94476759e-02	4.11843866e-01	3.16638537e-02	2.59567308e+00	5.85755682e+00
	G	6.04262948e-02	2.89378762e+00	2.86137667e-02	5.42251253e+00	2.41178322e+00
	B	6.15674779e-02	4.56338477e+04	2.62129381e-02	8.80419731e+00	1.25871038e+00
red-metallic-paint	R	3.94357108e-02	2.75215125e+00	4.74949889e-02	7.24524765e+01	2.06716552e-01
	G	2.20038071e-02	2.70888405e+01	9.51027405e-03	1.43108490e+02	5.94036393e-02
	B	2.09546126e-02	2.45969143e+01	5.28925005e-03	1.53794724e+02	3.64755057e-02
silver-metallic-paint2	R	2.33732998e-01	8.68426014e-06	1.51048988e-01	2.91226297e-06	3.35040844e+05
	G	2.41786391e-01	1.06722200e-05	1.47956714e-01	2.42388342e-06	3.49470188e+05
	B	2.48658895e-01	4.53631493e+14	1.40907124e-01	4.18590298e-06	1.76081125e+05
silver-paint	R	2.05039576e-01	3.82182617e+03	1.88185602e-01	7.00281777e-10	1.07215277e+09
	G	2.02383012e-01	5.08806396e+03	1.59520015e-01	7.70223274e-10	1.03244109e+09
	B	1.99421525e-01	6.82614307e+03	1.42606601e-01	7.01834202e-10	1.19218726e+09
steel	R	1.27386162e-02	5.30604959e-01	1.59986019e-02	1.06210193e+03	1.00386955e-01
	G	1.22179855e-02	1.52112472e+00	1.69848297e-02	1.13238428e+03	8.01873803e-02
	B	1.29229734e-02	2.78618000e-02	1.90033857e-02	1.06268457e+03	6.59288839e-02

RGB Parameters for genBRDF 003-003646

Material		p0	p1	ρ_d	ρ_s	R_0
tungsten-carbide	R	1.26326876e-02	4.59616496e+14	7.95172900e-03	6.12562622e+02	1.77905262e-01
	G	1.19062625e-02	5.13016558e+00	7.29236379e-03	8.12348755e+02	1.17310114e-01
	B	1.14415064e-02	3.24790525e+00	7.76923168e-03	1.82644385e+03	5.52291423e-02
two-layer-gold	R	1.36047691e-01	7.04523129e-03	7.41226003e-02	1.28468600e-05	1.37804125e+05
	G	1.28469408e-01	7.37025402e-03	6.48576170e-02	9.51200491e-06	1.80807188e+05
	B	1.16778709e-01	2.32450333e+01	5.23085408e-02	1.57106533e-05	1.04762094e+05

RGB Parameters for genBRDF 003-003646

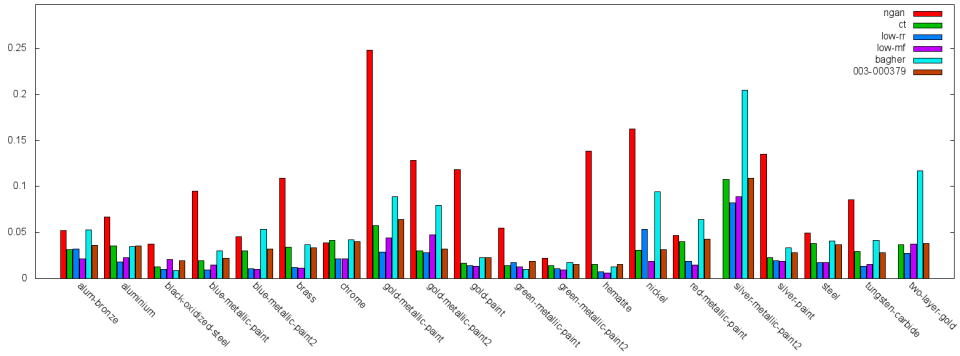
003-000379

Fitness: 0.000270982531

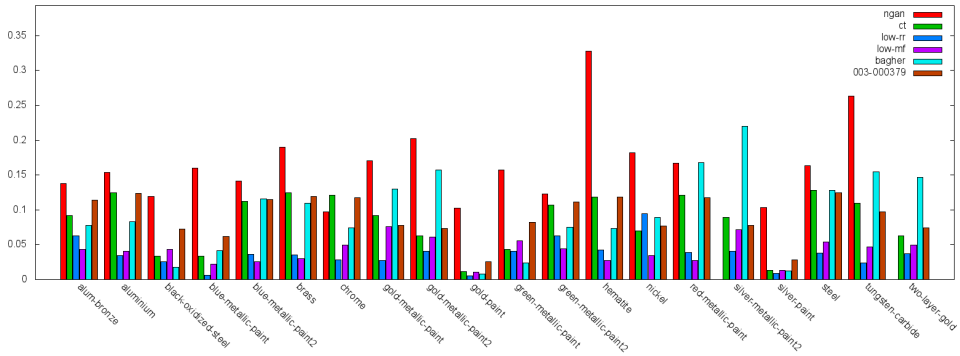
Length: 27

Reciprocity Error: 2.40447657492e-14

$f'_n(\omega_i, \omega_o) = [\left(\omega_{hz}\right)^{p1} * 1.0]$

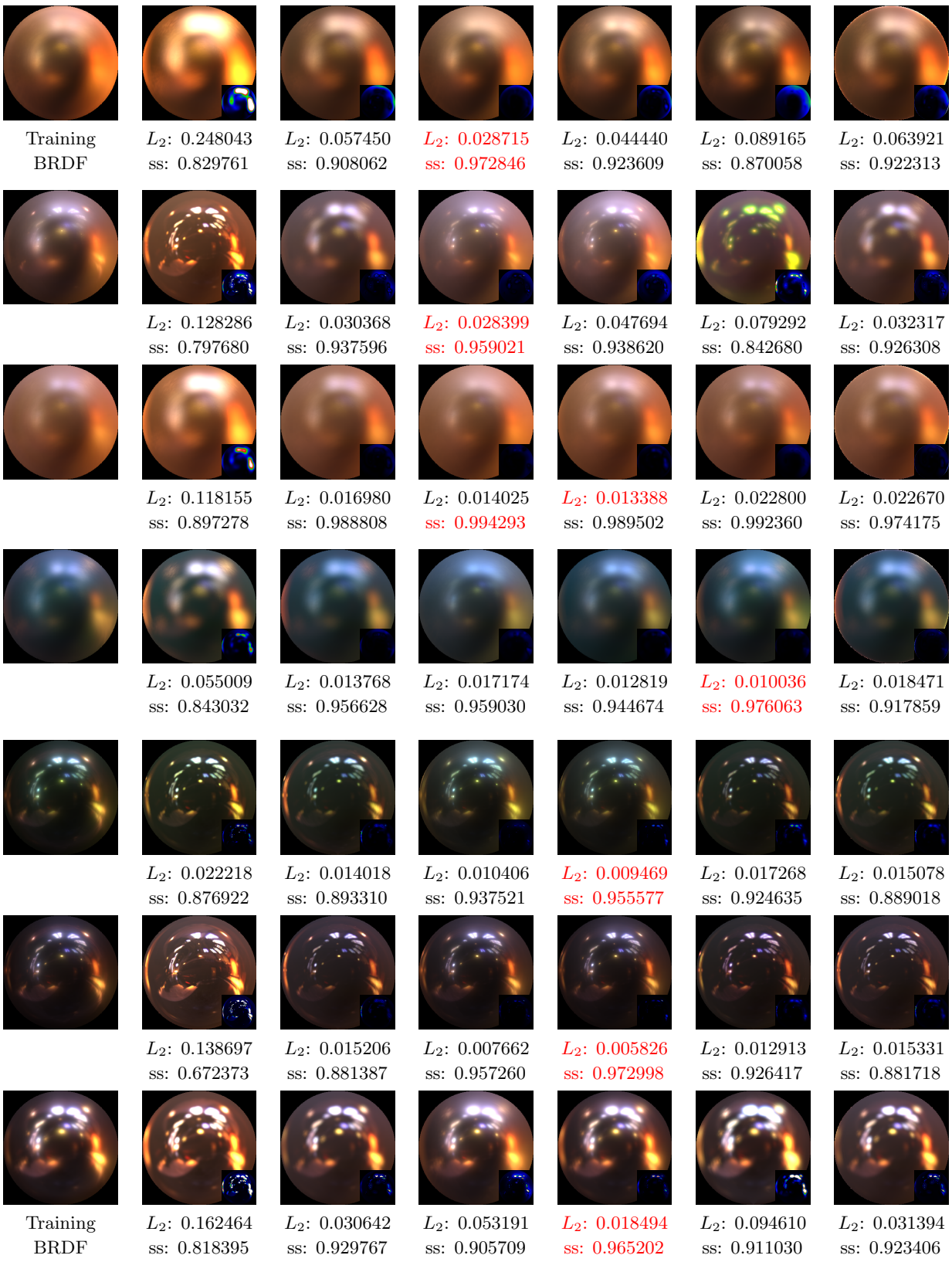


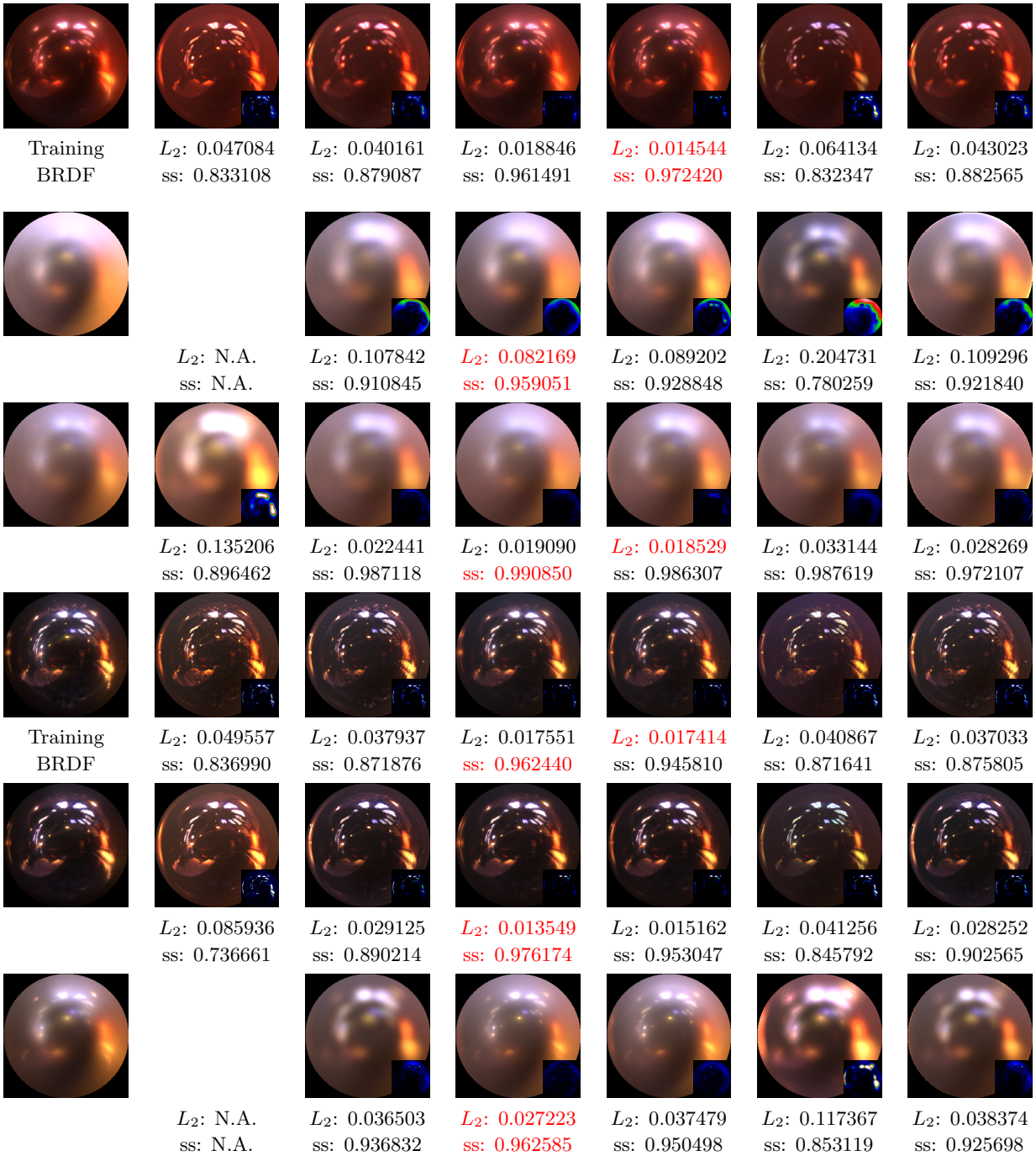
L_2 error.



SSIM error (= 100% - ssim).

	MERL	CT(Ngan) 0(1)/0(1)	CT(E_2 fit) 0(16)/0(11)	Löw SS 7(19)/11(19)	Löw MF 11(18)/7(20)	Bagher 2(4)/2(11)	genBRDF 0/0
alum-bronze		L_2: 0.052284 ss: 0.862223	L_2: 0.031392 ss: 0.907766	L_2: 0.032159 ss: 0.937667	L_2: 0.021146 ss: 0.956962	L_2: 0.053167 ss: 0.922395	L_2: 0.036377 ss: 0.886245
aluminium	Training BRDF	L_2: 0.067099 ss: 0.846399	L_2: 0.035146 ss: 0.875113	L_2: 0.018044 ss: 0.965309	L_2: 0.022431 ss: 0.959087	L_2: 0.034724 ss: 0.917355	L_2: 0.035741 ss: 0.876413
black-oxidized-steel		L_2: 0.037563 ss: 0.881117	L_2: 0.012395 ss: 0.966402	L_2: 0.009959 ss: 0.974466	L_2: 0.021000 ss: 0.956823	L_2: 0.009017 ss: 0.982697	L_2: 0.019462 ss: 0.927449
blue-metallic-paint	Training BRDF	L_2: 0.094791 ss: 0.840025	L_2: 0.019657 ss: 0.966125	L_2: 0.009161 ss: 0.993984	L_2: 0.015014 ss: 0.978181	L_2: 0.030206 ss: 0.958517	L_2: 0.022149 ss: 0.937917
blue-metallic-paint2	Training BRDF	L_2: 0.045753 ss: 0.859062	L_2: 0.030359 ss: 0.888022	L_2: 0.010992 ss: 0.963478	L_2: 0.009785 ss: 0.974119	L_2: 0.053468 ss: 0.884442	L_2: 0.032417 ss: 0.884789
brass	Training BRDF	L_2: 0.109247 ss: 0.809906	L_2: 0.034378 ss: 0.875335	L_2: 0.011813 ss: 0.965002	L_2: 0.011450 ss: 0.970392	L_2: 0.036857 ss: 0.890152	L_2: 0.033678 ss: 0.880721
chrome		L_2: 0.038555 ss: 0.902465	L_2: 0.041371 ss: 0.879025	L_2: 0.021593 ss: 0.972071	L_2: 0.021446 ss: 0.950898	L_2: 0.042031 ss: 0.925449	L_2: 0.040078 ss: 0.882350


gold-metallic-paint
Training BRDF
L_2: 0.248043 ss: 0.829761
L_2: 0.057450 ss: 0.908062
L_2: 0.028715 ss: 0.972846
L_2: 0.044440 ss: 0.923609
L_2: 0.089165 ss: 0.870058
L_2: 0.063921 ss: 0.922313
gold-metallic-paint2
L_2: 0.128286 ss: 0.797680
L_2: 0.030368 ss: 0.937596
L_2: 0.028399 ss: 0.959021
L_2: 0.047694 ss: 0.938620
L_2: 0.079292 ss: 0.842680
L_2: 0.032317 ss: 0.926308
gold-paint
L_2: 0.118155 ss: 0.897278
L_2: 0.016980 ss: 0.988808
L_2: 0.014025 ss: 0.994293
L_2: 0.013388 ss: 0.989502
L_2: 0.022800 ss: 0.992360
L_2: 0.022670 ss: 0.974175
green-metallic-paint
L_2: 0.055009 ss: 0.843032
L_2: 0.013768 ss: 0.956628
L_2: 0.017174 ss: 0.959030
L_2: 0.012819 ss: 0.944674
L_2: 0.010036 ss: 0.976063
L_2: 0.018471 ss: 0.917859
green-metallic-paint2
L_2: 0.022218 ss: 0.876922
L_2: 0.014018 ss: 0.893310
L_2: 0.010406 ss: 0.937521
L_2: 0.009469 ss: 0.955577
L_2: 0.017268 ss: 0.924635
L_2: 0.015078 ss: 0.889018
hematite
L_2: 0.138697 ss: 0.672373
L_2: 0.015206 ss: 0.881387
L_2: 0.007662 ss: 0.957260
L_2: 0.005826 ss: 0.972998
L_2: 0.012913 ss: 0.926417
L_2: 0.015331 ss: 0.881718
nickel
Training BRDF
L_2: 0.162464 ss: 0.818395
L_2: 0.030642 ss: 0.929767
L_2: 0.053191 ss: 0.905709
L_2: 0.018494 ss: 0.965202
L_2: 0.094610 ss: 0.911030
L_2: 0.031394 ss: 0.923406


red-metallic-paint
Training BRDF
L_2: 0.047084 ss: 0.833108
L_2: 0.040161 ss: 0.879087
L_2: 0.018846 ss: 0.961491
L_2: 0.014544 ss: 0.972420
L_2: 0.064134 ss: 0.832347
L_2: 0.043023 ss: 0.882565
silver-metallic-paint2
L_2: N.A. ss: N.A.
L_2: 0.107842 ss: 0.910845
L_2: 0.082169 ss: 0.959051
L_2: 0.089202 ss: 0.928848
L_2: 0.204731 ss: 0.780259
L_2: 0.109296 ss: 0.921840
silver-paint
L_2: 0.135206 ss: 0.896462
L_2: 0.022441 ss: 0.987118
L_2: 0.019090 ss: 0.990850
L_2: 0.018529 ss: 0.986307
L_2: 0.033144 ss: 0.987619
L_2: 0.028269 ss: 0.972107
steel
Training BRDF
L_2: 0.049557 ss: 0.836990
L_2: 0.037937 ss: 0.871876
L_2: 0.017551 ss: 0.962440
L_2: 0.017414 ss: 0.945810
L_2: 0.040867 ss: 0.871641
L_2: 0.037033 ss: 0.875805
tungsten-carbide
L_2: 0.085936 ss: 0.736661
L_2: 0.029125 ss: 0.890214
L_2: 0.013549 ss: 0.976174
L_2: 0.015162 ss: 0.953047
L_2: 0.041256 ss: 0.845792
L_2: 0.028252 ss: 0.902565
two-layer-gold
L_2: N.A. ss: N.A.
L_2: 0.036503 ss: 0.936832
L_2: 0.027223 ss: 0.962585
L_2: 0.037479 ss: 0.950498
L_2: 0.117367 ss: 0.853119
L_2: 0.038374 ss: 0.925698

Material		p0	p1	ρ_d	ρ_s	R_0
alum-bronze	R	3.29100430e+04	7.58283081e+02	8.17696601e-02	3.52628326e+01	1.11160129e-01
	G	1.31567478e-01	8.32814209e+02	6.57351017e-02	3.71855507e+01	7.41664246e-02
	B	1.67759806e-01	1.02487781e+03	4.92914915e-02	4.87635880e+01	3.94570231e-02
aluminium	R	2.19705987e+00	3.46996338e+03	3.58110145e-02	1.65195969e+02	2.16972589e-01
	G	2.52744699e+00	3.22626562e+03	3.81058715e-02	1.09953865e+02	2.79562026e-01
	B	5.26804151e-03	2.91996582e+03	4.14761603e-02	9.32994995e+01	2.95538008e-01
black-oxidized-steel	R	7.91132152e-01	3.76628799e+01	1.49237327e-02	8.71481597e-01	1.30787194e-01
	G	4.01989639e-01	3.52927933e+01	1.30944848e-02	7.76518106e-01	1.39098093e-01
	B	7.50474989e-01	3.33644066e+01	1.20767932e-02	7.23055542e-01	1.41380832e-01
blue-metallic-paint	R	9.37383911e+02	3.80994263e+01	1.41185289e-02	3.74035178e-11	8.07241062e+09
	G	1.59982166e+03	4.08923988e+01	1.16971442e-02	3.87143199e-11	7.69757798e+09
	B	1.80113038e-05	4.39376488e+01	4.10821773e-02	9.68766358e-07	6.83770188e+05
blue-metallic-paint2	R	1.54783274e-03	3.05671753e+03	1.49775352e-02	1.16159897e+02	1.14909030e-01
	G	2.00850354e-03	2.66072388e+03	2.06890050e-02	1.10512291e+02	1.58081308e-01
	B	3.32664652e-03	1.61858875e+03	3.47661898e-02	1.01814087e+02	1.95907086e-01
brass	R	9.01235353e-07	4.44716699e+03	3.53233442e-02	2.70641815e+02	1.40774518e-01
	G	1.99280180e-06	5.34704346e+03	3.14024650e-02	2.34231796e+02	1.21113405e-01
	B	2.78953758e-06	1.00617988e+04	2.22467445e-02	3.81915009e+02	6.47161752e-02
chrome	R	1.29878289e-10	1.37390967e+04	6.96413172e-03	1.07284094e+03	1.48915425e-01
	G	3.45371065e-10	1.58680645e+04	5.98938577e-03	1.83234253e+03	8.53379220e-02
	B	2.23043351e-03	1.53729922e+04	6.28888421e-03	2.26085718e+03	5.88995665e-02
gold-metallic-paint	R	1.62974902e-06	3.39640427e+01	6.84599131e-02	4.62055112e-07	1.96281850e+06
	G	6.61573440e-21	3.81811028e+01	4.65697572e-02	2.32288375e-08	2.86762920e+07
	B	1.05003154e+00	3.80304527e+01	1.21118221e-02	7.92733356e-02	3.33653092e+00
gold-metallic-paint2	R	4.14477306e-08	1.23093460e+02	8.02560076e-02	2.19470421e-05	8.37931328e+04
	G	7.70180615e+03	1.35690567e+02	6.90533817e-02	1.04627970e-05	1.64040828e+05
	B	1.00483066e+04	1.69119354e+02	5.57860769e-02	8.87923670e-06	1.86354234e+05
gold-paint	R	4.30522040e-02	4.58698959e+01	1.76432565e-01	6.14105575e-02	1.00506516e+01
	G	8.54687119e+00	4.70190811e+01	1.02549441e-01	3.32484722e-01	1.49220240e+00
	B	5.68459034e-02	5.63809967e+01	4.16200422e-02	9.80427325e-01	3.17277700e-01
green-metallic-paint	R	1.27674177e-01	7.31441956e+01	6.18301984e-03	2.13696384e+00	1.39837503e-01
	G	1.03692337e-05	5.67327690e+01	3.70357446e-02	9.72098529e-01	5.50825059e-01
	B	2.75323224e+00	5.61320038e+01	4.52450253e-02	9.20570493e-01	6.14344776e-01
green-metallic-paint2	R	1.33562833e-04	2.86232275e+03	8.77420139e-03	8.63996353e+01	6.78348243e-02
	G	1.02001875e-04	2.12896069e+03	2.07118765e-02	5.65088959e+01	1.71946451e-01
	B	4.17802250e-03	2.67916113e+03	1.19053088e-02	7.87122650e+01	9.03901905e-02
hematite	R	3.97290429e-03	6.81794531e+03	1.56453382e-02	2.06273438e+02	9.75533500e-02
	G	7.01244920e-03	7.73731299e+03	1.67438369e-02	1.90375717e+02	1.12743109e-01
	B	1.65452060e-04	7.17317236e+03	1.74816549e-02	1.82999893e+02	1.13308385e-01
nickel	R	4.28316027e-01	5.65137512e+02	3.16431150e-02	2.65531826e+00	5.72281313e+00
	G	3.43687261e-15	5.46622070e+02	2.86196209e-02	5.41895914e+00	2.41030192e+00
	B	4.33889209e-11	5.27233704e+02	2.62992438e-02	8.80356312e+00	1.25856721e+00
red-metallic-paint	R	1.02907471e-07	1.28352783e+03	4.74068932e-02	7.22740860e+01	2.06838667e-01
	G	1.26299169e-03	4.12853467e+03	9.52025969e-03	1.43176605e+02	5.93956113e-02
	B	5.31269191e-03	4.54203809e+03	5.31611824e-03	1.53327423e+02	3.65344621e-02
silver-metallic-paint2	R	1.55224864e-08	3.63111000e+01	1.52745366e-01	1.49812979e-06	6.49960812e+05
	G	2.45473686e-08	3.38273239e+01	1.49580404e-01	1.29400826e-06	6.52158188e+05
	B	4.63225867e-08	3.19706326e+01	1.42449886e-01	1.12276450e-06	6.54074125e+05
silver-paint	R	2.15417552e+00	4.70161209e+01	1.88742563e-01	2.37423628e-05	3.15044902e+04
	G	2.32785299e-01	4.82168503e+01	1.59874007e-01	1.58695657e-05	4.99240586e+04
	B	3.76240304e-03	4.97044296e+01	1.43065527e-01	4.71832300e-06	1.76748531e+05
steel	R	1.43096194e-01	1.23274092e+04	1.60046220e-02	1.06009729e+03	1.00797474e-01
	G	1.77693263e-01	1.33985156e+04	1.70010924e-02	1.13190698e+03	8.03325251e-02
	B	6.75029514e-05	1.19905527e+04	1.89476665e-02	1.06407483e+03	6.59688190e-02

RGB Parameters for genBRDF 003-000379

Material		p0	p1	ρ_d	ρ_s	R_0
tungsten-carbide	R	8.93213670e-04	1.25185049e+04	4.19520121e-03	6.06945618e+02	1.79348141e-01
	G	1.17144815e-03	1.41100107e+04	7.27637904e-03	8.10585449e+02	1.17562465e-01
	B	4.79068374e-04	1.52757334e+04	7.72762904e-03	1.82812720e+03	5.51130697e-02
two-layer-gold	R	1.82179635e-15	1.07573723e+02	7.42797479e-02	4.60632192e-11	3.83815229e+10
	G	1.71543941e+01	1.20768471e+02	6.50666952e-02	6.40013604e-06	2.68463469e+05
	B	2.38037411e-12	1.46436142e+02	5.23450337e-02	1.42395410e-11	1.15632882e+11

RGB Parameters for genBRDF 003-000379

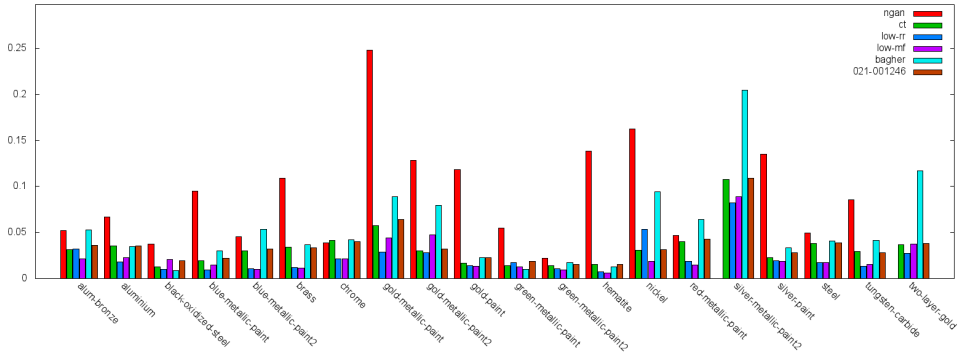
021-001246

Fitness: 0.000271094204

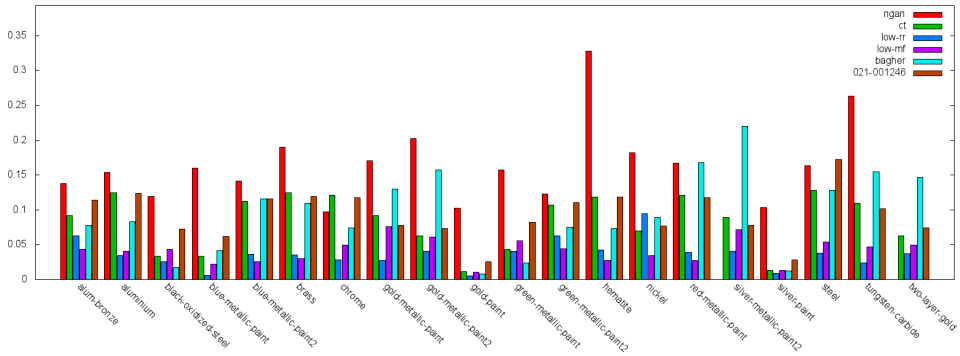
Length: 25

Reciprocity Error: 2.336195972e-14

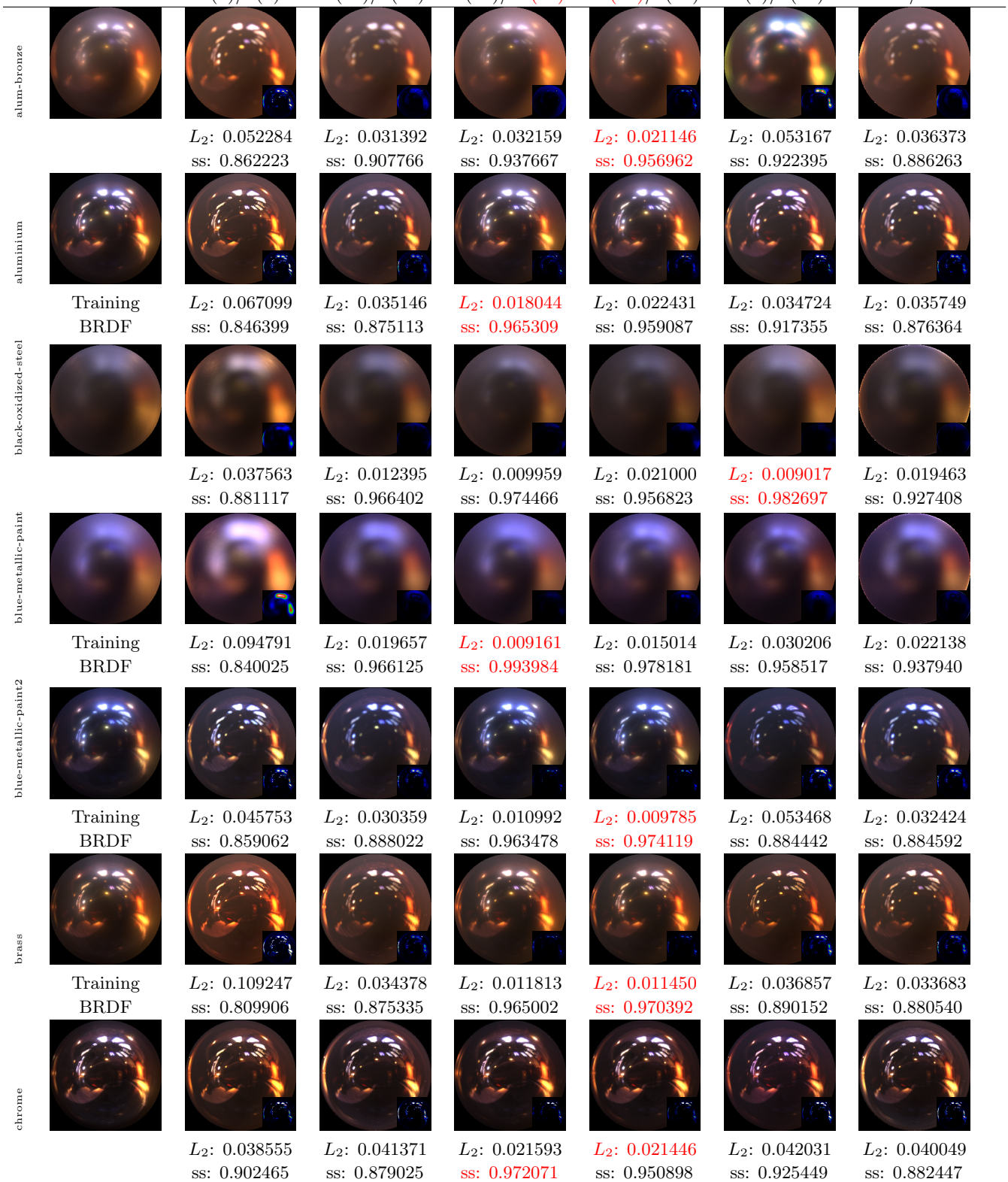
$f'_n(\omega_i, \omega_o) = [\pi * \left(\omega_{hz}\right)^{p1}]$

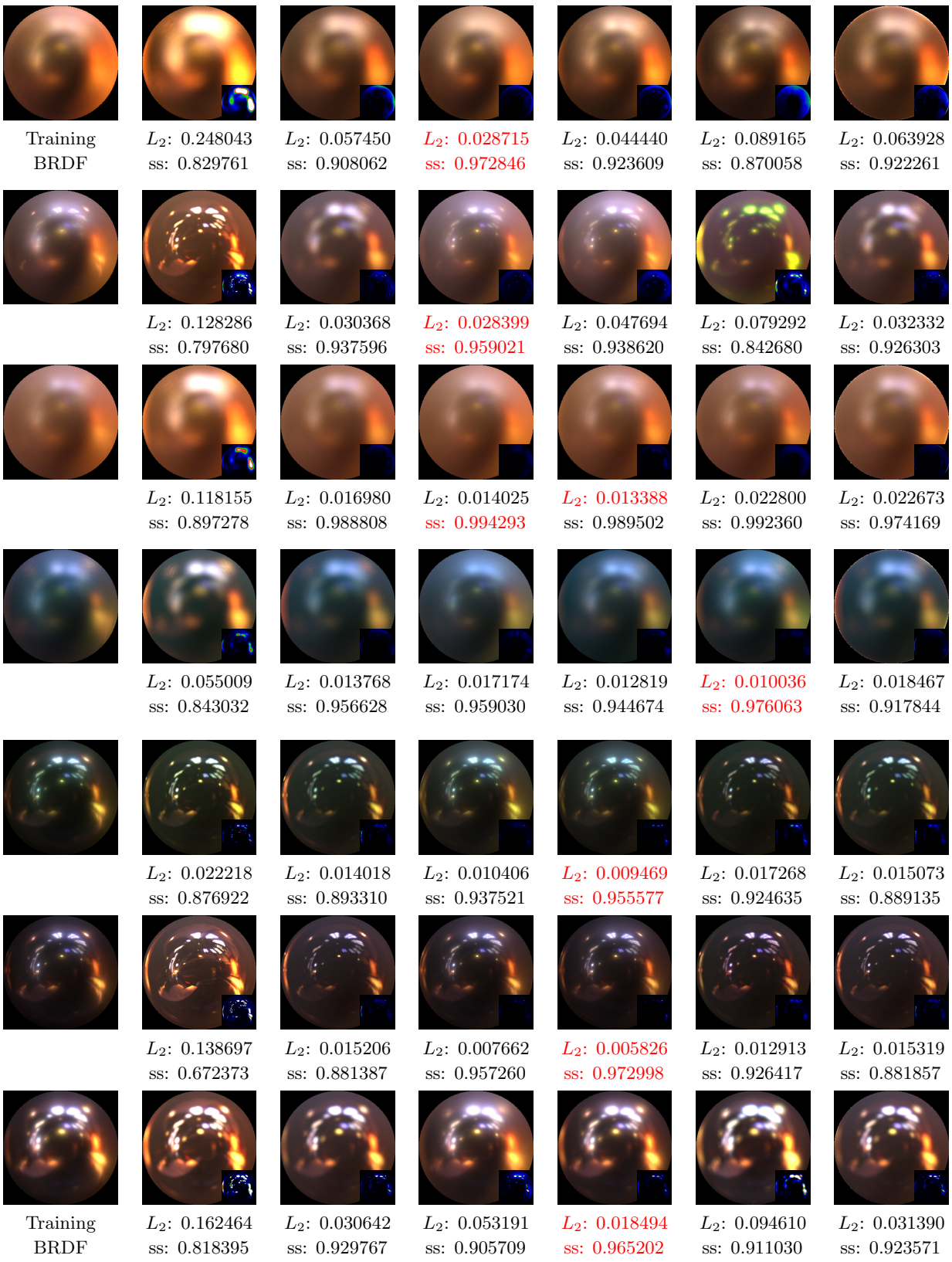


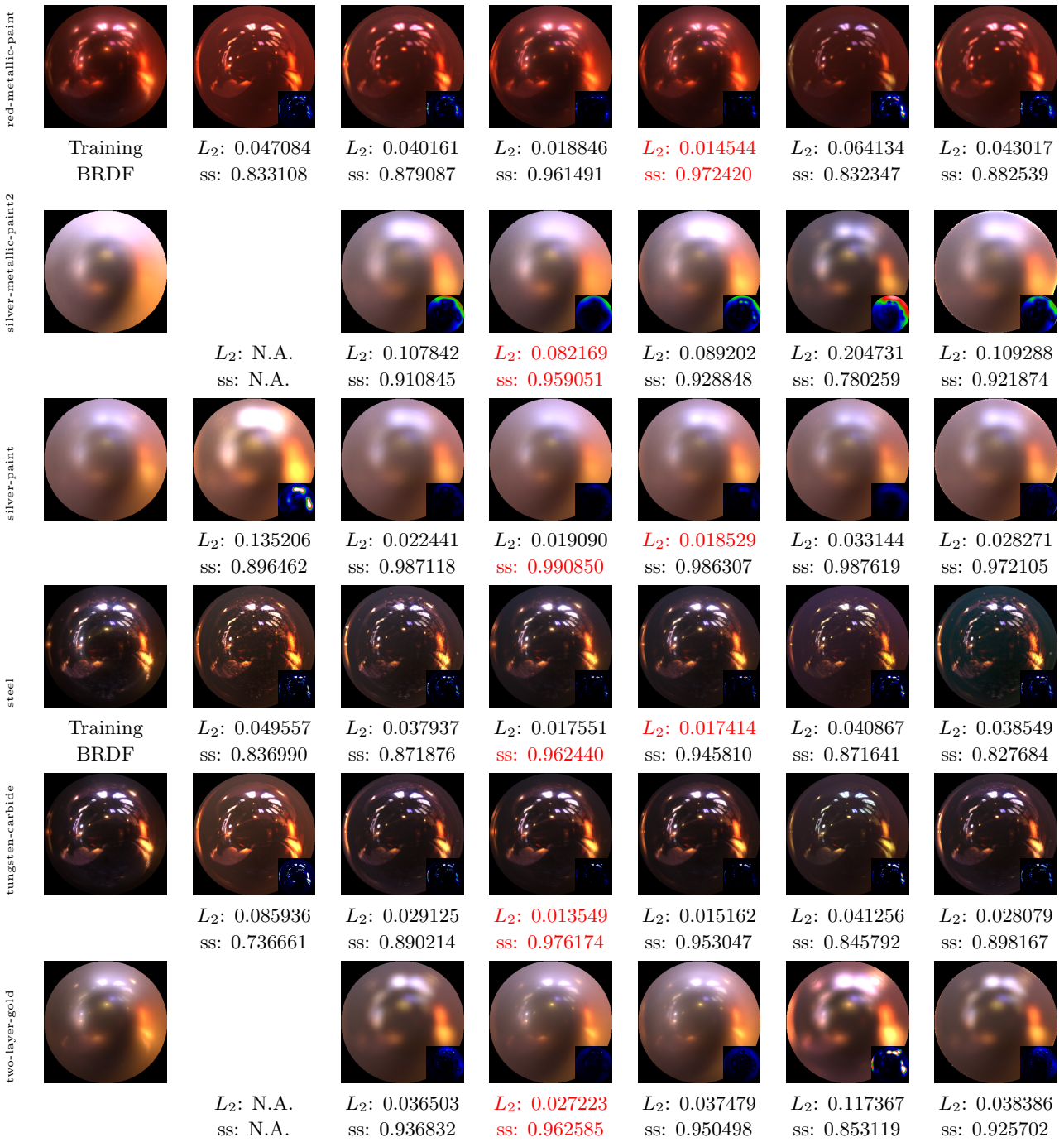
L_2 error.



SSIM error (= 100% - ssim).


MERL
CT(Ngan) 0(1)/0(2)
CT(E_2 fit) 0(17)/0(12)
Löw SS 7(19)/11(19)
Löw MF 11(18)/7(20)
Bagher 2(4)/2(12)
genBRDF 0/0
alum-bronze
L_2: 0.052284 ss: 0.862223
L_2: 0.031392 ss: 0.907766
L_2: 0.032159 ss: 0.937667
L_2: 0.021146 ss: 0.956962
L_2: 0.053167 ss: 0.922395
L_2: 0.036373 ss: 0.886263
aluminium
Training BRDF
L_2: 0.067099 ss: 0.846399
L_2: 0.035146 ss: 0.875113
L_2: 0.018044 ss: 0.965309
L_2: 0.022431 ss: 0.959087
L_2: 0.034724 ss: 0.917355
L_2: 0.035749 ss: 0.876364
black-oxidized-steel
L_2: 0.037563 ss: 0.881117
L_2: 0.012395 ss: 0.966402
L_2: 0.009959 ss: 0.974466
L_2: 0.021000 ss: 0.956823
L_2: 0.009017 ss: 0.982697
L_2: 0.019463 ss: 0.927408
blue-metallic-paint
Training BRDF
L_2: 0.094791 ss: 0.840025
L_2: 0.019657 ss: 0.966125
L_2: 0.009161 ss: 0.993984
L_2: 0.015014 ss: 0.978181
L_2: 0.030206 ss: 0.958517
L_2: 0.022138 ss: 0.937940
blue-metallic-paint2
Training BRDF
L_2: 0.045753 ss: 0.859062
L_2: 0.030359 ss: 0.888022
L_2: 0.010992 ss: 0.963478
L_2: 0.009785 ss: 0.974119
L_2: 0.053468 ss: 0.884442
L_2: 0.032424 ss: 0.884592
brass
Training BRDF
L_2: 0.109247 ss: 0.809906
L_2: 0.034378 ss: 0.875335
L_2: 0.011813 ss: 0.965002
L_2: 0.011450 ss: 0.970392
L_2: 0.036857 ss: 0.890152
L_2: 0.033683 ss: 0.880540
chrome
L_2: 0.038555 ss: 0.902465
L_2: 0.041371 ss: 0.879025
L_2: 0.021593 ss: 0.972071
L_2: 0.021446 ss: 0.950898
L_2: 0.042031 ss: 0.925449
L_2: 0.040049 ss: 0.882447


gold-metallic-paint
Training BRDF
L_2: 0.248043 ss: 0.829761
L_2: 0.057450 ss: 0.908062
L_2: 0.028715 ss: 0.972846
L_2: 0.044440 ss: 0.923609
L_2: 0.089165 ss: 0.870058
L_2: 0.063928 ss: 0.922261
gold-metallic-paint2
L_2: 0.128286 ss: 0.797680
L_2: 0.030368 ss: 0.937596
L_2: 0.028399 ss: 0.959021
L_2: 0.047694 ss: 0.938620
L_2: 0.079292 ss: 0.842680
L_2: 0.032332 ss: 0.926303
gold-paint
L_2: 0.118155 ss: 0.897278
L_2: 0.016980 ss: 0.988808
L_2: 0.014025 ss: 0.994293
L_2: 0.013388 ss: 0.989502
L_2: 0.022800 ss: 0.992360
L_2: 0.022673 ss: 0.974169
green-metallic-paint
L_2: 0.055009 ss: 0.843032
L_2: 0.013768 ss: 0.956628
L_2: 0.017174 ss: 0.959030
L_2: 0.012819 ss: 0.944674
L_2: 0.010036 ss: 0.976063
L_2: 0.018467 ss: 0.917844
green-metallic-paint2
L_2: 0.022218 ss: 0.876922
L_2: 0.014018 ss: 0.893310
L_2: 0.010406 ss: 0.937521
L_2: 0.009469 ss: 0.955577
L_2: 0.017268 ss: 0.924635
L_2: 0.015073 ss: 0.889135
hematite
L_2: 0.138697 ss: 0.672373
L_2: 0.015206 ss: 0.881387
L_2: 0.007662 ss: 0.957260
L_2: 0.005826 ss: 0.972998
L_2: 0.012913 ss: 0.926417
L_2: 0.015319 ss: 0.881857
nickel
Training BRDF
L_2: 0.162464 ss: 0.818395
L_2: 0.030642 ss: 0.929767
L_2: 0.053191 ss: 0.905709
L_2: 0.018494 ss: 0.965202
L_2: 0.094610 ss: 0.911030
L_2: 0.031390 ss: 0.923571


red-metallic-paint
Training BRDF
L_2: 0.047084 ss: 0.833108
L_2: 0.040161 ss: 0.879087
L_2: 0.018846 ss: 0.961491
L_2: 0.014544 ss: 0.972420
L_2: 0.064134 ss: 0.832347
L_2: 0.043017 ss: 0.882539
silver-metallic-paint2
L_2: N.A. ss: N.A.
L_2: 0.107842 ss: 0.910845
L_2: 0.082169 ss: 0.959051
L_2: 0.089202 ss: 0.928848
L_2: 0.204731 ss: 0.780259
L_2: 0.109288 ss: 0.921874
silver-paint
L_2: 0.135206 ss: 0.896462
L_2: 0.022441 ss: 0.987118
L_2: 0.019090 ss: 0.990850
L_2: 0.018529 ss: 0.986307
L_2: 0.033144 ss: 0.987619
L_2: 0.028271 ss: 0.972105
steel
Training BRDF
L_2: 0.049557 ss: 0.836990
L_2: 0.037937 ss: 0.871876
L_2: 0.017551 ss: 0.962440
L_2: 0.017414 ss: 0.945810
L_2: 0.040867 ss: 0.871641
L_2: 0.038549 ss: 0.827684
tungsten-carbide
L_2: 0.085936 ss: 0.736661
L_2: 0.029125 ss: 0.890214
L_2: 0.013549 ss: 0.976174
L_2: 0.015162 ss: 0.953047
L_2: 0.041256 ss: 0.845792
L_2: 0.028079 ss: 0.898167
two-layer-gold
L_2: N.A. ss: N.A.
L_2: 0.036503 ss: 0.936832
L_2: 0.027223 ss: 0.962585
L_2: 0.037479 ss: 0.950498
L_2: 0.117367 ss: 0.853119
L_2: 0.038386 ss: 0.925702

Material		p0	p1	ρ_d	ρ_s	R_0
alum-bronze	R	1.96342800e-08	7.57977600e+02	8.17482173e-02	1.12102861e+01	1.11294523e-01
	G	6.51602866e-04	8.33943604e+02	6.57416359e-02	1.18589239e+01	7.40094259e-02
	B	8.17830267e-04	1.02389258e+03	4.93531227e-02	1.55166893e+01	3.93862128e-02
aluminium	R	1.75328720e-02	3.46783960e+03	3.58062163e-02	5.26854210e+01	2.16290876e-01
	G	7.22302793e-05	3.22701636e+03	3.79848480e-02	3.49403648e+01	2.80154258e-01
	B	1.29465207e-05	2.91977661e+03	4.15388308e-02	2.96810741e+01	2.95848608e-01
black-oxidized-steel	R	2.72136497e+00	3.76567841e+01	1.48911839e-02	2.77372241e-01	1.30808368e-01
	G	1.56936145e+00	3.52922859e+01	1.30801564e-02	2.47059435e-01	1.39244780e-01
	B	5.66262579e+00	3.33591728e+01	1.21069541e-02	2.30163455e-01	1.41321123e-01
blue-metallic-paint	R	3.49506241e-04	3.81185760e+01	1.41384359e-02	5.90595199e-08	1.62771638e+06
	G	1.42715500e+02	4.08857307e+01	1.17243556e-02	2.65418816e-08	3.57303625e+06
	B	3.58859596e+01	4.39228630e+01	4.11176905e-02	9.83685808e-08	2.14350175e+06
blue-metallic-paint2	R	4.94535118e-01	3.05656885e+03	1.50436284e-02	3.70514183e+01	1.14622958e-01
	G	1.65127494e-04	2.66049561e+03	2.07338370e-02	3.52436867e+01	1.57784179e-01
	B	2.56636500e-04	1.61567236e+03	3.47140431e-02	3.23582077e+01	1.95893288e-01
brass	R	2.49398835e-02	4.44500000e+03	3.55069265e-02	8.60566330e+01	1.40890151e-01
	G	5.26901603e-01	5.34234912e+03	3.14503014e-02	7.41933441e+01	1.21693574e-01
	B	9.64698756e-07	1.00485557e+04	2.22134702e-02	1.21432594e+02	6.47403151e-02
chrome	R	1.30461931e-01	1.37415215e+04	6.95099356e-03	3.41437347e+02	1.49210081e-01
	G	1.97529763e-01	1.58838252e+04	6.06592512e-03	5.82804199e+02	8.55377540e-02
	B	6.07334550e-05	1.53767168e+04	6.35829289e-03	7.19063416e+02	5.89424111e-02
gold-metallic-paint	R	3.74677707e-03	3.39725380e+01	6.83627874e-02	5.47233703e-10	5.27804320e+08
	G	6.20104499e+10	3.82141762e+01	4.66224812e-02	8.42354524e-08	2.51850450e+06
	B	2.28550181e-01	3.80397758e+01	1.21247368e-02	2.52031181e-02	3.34145975e+00
gold-metallic-paint2	R	3.53240950e+06	1.23262390e+02	8.02123547e-02	7.81541644e-07	7.49230562e+05
	G	1.74098139e-04	1.36074860e+02	6.92752376e-02	4.11635210e-06	1.32959016e+05
	B	2.73815414e-04	1.68899109e+02	5.57532869e-02	9.81432277e-06	5.36411055e+04
gold-paint	R	5.47927022e-01	4.58890381e+01	1.76434040e-01	1.98030118e-02	9.92345524e+00
	G	2.74976220e-08	4.70122681e+01	1.02543570e-01	1.06162131e-01	1.48730719e+00
	B	2.72763997e-01	5.63684692e+01	4.16183062e-02	3.12074095e-01	3.17157447e-01
green-metallic-paint	R	2.87918001e-03	7.31492538e+01	6.17642794e-03	6.80211365e-01	1.39925092e-01
	G	1.23320250e+05	5.67253304e+01	3.70682031e-02	3.09491038e-01	5.50686240e-01
	B	1.26871206e-02	5.61229324e+01	4.52514738e-02	2.92984307e-01	6.14327133e-01
green-metallic-paint2	R	5.76607548e-02	2.86183545e+03	8.74847081e-03	2.74885445e+01	6.78885728e-02
	G	4.84402686e+13	2.12742432e+03	2.07411312e-02	1.79997692e+01	1.71729788e-01
	B	2.41918080e-02	2.68100415e+03	1.18416538e-02	2.50744801e+01	9.04132500e-02
hematite	R	3.82032376e-05	6.81751611e+03	1.56196663e-02	6.54782410e+01	9.78674293e-02
	G	5.98303741e-05	7.74954199e+03	1.67935397e-02	6.06551247e+01	1.12812214e-01
	B	1.42084726e-04	7.16580127e+03	1.73375588e-02	5.83112450e+01	1.13040663e-01
nickel	R	2.73971473e-05	5.65105408e+02	3.16099226e-02	8.22837174e-01	5.87797928e+00
	G	1.09724329e-04	5.46877808e+02	2.86171772e-02	1.72730780e+00	2.40771866e+00
	B	7.89313708e-05	5.26921326e+02	2.62293871e-02	2.79414892e+00	1.26159310e+00
red-metallic-paint	R	1.61731696e-05	1.28322864e+03	4.74778935e-02	2.30057812e+01	2.06792668e-01
	G	2.70205680e-02	4.12412744e+03	9.53519810e-03	4.55708046e+01	5.92462867e-02
	B	1.90084957e-05	4.54307373e+03	5.33800386e-03	4.89144478e+01	3.63937654e-02
silver-metallic-paint2	R	3.59571891e-06	3.63083649e+01	1.52838811e-01	1.15032447e-06	2.69382125e+05
	G	1.89467227e-11	3.38415222e+01	1.49468362e-01	4.69222243e-07	5.72847125e+05
	B	4.05080795e-11	3.19748173e+01	1.42417043e-01	4.16330749e-07	5.61792438e+05
silver-paint	R	1.23517597e+00	4.70294647e+01	1.88733786e-01	1.69170853e-05	1.40782363e+04
	G	6.38001855e+03	4.82435760e+01	1.59984916e-01	4.79063783e-06	5.26381680e+04
	B	5.44389151e-02	4.97354889e+01	1.43050522e-01	3.03604301e-20	8.74526095e+18
steel	R	3.52295707e-14	1.22746191e+04	2.55923311e-04	3.35347687e+02	1.00755185e-01
	G	8.61643571e-07	1.33942227e+04	1.71255544e-02	3.59588623e+02	8.04633647e-02
	B	8.13545763e-01	1.19766094e+04	1.90092586e-02	3.38441528e+02	6.59416765e-02

RGB Parameters for genBRDF 021-001246

Material		p0	p1	ρ_d	ρ_s	R_0
tungsten-carbide	R	1.84024021e-03	1.25315723e+04	7.80438306e-03	1.95466354e+02	1.77132472e-01
	G	2.05037603e-03	1.41081006e+04	7.32648233e-03	2.58115753e+02	1.17655754e-01
	B	1.88077536e-06	1.52699658e+04	7.65956985e-03	5.81046326e+02	5.51955216e-02
two-layer-gold	R	5.55009338e+02	1.07765785e+02	7.43279308e-02	4.79209952e-08	1.17488550e+07
	G	1.81683060e-02	1.20652489e+02	6.50297850e-02	2.20927063e-06	2.47605938e+05
	B	1.02651855e-02	1.46313919e+02	5.23769408e-02	1.60259651e-06	3.27040031e+05

RGB Parameters for genBRDF 021-001246

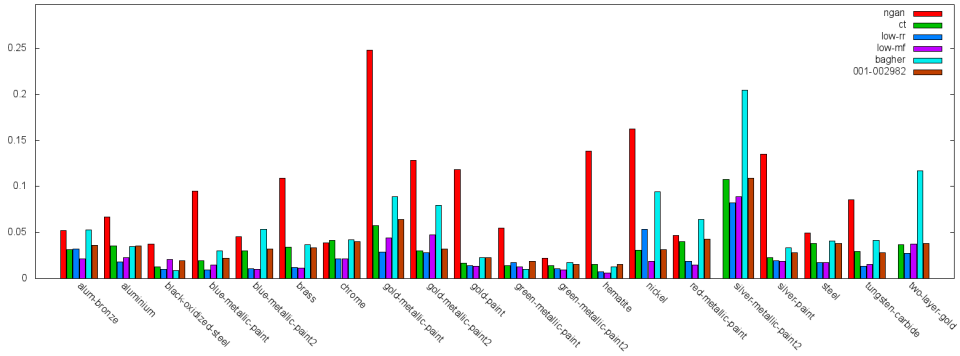
001-002982

Fitness: 0.000271257718

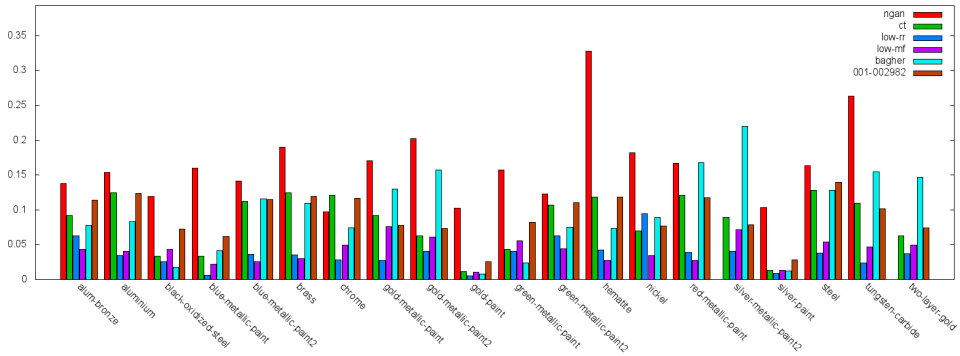
Length: 18

Reciprocity Error: 2.342537635e-14

$f'_n(\omega_i, \omega_o) = \left(\omega_{hz}\right)^{p1}$

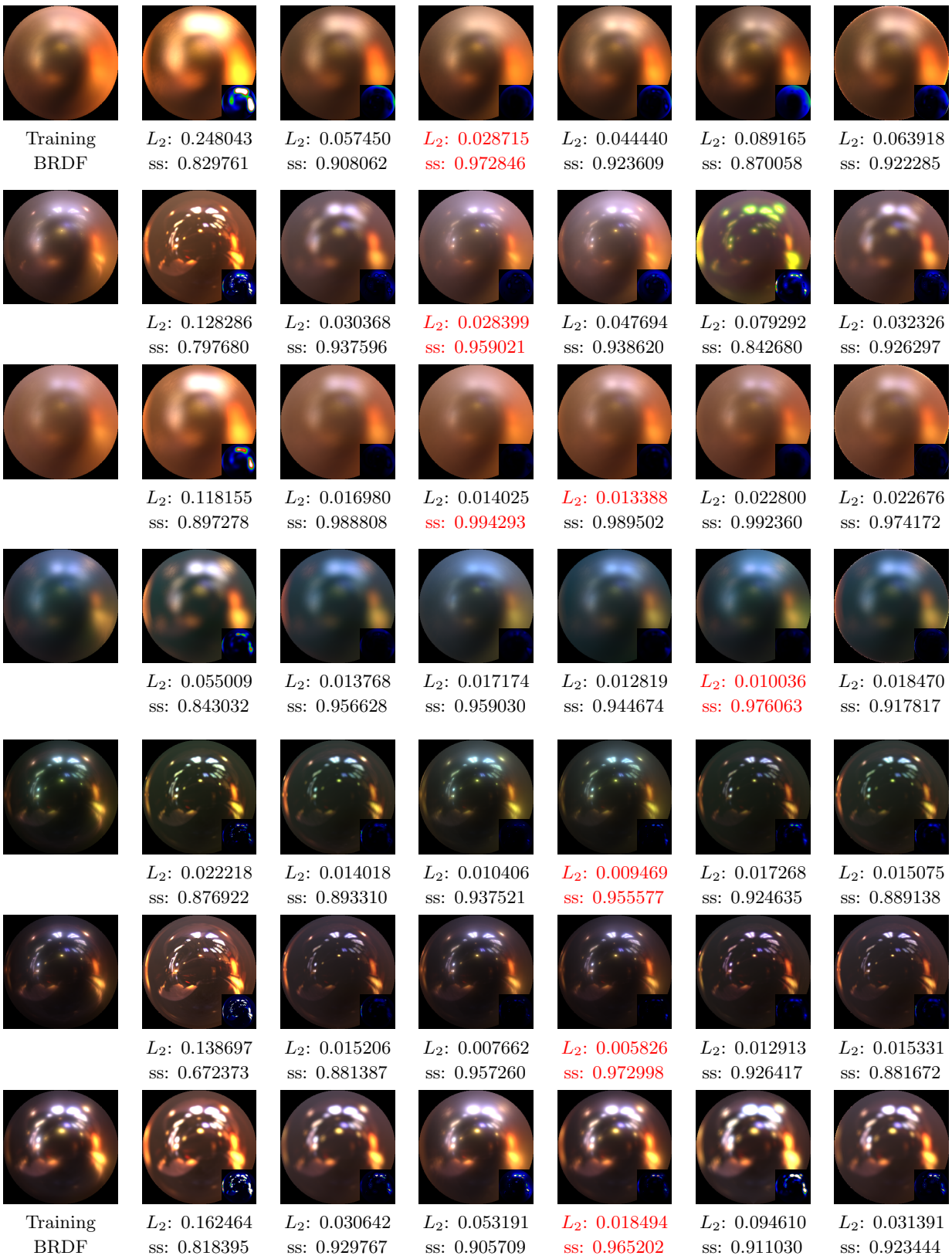


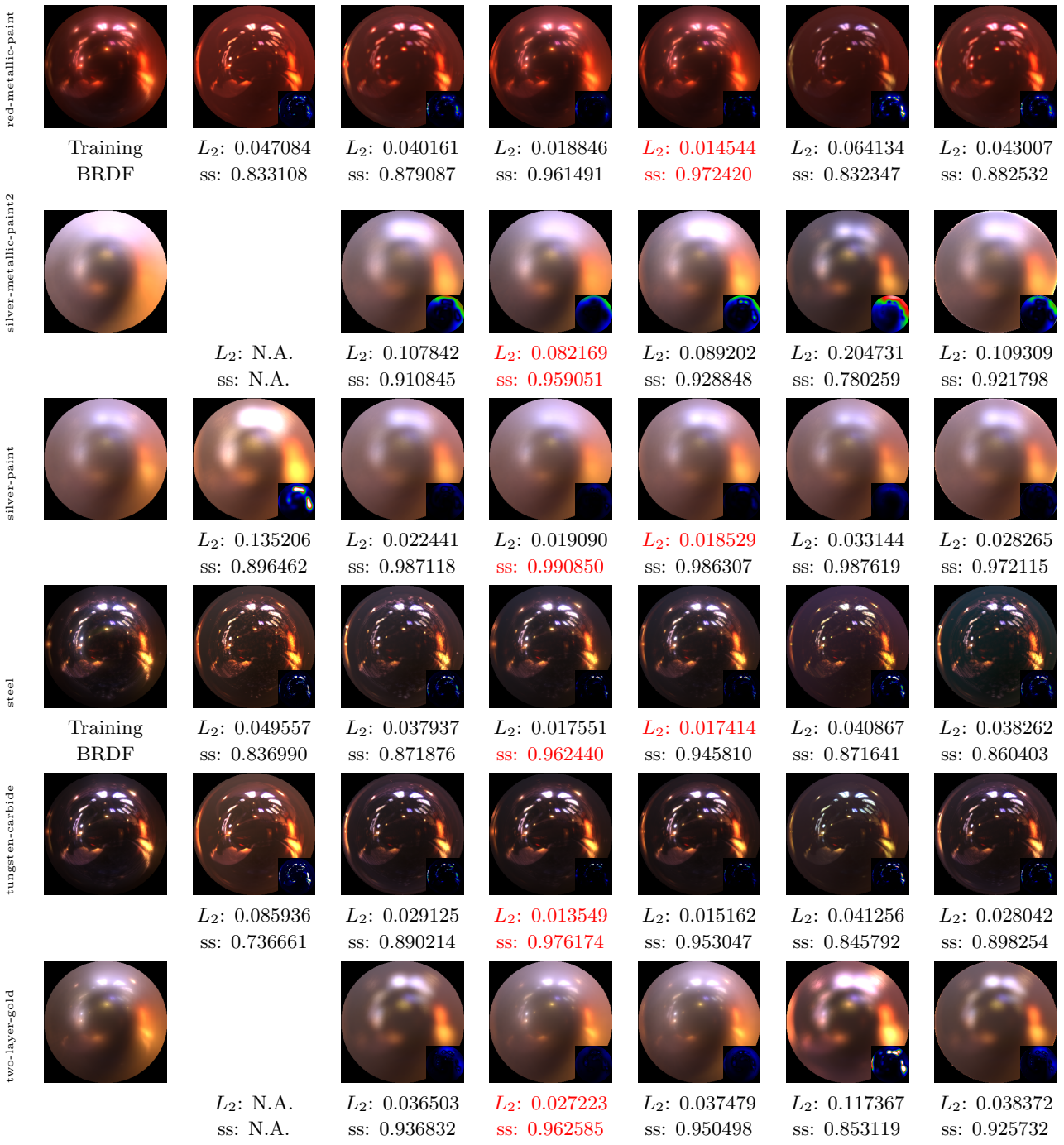
L_2 error.



SSIM error (= 100% - ssim).

	MERL	CT(Ngan) 0(1)/0(1)	CT(E_2 fit) 0(17)/0(12)	Löw SS 7(19)/11(19)	Löw MF 11(18)/7(20)	Bagher 2(4)/2(12)	genBRDF 0/0
alum-bronze		L_2: 0.052284 ss: 0.862223	L_2: 0.031392 ss: 0.907766	L_2: 0.032159 ss: 0.937667	L_2: 0.021146 ss: 0.956962	L_2: 0.053167 ss: 0.922395	L_2: 0.036368 ss: 0.886260
aluminium	Training BRDF	L_2: 0.067099 ss: 0.846399	L_2: 0.035146 ss: 0.875113	L_2: 0.018044 ss: 0.965309	L_2: 0.022431 ss: 0.959087	L_2: 0.034724 ss: 0.917355	L_2: 0.035749 ss: 0.876351
black-oxidized-steel		L_2: 0.037563 ss: 0.881117	L_2: 0.012395 ss: 0.966402	L_2: 0.009959 ss: 0.974466	L_2: 0.021000 ss: 0.956823	L_2: 0.009017 ss: 0.982697	L_2: 0.019461 ss: 0.927441
blue-metallic-paint	Training BRDF	L_2: 0.094791 ss: 0.840025	L_2: 0.019657 ss: 0.966125	L_2: 0.009161 ss: 0.993984	L_2: 0.015014 ss: 0.978181	L_2: 0.030206 ss: 0.958517	L_2: 0.022144 ss: 0.937926
blue-metallic-paint2	Training BRDF	L_2: 0.045753 ss: 0.859062	L_2: 0.030359 ss: 0.888022	L_2: 0.010992 ss: 0.963478	L_2: 0.009785 ss: 0.974119	L_2: 0.053468 ss: 0.884442	L_2: 0.032430 ss: 0.884753
brass	Training BRDF	L_2: 0.109247 ss: 0.809906	L_2: 0.034378 ss: 0.875335	L_2: 0.011813 ss: 0.965002	L_2: 0.011450 ss: 0.970392	L_2: 0.036857 ss: 0.890152	L_2: 0.033683 ss: 0.880541
chrome		L_2: 0.038555 ss: 0.902465	L_2: 0.041371 ss: 0.879025	L_2: 0.021593 ss: 0.972071	L_2: 0.021446 ss: 0.950898	L_2: 0.042031 ss: 0.925449	L_2: 0.039948 ss: 0.883492


gold-metallic-paint
Training BRDF
L_2: 0.248043 ss: 0.829761
L_2: 0.057450 ss: 0.908062
L_2: 0.028715 ss: 0.972846
L_2: 0.044440 ss: 0.923609
L_2: 0.089165 ss: 0.870058
L_2: 0.063918 ss: 0.922285
gold-metallic-paint2
L_2: 0.128286 ss: 0.797680
L_2: 0.030368 ss: 0.937596
L_2: 0.028399 ss: 0.959021
L_2: 0.047694 ss: 0.938620
L_2: 0.079292 ss: 0.842680
L_2: 0.032326 ss: 0.926297
gold-paint
L_2: 0.118155 ss: 0.897278
L_2: 0.016980 ss: 0.988808
L_2: 0.014025 ss: 0.994293
L_2: 0.013388 ss: 0.989502
L_2: 0.022800 ss: 0.992360
L_2: 0.022676 ss: 0.974172
green-metallic-paint
L_2: 0.055009 ss: 0.843032
L_2: 0.013768 ss: 0.956628
L_2: 0.017174 ss: 0.959030
L_2: 0.012819 ss: 0.944674
L_2: 0.010036 ss: 0.976063
L_2: 0.018470 ss: 0.917817
green-metallic-paint2
L_2: 0.022218 ss: 0.876922
L_2: 0.014018 ss: 0.893310
L_2: 0.010406 ss: 0.937521
L_2: 0.009469 ss: 0.955577
L_2: 0.017268 ss: 0.924635
L_2: 0.015075 ss: 0.889138
hematite
L_2: 0.138697 ss: 0.672373
L_2: 0.015206 ss: 0.881387
L_2: 0.007662 ss: 0.957260
L_2: 0.005826 ss: 0.972998
L_2: 0.012913 ss: 0.926417
L_2: 0.015331 ss: 0.881672
nickel
Training BRDF
L_2: 0.162464 ss: 0.818395
L_2: 0.030642 ss: 0.929767
L_2: 0.053191 ss: 0.905709
L_2: 0.018494 ss: 0.965202
L_2: 0.094610 ss: 0.911030
L_2: 0.031391 ss: 0.923444


red-metallic-paint
Training BRDF
L_2: 0.047084 ss: 0.833108
L_2: 0.040161 ss: 0.879087
L_2: 0.018846 ss: 0.961491
L_2: 0.014544 ss: 0.972420
L_2: 0.064134 ss: 0.832347
L_2: 0.043007 ss: 0.882532
silver-metallic-paint2
L_2: N.A. ss: N.A.
L_2: 0.107842 ss: 0.910845
L_2: 0.082169 ss: 0.959051
L_2: 0.089202 ss: 0.928848
L_2: 0.204731 ss: 0.780259
L_2: 0.109309 ss: 0.921798
silver-paint
L_2: 0.135206 ss: 0.896462
L_2: 0.022441 ss: 0.987118
L_2: 0.019090 ss: 0.990850
L_2: 0.018529 ss: 0.986307
L_2: 0.033144 ss: 0.987619
L_2: 0.028265 ss: 0.972115
steel
Training BRDF
L_2: 0.049557 ss: 0.836990
L_2: 0.037937 ss: 0.871876
L_2: 0.017551 ss: 0.962440
L_2: 0.017414 ss: 0.945810
L_2: 0.040867 ss: 0.871641
L_2: 0.038262 ss: 0.860403
tungsten-carbide
L_2: 0.085936 ss: 0.736661
L_2: 0.029125 ss: 0.890214
L_2: 0.013549 ss: 0.976174
L_2: 0.015162 ss: 0.953047
L_2: 0.041256 ss: 0.845792
L_2: 0.028042 ss: 0.898254
two-layer-gold
L_2: N.A. ss: N.A.
L_2: 0.036503 ss: 0.936832
L_2: 0.027223 ss: 0.962585
L_2: 0.037479 ss: 0.950498
L_2: 0.117367 ss: 0.853119
L_2: 0.038372 ss: 0.925732

Material		p0	p1	ρ_d	ρ_s	R_0
alum-bronze	R	6.00346425e-07	7.58628845e+02	8.17772597e-02	3.52500229e+01	1.11294255e-01
	G	6.15793567e-07	8.33031494e+02	6.57618493e-02	3.71875114e+01	7.42065758e-02
	B	1.71682820e-01	1.02383502e+03	4.92916219e-02	4.87590523e+01	3.94396409e-02
aluminium	R	6.09573326e+01	3.46732373e+03	3.58196311e-02	1.65655762e+02	2.16223255e-01
	G	5.54352875e+01	3.22886963e+03	3.79603691e-02	1.09720482e+02	2.80211955e-01
	B	1.20267373e-06	2.92064551e+03	4.15815562e-02	9.27864914e+01	2.97481328e-01
black-oxidized-steel	R	4.67489749e-01	3.76779518e+01	1.49186458e-02	8.71810496e-01	1.30715251e-01
	G	9.56630647e-01	3.52778358e+01	1.30900778e-02	7.76244760e-01	1.39104232e-01
	B	2.86808517e-02	3.33478012e+01	1.20785097e-02	7.22868264e-01	1.41389608e-01
blue-metallic-paint	R	2.51555434e-07	3.81023674e+01	1.41240843e-02	8.70289389e-20	3.46838194e+18
	G	4.55286568e-07	4.08935661e+01	1.16976192e-02	8.93981457e-20	3.33369122e+18
	B	1.54328688e-07	4.39342766e+01	4.11511920e-02	4.37181853e-20	1.51524775e+19
blue-metallic-paint2	R	3.67750158e-03	3.05604712e+03	1.49806142e-02	1.16365799e+02	1.14573501e-01
	G	1.49234656e+03	2.66095996e+03	2.06913184e-02	1.10589836e+02	1.57870173e-01
	B	1.06489542e-03	1.61669116e+03	3.46987620e-02	1.01604469e+02	1.96093768e-01
brass	R	1.75897554e-02	4.44867676e+03	3.54963280e-02	2.70543884e+02	1.40871599e-01
	G	1.74522453e-18	5.33978174e+03	3.13786678e-02	2.33776550e+02	1.21252343e-01
	B	2.41882087e-18	1.00516709e+04	2.22919155e-02	3.81256683e+02	6.48098737e-02
chrome	R	6.21980289e-03	1.37541992e+04	6.62362669e-03	1.06552905e+03	1.50746077e-01
	G	1.73473568e-03	1.58729531e+04	6.07599644e-03	1.83362036e+03	8.52951258e-02
	B	7.04108775e-01	1.53710137e+04	6.31416030e-03	2.25335547e+03	5.90190478e-02
gold-metallic-paint	R	2.26234863e+03	3.39847298e+01	6.84545264e-02	3.75133709e-07	2.41855750e+06
	G	6.80985498e+03	3.82257233e+01	4.66397926e-02	9.54567341e-08	6.98414650e+06
	B	3.11817735e-01	3.80235596e+01	1.21237133e-02	7.90331364e-02	3.34674382e+00
gold-metallic-paint2	R	2.03896593e-02	1.23046577e+02	8.02017003e-02	2.94194633e-05	6.25147969e+04
	G	2.39338146e-06	1.35976074e+02	6.92602247e-02	1.36517874e-05	1.25890516e+05
	B	2.83179156e-06	1.69212448e+02	5.56638613e-02	1.08399627e-05	1.52694484e+05
gold-paint	R	2.74756222e+01	4.58716660e+01	1.76393777e-01	6.10092618e-02	1.01185646e+01
	G	1.09964640e-06	4.70067520e+01	1.02520175e-01	3.33169132e-01	1.48862803e+00
	B	3.33731957e-02	5.63664551e+01	4.15911153e-02	9.80252147e-01	3.17258149e-01
green-metallic-paint	R	5.54148817e+00	7.31641846e+01	6.16891682e-03	2.13716698e+00	1.39907211e-01
	G	2.49839439e+01	5.67368546e+01	3.70260701e-02	9.71828699e-01	5.51079869e-01
	B	8.86440568e-04	5.61546516e+01	4.52849530e-02	9.20530498e-01	6.14544809e-01
green-metallic-paint2	R	1.47717227e-14	2.86538452e+03	8.72835331e-03	8.66021957e+01	6.77480027e-02
	G	5.40881300e+00	2.12857080e+03	2.06727739e-02	5.65590363e+01	1.71745777e-01
	B	2.33704736e-03	2.67929419e+03	1.18864365e-02	7.88340378e+01	9.02165100e-02
hematite	R	1.64701978e-05	6.80706299e+03	1.56645011e-02	2.05859756e+02	9.75911096e-02
	G	2.60057768e-05	7.74084814e+03	1.68038011e-02	1.89601959e+02	1.13349646e-01
	B	1.01204262e-11	7.16140869e+03	1.73704345e-02	1.82897385e+02	1.13135085e-01
nickel	R	3.91087525e-07	5.65551575e+02	3.16397659e-02	2.63660502e+00	5.76746988e+00
	G	1.75279111e-01	5.46712280e+02	2.85914950e-02	5.45377970e+00	2.39542007e+00
	B	4.83003538e-03	5.27109558e+02	2.62315124e-02	8.80141258e+00	1.25850940e+00
red-metallic-paint	R	4.11087368e-03	1.28556628e+03	4.74158786e-02	7.24284363e+01	2.06810117e-01
	G	1.16993757e-02	4.12751123e+03	9.46201384e-03	1.43252747e+02	5.93128391e-02
	B	8.04229698e-04	4.55047559e+03	5.24586486e-03	1.53802353e+02	3.64559628e-02
silver-metallic-paint2	R	1.96951949e+11	3.63263245e+01	1.52705967e-01	1.01613559e-05	9.58296484e+04
	G	6.82720511e-08	3.38575897e+01	1.49689868e-01	1.17176640e-07	7.20492650e+06
	B	1.43937982e-07	3.19532356e+01	1.42416686e-01	1.04439344e-07	7.02930450e+06
silver-paint	R	4.98770038e-03	4.70386696e+01	1.88724428e-01	5.72568970e-05	1.30649307e+04
	G	8.90986810e-17	4.82470932e+01	1.59931004e-01	4.16529156e-06	1.90277625e+05
	B	1.43177751e-16	4.97169113e+01	1.43081263e-01	4.27506620e-06	1.95037719e+05
steel	R	4.65142904e-07	1.22798408e+04	1.87177421e-03	1.07074353e+03	9.90899205e-02
	G	2.48194056e-07	1.34028350e+04	1.69922505e-02	1.13149585e+03	8.03398043e-02
	B	5.37698269e-01	1.19836016e+04	1.90395676e-02	1.06536902e+03	6.58247173e-02

RGB Parameters for genBRDF 001-002982

Material		p0	p1	ρ_d	ρ_s	R_0
tungsten-carbide	R	4.94691685e-26	1.25274736e+04	7.83810485e-03	6.11307312e+02	1.78027555e-01
	G	8.66047617e-26	1.41042256e+04	7.19188107e-03	8.10313416e+02	1.17640808e-01
	B	4.31364211e-26	1.52859639e+04	7.57430494e-03	1.82461414e+03	5.53714819e-02
two-layer-gold	R	5.43303378e-02	1.07791382e+02	7.43979663e-02	3.78974801e-05	4.67171836e+04
	G	1.35320815e-05	1.20791275e+02	6.50438294e-02	1.80594652e-05	9.52050312e+04
	B	5.21158472e-05	1.46350555e+02	5.23602106e-02	1.31496208e-05	1.25109445e+05

RGB Parameters for genBRDF 001-002982

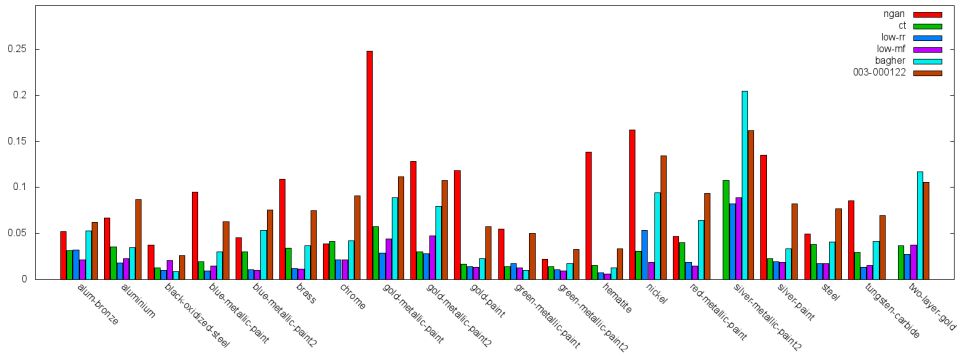
003-000122

Fitness: 0.000771834860

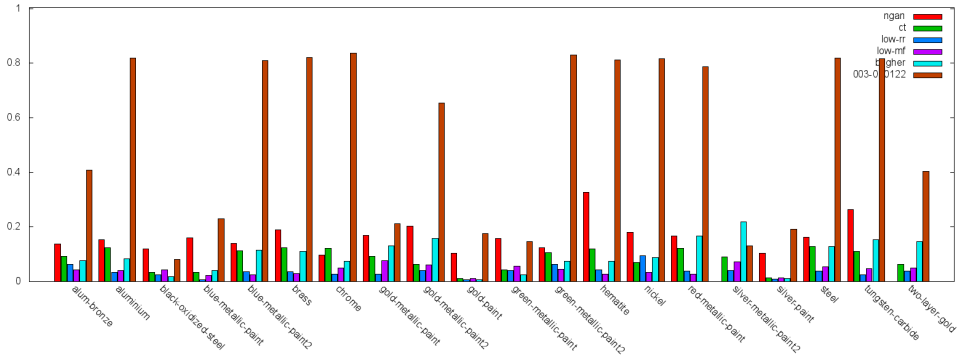
Length: 15

Reciprocity Error: 3.1285764e-19

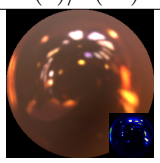
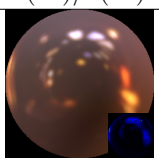
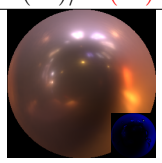
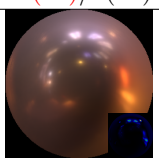
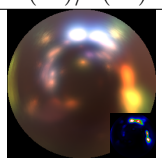
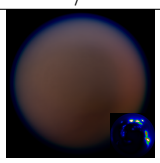
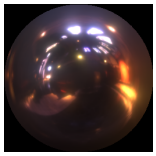
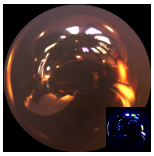
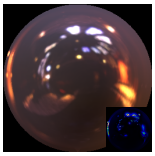
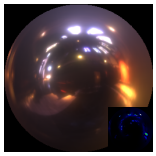
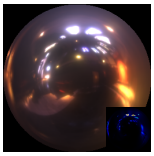
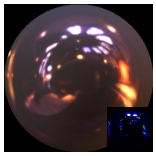
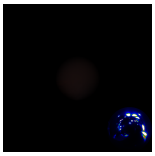
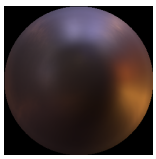
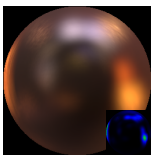
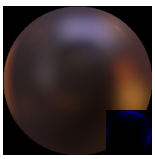
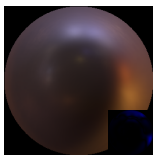
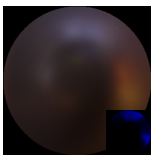
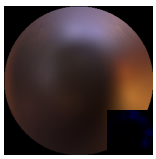
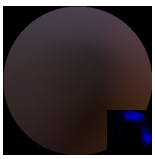
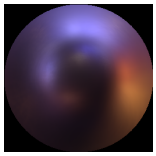
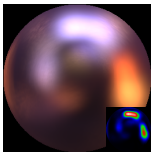
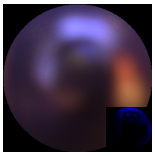
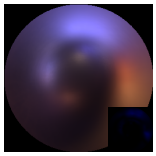
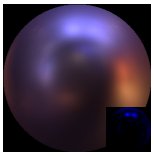
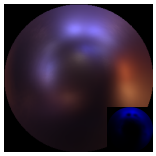
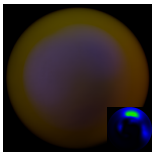
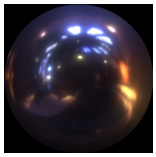
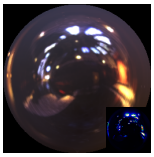
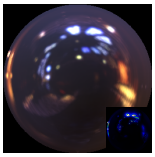
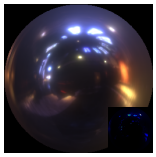
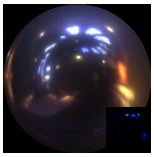
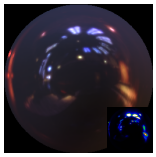
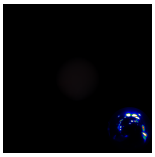
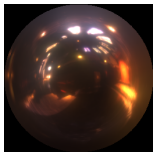
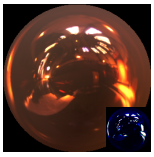
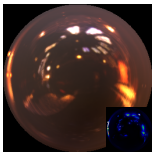
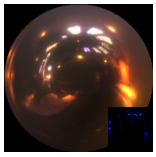
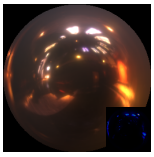
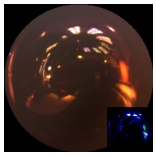
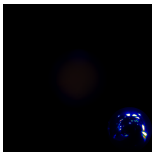
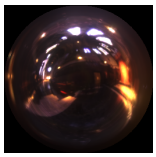
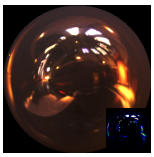
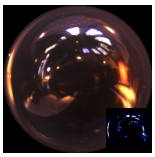
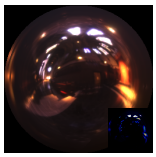
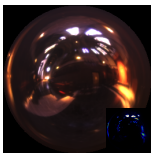
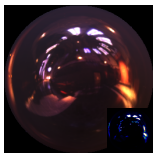
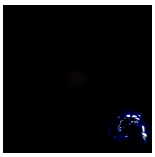
$f'_n(\omega_i, \omega_o) = (-[p_0] * 1.0)$

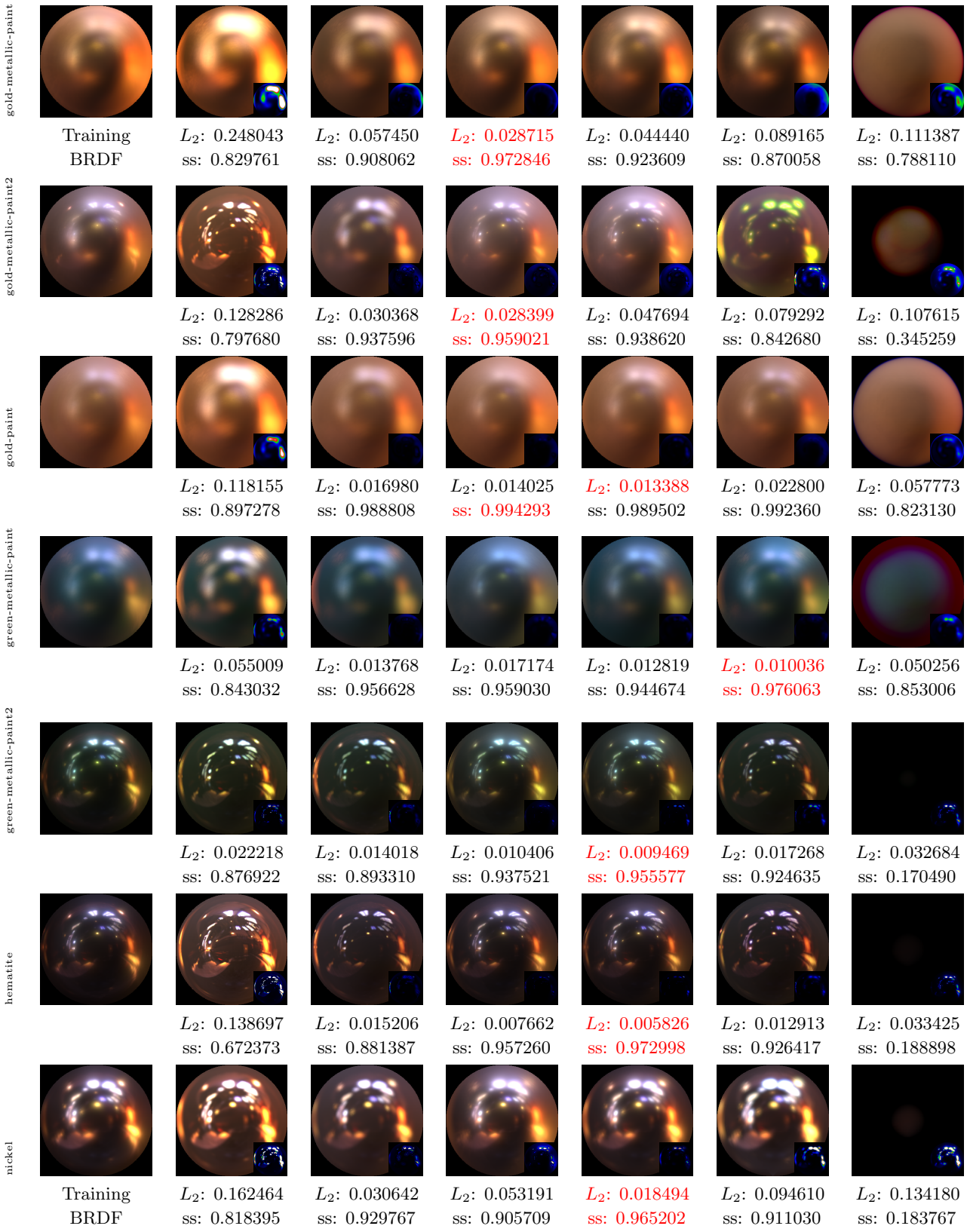


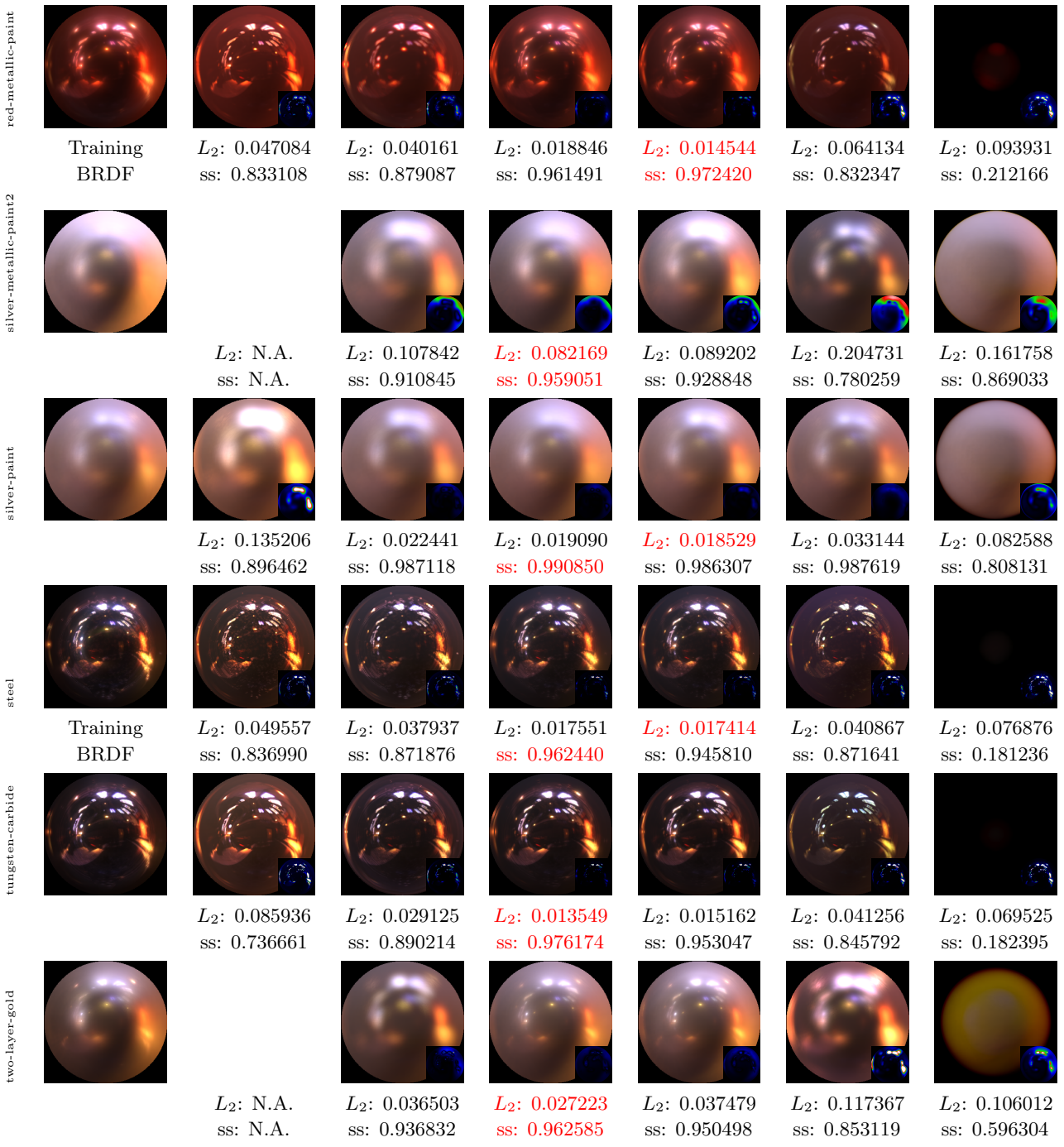
L_2 error.



SSIM error (= 100% - ssim).

	MERL	CT(Ngan) 0(7)/0(16)	CT(E_2 fit) 0(20)/0(20)	Löw SS 7(20)/11(20)	Löw MF 11(20)/7(20)	Bagher 2(18)/2(19)	genBRDF 0/0
alum-bronze		 L_2: 0.052284 ss: 0.862223	 L_2: 0.031392 ss: 0.907766	 L_2: 0.032159 ss: 0.937667	 L_2: 0.021146 ss: 0.956962	 L_2: 0.053167 ss: 0.922395	 L_2: 0.061961 ss: 0.591842
aluminium		 Training BRDF L_2: 0.067099 ss: 0.846399	 L_2: 0.035146 ss: 0.875113	 L_2: 0.018044 ss: 0.965309	 L_2: 0.022431 ss: 0.959087	 L_2: 0.034724 ss: 0.917355	 L_2: 0.087282 ss: 0.181552
black-oxidized-steel		 L_2: 0.037563 ss: 0.881117	 L_2: 0.012395 ss: 0.966402	 L_2: 0.009959 ss: 0.974466	 L_2: 0.021000 ss: 0.956823	 L_2: 0.009017 ss: 0.982697	 L_2: 0.025987 ss: 0.919193
blue-metallic-paint		 Training BRDF L_2: 0.094791 ss: 0.840025	 L_2: 0.019657 ss: 0.966125	 L_2: 0.009161 ss: 0.993984	 L_2: 0.015014 ss: 0.978181	 L_2: 0.030206 ss: 0.958517	 L_2: 0.062808 ss: 0.769939
blue-metallic-paint2		 Training BRDF L_2: 0.045753 ss: 0.859062	 L_2: 0.030359 ss: 0.888022	 L_2: 0.010992 ss: 0.963478	 L_2: 0.009785 ss: 0.974119	 L_2: 0.053468 ss: 0.884442	 L_2: 0.075577 ss: 0.191101
brass		 Training BRDF L_2: 0.109247 ss: 0.809906	 L_2: 0.034378 ss: 0.875335	 L_2: 0.011813 ss: 0.965002	 L_2: 0.011450 ss: 0.970392	 L_2: 0.036857 ss: 0.890152	 L_2: 0.074918 ss: 0.178058
chrome		 L_2: 0.038555 ss: 0.902465	 L_2: 0.041371 ss: 0.879025	 L_2: 0.021593 ss: 0.972071	 L_2: 0.021446 ss: 0.950898	 L_2: 0.042031 ss: 0.925449	 L_2: 0.091171 ss: 0.163413


gold-metallic-paint
Training BRDF
L_2: 0.248043 ss: 0.829761
L_2: 0.057450 ss: 0.908062
L_2: 0.028715 ss: 0.972846
L_2: 0.044440 ss: 0.923609
L_2: 0.089165 ss: 0.870058
L_2: 0.111387 ss: 0.788110
gold-metallic-paint2
L_2: 0.128286 ss: 0.797680
L_2: 0.030368 ss: 0.937596
L_2: 0.028399 ss: 0.959021
L_2: 0.047694 ss: 0.938620
L_2: 0.079292 ss: 0.842680
L_2: 0.107615 ss: 0.345259
gold-paint
L_2: 0.118155 ss: 0.897278
L_2: 0.016980 ss: 0.988808
L_2: 0.014025 ss: 0.994293
L_2: 0.013388 ss: 0.989502
L_2: 0.022800 ss: 0.992360
L_2: 0.057773 ss: 0.823130
green-metallic-paint
L_2: 0.055009 ss: 0.843032
L_2: 0.013768 ss: 0.956628
L_2: 0.017174 ss: 0.959030
L_2: 0.012819 ss: 0.944674
L_2: 0.010036 ss: 0.976063
L_2: 0.050256 ss: 0.853006
green-metallic-paint2
L_2: 0.022218 ss: 0.876922
L_2: 0.014018 ss: 0.893310
L_2: 0.010406 ss: 0.937521
L_2: 0.009469 ss: 0.955577
L_2: 0.017268 ss: 0.924635
L_2: 0.032684 ss: 0.170490
hematite
L_2: 0.138697 ss: 0.672373
L_2: 0.015206 ss: 0.881387
L_2: 0.007662 ss: 0.957260
L_2: 0.005826 ss: 0.972998
L_2: 0.012913 ss: 0.926417
L_2: 0.033425 ss: 0.188898
nickel
Training BRDF
L_2: 0.162464 ss: 0.818395
L_2: 0.030642 ss: 0.929767
L_2: 0.053191 ss: 0.905709
L_2: 0.018494 ss: 0.965202
L_2: 0.094610 ss: 0.911030
L_2: 0.134180 ss: 0.183767


red-metallic-paint
Training BRDF
L_2: 0.047084 ss: 0.833108
L_2: 0.040161 ss: 0.879087
L_2: 0.018846 ss: 0.961491
L_2: 0.014544 ss: 0.972420
L_2: 0.064134 ss: 0.832347
L_2: 0.093931 ss: 0.212166
silver-metallic-paint2
L_2: N.A. ss: N.A.
L_2: 0.107842 ss: 0.910845
L_2: 0.082169 ss: 0.959051
L_2: 0.089202 ss: 0.928848
L_2: 0.204731 ss: 0.780259
L_2: 0.161758 ss: 0.869033
silver-paint
L_2: 0.135206 ss: 0.896462
L_2: 0.022441 ss: 0.987118
L_2: 0.019090 ss: 0.990850
L_2: 0.018529 ss: 0.986307
L_2: 0.033144 ss: 0.987619
L_2: 0.082588 ss: 0.808131
steel
Training BRDF
L_2: 0.049557 ss: 0.836990
L_2: 0.037937 ss: 0.871876
L_2: 0.017551 ss: 0.962440
L_2: 0.017414 ss: 0.945810
L_2: 0.040867 ss: 0.871641
L_2: 0.076876 ss: 0.181236
tungsten-carbide
L_2: 0.085936 ss: 0.736661
L_2: 0.029125 ss: 0.890214
L_2: 0.013549 ss: 0.976174
L_2: 0.015162 ss: 0.953047
L_2: 0.041256 ss: 0.845792
L_2: 0.069525 ss: 0.182395
two-layer-gold
L_2: N.A. ss: N.A.
L_2: 0.036503 ss: 0.936832
L_2: 0.027223 ss: 0.962585
L_2: 0.037479 ss: 0.950498
L_2: 0.117367 ss: 0.853119
L_2: 0.106012 ss: 0.596304

Material		p0	p1	ρ_d	ρ_s	R_0
alum-bronze	R	3.20640353e-22	9.39002257e-06	1.53980359e-01	6.59074167e+15	1.13070459e+04
	G	2.43175903e-22	9.82849015e-05	1.10450618e-01	3.45947053e+15	1.60726377e+04
	B	2.33999968e-23	2.38480105e-04	6.73822686e-02	2.22999239e+15	6.63665938e+04
aluminium	R	1.20748627e+00	2.53126081e-02	1.46986523e+01	9.88847017e-01	1.43610172e+01
	G	4.31173062e-03	8.17707679e-09	1.50430422e+01	5.01357892e-04	8.11728150e+06
	B	8.49771917e-01	3.92743712e-03	1.54401817e+01	1.99570048e+00	1.06143713e+01
black-oxidized-steel	R	7.03580167e-15	3.24697176e-04	3.03729288e-02	2.33089785e+04	3.02930698e+01
	G	6.93939027e-15	2.47625576e-04	2.86395792e-02	3.25255430e+04	6.96248550e+01
	B	1.93054238e-05	8.43010559e+02	2.77153142e-02	8.59545078e-04	1.45333945e-06
blue-metallic-paint	R	9.31968902e-09	1.67473535e+03	5.64645827e-02	2.88980800e-18	9.43910707e+22
	G	4.77380873e-08	1.46898930e+07	5.08956164e-02	3.28082970e-05	1.58650483e+09
	B	8.79044890e-08	5.89267438e+05	3.06882948e-01	7.17366638e-04	1.98619917e+09
blue-metallic-paint2	R	1.07457857e+01	5.68014866e-06	6.49409246e+00	4.81278598e-02	1.46837349e+01
	G	2.03706993e-04	8.85209978e-01	8.61163616e+00	1.11943008e+02	4.40835449e+02
	B	2.48617125e+00	1.91224899e-04	1.35471811e+01	7.01810122e-01	9.04933548e+00
brass	R	1.21759915e+00	1.79263679e-06	1.01442413e+01	7.43886042e+00	1.30656564e+00
	G	1.21197486e+00	4.76957212e-06	1.01393528e+01	7.49249411e+00	1.31748748e+00
	B	1.54439673e-01	9.88367945e-03	1.07457638e+00	9.47211087e-01	7.62927389e+00
chrome	R	1.01967908e+03	9.25500672e-07	1.00977455e+02	2.92938352e-01	4.23595071e-01
	G	5.17707551e-03	2.68332995e-02	8.65503845e+01	4.66493744e+02	4.49003143e+01
	B	5.93296082e+02	5.65936381e-04	8.24021530e+01	1.16333740e+04	1.49576927e-05
gold-metallic-paint	R	2.40396374e-04	6.65080905e-01	1.90561935e-01	4.91219060e-03	1.65278857e+03
	G	7.18314568e-14	2.08079517e-01	1.32444963e-01	2.23907950e+06	2.01398691e+04
	B	1.09356993e-14	2.62275606e-01	4.44951840e-02	2.27547875e+06	1.58520469e+04
gold-metallic-paint2	R	6.23642235e+01	2.15507582e-01	6.49266303e-01	1.63013610e-04	3.73470535e+01
	G	2.62998343e-02	3.66426557e-01	8.46835196e-01	1.65816879e+00	1.37583342e+01
	B	3.83095406e-02	4.83534905e-06	8.77671540e-01	2.91604519e-01	6.05521011e+01
gold-paint	R	1.59170449e-04	9.41290483e-02	2.51442432e-01	9.20596707e-04	3.89966445e+04
	G	8.40060264e-02	7.37105869e-03	1.59948915e-01	1.89492459e-06	2.37082617e+04
	B	4.08423087e-03	6.80050161e-03	6.83879703e-02	3.76096773e-06	3.05439355e+04
green-metallic-paint	R	2.06014252e+00	9.27453125e+02	2.59813126e-02	3.97172961e-08	9.77632031e-02
	G	9.39375779e-04	8.76875687e+01	1.99729711e-01	9.36704203e-02	8.35181213e+02
	B	1.68549250e-05	5.26851594e-01	1.49921343e-01	1.62118692e-02	1.08465641e+05
green-metallic-paint2	R	3.06735992e+01	2.04919624e+00	5.62813950e+01	3.55490923e+00	6.45250380e-01
	G	3.04468555e+01	5.52960777e+00	5.64384766e+01	3.54810596e+00	6.47985280e-01
	B	3.03333321e+01	1.48751955e+01	5.64294891e+01	3.56279206e+00	6.50822818e-01
hematite	R	9.41867905e+01	3.24636362e-02	4.51230812e+00	2.19520643e-01	2.54654199e-01
	G	8.87862779e-03	6.68957437e-05	4.55398130e+00	3.60040894e+02	1.66125345e+00
	B	1.29985704e+01	7.99697116e-02	4.64838314e+00	2.58215755e-01	1.61533737e+00
nickel	R	7.58237392e-03	2.99083258e-05	2.87846794e+01	3.64376378e+00	1.21397046e+03
	G	8.91159754e-03	9.58141318e-05	2.56522617e+01	3.32111812e+00	1.00963879e+03
	B	1.72011332e-05	7.31067994e-05	2.28787708e+01	7.32131011e-04	2.11563725e+09
red-metallic-paint	R	3.04950428e+00	1.41454081e-03	3.33705640e+00	2.10061837e-02	5.43606873e+01
	G	5.48880249e-02	1.24427201e-02	3.27755523e+00	6.37867165e+00	1.09451160e+01
	B	4.70912201e+02	5.14762476e-03	2.61657667e+00	9.57676396e-03	6.85552180e-01
silver-metallic-paint2	R	1.91790591e-07	5.11988960e-02	2.72235215e-01	4.02348851e-05	8.32218480e+07
	G	1.36311016e-07	7.71955997e-02	2.62084126e-01	4.22072371e-05	1.41922000e+08
	B	1.47549576e-06	1.33400623e+03	2.49785125e-01	4.51987386e-01	2.56731152e+03
silver-paint	R	3.57705876e-02	6.53049529e-01	2.76597172e-01	4.20774404e-06	4.44730039e+04
	G	1.37353069e-04	1.11698201e-02	2.51634747e-01	6.16308348e-03	8.77608203e+03
	B	2.37731333e-03	1.49380649e-02	2.36214533e-01	6.06164278e-04	5.21028418e+03
steel	R	9.30642635e-02	4.87027355e-02	7.87275934e+00	9.30017292e-01	1.07143448e+02
	G	2.58516449e+02	1.97584718e-03	6.81480169e+00	9.64932144e-02	3.19848925e-01
	B	7.05751538e-01	8.03483010e-04	8.57986450e+00	1.41382873e+00	1.01451874e+01

RGB Parameters for genBRDF 003-000122

Material		p0	p1	ρ_d	ρ_s	R_0
tungsten-carbide	R	1.33398443e-01	1.83679983e-01	5.41847181e+00	3.31239365e-02	1.44844580e+03
	G	1.06099852e+05	3.46862301e-02	8.75026627e+01	1.84844151e-01	5.58996154e-03
	B	8.03591980e+02	6.21879925e-09	8.35389481e+01	8.35583452e-03	1.55856266e+01
two-layer-gold	R	5.42880628e-07	8.18356097e-01	1.98110357e-01	5.00970268e+00	9.46136621e+03
	G	7.25348073e-04	5.31731499e-03	1.94247469e-01	1.74153186e-02	2.71634888e+03
	B	1.02068239e-04	1.96575420e-03	8.48156452e-01	1.69568390e-01	3.77512734e+04

RGB Parameters for genBRDF 003-000122

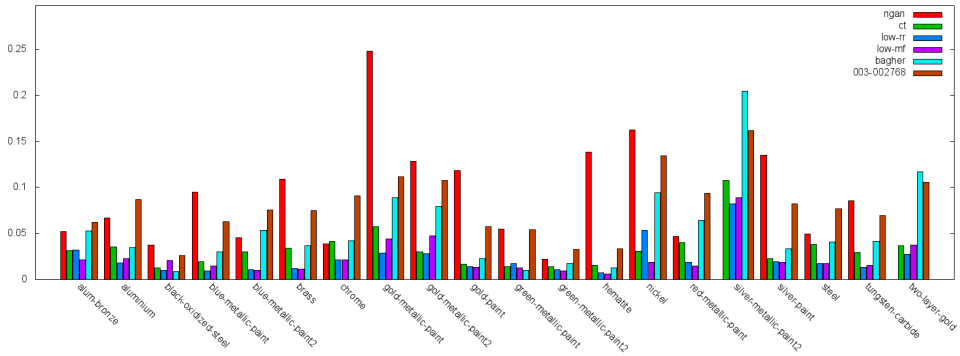
003-002768

Fitness: 0.000772224121

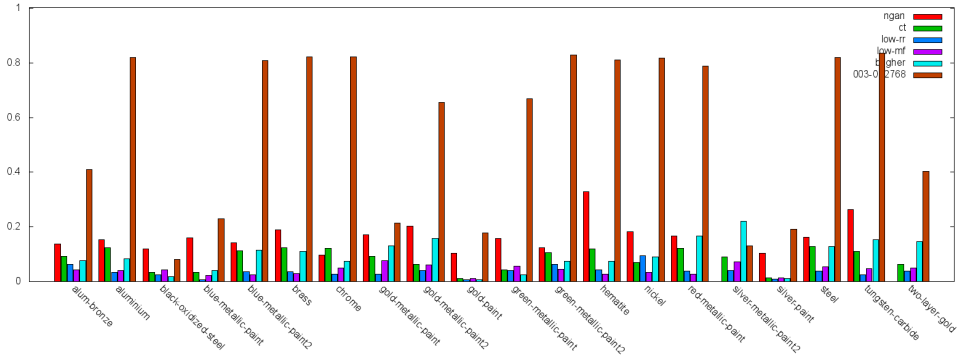
Length: 8

Reciprocity Error: 2.471982e-19

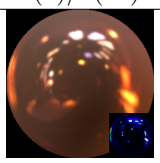
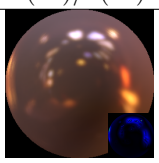
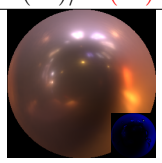
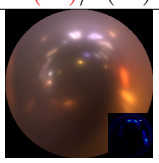
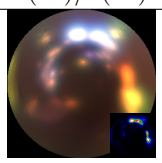
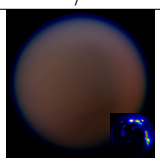
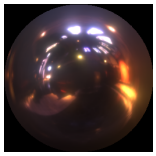
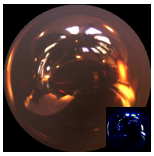
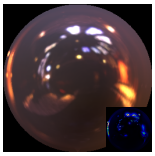
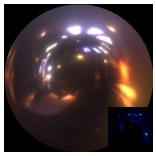
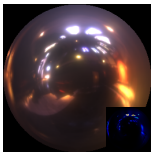
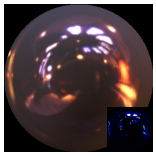
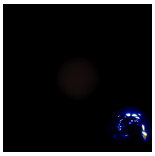
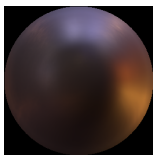
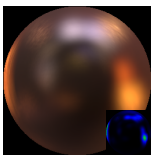
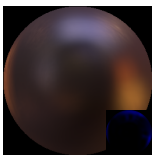
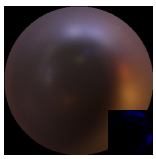
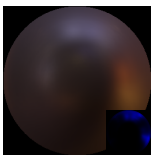
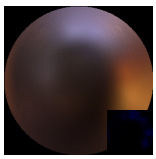
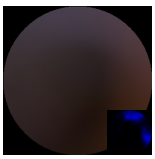
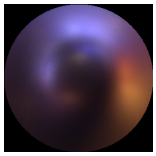
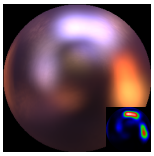
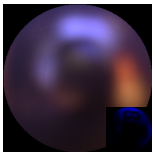
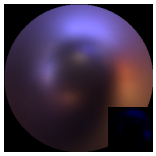
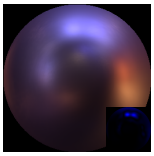
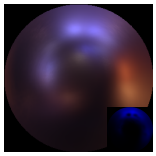
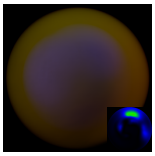
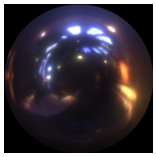
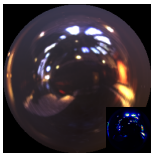
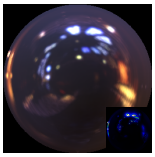
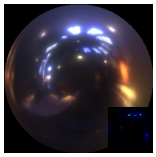
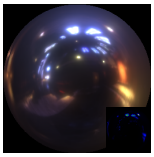
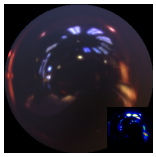
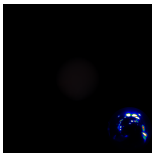
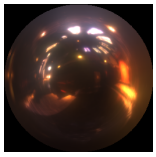
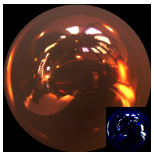
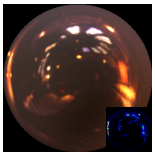
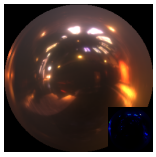
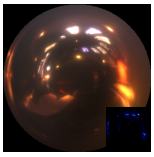
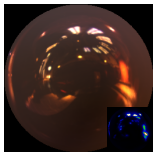
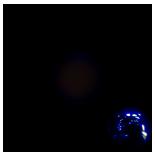
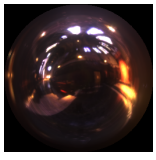
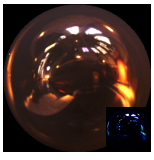
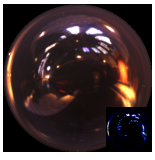
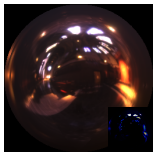
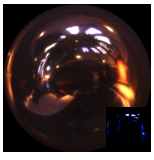
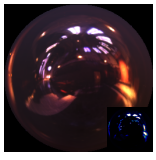
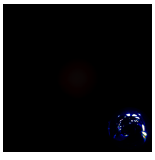
$f'_n(\omega_i, \omega_o) = -2.0$

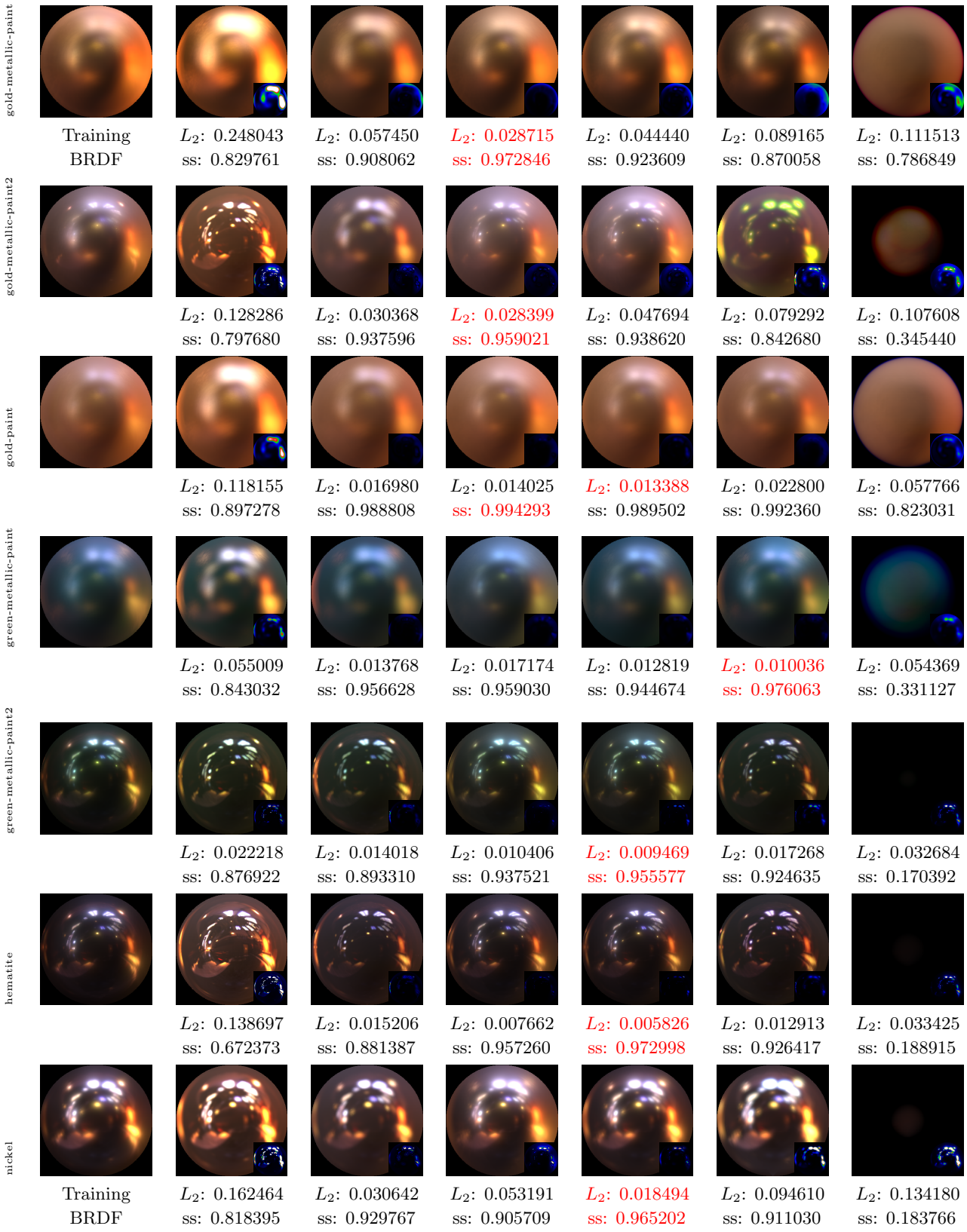


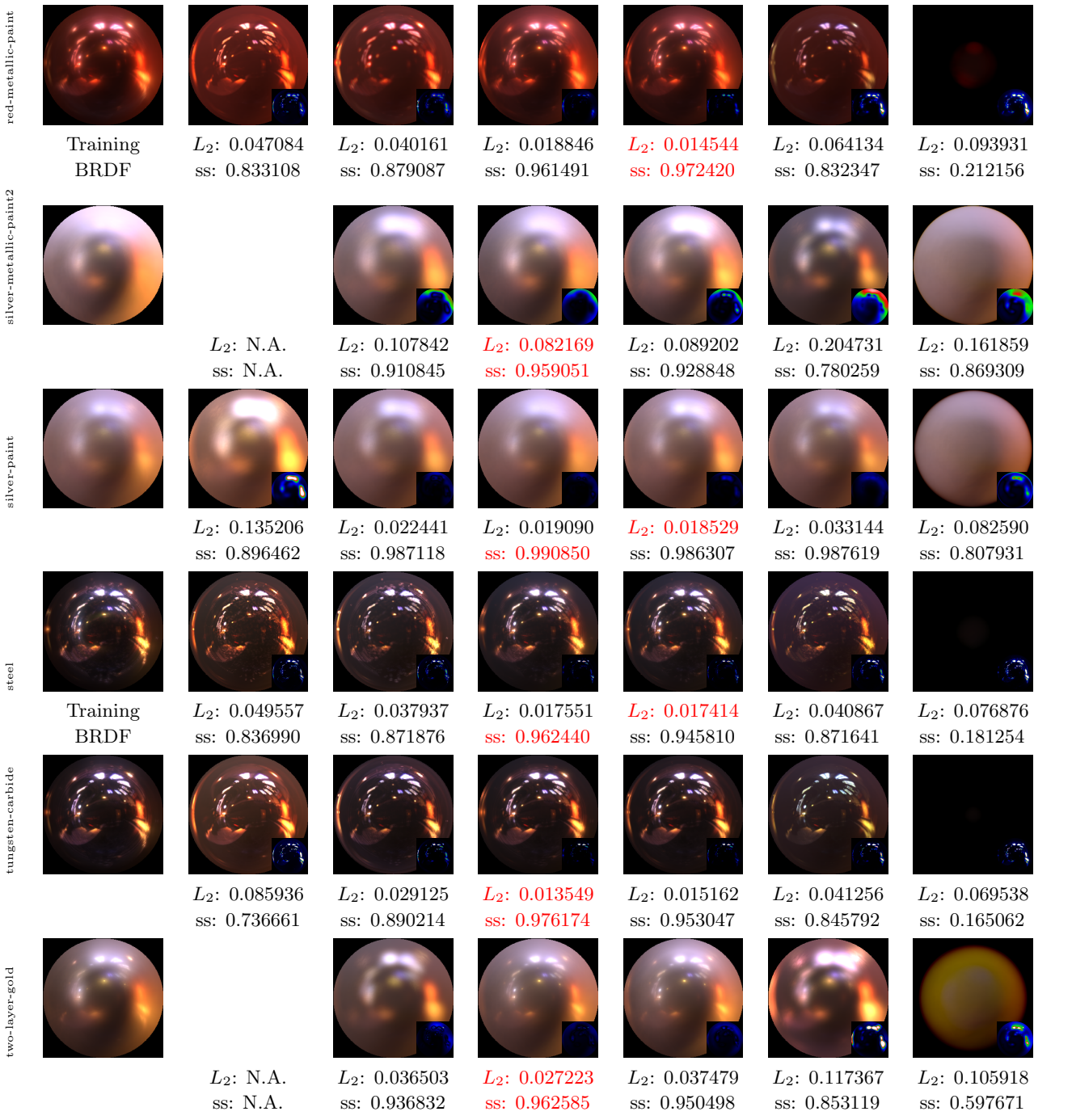
L_2 error.



SSIM error (= 100% - ssim).

	MERL	CT(Ngan) 0(7)/0(17)	CT(E_2 fit) 0(20)/0(20)	Löw SS 7(20)/11(20)	Löw MF 11(20)/7(20)	Bagher 2(18)/2(19)	genBRDF 0/0
alum-bronze		 L_2: 0.052284 ss: 0.862223	 L_2: 0.031392 ss: 0.907766	 L_2: 0.032159 ss: 0.937667	 L_2: 0.021146 ss: 0.956962	 L_2: 0.053167 ss: 0.922395	 L_2: 0.062006 ss: 0.591316
aluminium		 L_2: 0.067099 ss: 0.846399	 L_2: 0.035146 ss: 0.875113	 L_2: 0.018044 ss: 0.965309	 L_2: 0.022431 ss: 0.959087	 L_2: 0.034724 ss: 0.917355	 L_2: 0.087282 ss: 0.181537
black-oxidized-steel		 L_2: 0.037563 ss: 0.881117	 L_2: 0.012395 ss: 0.966402	 L_2: 0.009959 ss: 0.974466	 L_2: 0.021000 ss: 0.956823	 L_2: 0.009017 ss: 0.982697	 L_2: 0.025989 ss: 0.919144
blue-metallic-paint		 L_2: 0.094791 ss: 0.840025	 L_2: 0.019657 ss: 0.966125	 L_2: 0.009161 ss: 0.993984	 L_2: 0.015014 ss: 0.978181	 L_2: 0.030206 ss: 0.958517	 L_2: 0.062782 ss: 0.771183
blue-metallic-paint2		 L_2: 0.045753 ss: 0.859062	 L_2: 0.030359 ss: 0.888022	 L_2: 0.010992 ss: 0.963478	 L_2: 0.009785 ss: 0.974119	 L_2: 0.053468 ss: 0.884442	 L_2: 0.075577 ss: 0.191182
brass		 L_2: 0.109247 ss: 0.809906	 L_2: 0.034378 ss: 0.875335	 L_2: 0.011813 ss: 0.965002	 L_2: 0.011450 ss: 0.970392	 L_2: 0.036857 ss: 0.890152	 L_2: 0.074918 ss: 0.178143
chrome		 L_2: 0.038555 ss: 0.902465	 L_2: 0.041371 ss: 0.879025	 L_2: 0.021593 ss: 0.972071	 L_2: 0.021446 ss: 0.950898	 L_2: 0.042031 ss: 0.925449	 L_2: 0.091160 ss: 0.178898


gold-metallic-paint
Training BRDF
L_2: 0.248043 ss: 0.829761
L_2: 0.057450 ss: 0.908062
L_2: 0.028715 ss: 0.972846
L_2: 0.044440 ss: 0.923609
L_2: 0.089165 ss: 0.870058
L_2: 0.111513 ss: 0.786849
gold-metallic-paint2
L_2: 0.128286 ss: 0.797680
L_2: 0.030368 ss: 0.937596
L_2: 0.028399 ss: 0.959021
L_2: 0.047694 ss: 0.938620
L_2: 0.079292 ss: 0.842680
L_2: 0.107608 ss: 0.345440
gold-paint
L_2: 0.118155 ss: 0.897278
L_2: 0.016980 ss: 0.988808
L_2: 0.014025 ss: 0.994293
L_2: 0.013388 ss: 0.989502
L_2: 0.022800 ss: 0.992360
L_2: 0.057766 ss: 0.823031
green-metallic-paint
L_2: 0.055009 ss: 0.843032
L_2: 0.013768 ss: 0.956628
L_2: 0.017174 ss: 0.959030
L_2: 0.012819 ss: 0.944674
L_2: 0.010036 ss: 0.976063
L_2: 0.054369 ss: 0.331127
green-metallic-paint2
L_2: 0.022218 ss: 0.876922
L_2: 0.014018 ss: 0.893310
L_2: 0.010406 ss: 0.937521
L_2: 0.009469 ss: 0.955577
L_2: 0.017268 ss: 0.924635
L_2: 0.032684 ss: 0.170392
hematite
L_2: 0.138697 ss: 0.672373
L_2: 0.015206 ss: 0.881387
L_2: 0.007662 ss: 0.957260
L_2: 0.005826 ss: 0.972998
L_2: 0.012913 ss: 0.926417
L_2: 0.033425 ss: 0.188915
nickel
Training BRDF
L_2: 0.162464 ss: 0.818395
L_2: 0.030642 ss: 0.929767
L_2: 0.053191 ss: 0.905709
L_2: 0.018494 ss: 0.965202
L_2: 0.094610 ss: 0.911030
L_2: 0.134180 ss: 0.183766


red-metallic-paint
Training BRDF
L_2: 0.047084 ss: 0.833108
L_2: 0.040161 ss: 0.879087
L_2: 0.018846 ss: 0.961491
L_2: 0.014544 ss: 0.972420
L_2: 0.064134 ss: 0.832347
L_2: 0.093931 ss: 0.212156
silver-metallic-paint2
L_2: N.A. ss: N.A.
L_2: 0.107842 ss: 0.910845
L_2: 0.082169 ss: 0.959051
L_2: 0.089202 ss: 0.928848
L_2: 0.204731 ss: 0.780259
L_2: 0.161859 ss: 0.869309
silver-paint
L_2: 0.135206 ss: 0.896462
L_2: 0.022441 ss: 0.987118
L_2: 0.019090 ss: 0.990850
L_2: 0.018529 ss: 0.986307
L_2: 0.033144 ss: 0.987619
L_2: 0.082590 ss: 0.807931
steel
Training BRDF
L_2: 0.049557 ss: 0.836990
L_2: 0.037937 ss: 0.871876
L_2: 0.017551 ss: 0.962440
L_2: 0.017414 ss: 0.945810
L_2: 0.040867 ss: 0.871641
L_2: 0.076876 ss: 0.181254
tungsten-carbide
L_2: 0.085936 ss: 0.736661
L_2: 0.029125 ss: 0.890214
L_2: 0.013549 ss: 0.976174
L_2: 0.015162 ss: 0.953047
L_2: 0.041256 ss: 0.845792
L_2: 0.069538 ss: 0.165062
two-layer-gold
L_2: N.A. ss: N.A.
L_2: 0.036503 ss: 0.936832
L_2: 0.027223 ss: 0.962585
L_2: 0.037479 ss: 0.950498
L_2: 0.117367 ss: 0.853119
L_2: 0.105918 ss: 0.597671

Material		p0	p1	ρ_d	ρ_s	R_0
alum-bronze	R	2.46759100e-07	9.71438891e+13	1.53905556e-01	4.25498499e-08	2.81548875e+05
	G	5.85602777e-07	5.53017431e+13	1.10678032e-01	8.00652344e-09	8.47063875e+05
	B	1.38850260e-06	1.08683996e+14	6.75525293e-02	2.88054292e-09	6.13175500e+05
aluminium	R	1.05442957e-03	1.14336479e+00	1.46690035e+01	4.54406917e-01	1.88297558e+01
	G	4.55153108e-01	4.28271008e+00	1.51096334e+01	2.16911376e-01	4.06259766e+01
	B	4.70029265e-02	2.74844263e-02	1.53677578e+01	4.60607648e-01	1.94459248e+01
black-oxidized-steel	R	7.55556454e+09	8.86760652e-03	3.03306822e-02	2.61366679e-08	1.06184636e-07
	G	4.04583175e+06	2.34732257e+15	2.86839008e-02	5.39844649e-08	2.93600715e-05
	B	5.98956750e+06	2.59668354e+15	2.77439281e-02	2.30034480e-08	6.22088191e-05
blue-metallic-paint	R	1.10869638e+06	7.23423847e+16	5.62812015e-02	2.36884432e-07	5.23905371e+03
	G	3.06417217e+22	9.19413783e-39	5.08133397e-02	1.32208925e-07	9.39666797e+03
	B	5.76725075e+19	5.49577554e-37	3.08118731e-01	3.84177383e-07	1.63954969e+05
blue-metallic-paint2	R	6.88994229e-02	4.53594774e-01	6.51356888e+00	2.55166841e+00	1.49234939e+00
	G	5.04472218e-02	1.12907541e+00	8.56591415e+00	3.34166694e+00	1.49577761e+00
	B	4.50749462e-03	1.66471705e-01	1.34563818e+01	1.48028862e+00	5.29552174e+00
brass	R	3.69717143e-02	1.70336321e-01	1.01924438e+01	1.08159094e+01	5.49630821e-01
	G	3.76312286e-02	4.42079276e-01	1.01791849e+01	1.08649902e+01	5.52728057e-01
	B	1.34337679e-01	2.42389396e-01	1.08817232e+00	3.93448502e-01	1.43593872e+00
chrome	R	2.94404924e-01	6.17222395e-03	5.30402184e+00	7.31713533e-01	4.28951311e+00
	G	1.22962687e-02	2.30458193e-03	8.91415253e+01	1.85876560e+01	3.00460124e+00
	B	4.87306677e-02	8.79318279e-04	8.05932770e+01	1.40477822e-03	3.59334805e+04
gold-metallic-paint	R	2.22180039e-02	1.94188150e+06	1.90777004e-01	3.66742609e-11	2.73590380e+07
	G	3.17747965e-02	1.42378175e+06	1.32681310e-01	4.24633592e-11	3.88925240e+07
	B	1.09089099e+03	2.77091094e+05	4.45471108e-02	9.84208808e-13	2.08433856e+08
gold-metallic-paint2	R	1.06979363e-01	3.17176228e+01	6.49734557e-01	2.03041304e-02	9.34906578e+00
	G	5.11373663e+00	1.15464604e-06	8.50303411e-01	4.67046537e-03	6.46162262e+01
	B	1.85312724e+00	6.02996101e+01	8.77526164e-01	7.30868010e-03	4.62497215e+01
gold-paint	R	7.36936703e-02	1.02641052e+02	2.51558900e-01	1.89566649e-07	1.51061621e+04
	G	1.32100989e+11	1.15098621e-04	1.60033256e-01	1.94060146e-08	9.75605781e+04
	B	2.88984767e-04	9.92696857e+00	6.84065819e-02	3.52946508e-08	6.33509131e+03
green-metallic-paint	R	7.99571216e-01	4.22983599e+00	1.92614511e-01	1.37754112e-01	5.37693858e-01
	G	3.70783806e-01	2.84294617e+02	2.00279757e-01	9.00761079e-05	4.09577545e+02
	B	1.71043761e-02	1.35432291e+00	1.50110617e-01	2.46954016e-07	6.02317969e+04
green-metallic-paint2	R	7.56652560e-03	1.96625095e-07	5.64540634e+01	1.26345158e+00	2.79327240e+01
	G	7.60501949e-03	5.27460145e-07	5.67429962e+01	1.25813830e+00	2.79719448e+01
	B	7.66363228e-03	1.40532541e-06	5.67822151e+01	1.26135492e+00	2.80543747e+01
hematite	R	8.00583437e-02	2.55987883e-01	4.53054667e+00	5.98751307e-01	4.41485405e+00
	G	8.16709921e-02	6.66553319e-01	4.53885174e+00	5.98701060e-01	4.41910124e+00
	B	8.32369849e-02	1.73474169e+00	4.55331993e+00	5.99085927e-01	4.42659378e+00
nickel	R	5.06416000e-02	2.11338431e-01	2.87919960e+01	1.40452251e+01	1.19431889e+00
	G	1.56088039e-01	2.05240741e-01	2.57022667e+01	1.38932877e+01	1.07753968e+00
	B	1.23927626e-03	6.91403256e-05	2.29349957e+01	4.46319878e-02	2.99231110e+02
red-metallic-paint	R	1.57587111e-01	1.33263599e-02	3.35731983e+00	4.69884843e-01	3.72876191e+00
	G	3.09793074e-02	4.64804284e-02	3.25513840e+00	1.41082134e+01	1.34871379e-01
	B	2.89788527e-09	1.86034266e+09	2.62652707e+00	3.30865264e+00	4.69086915e-01
silver-metallic-paint2	R	3.85592875e+05	2.15729125e+06	2.71633297e-01	1.10200342e-15	2.86402740e+11
	G	7.18409188e+05	1.35714325e+06	2.62579829e-01	1.10496687e-15	4.02342511e+11
	B	6.14804089e-01	2.42335176e+00	2.49570861e-01	1.16928156e-07	7.20991260e+03
silver-paint	R	1.50432594e+05	1.89907302e-03	2.76748151e-01	6.21088702e-07	5.41125439e+03
	G	2.36691155e+12	1.69334102e-10	2.51796663e-01	2.43438922e-08	1.52266234e+05
	B	1.82851505e+01	7.54617512e-01	2.36103579e-01	1.06678137e-07	3.51016172e+04
steel	R	5.19017205e-02	8.96575395e-03	7.79481077e+00	3.76377702e+00	1.21941507e+00
	G	1.28581256e-01	8.08702037e-03	6.79706097e+00	2.27032781e-01	1.75203037e+01
	B	5.39807520e+03	1.03118992e+01	8.61394405e+00	8.34616060e-07	6.08828350e+06

RGB Parameters for genBRDF 003-002768

Material		p0	p1	ρ_d	ρ_s	R_0
tungsten-carbide	R	7.91005936e+01	1.39065605e-06	1.04764435e+02	3.75521398e+00	1.74758320e+01
	G	7.93318787e+01	3.75761215e-06	1.04711891e+02	3.75454164e+00	1.74874229e+01
	B	7.94533997e+01	1.01705464e-05	1.04710144e+02	3.75578833e+00	1.74932938e+01
two-layer-gold	R	4.11459684e-01	3.52698239e-03	1.97464123e-01	1.05003409e-07	1.20815250e+05
	G	5.80497384e-01	3.20633361e-03	1.94787294e-01	8.94892835e-08	1.92901188e+05
	B	4.07532509e-03	4.37221915e-01	8.47993970e-01	3.59190803e-04	9.09237061e+02

RGB Parameters for genBRDF 003-002768

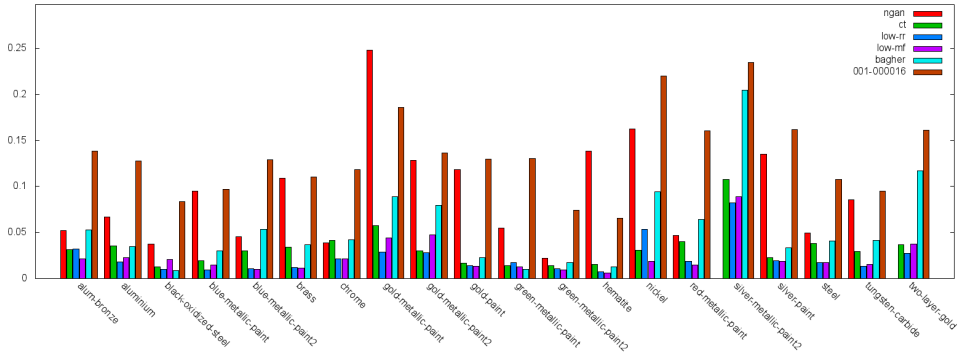
001-000016

Fitness: 0.000781605461

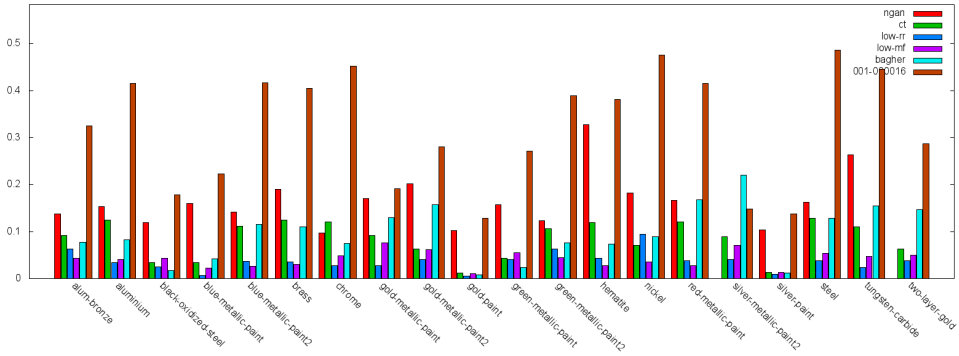
Length: 5

Reciprocity Error: 4.532602e-15

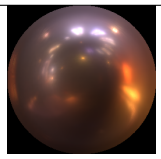
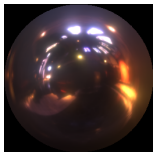
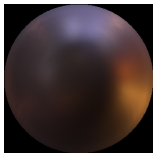
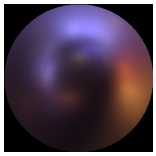
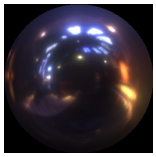
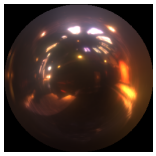
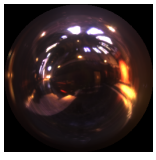
$f'_n(\omega_i, \omega_o) = \omega_{hz}$

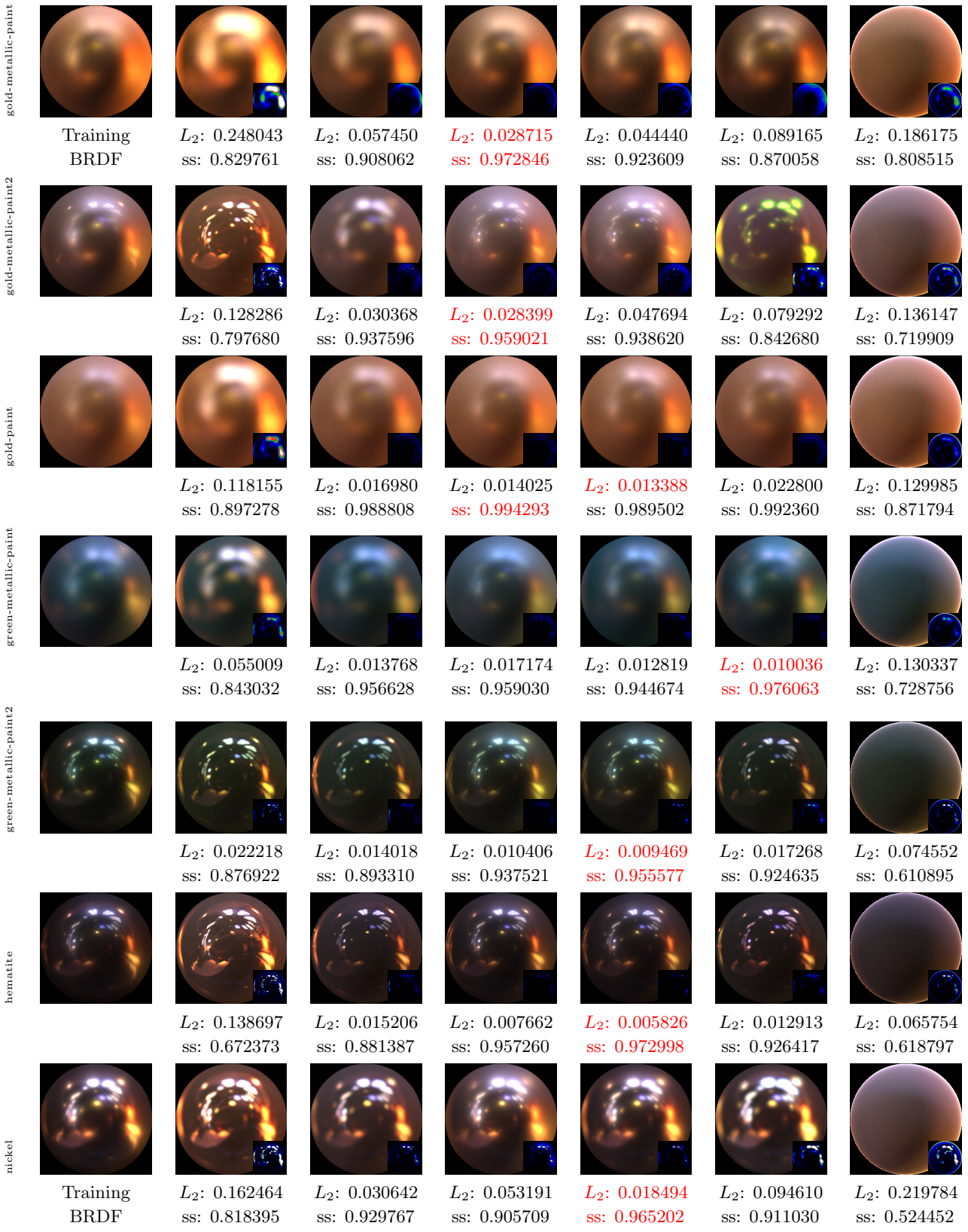


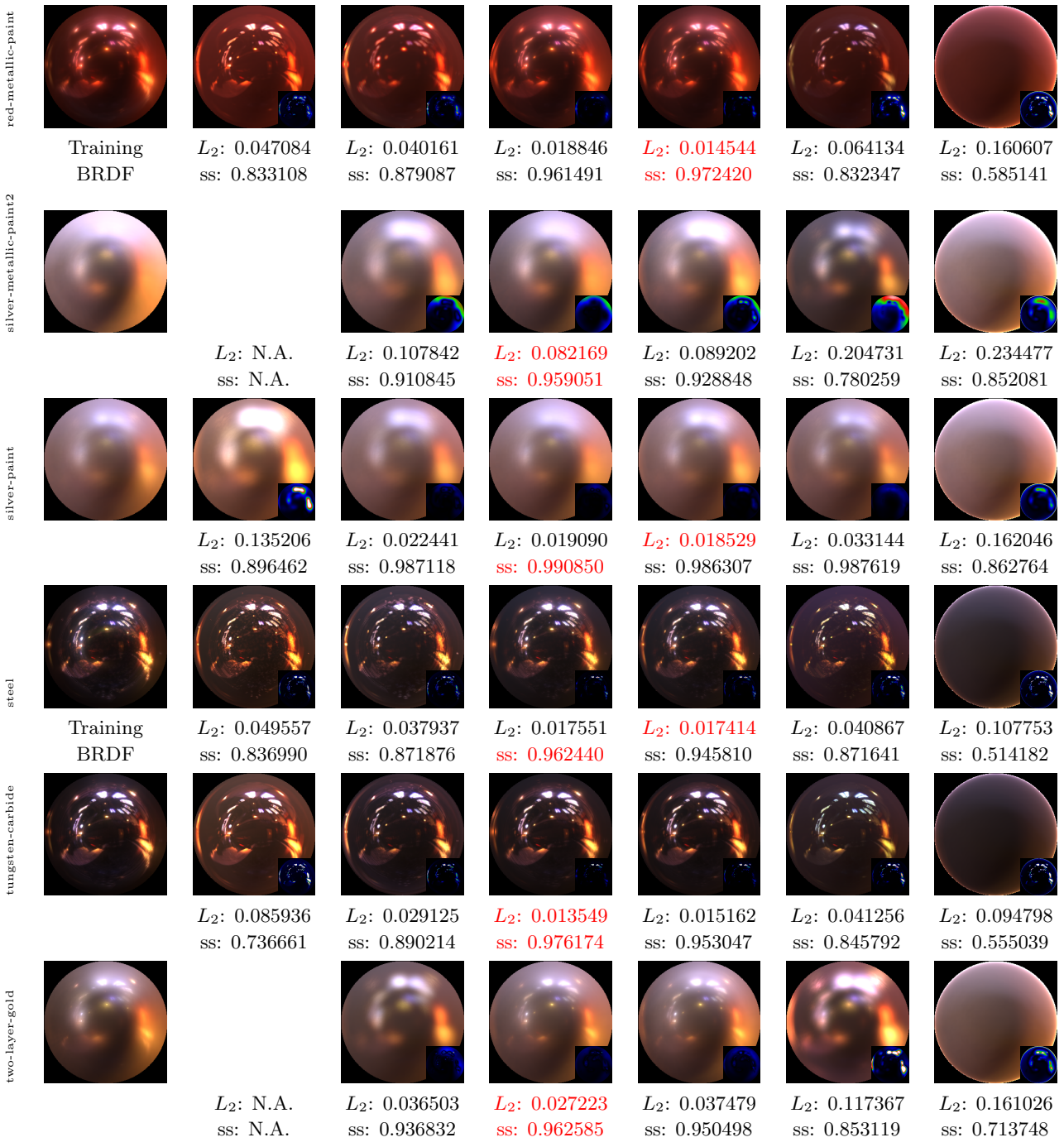
L_2 error.



SSIM error (= 100% - ssim).

	MERL	CT(Ngan) 0(16)/0(18)	CT(E_2 fit) 0(20)/0(20)	Löw SS 7(20)/11(20)	Löw MF 11(20)/7(20)	Bagher 2(20)/2(19)	genBRDF 0/0
alum-bronze		L_2: 0.052284 ss: 0.862223	L_2: 0.031392 ss: 0.907766	L_2: 0.032159 ss: 0.937667	L_2: 0.021146 ss: 0.956962	L_2: 0.053167 ss: 0.922395	L_2: 0.138368 ss: 0.674808
aluminium		Training BRDF	L_2: 0.067099 ss: 0.846399	L_2: 0.035146 ss: 0.875113	L_2: 0.018044 ss: 0.965309	L_2: 0.022431 ss: 0.959087	L_2: 0.034724 ss: 0.917355	L_2: 0.128025 ss: 0.584934
black-oxidized-steel		L_2: 0.037563 ss: 0.881117	L_2: 0.012395 ss: 0.966402	L_2: 0.009959 ss: 0.974466	L_2: 0.021000 ss: 0.956823	L_2: 0.009017 ss: 0.982697	L_2: 0.083722 ss: 0.821417
blue-metallic-paint		Training BRDF	L_2: 0.094791 ss: 0.840025	L_2: 0.019657 ss: 0.966125	L_2: 0.009161 ss: 0.993984	L_2: 0.015014 ss: 0.978181	L_2: 0.030206 ss: 0.958517	L_2: 0.097096 ss: 0.777740
blue-metallic-paint2		Training BRDF	L_2: 0.045753 ss: 0.859062	L_2: 0.030359 ss: 0.888022	L_2: 0.010992 ss: 0.963478	L_2: 0.009785 ss: 0.974119	L_2: 0.053468 ss: 0.884442	L_2: 0.128821 ss: 0.583319
brass		Training BRDF	L_2: 0.109247 ss: 0.809906	L_2: 0.034378 ss: 0.875335	L_2: 0.011813 ss: 0.965002	L_2: 0.011450 ss: 0.970392	L_2: 0.036857 ss: 0.890152	L_2: 0.110213 ss: 0.594754
chrome		L_2: 0.038555 ss: 0.902465	L_2: 0.041371 ss: 0.879025	L_2: 0.021593 ss: 0.972071	L_2: 0.021446 ss: 0.950898	L_2: 0.042031 ss: 0.925449	L_2: 0.118472 ss: 0.548511


gold-metallic-paint
Training BRDF
L_2: 0.248043 ss: 0.829761
L_2: 0.057450 ss: 0.908062
L_2: 0.028715 ss: 0.972846
L_2: 0.044440 ss: 0.923609
L_2: 0.089165 ss: 0.870058
L_2: 0.186175 ss: 0.808515
gold-metallic-paint2
L_2: 0.128286 ss: 0.797680
L_2: 0.030368 ss: 0.937596
L_2: 0.028399 ss: 0.959021
L_2: 0.047694 ss: 0.938620
L_2: 0.079292 ss: 0.842680
L_2: 0.136147 ss: 0.719909
gold-paint
L_2: 0.118155 ss: 0.897278
L_2: 0.016980 ss: 0.988808
L_2: 0.014025 ss: 0.994293
L_2: 0.013388 ss: 0.989502
L_2: 0.022800 ss: 0.992360
L_2: 0.129985 ss: 0.871794
green-metallic-paint
L_2: 0.055009 ss: 0.843032
L_2: 0.013768 ss: 0.956628
L_2: 0.017174 ss: 0.959030
L_2: 0.012819 ss: 0.944674
L_2: 0.010036 ss: 0.976063
L_2: 0.130337 ss: 0.728756
green-metallic-paint2
L_2: 0.022218 ss: 0.876922
L_2: 0.014018 ss: 0.893310
L_2: 0.010406 ss: 0.937521
L_2: 0.009469 ss: 0.955577
L_2: 0.017268 ss: 0.924635
L_2: 0.074552 ss: 0.610895
hematite
L_2: 0.138697 ss: 0.672373
L_2: 0.015206 ss: 0.881387
L_2: 0.007662 ss: 0.957260
L_2: 0.005826 ss: 0.972998
L_2: 0.012913 ss: 0.926417
L_2: 0.065754 ss: 0.618797
nickel
Training BRDF
L_2: 0.162464 ss: 0.818395
L_2: 0.030642 ss: 0.929767
L_2: 0.053191 ss: 0.905709
L_2: 0.018494 ss: 0.965202
L_2: 0.094610 ss: 0.911030
L_2: 0.219784 ss: 0.524452


red-metallic-paint
Training BRDF
L_2: 0.047084 ss: 0.833108
L_2: 0.040161 ss: 0.879087
L_2: 0.018846 ss: 0.961491
L_2: 0.014544 ss: 0.972420
L_2: 0.064134 ss: 0.832347
L_2: 0.160607 ss: 0.585141
silver-metallic-paint2
L_2: N.A. ss: N.A.
L_2: 0.107842 ss: 0.910845
L_2: 0.082169 ss: 0.959051
L_2: 0.089202 ss: 0.928848
L_2: 0.204731 ss: 0.780259
L_2: 0.234477 ss: 0.852081
silver-paint
L_2: 0.135206 ss: 0.896462
L_2: 0.022441 ss: 0.987118
L_2: 0.019090 ss: 0.990850
L_2: 0.018529 ss: 0.986307
L_2: 0.033144 ss: 0.987619
L_2: 0.162046 ss: 0.862764
steel
Training BRDF
L_2: 0.049557 ss: 0.836990
L_2: 0.037937 ss: 0.871876
L_2: 0.017551 ss: 0.962440
L_2: 0.017414 ss: 0.945810
L_2: 0.040867 ss: 0.871641
L_2: 0.107753 ss: 0.514182
tungsten-carbide
L_2: 0.085936 ss: 0.736661
L_2: 0.029125 ss: 0.890214
L_2: 0.013549 ss: 0.976174
L_2: 0.015162 ss: 0.953047
L_2: 0.041256 ss: 0.845792
L_2: 0.094798 ss: 0.555039
two-layer-gold
L_2: N.A. ss: N.A.
L_2: 0.036503 ss: 0.936832
L_2: 0.027223 ss: 0.962585
L_2: 0.037479 ss: 0.950498
L_2: 0.117367 ss: 0.853119
L_2: 0.161026 ss: 0.713748

Material		p0	p1	ρ_d	ρ_s	R_0
alum-bronze	R	1.29359051e-07	2.65552710e+03	9.69500840e-02	2.69265175e-01	9.82394454e-07
	G	5.32946719e+04	5.20091038e-03	7.55230933e-02	2.42180839e-01	1.55122029e-06
	B	1.32255684e+04	1.38454561e+01	5.45504428e-02	2.26538986e-01	5.33021534e-07
aluminium	R	9.26249268e+02	3.23946571e+01	5.24253398e-02	1.38274863e-01	4.08337200e-06
	G	2.96633377e+01	1.30256143e-04	5.44251986e-02	1.34891033e-01	7.94992775e-06
	B	4.60655689e-01	2.81572461e-01	5.85683063e-02	1.40917808e-01	8.10850452e-06
black-oxidized-steel	R	4.20536804e+01	8.50281836e+03	2.68586725e-02	2.20381603e-01	6.36880344e-08
	G	2.59682129e+03	2.91689473e+04	2.52403654e-02	2.13869363e-01	3.50971703e-07
	B	2.49704941e+04	2.71039426e-01	2.43205987e-02	2.12137341e-01	7.07244055e-07
blue-metallic-paint	R	1.31652638e-01	1.21771465e+04	4.69194576e-02	1.66711643e-01	2.64874274e-07
	G	2.36161321e-01	1.57038945e+04	4.16501984e-02	1.57952353e-01	2.01076872e-07
	B	4.34067812e+05	9.49314138e-09	1.03787847e-01	2.13047713e-01	2.71423630e-07
blue-metallic-paint2	R	8.24205938e+04	6.30079590e+03	2.45485548e-02	1.32486746e-01	5.68639780e-06
	G	1.09736480e-01	1.00726820e+07	3.39498073e-02	1.55140728e-01	3.15080251e-06
	B	5.99959353e-03	6.01965249e-01	5.89864552e-02	2.49952257e-01	2.94875349e-06
brass	R	1.09252338e+01	1.06376919e+10	4.80440781e-02	1.46640867e-01	3.54183658e-06
	G	1.88181400e+07	4.86041829e-09	4.03086655e-02	1.27003640e-01	1.79005625e-07
	B	3.29485940e+07	4.73452433e-09	2.61001941e-02	1.05767205e-01	2.33697236e-07
chrome	R	4.06498373e-01	1.15640635e+04	1.52649684e-02	9.06723812e-02	5.45475523e-05
	G	3.27095440e-05	4.37495000e+06	1.32532176e-02	8.87493342e-02	2.25424701e-05
	B	1.78597929e-05	6.22264750e-04	1.33108823e-02	9.02606770e-02	7.70728911e-06
gold-metallic-paint	R	1.29083423e+03	4.23107862e+00	1.77587762e-01	4.57840770e-01	3.89652951e-06
	G	5.08996162e+01	6.16972017e+00	1.18569382e-01	2.90230483e-01	1.13081967e-06
	B	2.55019881e-06	4.18930944e+09	4.06205393e-02	1.76201314e-01	1.98984395e-07
gold-metallic-paint2	R	3.48465612e+34	2.75248694e-37	1.35741413e-01	2.43153930e-01	5.76155628e-07
	G	6.13627962e+34	3.60911572e-37	1.16093576e-01	2.07509741e-01	5.04039463e-07
	B	8.61756900e+34	5.69515991e-37	9.17221978e-02	1.71255246e-01	5.56396344e-07
gold-paint	R	7.06120878e-02	4.51897001e+00	2.30731815e-01	2.91069180e-01	6.49309470e-07
	G	2.59487747e+12	3.95949179e+11	1.44930720e-01	2.76401401e-01	4.55789887e-21
	B	3.48437768e+12	2.79532470e+11	6.31115064e-02	2.55933970e-01	1.34521766e-20
green-metallic-paint	R	8.93969824e+03	3.29141205e+02	2.15400048e-02	2.85285681e-01	2.95910496e-07
	G	1.87761922e+05	3.35801597e-04	7.41690397e-02	3.07914615e-01	1.64332164e-07
	B	1.43198495e-05	6.99114086e+09	8.48461315e-02	3.17500830e-01	9.78718901e-08
green-metallic-paint2	R	2.29276562e+03	2.39374172e+05	1.40588731e-02	1.21244684e-01	6.63574895e-07
	G	8.65968323e+02	6.16604030e-01	3.15719768e-02	1.52923912e-01	2.46730519e-06
	B	2.64745760e+00	3.32116825e+06	1.85893476e-02	1.30043194e-01	2.23670099e-06
hematite	R	1.49418994e+03	1.51100811e+04	2.09266432e-02	1.00019403e-01	6.36805044e-06
	G	1.67725021e+02	2.25779926e-03	2.14698035e-02	9.71890390e-02	3.03713023e-06
	B	3.99247711e+02	5.37438877e-03	2.24661119e-02	1.05877534e-01	5.36952598e-07
nickel	R	3.04654028e+03	6.24280434e+01	9.35134366e-02	2.52941549e-01	2.28052227e-06
	G	7.09004117e-14	3.79099919e+14	8.62447321e-02	2.46439978e-01	8.02643171e-07
	B	5.69729614e+01	8.19036713e+01	7.96165839e-02	2.47243538e-01	5.49551373e-07
red-metallic-paint	R	1.85341859e+00	1.37163877e+01	7.22854659e-02	3.08257461e-01	6.36896766e-06
	G	9.46927103e-05	8.44562900e+06	1.40728969e-02	1.25897720e-01	5.00852775e-06
	B	1.58334442e-04	1.30215760e+07	8.18106811e-03	1.12628333e-01	4.46051763e-06
silver-metallic-paint2	R	6.02499116e-03	1.65381348e+03	2.61895746e-01	5.01098812e-01	6.16934267e-06
	G	3.51952985e-02	5.47158203e+01	2.52230972e-01	4.53855097e-01	3.35309073e-06
	B	6.56613559e-02	5.66509972e+01	2.38461703e-01	3.91797155e-01	2.99429007e-06
silver-paint	R	2.36761426e+03	2.07296953e+04	2.52473801e-01	3.11915636e-01	3.44353026e-07
	G	6.80197830e+01	1.20396502e-01	2.25599930e-01	3.16474259e-01	2.29251441e-07
	B	1.36237968e+08	1.91340732e-04	2.09818080e-01	3.25651377e-01	3.18591269e-08
steel	R	1.40379619e+04	6.19206726e+02	2.36721765e-02	9.83529836e-02	5.88982675e-06
	G	3.50024688e+04	1.54395117e+03	2.33965646e-02	9.42225158e-02	1.09076529e-06
	B	4.21368313e+00	3.04989506e-10	2.55072210e-02	9.85314548e-02	1.35304035e-05

RGB Parameters for genBRDF 001-000016

Material		p0	p1	ρ_d	ρ_s	R_0
tungsten-carbide	R	1.05512199e+01	2.55211426e+03	1.55301150e-02	8.36777017e-02	7.51679045e-06
	G	1.20203411e-02	2.77801660e+04	1.36880558e-02	7.45256096e-02	5.26446274e-06
	B	1.61523953e+05	1.11988847e-05	1.36574330e-02	7.98632577e-02	7.74771070e-06
two-layer-gold	R	7.32641101e-11	2.97677311e+16	1.34989381e-01	2.97901571e-01	4.52466992e-07
	G	3.86107252e+16	5.28215021e-02	1.17103048e-01	2.71739423e-01	8.40308928e-07
	B	6.45289673e+16	8.62287581e-02	9.32264477e-02	2.23466411e-01	8.51999914e-07

RGB Parameters for genBRDF 001-000016

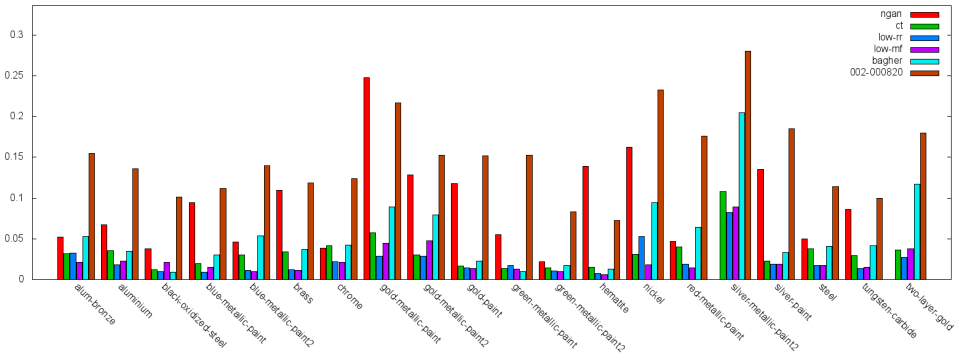
002-000820

Fitness: 0.000782763403

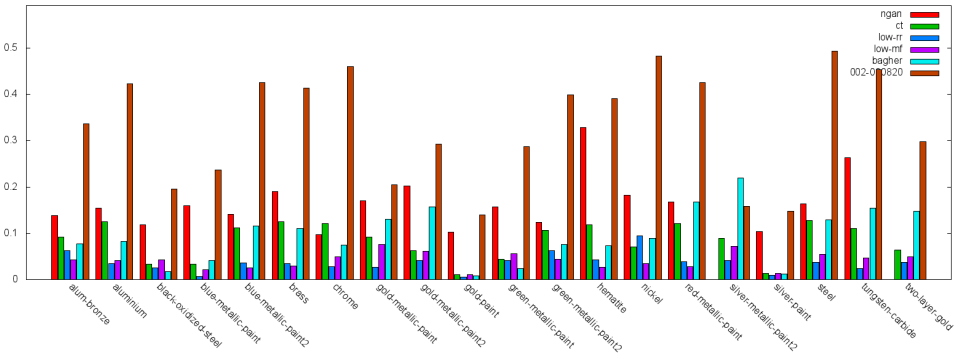
Length: 2

Reciprocity Error: 4.2202309e-15

$f'_n(\omega_i, \omega_o) = \pi$

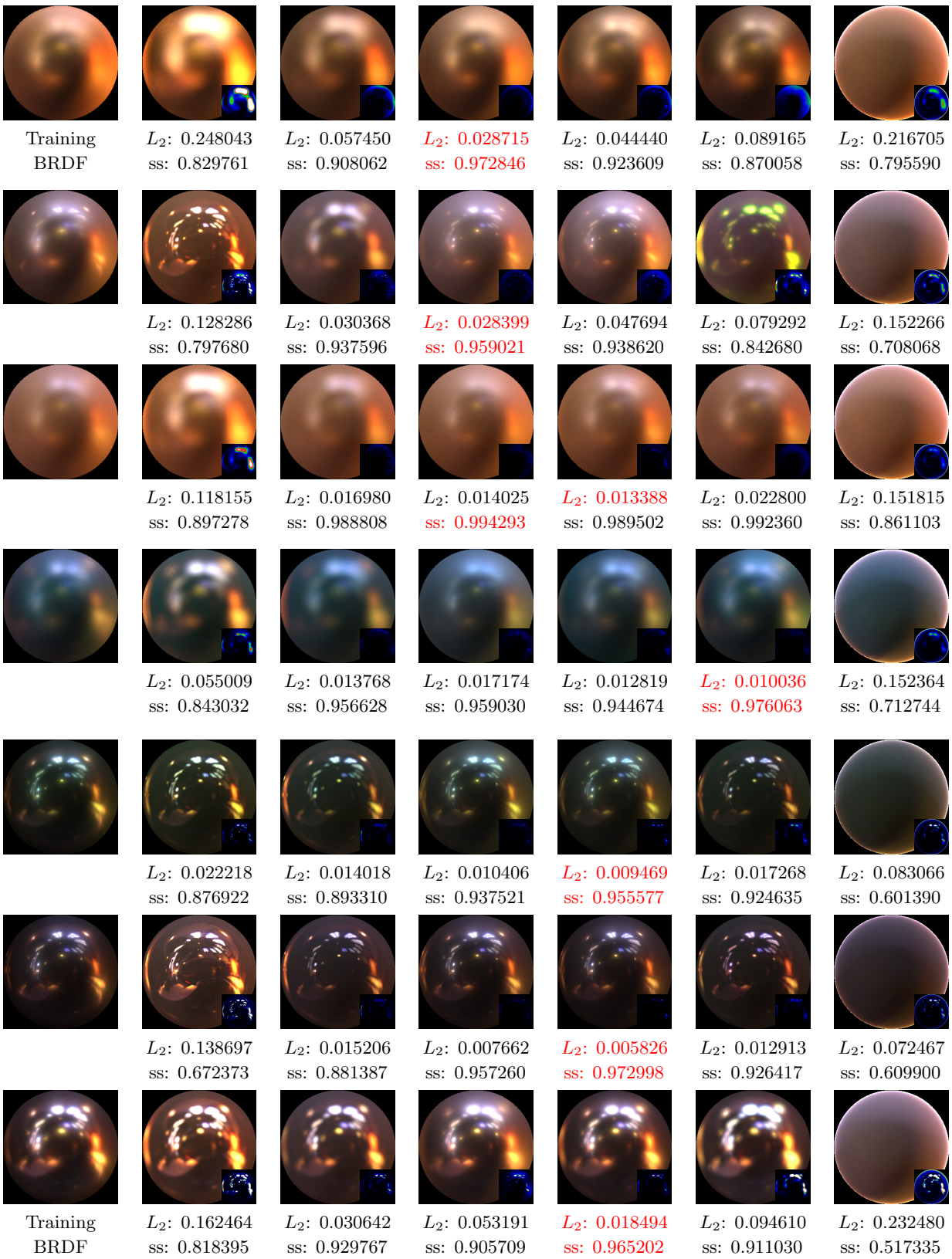


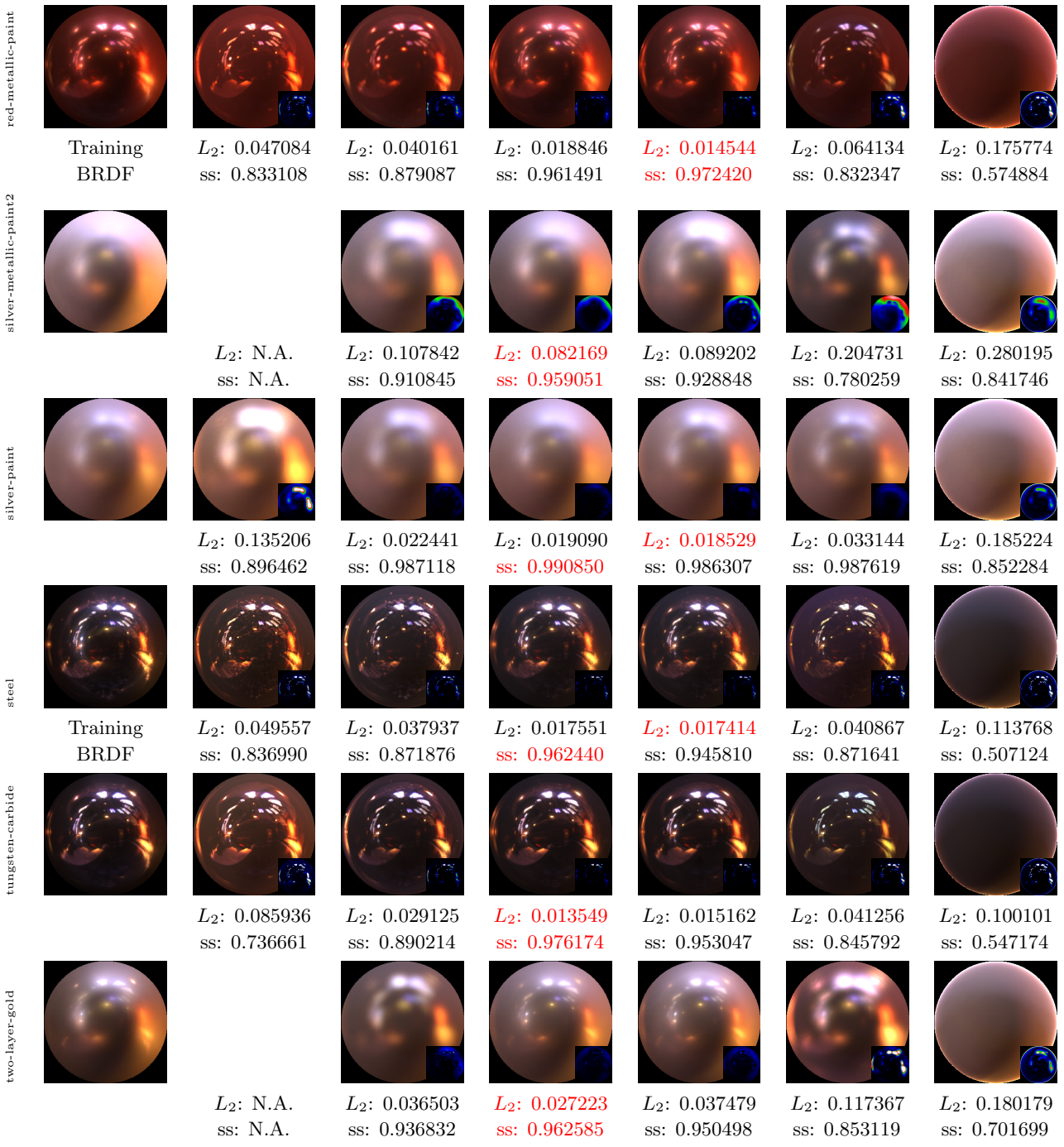
L_2 error.



SSIM error (= 100% - ssim).

	MERL	CT(Ngan) 0(16)/0(18)	CT(E_2 fit) 0(20)/0(20)	Löw SS 7(20)/11(20)	Löw MF 11(20)/7(20)	Bagher 2(20)/2(19)	genBRDF 0/0
alum-bronze		L_2: 0.052284 ss: 0.862223	L_2: 0.031392 ss: 0.907766	L_2: 0.032159 ss: 0.937667	L_2: 0.021146 ss: 0.956962	L_2: 0.053167 ss: 0.922395	L_2: 0.154911 ss: 0.664184
aluminium	Training BRDF	L_2: 0.067099 ss: 0.846399	L_2: 0.035146 ss: 0.875113	L_2: 0.018044 ss: 0.965309	L_2: 0.022431 ss: 0.959087	L_2: 0.034724 ss: 0.917355	L_2: 0.135971 ss: 0.577545
black-oxidized-steel		L_2: 0.037563 ss: 0.881117	L_2: 0.012395 ss: 0.966402	L_2: 0.009959 ss: 0.974466	L_2: 0.021000 ss: 0.956823	L_2: 0.009017 ss: 0.982697	L_2: 0.101563 ss: 0.804731
blue-metallic-paint	Training BRDF	L_2: 0.094791 ss: 0.840025	L_2: 0.019657 ss: 0.966125	L_2: 0.009161 ss: 0.993984	L_2: 0.015014 ss: 0.978181	L_2: 0.030206 ss: 0.958517	L_2: 0.111592 ss: 0.763038
blue-metallic-paint2	Training BRDF	L_2: 0.045753 ss: 0.859062	L_2: 0.030359 ss: 0.888022	L_2: 0.010992 ss: 0.963478	L_2: 0.009785 ss: 0.974119	L_2: 0.053468 ss: 0.884442	L_2: 0.139494 ss: 0.574946
brass	Training BRDF	L_2: 0.109247 ss: 0.809906	L_2: 0.034378 ss: 0.875335	L_2: 0.011813 ss: 0.965002	L_2: 0.011450 ss: 0.970392	L_2: 0.036857 ss: 0.890152	L_2: 0.118394 ss: 0.586461
chrome		L_2: 0.038555 ss: 0.902465	L_2: 0.041371 ss: 0.879025	L_2: 0.021593 ss: 0.972071	L_2: 0.021446 ss: 0.950898	L_2: 0.042031 ss: 0.925449	L_2: 0.124178 ss: 0.540649


gold-metallic-paint
Training BRDF
L_2: 0.248043 ss: 0.829761
L_2: 0.057450 ss: 0.908062
L_2: 0.028715 ss: 0.972846
L_2: 0.044440 ss: 0.923609
L_2: 0.089165 ss: 0.870058
L_2: 0.216705 ss: 0.795590
gold-metallic-paint2
L_2: 0.128286 ss: 0.797680
L_2: 0.030368 ss: 0.937596
L_2: 0.028399 ss: 0.959021
L_2: 0.047694 ss: 0.938620
L_2: 0.079292 ss: 0.842680
L_2: 0.152266 ss: 0.708068
gold-paint
L_2: 0.118155 ss: 0.897278
L_2: 0.016980 ss: 0.988808
L_2: 0.014025 ss: 0.994293
L_2: 0.013388 ss: 0.989502
L_2: 0.022800 ss: 0.992360
L_2: 0.151815 ss: 0.861103
green-metallic-paint
L_2: 0.055009 ss: 0.843032
L_2: 0.013768 ss: 0.956628
L_2: 0.017174 ss: 0.959030
L_2: 0.012819 ss: 0.944674
L_2: 0.010036 ss: 0.976063
L_2: 0.152364 ss: 0.712744
green-metallic-paint2
L_2: 0.022218 ss: 0.876922
L_2: 0.014018 ss: 0.893310
L_2: 0.010406 ss: 0.937521
L_2: 0.009469 ss: 0.955577
L_2: 0.017268 ss: 0.924635
L_2: 0.083066 ss: 0.601390
hematite
L_2: 0.138697 ss: 0.672373
L_2: 0.015206 ss: 0.881387
L_2: 0.007662 ss: 0.957260
L_2: 0.005826 ss: 0.972998
L_2: 0.012913 ss: 0.926417
L_2: 0.072467 ss: 0.609900
nickel
Training BRDF
L_2: 0.162464 ss: 0.818395
L_2: 0.030642 ss: 0.929767
L_2: 0.053191 ss: 0.905709
L_2: 0.018494 ss: 0.965202
L_2: 0.094610 ss: 0.911030
L_2: 0.232480 ss: 0.517335


red-metallic-paint
Training BRDF
L_2: 0.047084 ss: 0.833108
L_2: 0.040161 ss: 0.879087
L_2: 0.018846 ss: 0.961491
L_2: 0.014544 ss: 0.972420
L_2: 0.064134 ss: 0.832347
L_2: 0.175774 ss: 0.574884
silver-metallic-paint2
L_2: N.A. ss: N.A.
L_2: 0.107842 ss: 0.910845
L_2: 0.082169 ss: 0.959051
L_2: 0.089202 ss: 0.928848
L_2: 0.204731 ss: 0.780259
L_2: 0.280195 ss: 0.841746
silver-paint
L_2: 0.135206 ss: 0.896462
L_2: 0.022441 ss: 0.987118
L_2: 0.019090 ss: 0.990850
L_2: 0.018529 ss: 0.986307
L_2: 0.033144 ss: 0.987619
L_2: 0.185224 ss: 0.852284
steel
Training BRDF
L_2: 0.049557 ss: 0.836990
L_2: 0.037937 ss: 0.871876
L_2: 0.017551 ss: 0.962440
L_2: 0.017414 ss: 0.945810
L_2: 0.040867 ss: 0.871641
L_2: 0.113768 ss: 0.507124
tungsten-carbide
L_2: 0.085936 ss: 0.736661
L_2: 0.029125 ss: 0.890214
L_2: 0.013549 ss: 0.976174
L_2: 0.015162 ss: 0.953047
L_2: 0.041256 ss: 0.845792
L_2: 0.100101 ss: 0.547174
two-layer-gold
L_2: N.A. ss: N.A.
L_2: 0.036503 ss: 0.936832
L_2: 0.027223 ss: 0.962585
L_2: 0.037479 ss: 0.950498
L_2: 0.117367 ss: 0.853119
L_2: 0.180179 ss: 0.701699

Material		p0	p1	ρ_d	ρ_s	R_0
alum-bronze	R	8.20945625e+04	9.95176673e-01	9.73655805e-02	6.07669502e-02	3.45068031e-07
	G	8.04643738e+02	1.54291357e+03	7.61256292e-02	5.48806973e-02	3.81558664e-07
	B	1.20177210e-05	3.29645692e+15	5.51140569e-02	5.15975021e-02	3.89913680e-07
aluminium	R	7.13477314e-01	2.51368237e+03	5.27796857e-02	3.07883043e-02	1.69483405e-06
	G	3.43327641e+00	1.56766930e+01	5.47230691e-02	2.98710726e-02	3.50063624e-06
	B	1.26133762e-06	1.40739344e+05	5.88002242e-02	3.17697823e-02	2.79034657e-06
black-oxidized-steel	R	5.87609901e+01	1.15413171e+03	2.72359867e-02	5.15568703e-02	1.11773417e-07
	G	3.06089478e+03	5.38717468e+02	2.56333072e-02	5.01689650e-02	7.76544908e-08
	B	6.21369141e+03	2.24089706e+02	2.46346947e-02	4.98792902e-02	6.71684788e-08
blue-metallic-paint	R	9.80195403e-02	2.67600391e+04	4.72026542e-02	3.90357636e-02	1.76758917e-07
	G	1.70935837e+02	7.53100342e+03	4.19212952e-02	3.69753540e-02	1.13440514e-07
	B	5.58185196e+01	1.78905420e+03	1.04031131e-01	4.92764637e-02	5.29317283e-08
blue-metallic-paint2	R	2.64710579e+01	1.46395996e+02	2.48498674e-02	3.00092697e-02	2.68419740e-06
	G	4.23843175e-01	8.16193894e-02	3.45097557e-02	3.52758616e-02	3.03568231e-06
	B	3.36885693e+03	3.59473610e+00	5.98157607e-02	5.56999445e-02	5.50939887e-07
brass	R	2.49448578e+02	2.30394726e+01	4.87417318e-02	3.27741057e-02	1.63040966e-06
	G	6.34868713e+02	2.50173584e+08	4.04345468e-02	2.88733691e-02	1.42844476e-06
	B	4.88881714e+02	1.31132248e+02	2.62891259e-02	2.40430664e-02	2.74482613e-06
chrome	R	9.69461136e+01	5.89235425e-01	1.55084254e-02	2.04882417e-02	6.78061633e-06
	G	1.84983276e+02	1.12432182e+00	1.31762847e-02	2.00529117e-02	3.19048581e-06
	B	3.98863159e+03	1.98708439e+01	1.34754572e-02	2.06605736e-02	6.21125173e-06
gold-metallic-paint	R	1.87658789e+03	4.62204266e+00	1.78068087e-01	1.07517995e-01	3.25717679e-07
	G	5.23090246e-04	7.79739648e+09	1.19038925e-01	6.80097044e-02	2.84914847e-07
	B	1.35098886e+00	7.03149055e-07	4.09507975e-02	4.11883816e-02	1.83432817e-07
gold-metallic-paint2	R	1.91819092e+02	1.23953550e+07	1.36203632e-01	5.59573844e-02	6.79258516e-13
	G	3.16014282e+02	1.13898790e+07	1.16636492e-01	4.77815233e-02	1.13308104e-12
	B	1.38443115e+03	6.80420715e+02	9.22066718e-02	3.91538404e-02	7.35671392e-07
gold-paint	R	1.35159589e-05	2.57967063e+10	2.31254205e-01	6.76221773e-02	2.94484295e-07
	G	4.76268951e+02	1.02088753e+02	1.45397395e-01	6.42226711e-02	9.58621484e-08
	B	3.70003789e+04	1.91666870e+03	6.35218695e-02	5.99736683e-02	1.33718629e-07
green-metallic-paint	R	6.29003406e-01	6.93955700e+06	2.21387092e-02	6.59805387e-02	4.98298846e-07
	G	1.07901436e+02	7.86036475e+03	7.47603402e-02	7.08211213e-02	2.61226774e-07
	B	1.69791862e-01	1.22481209e+02	8.54802206e-02	7.30525181e-02	1.73416481e-07
green-metallic-paint2	R	4.37323713e+00	3.20219345e+01	1.44469384e-02	2.74670534e-02	3.58427701e-06
	G	1.66849842e+01	8.48637312e+05	3.18837687e-02	3.49259712e-02	1.37228153e-06
	B	2.17099552e+01	6.73576660e+01	1.88377071e-02	2.97966860e-02	1.80805307e-06
hematite	R	3.75089294e+02	1.25652661e+03	2.12806016e-02	2.28940789e-02	2.04730418e-06
	G	7.91953964e+01	1.45213660e+03	2.17232034e-02	2.20628325e-02	1.92309926e-06
	B	5.16833008e+02	3.01310089e+02	2.26432756e-02	2.39700228e-02	9.63487878e-07
nickel	R	5.68928809e+03	5.53717697e-03	9.43222269e-02	5.55484928e-02	9.54233769e-07
	G	3.63726050e+03	3.68347597e+00	8.70593712e-02	5.42693362e-02	7.30871420e-07
	B	1.22727382e+14	1.46349866e+03	8.00290704e-02	5.45784272e-02	4.78982656e-07
red-metallic-paint	R	5.80446482e-01	2.76501751e+00	7.30528161e-02	6.93372712e-02	1.30390481e-06
	G	2.37282681e+00	6.44546413e+00	1.44473864e-02	2.83502769e-02	7.45073351e-07
	B	6.09503601e+02	4.42534882e+02	8.41020979e-03	2.55275406e-02	1.31831268e-06
silver-metallic-paint2	R	3.29765630e+00	9.41763828e+04	2.62309343e-01	1.24095477e-01	1.18616462e-07
	G	5.23815536e+00	8.57060625e+04	2.52968818e-01	1.12508692e-01	1.47830775e-07
	B	5.60132148e+04	1.25530064e+00	2.38844186e-01	9.62021500e-02	5.90490174e-07
silver-paint	R	1.57826908e-05	3.74427290e+09	2.53291190e-01	7.18744844e-02	1.20495429e-07
	G	2.68603471e-05	3.60261120e+09	2.26414010e-01	7.23251030e-02	1.07829649e-07
	B	6.00722778e-05	2.72307354e+09	2.10623756e-01	7.44009465e-02	7.11360499e-08
steel	R	8.02050352e-01	6.84094400e+07	2.39278153e-02	2.21758671e-02	1.22588290e-05
	G	2.84706885e+03	8.45831070e+01	2.39157006e-02	2.11481452e-02	4.16504099e-06
	B	2.36806202e+00	3.84871054e+00	2.56270263e-02	2.23711096e-02	3.54151234e-06

RGB Parameters for genBRDF 002-000820

Material		p0	p1	ρ_d	ρ_s	R_0
tungsten-carbide	R	2.31510712e-05	1.45672913e+03	1.57414749e-02	1.90538615e-02	6.63577157e-06
	G	4.76921523e-05	1.85728088e+03	1.40600326e-02	1.67803969e-02	4.94157302e-06
	B	2.73363306e+03	1.31637268e+02	1.39987478e-02	1.82275977e-02	1.18506232e-05
two-layer-gold	R	1.28965225e+02	1.97824154e+01	1.35605231e-01	6.77514076e-02	3.33436105e-07
	G	1.13720344e+05	6.64254576e-02	1.17761165e-01	6.17248453e-02	1.04231833e-06
	B	8.21267426e-01	7.33332800e+07	9.38104168e-02	5.10370582e-02	6.58907823e-07

RGB Parameters for genBRDF 002-000820