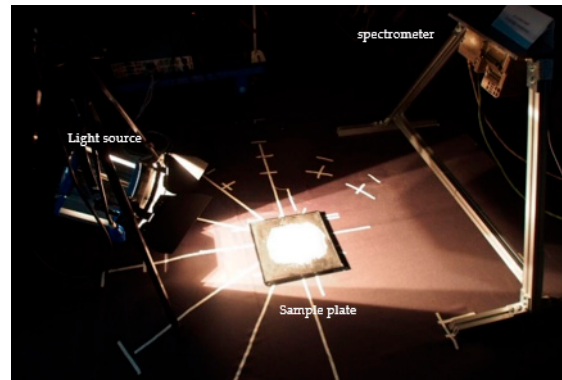
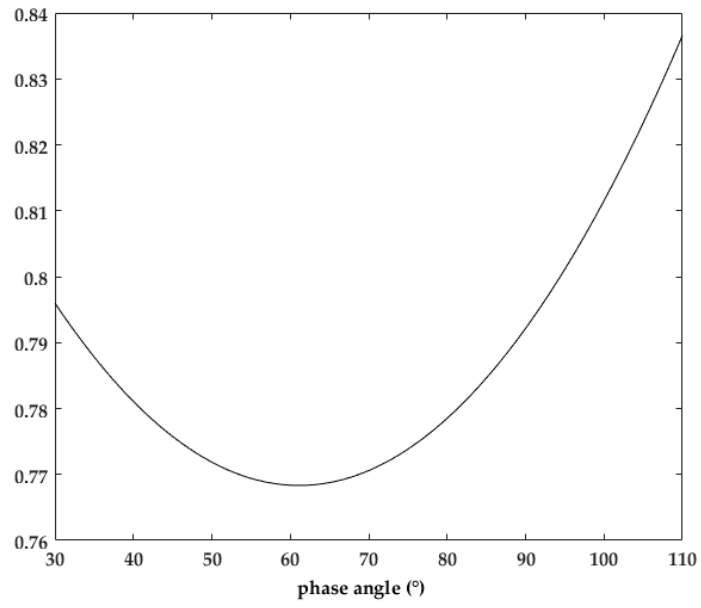


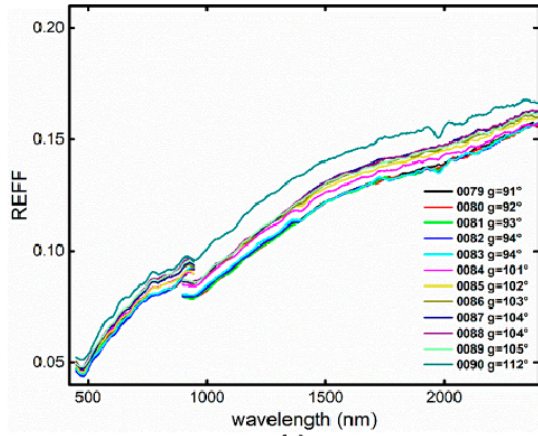
**Supplementary Materials:** The following are available online at [www.mdpi.com/xxx/s1](http://www.mdpi.com/xxx/s1), Figure S1: The laboratory spectral measurements by VNIS replica at the Shanghai Institute of Technical Physics, Chinese Academy of Sciences (SITP); Figure S2. Single-scattering phase functions of Hapke model ( $b = -0.4$  and  $c = 0.25$ ); Figure S3: Comparisons of photometric correction results of CE-4 VNIS spectra measured at the tenth lunar day after shadow correction; Table S1. The derived best-fit values for phase functions of Lommel-Seeliger model; Table S2. Spectral parameters of spectra after photometric correction and shadow corrections.



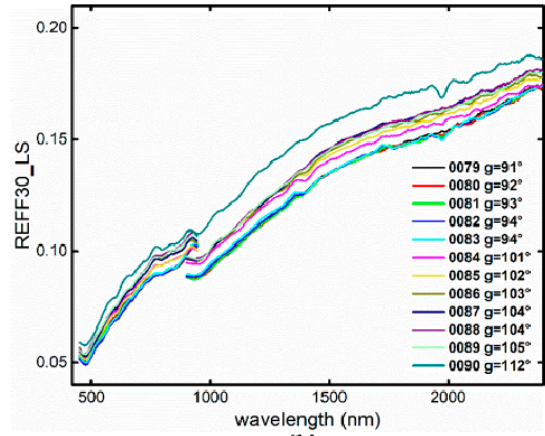
**Figure S1.** The laboratory spectral measurements by VNIS replica at the Shanghai Institute of Technical Physics, Chinese Academy of Sciences (SITP).



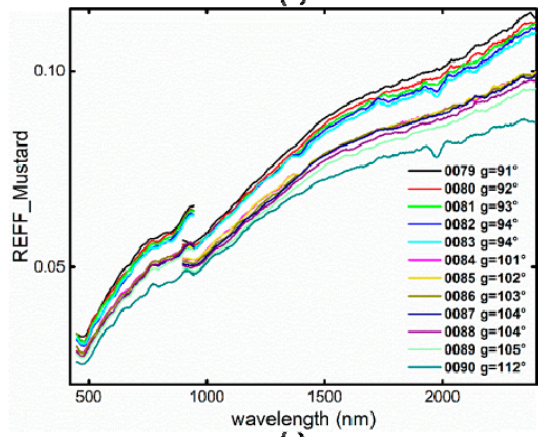
**Figure S2.** Single-scattering phase functions of Hapke model ( $b = -0.4$  and  $c = 0.25$ ).



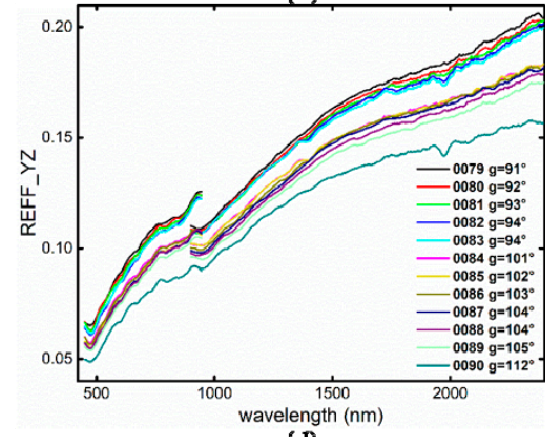
(a)



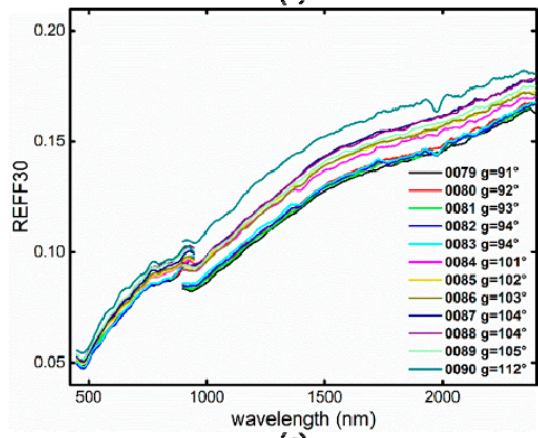
(b)



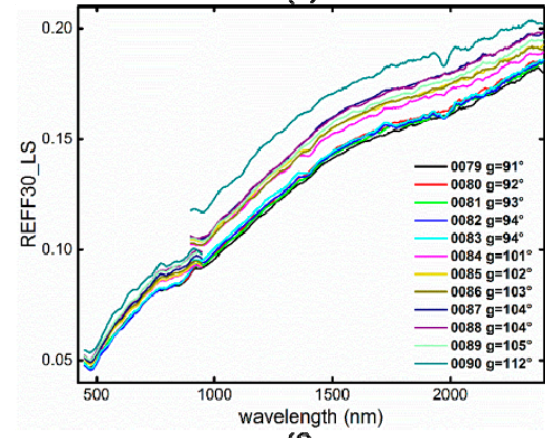
(c)



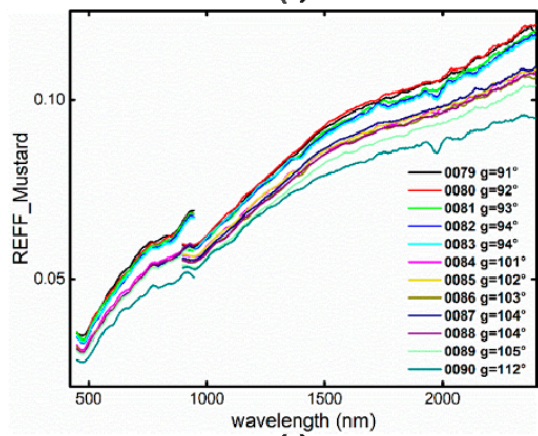
(d)



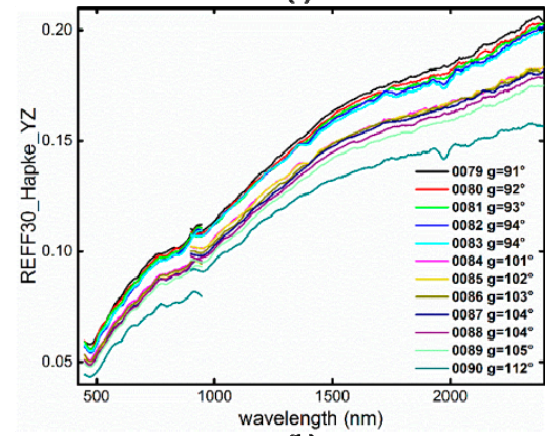
(e)



(f)



(g)



(h)

**Figure S3.** Spectra of the second target measured on the tenth lunar day. **(a)** raw REFF spectra without shadow correction and photometric correction; **(b)** spectra that are photometric corrected with LS model but without shadow correction; **(c)** spectra that are photometric corrected with Hapke model ( $b = -0.4$  and  $c = 0.25$ ) but without shadow correction; **(d)** spectra that are photometric corrected with Hapke model ( $b = -0.17$  and  $c = 0.70$ ) but without shadow correction; **(e)** spectra that are shadow corrected but without photometric correction; **(f)** spectra that are photometric corrected with LS model and with shadow correction; **(g)** spectra that are photometric corrected with Hapke model ( $b = -0.4$  and  $c = 0.25$ ) and with shadow correction; **(h)** spectra that are photometric corrected with Hapke model ( $b = -0.17$  and  $c = 0.70$ ) and with shadow correction.

**Table S1.** The derived best-fit values for phase functions of Lommel-Seeliger model.

wavelen		VNIR				wavele		SWIR		
gth (nm)	p <sub>1</sub> (10 <sup>-7</sup> )	p <sub>2</sub> (10 <sup>-4</sup> )	p <sub>3</sub>	p <sub>4</sub>	ngth (nm)	p <sub>1</sub> (10 <sup>-7</sup> )	p <sub>2</sub> (10 <sup>-4</sup> )	p <sub>3</sub>	p <sub>4</sub>	
450	-3.555	0.939	-0.0080	0.236	900	-4.323	1.144	-0.0099	0.305	
455	-3.544	0.938	-0.0080	0.235	905	-4.423	1.160	-0.0099	0.303	
460	-3.565	0.940	-0.0080	0.234	910	-4.414	1.161	-0.0099	0.304	
465	-3.535	0.936	-0.0080	0.236	915	-4.346	1.145	-0.0098	0.301	
470	-3.517	0.934	-0.0080	0.236	920	-4.368	1.147	-0.0098	0.300	
475	-3.544	0.938	-0.0080	0.235	925	-4.651	1.218	-0.0104	0.315	
480	-3.473	0.928	-0.0080	0.237	930	-4.635	1.218	-0.0104	0.316	
485	-3.503	0.933	-0.0080	0.236	935	-4.590	1.218	-0.0105	0.321	
490	-3.524	0.935	-0.0080	0.236	940	-4.541	1.189	-0.0101	0.308	
495	-3.504	0.932	-0.0080	0.237	945	-4.661	1.218	-0.0103	0.314	
500	-3.519	0.934	-0.0080	0.237	950	-4.640	1.218	-0.0104	0.316	
505	-3.519	0.934	-0.0080	0.237	955	-4.607	1.218	-0.0105	0.319	
510	-3.480	0.929	-0.0080	0.239	960	-4.627	1.218	-0.0104	0.317	
515	-3.468	0.928	-0.0080	0.240	965	-4.585	1.218	-0.0105	0.321	
520	-3.513	0.934	-0.0080	0.238	970	-4.625	1.218	-0.0104	0.318	
525	-3.475	0.929	-0.0080	0.239	975	-4.642	1.218	-0.0104	0.317	
530	-3.440	0.925	-0.0080	0.241	980	-4.655	1.218	-0.0104	0.315	
535	-3.456	0.927	-0.0080	0.241	985	-4.707	1.218	-0.0103	0.310	
540	-3.445	0.925	-0.0080	0.241	990	-4.636	1.218	-0.0104	0.318	
545	-3.418	0.921	-0.0080	0.242	995	-4.687	1.218	-0.0103	0.313	
550	-3.437	0.924	-0.0080	0.242	1000	-4.658	1.218	-0.0104	0.316	
555	-3.439	0.925	-0.0080	0.241	1005	-4.621	1.218	-0.0104	0.320	
560	-3.441	0.926	-0.0080	0.241	1010	-4.651	1.218	-0.0104	0.317	
565	-3.444	0.926	-0.0080	0.242	1015	-4.659	1.218	-0.0104	0.316	
570	-3.409	0.922	-0.0080	0.243	1020	-4.636	1.218	-0.0104	0.320	
575	-3.392	0.919	-0.0080	0.244	1025	-4.648	1.218	-0.0104	0.318	
580	-3.432	0.924	-0.0080	0.243	1030	-4.431	1.164	-0.0100	0.308	
585	-3.397	0.920	-0.0080	0.244	1035	-4.632	1.206	-0.0102	0.314	
590	-3.435	0.925	-0.0080	0.243	1040	-4.400	1.153	-0.0098	0.304	
595	-3.400	0.921	-0.0080	0.244	1045	-4.563	1.198	-0.0102	0.316	
600	-3.410	0.922	-0.0080	0.244	1050	-4.436	1.159	-0.0099	0.305	
605	-3.405	0.921	-0.0080	0.245	1055	-4.389	1.143	-0.0097	0.300	
610	-3.424	0.923	-0.0080	0.245	1060	-4.374	1.144	-0.0098	0.303	
615	-3.409	0.921	-0.0080	0.245	1065	-4.171	1.088	-0.0092	0.288	
620	-3.412	0.922	-0.0080	0.245	1070	-4.351	1.130	-0.0096	0.296	
625	-3.373	0.917	-0.0080	0.246	1075	-4.242	1.100	-0.0093	0.289	
630	-3.379	0.918	-0.0080	0.246	1080	-4.508	1.176	-0.0100	0.309	
635	-3.379	0.918	-0.0080	0.247	1085	-4.692	1.218	-0.0103	0.316	
640	-3.352	0.914	-0.0080	0.248	1090	-3.983	1.042	-0.0089	0.279	

645	-3.349	0.915	-0.0080	0.248	1095	-4.470	1.157	-0.0098	0.301
650	-3.509	0.953	-0.0083	0.254	1100	-4.696	1.218	-0.0103	0.316
655	-3.356	0.915	-0.0080	0.247	1105	-4.632	1.218	-0.0104	0.323
660	-3.472	0.942	-0.0082	0.252	1110	-4.568	1.196	-0.0102	0.316
665	-3.374	0.918	-0.0080	0.247	1115	-4.632	1.218	-0.0104	0.323
670	-3.353	0.915	-0.0080	0.248	1120	-4.673	1.218	-0.0103	0.319
675	-3.537	0.964	-0.0084	0.260	1125	-4.692	1.218	-0.0103	0.318
680	-3.783	1.025	-0.0089	0.272	1130	-4.666	1.218	-0.0103	0.320
685	-4.001	1.080	-0.0094	0.284	1135	-4.410	1.167	-0.0101	0.316
690	-3.683	1.000	-0.0087	0.268	1140	-4.619	1.218	-0.0105	0.326
695	-3.510	0.958	-0.0084	0.260	1145	-4.418	1.156	-0.0099	0.308
700	-3.719	1.012	-0.0088	0.272	1150	-4.509	1.188	-0.0102	0.318
705	-4.189	1.128	-0.0098	0.296	1155	-4.364	1.154	-0.0099	0.313
710	-4.258	1.151	-0.0100	0.303	1160	-4.679	1.218	-0.0103	0.320
715	-4.210	1.135	-0.0098	0.298	1165	-4.672	1.218	-0.0104	0.322
720	-4.087	1.102	-0.0095	0.290	1170	-4.597	1.199	-0.0102	0.317
725	-3.848	1.044	-0.0091	0.279	1175	-4.622	1.218	-0.0105	0.328
730	-3.673	1.001	-0.0087	0.271	1180	-3.574	0.969	-0.0085	0.279
735	-4.156	1.120	-0.0097	0.296	1185	-4.569	1.194	-0.0102	0.319
740	-4.515	1.214	-0.0105	0.317	1190	-4.662	1.218	-0.0104	0.324
745	-4.483	1.202	-0.0104	0.312	1195	-4.301	1.130	-0.0097	0.307
750	-4.564	1.224	-0.0105	0.317	1200	-4.687	1.218	-0.0103	0.323
755	-4.293	1.154	-0.0100	0.302	1205	-4.205	1.108	-0.0095	0.303
760	-3.846	1.049	-0.0091	0.282	1210	-4.396	1.155	-0.0099	0.312
765	-3.708	1.014	-0.0089	0.275	1215	-4.698	1.218	-0.0103	0.321
770	-4.047	1.101	-0.0096	0.295	1220	-4.355	1.140	-0.0097	0.308
775	-4.498	1.212	-0.0105	0.317	1225	-4.637	1.218	-0.0104	0.328
780	-4.674	1.260	-0.0109	0.329	1230	-4.658	1.218	-0.0104	0.325
785	-4.473	1.207	-0.0104	0.316	1235	-4.650	1.218	-0.0104	0.327
790	-4.538	1.221	-0.0105	0.319	1240	-4.650	1.218	-0.0104	0.327
795	-4.509	1.215	-0.0105	0.318	1245	-4.670	1.212	-0.0103	0.321
800	-4.169	1.127	-0.0098	0.298	1250	-4.619	1.218	-0.0105	0.330
805	-4.168	1.128	-0.0098	0.299	1255	-4.625	1.218	-0.0105	0.330
810	-4.030	1.096	-0.0095	0.294	1260	-4.690	1.218	-0.0103	0.323
815	-4.196	1.141	-0.0099	0.305	1265	-3.779	1.015	-0.0089	0.290
820	-4.279	1.167	-0.0102	0.313	1270	-4.651	1.218	-0.0104	0.327
825	-4.543	1.232	-0.0107	0.326	1275	-4.618	1.218	-0.0105	0.331
830	-4.614	1.249	-0.0108	0.329	1280	-4.679	1.218	-0.0103	0.325
835	-4.539	1.229	-0.0107	0.324	1285	-4.666	1.218	-0.0104	0.327
840	-4.558	1.231	-0.0106	0.323	1290	-4.626	1.218	-0.0105	0.331
845	-4.344	1.181	-0.0103	0.314	1295	-3.582	0.976	-0.0087	0.287
850	-4.093	1.120	-0.0098	0.303	1300	-4.519	1.187	-0.0102	0.323
855	-4.421	1.204	-0.0105	0.321	1305	-4.559	1.191	-0.0101	0.321

860	-4.597	1.248	-0.0108	0.330	1310	-4.678	1.217	-0.0103	0.325
865	-4.465	1.216	-0.0106	0.325	1315	-4.677	1.218	-0.0103	0.326
870	-4.989	1.349	-0.0117	0.353	1320	-4.539	1.194	-0.0102	0.325
875	-5.024	1.359	-0.0118	0.356	1325	-4.457	1.173	-0.0101	0.321
880	-5.413	1.458	-0.0126	0.377	1330	-4.620	1.218	-0.0105	0.333
885	-5.294	1.429	-0.0124	0.373	1335	-4.600	1.218	-0.0105	0.335
890	-5.177	1.396	-0.0121	0.364	1340	-4.666	1.218	-0.0104	0.328
895	-5.100	1.378	-0.0119	0.361	1345	-4.609	1.218	-0.0105	0.335
900	-4.891	1.329	-0.0116	0.352	1350	-4.609	1.218	-0.0105	0.334
905	-5.566	1.502	-0.0130	0.392	1355	-4.611	1.218	-0.0105	0.334
910	-5.537	1.500	-0.0130	0.394	1360	-4.573	1.218	-0.0106	0.338
915	-5.601	1.520	-0.0132	0.400	1365	-4.592	1.218	-0.0105	0.336
920	-5.545	1.510	-0.0132	0.400	1370	-4.568	1.218	-0.0106	0.339
925	-5.504	1.504	-0.0132	0.400	1375	-4.543	1.218	-0.0106	0.342
930	-5.535	1.509	-0.0132	0.400	1380	-4.159	1.072	-0.0091	0.294
935	-5.567	1.515	-0.0132	0.400	1385	-4.039	1.050	-0.0089	0.292
940	-5.599	1.520	-0.0132	0.400	1390	-3.384	0.902	-0.0079	0.267
945	-5.575	1.516	-0.0132	0.400	1395	-3.824	1.000	-0.0086	0.283
					1400	-3.957	1.027	-0.0087	0.286
					1405	-4.294	1.114	-0.0095	0.306
					1410	-3.951	1.028	-0.0088	0.288
					1415	-3.963	1.029	-0.0087	0.287
					1420	-3.832	1.000	-0.0085	0.283
					1425	-3.774	0.990	-0.0085	0.283
					1430	-3.702	0.977	-0.0084	0.283
					1435	-4.702	1.218	-0.0103	0.330
					1440	-4.046	1.048	-0.0089	0.293
					1445	-4.543	1.183	-0.0101	0.324
					1450	-4.281	1.114	-0.0095	0.309
					1455	-4.732	1.205	-0.0101	0.320
					1460	-4.697	1.218	-0.0103	0.331
					1465	-4.720	1.218	-0.0103	0.330
					1470	-4.376	1.146	-0.0098	0.320
					1475	-4.679	1.208	-0.0102	0.328
					1480	-4.299	1.128	-0.0097	0.317
					1485	-4.553	1.177	-0.0099	0.321
					1490	-4.709	1.218	-0.0103	0.331
					1495	-4.670	1.218	-0.0104	0.335
					1500	-4.689	1.218	-0.0104	0.334
					1505	-4.382	1.127	-0.0095	0.310
					1510	-4.587	1.218	-0.0105	0.343
					1515	-4.630	1.218	-0.0105	0.339
					1520	-4.652	1.218	-0.0104	0.337

1525	-4.656	1.218	-0.0104	0.337
1530	-4.670	1.218	-0.0104	0.336
1535	-4.656	1.218	-0.0104	0.337
1540	-4.653	1.218	-0.0104	0.338
1545	-4.637	1.218	-0.0104	0.339
1550	-4.648	1.218	-0.0104	0.338
1555	-4.640	1.218	-0.0104	0.340
1560	-4.633	1.218	-0.0105	0.340
1565	-4.658	1.218	-0.0104	0.338
1570	-4.655	1.218	-0.0104	0.339
1575	-4.682	1.218	-0.0104	0.336
1580	-4.581	1.218	-0.0106	0.345
1585	-4.641	1.218	-0.0104	0.339
1590	-4.718	1.218	-0.0103	0.333
1595	-4.576	1.218	-0.0106	0.346
1600	-4.661	1.218	-0.0104	0.338
1605	-4.617	1.218	-0.0105	0.342
1610	-4.659	1.218	-0.0104	0.339
1615	-4.669	1.218	-0.0104	0.337
1620	-4.607	1.218	-0.0105	0.344
1625	-4.632	1.218	-0.0105	0.341
1630	-4.615	1.218	-0.0105	0.343
1635	-4.663	1.218	-0.0104	0.338
1640	-4.653	1.218	-0.0104	0.340
1645	-4.550	1.218	-0.0106	0.350
1650	-4.646	1.218	-0.0104	0.341
1655	-4.682	1.218	-0.0104	0.337
1660	-4.623	1.218	-0.0105	0.342
1665	-4.628	1.218	-0.0105	0.342
1670	-4.613	1.218	-0.0105	0.344
1675	-4.691	1.218	-0.0103	0.337
1680	-4.636	1.218	-0.0105	0.342
1685	-4.576	1.218	-0.0106	0.347
1690	-4.613	1.218	-0.0105	0.344
1695	-4.631	1.218	-0.0105	0.343
1700	-4.668	1.218	-0.0104	0.339
1705	-4.643	1.218	-0.0104	0.341
1710	-4.659	1.218	-0.0104	0.341
1715	-4.610	1.218	-0.0105	0.345
1720	-4.649	1.218	-0.0104	0.342
1725	-4.651	1.218	-0.0104	0.342
1730	-4.655	1.218	-0.0104	0.341
1735	-4.681	1.218	-0.0104	0.339



1740	-4.606	1.218	-0.0105	0.345
1745	-4.655	1.218	-0.0104	0.342
1750	-4.604	1.218	-0.0105	0.346
1755	-4.614	1.218	-0.0105	0.344
1760	-4.600	1.218	-0.0105	0.347
1765	-4.626	1.218	-0.0105	0.344
1770	-4.669	1.218	-0.0104	0.340
1775	-4.647	1.218	-0.0104	0.342
1780	-4.577	1.218	-0.0106	0.348
1785	-4.629	1.216	-0.0104	0.343
1790	-4.643	1.218	-0.0105	0.343
1795	-4.605	1.218	-0.0105	0.346
1800	-4.688	1.218	-0.0104	0.338
1805	-4.678	1.218	-0.0104	0.339
1810	-4.680	1.218	-0.0104	0.337
1815	-4.683	1.218	-0.0104	0.340
1820	-4.588	1.218	-0.0106	0.349
1825	-4.642	1.218	-0.0104	0.342
1830	-4.699	1.218	-0.0103	0.338
1835	-4.641	1.218	-0.0104	0.343
1840	-4.735	1.218	-0.0103	0.335
1845	-4.615	1.218	-0.0105	0.345
1850	-4.652	1.218	-0.0104	0.343
1855	-4.266	1.138	-0.0099	0.332
1860	-4.606	1.218	-0.0105	0.347
1865	-4.629	1.218	-0.0105	0.345
1870	-4.607	1.218	-0.0105	0.347
1875	-4.749	1.218	-0.0102	0.334
1880	-4.584	1.218	-0.0106	0.349
1885	-4.559	1.218	-0.0106	0.352
1890	-4.664	1.218	-0.0104	0.342
1895	-4.609	1.218	-0.0105	0.347
1900	-4.633	1.218	-0.0105	0.344
1905	-4.597	1.218	-0.0105	0.348
1910	-4.726	1.218	-0.0103	0.336
1915	-4.605	1.218	-0.0105	0.348
1920	-4.597	1.218	-0.0105	0.349
1925	-4.536	1.218	-0.0107	0.355
1930	-4.597	1.218	-0.0105	0.348
1935	-4.621	1.218	-0.0105	0.347
1940	-4.625	1.218	-0.0105	0.348
1945	-4.606	1.218	-0.0105	0.349
1950	-4.569	1.218	-0.0106	0.352

1955	-4.584	1.218	-0.0106	0.350
1960	-4.605	1.218	-0.0105	0.348
1965	-4.589	1.218	-0.0106	0.349
1970	-4.642	1.218	-0.0104	0.344
1975	-4.651	1.218	-0.0104	0.344
1980	-4.661	1.218	-0.0104	0.342
1985	-4.602	1.218	-0.0105	0.349
1990	-4.600	1.218	-0.0105	0.349
1995	-4.572	1.218	-0.0106	0.352
2000	-4.546	1.218	-0.0106	0.355
2005	-4.541	1.218	-0.0107	0.355
2010	-4.617	1.218	-0.0105	0.346
2015	-4.587	1.218	-0.0106	0.352
2020	-4.547	1.218	-0.0106	0.354
2025	-4.548	1.218	-0.0106	0.354
2030	-4.664	1.218	-0.0104	0.343
2035	-4.564	1.218	-0.0106	0.353
2040	-4.544	1.218	-0.0106	0.355
2045	-4.519	1.218	-0.0107	0.357
2050	-4.551	1.218	-0.0106	0.353
2055	-4.597	1.218	-0.0105	0.350
2060	-4.581	1.218	-0.0106	0.350
2065	-4.546	1.218	-0.0106	0.355
2070	-4.627	1.218	-0.0105	0.347
2075	-4.566	1.218	-0.0106	0.352
2080	-4.526	1.218	-0.0107	0.357
2085	-4.584	1.218	-0.0106	0.351
2090	-4.561	1.218	-0.0106	0.353
2095	-4.528	1.218	-0.0107	0.357
2100	-4.660	1.218	-0.0104	0.344
2105	-4.627	1.218	-0.0105	0.347
2110	-4.568	1.218	-0.0106	0.353
2115	-4.552	1.218	-0.0106	0.353
2120	-4.531	1.218	-0.0107	0.358
2125	-4.582	1.218	-0.0106	0.352
2130	-4.504	1.218	-0.0107	0.361
2135	-4.577	1.218	-0.0106	0.354
2140	-4.497	1.218	-0.0108	0.362
2145	-4.579	1.218	-0.0106	0.353
2150	-4.517	1.218	-0.0107	0.360
2155	-4.615	1.218	-0.0105	0.350
2160	-4.539	1.218	-0.0107	0.358
2165	-4.545	1.218	-0.0106	0.357

2170	-4.560	1.218	-0.0106	0.356
2175	-4.584	1.218	-0.0105	0.351
2180	-4.541	1.218	-0.0107	0.357
2185	-4.505	1.218	-0.0107	0.361
2190	-4.564	1.218	-0.0106	0.355
2195	-4.585	1.218	-0.0106	0.354
2200	-4.546	1.218	-0.0106	0.356
2205	-4.584	1.218	-0.0106	0.354
2210	-4.550	1.218	-0.0106	0.358
2215	-4.570	1.218	-0.0106	0.352
2220	-4.586	1.218	-0.0106	0.355
2225	-4.468	1.218	-0.0108	0.366
2230	-4.545	1.218	-0.0106	0.357
2235	-4.593	1.218	-0.0106	0.354
2240	-4.504	1.218	-0.0107	0.363
2245	-4.475	1.218	-0.0108	0.367
2250	-4.447	1.218	-0.0108	0.368
2255	-4.588	1.218	-0.0106	0.356
2260	-4.467	1.218	-0.0108	0.367
2265	-4.509	1.218	-0.0107	0.363
2270	-4.447	1.218	-0.0108	0.368
2275	-4.585	1.218	-0.0106	0.356
2280	-4.550	1.218	-0.0107	0.361
2285	-4.495	1.218	-0.0108	0.365
2290	-4.582	1.218	-0.0106	0.353
2295	-4.567	1.218	-0.0106	0.359
2300	-4.486	1.218	-0.0108	0.366
2305	-4.463	1.218	-0.0108	0.368
2310	-4.562	1.218	-0.0106	0.358
2315	-4.428	1.218	-0.0109	0.371
2320	-4.488	1.218	-0.0108	0.368
2325	-4.594	1.218	-0.0106	0.356
2330	-4.583	1.218	-0.0106	0.358
2335	-4.522	1.218	-0.0107	0.363
2340	-4.616	1.218	-0.0105	0.352
2345	-4.456	1.218	-0.0108	0.371
2350	-4.471	1.218	-0.0108	0.371
2355	-4.521	1.218	-0.0107	0.367
2360	-4.417	1.218	-0.0109	0.373
2365	-4.574	1.218	-0.0106	0.358
2370	-4.313	1.218	-0.0111	0.384
2375	-4.464	1.218	-0.0108	0.371
2380	-4.372	1.218	-0.0110	0.379

2385	-4.464	1.218	-0.0108	0.371
2390	-4.401	1.218	-0.0110	0.377
2395	-4.496	1.218	-0.0107	0.365

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**Table S2.** Spectral parameters of spectra after photometric correction and shadow corrections.

No.	Spectral slope		FeO content (wt. %)		OMAT		Band center_1 $\mu\text{m}$		Band center_2 $\mu\text{m}$	
	Raw	Corr <sup>1</sup>	Raw	Corr	Raw	Corr	Raw	Corr	Raw	Corr
0001	1.898	1.878	10.29	8.982	0.082	0.097	976.9	972.9	2201.2	2070.3
0003	1.638	1.616	12.439	10.418	0.185	0.207	977.8	976.1	2096.8	2029.2
0005	1.727	1.709	13.948	12.63	0.156	0.168	968.5	966.6	2057.8	2068.5
0008	1.851	1.845	11.806	10.676	0.131	0.136	972.3	972.8	1833.9	1910.4
0009	1.809	1.795	12.494	11	0.124	0.134	977.8	975.5	2047.3	2317.0
0012	1.811	1.808	11.948	11.229	0.203	0.207	958.2	957.9	2019.4	1998.9
0013	1.973	1.97	11.008	10.142	0.199	0.203	951.7	951.5	1998.4	1989.1
0014	1.823	1.816	12.929	12.037	0.245	0.251	955.9	955.4	2023.8	1941.6
0015	1.917	1.916	12.14	11.61	0.304	0.307	957.4	957.2	2046.5	1778.2
0016	1.599	1.596	11.214	10.271	0.185	0.189	974.0	973.7	2223.8	2079.5
0017	1.71	1.697	14.013	12.57	0.194	0.205	974.1	968.2	1812.9	1705.0
0020	1.745	1.734	12.827	11.391	0.15	0.159	962.2	961.5	1973.2	2009.0
0021	1.566	1.551	11.861	9.065	0.198	0.222	975.4	963.5	2026.5	2041.8
0023	1.9	1.883	14.219	13.013	0.168	0.179	1041.5	1039.9	1971.7	2028.2
0025	1.674	1.633	13.54	10.838	0.198	0.234	970.8	964.7	2064.1	1979.4
0027	1.693	1.68	13.447	12.155	0.199	0.21	972.1	971.1	2127.4	2173.1
0028	1.732	1.73	12.319	11.626	0.177	0.18	964.0	962.9	2091.9	2016.6
0029	1.656	1.655	12.126	11.504	0.193	0.195	974.1	972.1	1980.7	1804.8
0031	1.621	1.606	13.373	11.612	0.174	0.187	977.5	969.9	1941.7	1803.6
0032	1.675	1.655	13.005	10.975	0.184	0.202	969.8	965.4	1848.9	2358.4
0034	1.67	1.666	11.713	10.717	0.173	0.178	968.3	971.0	1919.5	1918.6
0036	1.62	1.618	10.214	9.326	0.206	0.211	975.1	976.9	1561.0	1555.8
0038	1.615	1.613	10.53	9.795	0.209	0.214	972.1	972.6	1922.1	1853.2
0040	1.588	1.586	10.787	10.122	0.219	0.224	974.0	971.1	2021.8	2021.6
0041	1.627	1.626	10.058	9.43	0.205	0.209	978.7	977.9	1967.8	1999.5
0045	1.694	1.637	14.595	11.087	0.147	0.193	993.7	983.9	1973.8	1777.6
0047	1.545	1.534	13.644	12.03	0.199	0.21	984.5	977.7	2075.5	2003.3
0051	1.711	1.708	13.181	12.189	0.167	0.169	977.5	980.4	1756.7	1941.2
0052	1.648	1.613	13.582	10.824	0.18	0.211	984.4	974.7	2021.0	1971.7
0055	1.634	1.597	12.387	9.709	0.2	0.24	983.1	977.3	2071.1	2074.7
0058	1.563	1.543	13.158	10.284	0.196	0.222	982.7	978.4	2157.1	2085.2
0059	1.463	1.422	14.113	10.542	0.191	0.235	999.7	994.1	2201.7	2225.4
0060	1.748	1.717	11.474	9.57	0.139	0.169	996.5	995.2	1505.2	2157.7
0062	1.498	1.437	14.656	8.967	0.186	0.257	1005.2	991.6	2274.4	2181.6
0064	1.704	1.681	10.806	8.801	0.149	0.173	987.6	984.9	2006.9	1977.3
0068	1.646	1.611	12.418	10.011	0.173	0.208	1004.1	1002.8	2212.1	2306.6
0069	1.699	1.667	12.265	9.805	0.158	0.19	1003.0	991.6	2300.8	2300.1

0070	1.748	1.744	12.878	11.85	0.192	0.196	963.1	963.3	2121.8	2243.7
0071	1.783	1.781	12.786	11.905	0.184	0.187	969.8	969.2	1945.9	2002.9
0072	1.768	1.766	12.899	12.056	0.193	0.196	972.1	970.7	1985.2	1990.0
0074	1.647	1.645	11.842	10.811	0.172	0.177	988.8	989.2	1953.8	1960.8
0075	1.683	1.684	11.511	10.625	0.165	0.167	995.8	997.4	1907.9	1808.6
0076	1.671	1.672	11.732	10.905	0.177	0.178	983.3	980.6	1834.9	1975.6
0077	1.648	1.649	11.81	11.065	0.189	0.191	990.3	989.5	1742.9	1771.5
0078	1.708	1.71	11.313	10.466	0.16	0.161	992.1	993.6	1989.4	2092.3
0079	1.775	1.773	12.345	11.156	0.128	0.13	993.9	994.1	2112.0	1989.3
0080	1.776	1.772	12.335	11.099	0.128	0.131	993.0	991.9	2009.9	2006.9
0081	1.798	1.793	11.957	10.546	0.111	0.115	994.7	994.5	1891.9	1919.6
0082	1.802	1.797	11.77	10.245	0.105	0.11	998.7	996.3	2270.6	2073.6
0083	1.819	1.814	11.287	9.64	0.092	0.097	995.4	993.7	2127.7	2109.8
0084	1.719	1.714	11.979	10.65	0.132	0.136	993.4	990.0	1970.1	1950.7
0085	1.711	1.706	11.971	10.596	0.138	0.143	997.3	999.9	1989.9	2080.5
0086	1.746	1.744	11.493	10.155	0.122	0.125	1002.7	1006.4	2048.0	2092.4
0087	1.737	1.732	11.527	10.071	0.127	0.132	999.4	1000.5	2000.6	1999.5
0088	1.711	1.706	11.741	10.345	0.137	0.142	1000.1	1000.5	1533.8	2152.3
0089	1.741	1.735	11.28	9.701	0.117	0.124	999.6	998.8	1626.6	1520.1
0090	1.677	1.672	10.613	9.117	0.127	0.134	1000.3	1001.2	2108.6	2157.5
0091	1.667	1.654	12.264	11.233	0.17	0.182	994.4	992.5	2105.9	2031.9
0093	1.777	1.777	12.613	11.541	0.128	0.129	989.4	988.6	2048.0	1972.7
0096	1.789	1.789	12.149	11.302	0.14	0.14	993.1	992.7	2156.6	2121.7
0100	1.757	1.76	9.707	8.87	0.157	0.159	993.0	996.2	2130.8	2119.8
0102	1.833	1.835	10.818	9.702	0.124	0.124	997.9	999.6	1991.6	1968.3
0103	1.69	1.692	11.918	11.28	0.167	0.167	988.1	991.2	1736.9	1887.5
0104	1.562	1.561	13.226	12.336	0.213	0.216	988.3	985.9	1917.7	1989.0
0105	1.577	1.576	13.291	12.313	0.206	0.209	986.9	988.5	2013.2	2018.0
0106	1.821	1.823	11.006	10.256	0.161	0.162	974.7	977.0	1868.5	1977.1
0107	1.811	1.813	11.201	10.471	0.168	0.169	976.9	977.5	1751.3	1681.1
0108	1.636	1.623	14.032	12.493	0.199	0.209	978.1	974.9	2074.8	1963.6
0109	1.584	1.582	9.691	8.637	0.241	0.25	974.2	976.5	1865.5	1932.9
0110	1.595	1.594	9.776	8.75	0.241	0.249	974.1	977.8	2048.8	2052.4
0113	1.708	1.695	12.555	11.04	0.169	0.18	985.2	982.5	2107.9	1970.8
0114	1.722	1.715	12.939	11.702	0.174	0.18	974.6	975.6	1923.1	1919.8
0120	1.72	1.707	14.109	12.6	0.165	0.174	973.4	969.3	2019.2	2048.0
0124	1.812	1.81	12.06	10.946	0.156	0.16	973.2	973.3	1909.0	1906.8
0125	1.643	1.626	12.885	11.159	0.214	0.231	974.8	960.6	1975.5	1738.1
0128	1.747	1.742	12.559	11.623	0.204	0.208	965.9	966.9	1943.3	2036.6
<sup>2</sup> AVG	1.706	1.698	12.188	10.766	0.173	0.182	983.3	981.2	1982.7	1995.9
<sup>3</sup> STD	0.096	0.102	1.156	1.066	0.037	0.041	14.8	14.9	159.3	155.4

<sup>1</sup> Spectral parameters of spectra after photometric correction and shadow corrections; <sup>2</sup>AVG: average; <sup>3</sup> STD: standard deviation. Some spectra have been discarded for poor spectral quality.

