

Spectral directional emissivity ε_λ determined under various angles with respect to the surface normal

Sample: Aeroglaze Z306 at 150 °C

Uncertainty is given as standard uncertainty ($k=1$)

Wavenumber / cm-1	$\varepsilon_\lambda(10^\circ)$	$u(10^\circ)$	$\varepsilon_\lambda(30^\circ)$	$u(30^\circ)$	$\varepsilon_\lambda(50^\circ)$	$u(50^\circ)$	$\varepsilon_\lambda(70^\circ)$	$u(70^\circ)$	Wavelength / μm
500.49	0.9617	0.0046	0.9547	0.0043	0.9484	0.0044	0.8426	0.0045	19.980
510.14	0.9631	0.0049	0.9628	0.0046	0.9473	0.0050	0.8444	0.0053	19.603
519.78	0.9630	0.0067	0.9626	0.0066	0.9458	0.0066	0.8436	0.0067	19.239
529.42	0.9652	0.0059	0.9571	0.0051	0.9417	0.0048	0.8462	0.0050	18.888
539.07	0.9626	0.0061	0.9600	0.0046	0.9443	0.0042	0.8488	0.0045	18.551
548.71	0.9613	0.0043	0.9592	0.0051	0.9436	0.0043	0.8429	0.0048	18.225
558.35	0.9606	0.0057	0.9640	0.0060	0.9471	0.0065	0.8485	0.0056	17.910
568.00	0.9624	0.0042	0.9618	0.0043	0.9458	0.0044	0.8442	0.0051	17.606
577.64	0.9616	0.0067	0.9592	0.0067	0.9474	0.0071	0.8427	0.0066	17.312
587.29	0.9624	0.0044	0.9601	0.0040	0.9432	0.0054	0.8440	0.0041	17.028
596.93	0.9570	0.0077	0.9504	0.0078	0.9454	0.0079	0.8427	0.0077	16.752
606.57	0.9615	0.0039	0.9580	0.0040	0.9431	0.0043	0.8462	0.0043	16.486
616.22	0.9623	0.0054	0.9617	0.0045	0.9470	0.0044	0.8444	0.0047	16.228
625.86	0.9625	0.0044	0.9609	0.0046	0.9449	0.0045	0.8447	0.0042	15.978
635.50	0.9640	0.0070	0.9605	0.0071	0.9403	0.0071	0.8442	0.0069	15.736
645.15	0.9631	0.0042	0.9576	0.0040	0.9412	0.0041	0.8462	0.0040	15.500
654.79	0.9618	0.0043	0.9596	0.0042	0.9459	0.0042	0.8437	0.0041	15.272
664.43	0.9624	0.0046	0.9594	0.0047	0.9446	0.0043	0.8464	0.0042	15.050
674.08	0.9618	0.0047	0.9621	0.0046	0.9421	0.0048	0.8459	0.0045	14.835
683.72	0.9637	0.0064	0.9604	0.0063	0.9441	0.0062	0.8478	0.0060	14.626
693.36	0.9580	0.0041	0.9573	0.0042	0.9428	0.0039	0.8469	0.0038	14.422
703.01	0.9596	0.0056	0.9570	0.0047	0.9435	0.0047	0.8457	0.0047	14.225
712.65	0.9613	0.0044	0.9558	0.0044	0.9460	0.0042	0.8459	0.0045	14.032
722.29	0.9629	0.0064	0.9578	0.0060	0.9415	0.0060	0.8459	0.0062	13.845
731.94	0.9579	0.0045	0.9556	0.0040	0.9421	0.0040	0.8447	0.0038	13.662
741.58	0.9567	0.0044	0.9518	0.0041	0.9419	0.0045	0.8452	0.0041	13.485
751.22	0.9597	0.0045	0.9564	0.0046	0.9431	0.0047	0.8467	0.0044	13.312
760.87	0.9585	0.0044	0.9535	0.0043	0.9420	0.0044	0.8425	0.0040	13.143
770.51	0.9576	0.0042	0.9571	0.0041	0.9426	0.0041	0.8471	0.0039	12.978
780.15	0.9619	0.0052	0.9580	0.0053	0.9422	0.0052	0.8469	0.0050	12.818
789.80	0.9577	0.0042	0.9533	0.0040	0.9421	0.0040	0.8465	0.0038	12.661
799.44	0.9577	0.0043	0.9553	0.0046	0.9395	0.0046	0.8460	0.0043	12.509
809.08	0.9591	0.0045	0.9557	0.0046	0.9402	0.0046	0.8439	0.0042	12.360
818.73	0.9589	0.0051	0.9568	0.0045	0.9413	0.0045	0.8465	0.0044	12.214
828.37	0.9637	0.0055	0.9618	0.0054	0.9427	0.0055	0.8479	0.0053	12.072
838.01	0.9609	0.0046	0.9576	0.0043	0.9415	0.0042	0.8502	0.0039	11.933
847.66	0.9609	0.0047	0.9578	0.0044	0.9427	0.0041	0.8500	0.0039	11.797
857.30	0.9611	0.0046	0.9620	0.0042	0.9454	0.0042	0.8470	0.0039	11.665
866.94	0.9622	0.0047	0.9608	0.0045	0.9437	0.0047	0.8512	0.0043	11.535
876.59	0.9608	0.0044	0.9616	0.0042	0.9418	0.0042	0.8464	0.0039	11.408
886.23	0.9598	0.0048	0.9584	0.0049	0.9421	0.0048	0.8479	0.0044	11.284
895.87	0.9589	0.0048	0.9571	0.0048	0.9402	0.0047	0.8467	0.0043	11.162
905.52	0.9576	0.0044	0.9579	0.0043	0.9399	0.0045	0.8453	0.0040	11.043
915.16	0.9600	0.0058	0.9553	0.0057	0.9398	0.0058	0.8446	0.0056	10.927
924.81	0.9591	0.0043	0.9562	0.0042	0.9397	0.0041	0.8466	0.0041	10.813
934.45	0.9588	0.0046	0.9593	0.0043	0.9412	0.0042	0.8464	0.0040	10.702
944.09	0.9586	0.0044	0.9563	0.0044	0.9412	0.0045	0.8472	0.0040	10.592
953.74	0.9585	0.0048	0.9536	0.0046	0.9397	0.0046	0.8455	0.0044	10.485
963.38	0.9582	0.0043	0.9544	0.0043	0.9411	0.0043	0.8455	0.0040	10.380
973.02	0.9547	0.0045	0.9530	0.0043	0.9380	0.0044	0.8444	0.0041	10.277
982.67	0.9550	0.0046	0.9500	0.0046	0.9370	0.0046	0.8422	0.0043	10.176
992.31	0.9516	0.0045	0.9470	0.0044	0.9364	0.0044	0.8394	0.0040	10.078
1001.95	0.9508	0.0048	0.9473	0.0048	0.9343	0.0047	0.8390	0.0043	9.981
1011.60	0.9500	0.0047	0.9476	0.0045	0.9313	0.0047	0.8360	0.0042	9.885
1021.24	0.9536	0.0049	0.9543	0.0049	0.9336	0.0047	0.8381	0.0046	9.792
1030.88	0.9519	0.0051	0.9471	0.0051	0.9288	0.0051	0.8347	0.0047	9.700
1040.53	0.9480	0.0055	0.9449	0.0055	0.9276	0.0053	0.8319	0.0052	9.610
1050.17	0.9443	0.0045	0.9411	0.0044	0.9273	0.0045	0.8295	0.0040	9.522
1059.81	0.9447	0.0052	0.9400	0.0050	0.9252	0.0049	0.8267	0.0046	9.436
1069.46	0.9446	0.0044	0.9398	0.0046	0.9254	0.0045	0.8274	0.0040	9.351
1079.10	0.9459	0.0045	0.9417	0.0047	0.9274	0.0044	0.8276	0.0040	9.267
1088.74	0.9488	0.0047	0.9451	0.0045	0.9264	0.0048	0.8284	0.0041	9.185
1098.39	0.9517	0.0047	0.9492	0.0048	0.9313	0.0047	0.8323	0.0042	9.104
1108.03	0.9592	0.0055	0.9581	0.0053	0.9394	0.0051	0.8368	0.0049	9.025
1117.67	0.9677	0.0065	0.9636	0.0065	0.9485	0.0066	0.8496	0.0062	8.947
1127.32	0.9697	0.0052	0.9682	0.0052	0.9527	0.0051	0.8592	0.0048	8.871
1136.96	0.9700	0.0049	0.9694	0.0047	0.9535	0.0046	0.8646	0.0044	8.795
1146.60	0.9703	0.0049	0.9689	0.0048	0.9542	0.0048	0.8660	0.0046	8.721
1156.25	0.9720	0.0052	0.9690	0.0051	0.9566	0.0050	0.8670	0.0046	8.649
1165.89	0.9711	0.0049	0.9699	0.0049	0.9584	0.0048	0.8688	0.0044	8.577
1175.53	0.9706	0.0047	0.9714	0.0050	0.9554	0.0047	0.8683	0.0044	8.507
1185.18	0.9711	0.0058	0.9694	0.0057	0.9540	0.0056	0.8668	0.0054	8.438
1194.82	0.9693	0.0049	0.9666	0.0048	0.9519	0.0048	0.8628	0.0044	8.369
1204.46	0.9696	0.0051	0.9685	0.0050	0.9519	0.0049	0.8646	0.0046	8.302
1214.11	0.9693	0.0049	0.9689	0.0049	0.9533	0.0049	0.8672	0.0046	8.236
1223.75	0.9757	0.0059	0.9729	0.0057	0.9589	0.0057	0.8729	0.0055	8.172
1233.39	0.9766	0.0055	0.9745	0.0054	0.9615	0.0053	0.8779	0.0051	8.108
1243.04	0.9765	0.0052	0.9735	0.0052	0.9635	0.0051	0.8813	0.0048	8.045

1252.68	0.9745	0.0052	0.9736	0.0051	0.9601	0.0049	0.8788	0.0047	7.983
1262.32	0.9730	0.0051	0.9712	0.0050	0.9584	0.0049	0.8759	0.0045	7.922
1271.97	0.9722	0.0051	0.9734	0.0051	0.9568	0.0051	0.8751	0.0046	7.862
1281.61	0.9715	0.0051	0.9720	0.0053	0.9567	0.0049	0.8740	0.0046	7.803
1291.25	0.9680	0.0050	0.9635	0.0050	0.9562	0.0050	0.8724	0.0045	7.744
1300.90	0.9678	0.0054	0.9651	0.0053	0.9541	0.0053	0.8691	0.0047	7.687
1310.54	0.9726	0.0050	0.9709	0.0051	0.9557	0.0050	0.8717	0.0046	7.630
1320.18	0.9730	0.0054	0.9679	0.0054	0.9567	0.0055	0.8757	0.0051	7.575
1329.83	0.9720	0.0052	0.9696	0.0052	0.9562	0.0052	0.8755	0.0048	7.520
1339.47	0.9712	0.0054	0.9714	0.0053	0.9565	0.0053	0.8735	0.0048	7.466
1349.12	0.9736	0.0061	0.9708	0.0060	0.9555	0.0061	0.8745	0.0056	7.412
1358.76	0.9698	0.0052	0.9699	0.0052	0.9546	0.0052	0.8704	0.0047	7.360
1368.40	0.9659	0.0052	0.9632	0.0051	0.9509	0.0051	0.8703	0.0047	7.308
1378.05	0.9715	0.0053	0.9702	0.0053	0.9549	0.0051	0.8728	0.0048	7.257
1387.69	0.9708	0.0054	0.9671	0.0052	0.9573	0.0052	0.8739	0.0048	7.206
1397.33	0.9687	0.0055	0.9653	0.0056	0.9553	0.0053	0.8731	0.0050	7.157
1406.98	0.9682	0.0058	0.9673	0.0058	0.9563	0.0056	0.8702	0.0053	7.107
1416.62	0.9725	0.0055	0.9697	0.0053	0.9572	0.0053	0.8751	0.0048	7.059
1426.26	0.9698	0.0056	0.9663	0.0053	0.9594	0.0053	0.8733	0.0049	7.011
1435.91	0.9688	0.0055	0.9647	0.0053	0.9539	0.0053	0.8733	0.0048	6.964
1445.55	0.9683	0.0055	0.9648	0.0055	0.9529	0.0053	0.8698	0.0050	6.918
1455.19	0.9675	0.0056	0.9653	0.0056	0.9514	0.0055	0.8703	0.0052	6.872
1464.84	0.9679	0.0057	0.9656	0.0055	0.9544	0.0057	0.8700	0.0050	6.827
1474.48	0.9684	0.0055	0.9670	0.0054	0.9516	0.0053	0.8713	0.0050	6.782
1484.12	0.9648	0.0059	0.9660	0.0056	0.9507	0.0056	0.8658	0.0053	6.738
1493.77	0.9621	0.0056	0.9584	0.0054	0.9464	0.0055	0.8644	0.0049	6.694
1503.41	0.9603	0.0058	0.9571	0.0060	0.9438	0.0057	0.8576	0.0053	6.652
1513.05	0.9616	0.0057	0.9577	0.0056	0.9461	0.0055	0.8614	0.0050	6.609
1522.70	0.9662	0.0056	0.9636	0.0056	0.9519	0.0055	0.8679	0.0051	6.567
1532.34	0.9730	0.0057	0.9751	0.0060	0.9606	0.0057	0.8769	0.0052	6.526
1541.98	0.9765	0.0059	0.9727	0.0058	0.9614	0.0057	0.8837	0.0053	6.485
1551.63	0.9746	0.0057	0.9725	0.0058	0.9619	0.0057	0.8872	0.0054	6.445
1561.27	0.9775	0.0069	0.9737	0.0067	0.9597	0.0067	0.8831	0.0063	6.405
1570.91	0.9746	0.0069	0.9773	0.0067	0.9592	0.0066	0.8755	0.0062	6.366
1580.56	0.9714	0.0066	0.9705	0.0066	0.9571	0.0063	0.8763	0.0061	6.327
1590.20	0.9687	0.0061	0.9668	0.0061	0.9548	0.0060	0.8728	0.0058	6.289
1599.84	0.9700	0.0059	0.9674	0.0059	0.9550	0.0060	0.8778	0.0057	6.251
1609.49	0.9716	0.0060	0.9745	0.0060	0.9583	0.0058	0.8809	0.0054	6.213
1619.13	0.9700	0.0066	0.9672	0.0068	0.9553	0.0065	0.8797	0.0063	6.176
1628.77	0.9717	0.0062	0.9702	0.0059	0.9560	0.0058	0.8781	0.0056	6.140
1638.42	0.9680	0.0058	0.9629	0.0059	0.9573	0.0060	0.8762	0.0054	6.103
1648.06	0.9702	0.0068	0.9672	0.0063	0.9539	0.0061	0.8739	0.0056	6.068
1657.70	0.9684	0.0061	0.9644	0.0061	0.9547	0.0059	0.8753	0.0054	6.032
1667.35	0.9707	0.0074	0.9702	0.0078	0.9517	0.0074	0.8756	0.0077	5.998
1676.99	0.9693	0.0065	0.9661	0.0063	0.9540	0.0063	0.8732	0.0060	5.963
1686.64	0.9690	0.0066	0.9671	0.0064	0.9521	0.0064	0.8767	0.0057	5.929
1696.28	0.9687	0.0061	0.9642	0.0061	0.9541	0.0059	0.8753	0.0056	5.895
1705.92	0.9703	0.0069	0.9657	0.0067	0.9545	0.0065	0.8743	0.0062	5.862
1715.57	0.9684	0.0069	0.9671	0.0066	0.9513	0.0065	0.8750	0.0060	5.829
1725.21	0.9649	0.0061	0.9637	0.0063	0.9554	0.0060	0.8769	0.0057	5.796
1734.85	0.9695	0.0063	0.9682	0.0063	0.9536	0.0065	0.8818	0.0061	5.764
1744.50	0.9707	0.0069	0.9726	0.0066	0.9580	0.0064	0.8830	0.0062	5.732
1754.14	0.9736	0.0064	0.9726	0.0064	0.9620	0.0062	0.8827	0.0061	5.701
1763.78	0.9738	0.0065	0.9724	0.0069	0.9603	0.0066	0.8826	0.0060	5.670
1773.43	0.9731	0.0066	0.9715	0.0072	0.9562	0.0066	0.8835	0.0062	5.639
1783.07	0.9750	0.0074	0.9749	0.0068	0.9588	0.0069	0.8844	0.0062	5.608
1792.71	0.9711	0.0066	0.9721	0.0071	0.9595	0.0064	0.8819	0.0059	5.578
1802.36	0.9722	0.0066	0.9709	0.0064	0.9547	0.0064	0.8782	0.0061	5.548
1812.00	0.9699	0.0069	0.9704	0.0068	0.9596	0.0065	0.8818	0.0060	5.519
1821.64	0.9717	0.0069	0.9664	0.0066	0.9565	0.0075	0.8792	0.0069	5.490
1831.29	0.9701	0.0066	0.9678	0.0068	0.9532	0.0068	0.8771	0.0072	5.461
1840.93	0.9748	0.0088	0.9790	0.0088	0.9528	0.0089	0.8792	0.0079	5.432
1850.57	0.9644	0.0094	0.9619	0.0078	0.9525	0.0076	0.8775	0.0077	5.404
1860.22	0.9691	0.0065	0.9657	0.0066	0.9587	0.0073	0.8800	0.0070	5.376
1869.86	0.9683	0.0075	0.9642	0.0078	0.9587	0.0074	0.8823	0.0065	5.348
1879.50	0.9676	0.0078	0.9667	0.0068	0.9510	0.0071	0.8797	0.0067	5.321
1889.15	0.9741	0.0069	0.9775	0.0069	0.9543	0.0067	0.8726	0.0066	5.293
1898.79	0.9688	0.0071	0.9704	0.0077	0.9556	0.0067	0.8810	0.0063	5.267
1908.43	0.9665	0.0070	0.9620	0.0066	0.9586	0.0071	0.8763	0.0069	5.240
1918.08	0.9673	0.0072	0.9680	0.0075	0.9599	0.0069	0.8793	0.0065	5.214
1927.72	0.9751	0.0104	0.9700	0.0100	0.9553	0.0092	0.8734	0.0092	5.187
1937.36	0.9677	0.0088	0.9698	0.0092	0.9481	0.0073	0.8767	0.0063	5.162
1947.01	0.9721	0.0084	0.9547	0.0100	0.9563	0.0092	0.8834	0.0075	5.136
1956.65	0.9670	0.0122	0.9679	0.0105	0.9516	0.0104	0.8831	0.0111	5.111
1966.29	0.9681	0.0085	0.9543	0.0100	0.9543	0.0088	0.8789	0.0073	5.086
1975.94	0.9707	0.0076	0.9595	0.0092	0.9646	0.0092	0.8751	0.0070	5.061
1985.58	0.9659	0.0114	0.9712	0.0109	0.9575	0.0119	0.8777	0.0101	5.036
1995.22	0.9692	0.0089	0.9684	0.0091	0.9501	0.0083	0.8839	0.0068	5.012
2004.87	0.9694	0.0088	0.9663	0.0098	0.9541	0.0096	0.8750	0.0103	4.988
2014.51	0.9652	0.0080	0.9639	0.0082	0.9494	0.0093	0.8800	0.0070	4.964
2024.16	0.9611	0.0172	0.9558	0.0173	0.9590	0.0172	0.8795	0.0166	4.940
2033.80	0.9664	0.0097	0.9685	0.0079	0.9452	0.0097	0.8757	0.0080	4.917
2043.44	0.9660	0.0085	0.9506	0.0082	0.9475	0.0073	0.8758	0.0075	4.894

2053.09	0.9769	0.0102	0.9672	0.0096	0.9577	0.0118	0.8787	0.0092	4.871
2062.73	0.9683	0.0073	0.9722	0.0085	0.9596	0.0079	0.8803	0.0068	4.848
2072.37	0.9752	0.0112	0.9724	0.0117	0.9545	0.0129	0.8744	0.0109	4.825
2082.02	0.9650	0.0119	0.9608	0.0122	0.9465	0.0123	0.8793	0.0110	4.803
2091.66	0.9708	0.0091	0.9545	0.0081	0.9504	0.0094	0.8668	0.0096	4.781
2101.30	0.9789	0.0108	0.9724	0.0115	0.9479	0.0107	0.8804	0.0108	4.759
2110.95	0.9810	0.0116	0.9715	0.0116	0.9538	0.0105	0.8665	0.0148	4.737
2120.59	0.9661	0.0089	0.9516	0.0074	0.9507	0.0074	0.8780	0.0073	4.716
2130.23	0.9714	0.0114	0.9757	0.0120	0.9479	0.0129	0.8809	0.0122	4.694
2139.88	0.9709	0.0097	0.9605	0.0138	0.9386	0.0096	0.8893	0.0097	4.673
2149.52	0.9590	0.0148	0.9725	0.0142	0.9608	0.0147	0.8741	0.0144	4.652
2159.16	0.9683	0.0134	0.9725	0.0092	0.9622	0.0103	0.8835	0.0119	4.631
2168.81	0.9705	0.0124	0.9762	0.0139	0.9531	0.0143	0.8830	0.0125	4.611
2178.45	0.9687	0.0102	0.9629	0.0158	0.9509	0.0100	0.8865	0.0082	4.590
2188.09	0.9650	0.0125	0.9900	0.0103	0.9400	0.0082	0.8675	0.0121	4.570
2197.74	0.9613	0.0110	0.9716	0.0107	0.9529	0.0142	0.8781	0.0097	4.550
2207.38	0.9698	0.0124	0.9775	0.0111	0.9487	0.0099	0.8817	0.0099	4.530
2217.02	0.9649	0.0120	0.9664	0.0093	0.9538	0.0130	0.8855	0.0088	4.511
2226.67	0.9635	0.0087	0.9709	0.0137	0.9521	0.0100	0.8837	0.0092	4.491
2236.31	0.9705	0.0108	0.9771	0.0116	0.9504	0.0127	0.8907	0.0114	4.472
2245.95	0.9624	0.0097	0.9669	0.0104	0.9549	0.0088	0.8757	0.0075	4.452
2255.60	0.9748	0.0147	0.9917	0.0158	0.9488	0.0141	0.8801	0.0136	4.433
2265.24	0.9582	0.0122	0.9591	0.0131	0.9537	0.0105	0.8844	0.0110	4.415
2274.88	0.9679	0.0094	0.9763	0.0098	0.9536	0.0081	0.8797	0.0086	4.396
2284.53	0.9768	0.0127	0.9839	0.0124	0.9447	0.0144	0.8732	0.0136	4.377
2294.17	0.9709	0.0115	0.9793	0.0130	0.9673	0.0109	0.8817	0.0150	4.359
2303.81	0.9577	0.0106	0.9671	0.0114	0.9527	0.0135	0.8791	0.0096	4.341
2313.46	0.9651	0.0106	0.9668	0.0127	0.9490	0.0093	0.8780	0.0095	4.323
2323.10	0.9708	0.0146	0.9550	0.0089	0.9461	0.0111	0.8790	0.0092	4.305
2332.74	0.9736	0.0101	0.9668	0.0084	0.9625	0.0112	0.8728	0.0082	4.287
2342.39	0.9700	0.0103	0.9777	0.0105	0.9469	0.0138	0.8855	0.0096	4.269
2352.03	0.9530	0.0207	0.9605	0.0216	0.9525	0.0215	0.8743	0.0214	4.252
2361.67	0.9657	0.0139	0.9643	0.0135	0.9520	0.0142	0.8788	0.0105	4.234
2371.32	0.9596	0.0133	0.9615	0.0129	0.9492	0.0132	0.8736	0.0124	4.217
2380.96	0.9733	0.0101	0.9830	0.0110	0.9544	0.0080	0.8856	0.0095	4.200
2390.61	0.9529	0.0217	0.9608	0.0200	0.9507	0.0205	0.8765	0.0204	4.183
2400.25	0.9715	0.0171	0.9790	0.0152	0.9519	0.0173	0.8852	0.0146	4.166
2409.89	0.9642	0.0154	0.9635	0.0207	0.9487	0.0138	0.8837	0.0138	4.150
2419.54	0.9599	0.0146	0.9669	0.0147	0.9540	0.0157	0.8740	0.0141	4.133
2429.18	0.9605	0.0150	0.9669	0.0123	0.9583	0.0111	0.8858	0.0110	4.117
2438.82	0.9728	0.0141	0.9787	0.0143	0.9541	0.0134	0.8816	0.0117	4.100
2448.47	0.9676	0.0121	0.9873	0.0100	0.9366	0.0134	0.8815	0.0115	4.084
2458.11	0.9685	0.0116	0.9478	0.0110	0.9482	0.0110	0.8872	0.0116	4.068
2467.75	0.9585	0.0097	0.9592	0.0114	0.9572	0.0089	0.8752	0.0119	4.052
2477.40	0.9565	0.0105	0.9929	0.0127	0.9542	0.0113	0.8765	0.0107	4.036
2487.04	0.9642	0.0126	0.9586	0.0148	0.9493	0.0145	0.8888	0.0140	4.021
2496.68	0.9686	0.0141	0.9617	0.0123	0.9615	0.0144	0.9060	0.0141	4.005