

Authors	Energy Range (eV)	Technique	Temperature (K) RT unless specified	Sample				Data Presentation	Remarks
				Film	X-tal	Bulk	Prep		
Sa39	2.6-27.6	Refl		x				R	
TP51	20.7-155	Trans		x				μ	
Sch54	1.31-2.76	Trans, Refl		x				k	
ST54	1.31-3.1	Refl		x				KK: n	R measured at 45° angle of incidence
Bea55	0.1-0.62	Ellips		x				$\epsilon_1, \epsilon_2, n, k, R$	
Ho55	0.08-1.24	Ellips		x				$\log nk, \log(1-\epsilon_1), \sigma$	
Bea57	0.01-0.25	Ellips		x				$k/\lambda, n/\lambda^2$	
Sch57	1.31-3.1	Trans		x				n, k	
BHM60	6.2-12.4	m- θ		x				R	
GMS60	0.14-1.55	Ellips	78, RT	x				n, k	
HW61	1.91-5.64	Trans, Refl		x			Ex	R, n, k	
MC61	6.2-24.8	Trans, Refl		x				R	
LM62	12-18	Trans						KK: ϵ_1, ϵ_2	energy loss spectroscopy
BSA63	0.77-6.2	Refl		x				R	
EPS63	0-22	Refl						R; KK: $\epsilon_1, \epsilon_2, \sigma, \text{Im}(\epsilon^{-1})$	plots show KK analysis of reflectance data from HW61, MCH63, BSA63

Authors	Energy Range (eV)	Technique	Temperature (K) RT unless specified	Sample				Data Presentation	Remarks A1-2
				File	X-tal	Bulk	Prep		
MCH63	6.2-12.4	Ref1		x			In	R	
DH64	0.04-5.64	Ref1		x				R	
Hun64	2.07-41.3	Ref1		x				n,k,R	
LSE64	109-539	Trans		x			Ex	μ	
SB64	0.5-2.25	Ref1		x				R	
LT65	0.6-4.6	Ellips				x			
BB66	0.04-0.25	Ref1		x			Ex	R	uhv films on fused quartz (rms roughness $\sim 3 \text{ \AA}$)
Kun66				x					energy loss spectroscopy, uhv ($\sim 10^{-9}$ Torr)
LT66	0.06-0.31	Ellips			x			$-\epsilon_1, \epsilon_2/\lambda$	
FL67	30-525	Trans		x			Ex	μ	
BG68	0.11-1.23	Ref1	4.2			x	EP	A	absorptivity measured by calorimetry
HSK69	35-310	Trans		x				μ	absorption measurements with synchrotron radiation
Mot69									review paper
BoL70	0.2-5	Ref1	4.2			x	EP	A; KK: σ	absorptivity measured by calorimetry
GB70	70-190	Trans		x			Ex	μ	absorption with synchrotron radiation

Authors	Energy Range (eV)	Technique	Temperature (K) RT unless specified	Sample				Data Presentation	Remarks Al-3
				Film	X-tal	Bulk	Prep		
HKS70	~72-210	Trans		x				KK: μ	absorption measurements
LMM71	0.6-2.5	Ellips	198, 298, 404, 552	x			In	σ	uhv films
MM71	0.7-2.5	Ellips	298	x				ϵ_1, ϵ_2	
MaM72	~0.5-2.5	Ellips	140-552	x			In	σ	uhv films
BHM73	0.6-4	Ellips		x				$\sigma, 1-\epsilon_1, \epsilon_2$	film formed by evaporation at 25 K onto a previously RT-deposited film
HCN73	1.96	Ellips		x					studied deposition conditions with one photon energy
Hun73	0.7-2.5	Ellips	140, 198	x				ϵ_1, σ	
BL75	0.2-3	Ref1	4.2		x		EP	A; KK: σ	absorptivity measured by calorimetry
HGK75	13-150	Trans		x			Ex	KK: μ	absorption measurements with synchrotron radiation
HGK76	30-150	Trans		x				KK: μ	absorption measurements with synchrotron radiation
HKL77	1.77-2.95	Ellips	1.5, 300	x				ϵ_1, ϵ_2	plotted data is at T = 300 K
RYE77			150-1000					ϵ_H	emissivity

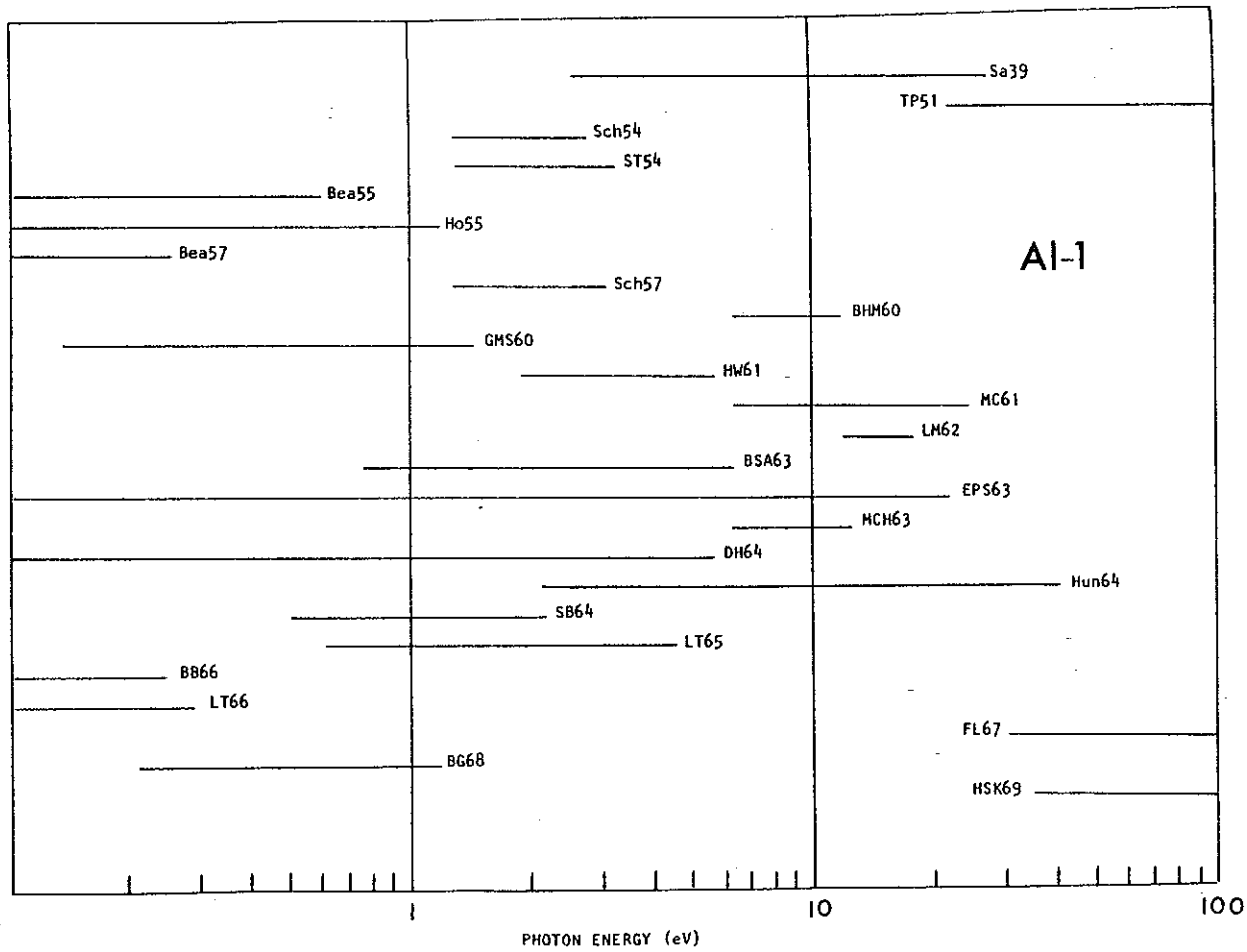


Fig. 17 Survey of available data on Al.

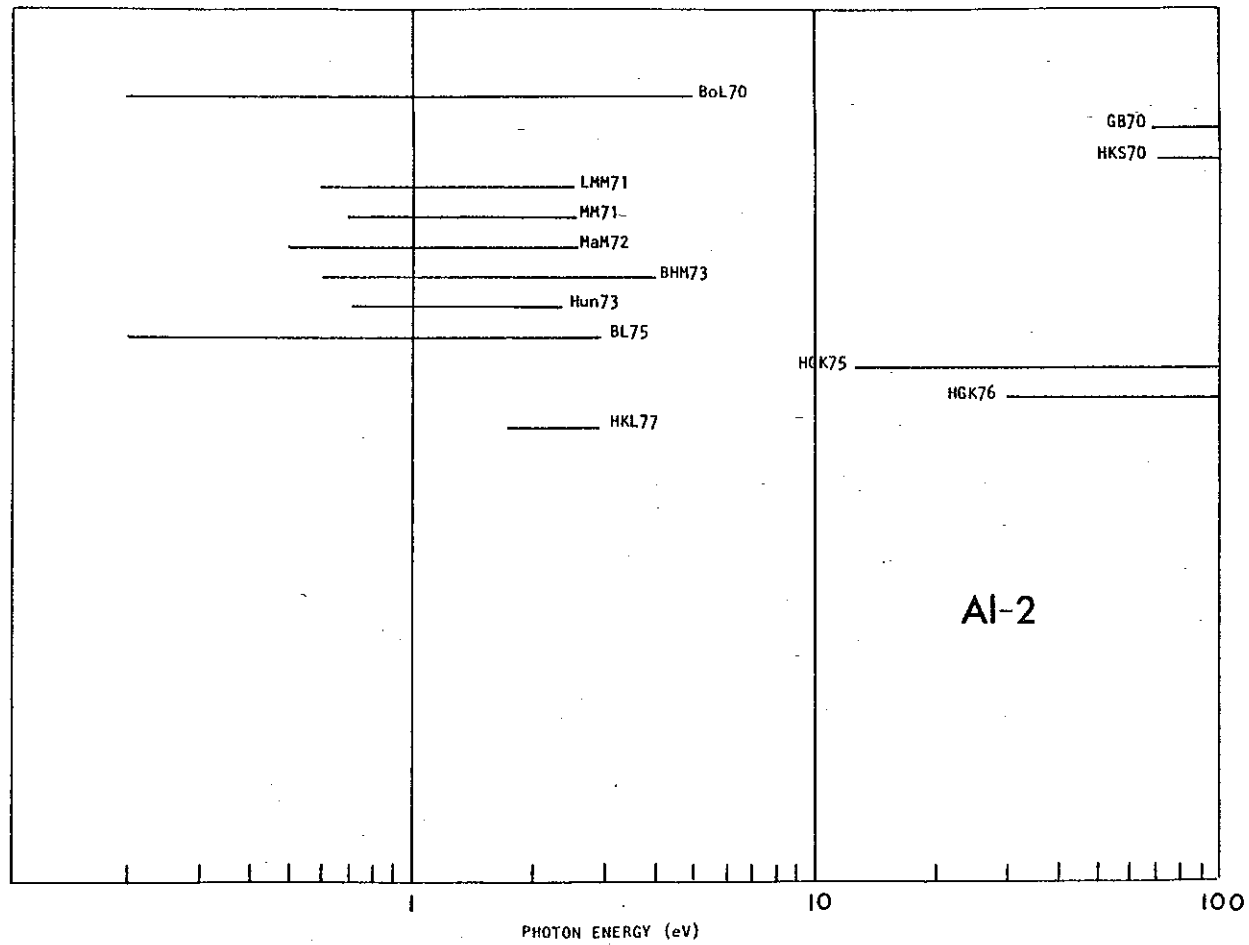


Fig. 17 Survey of available data on Al.

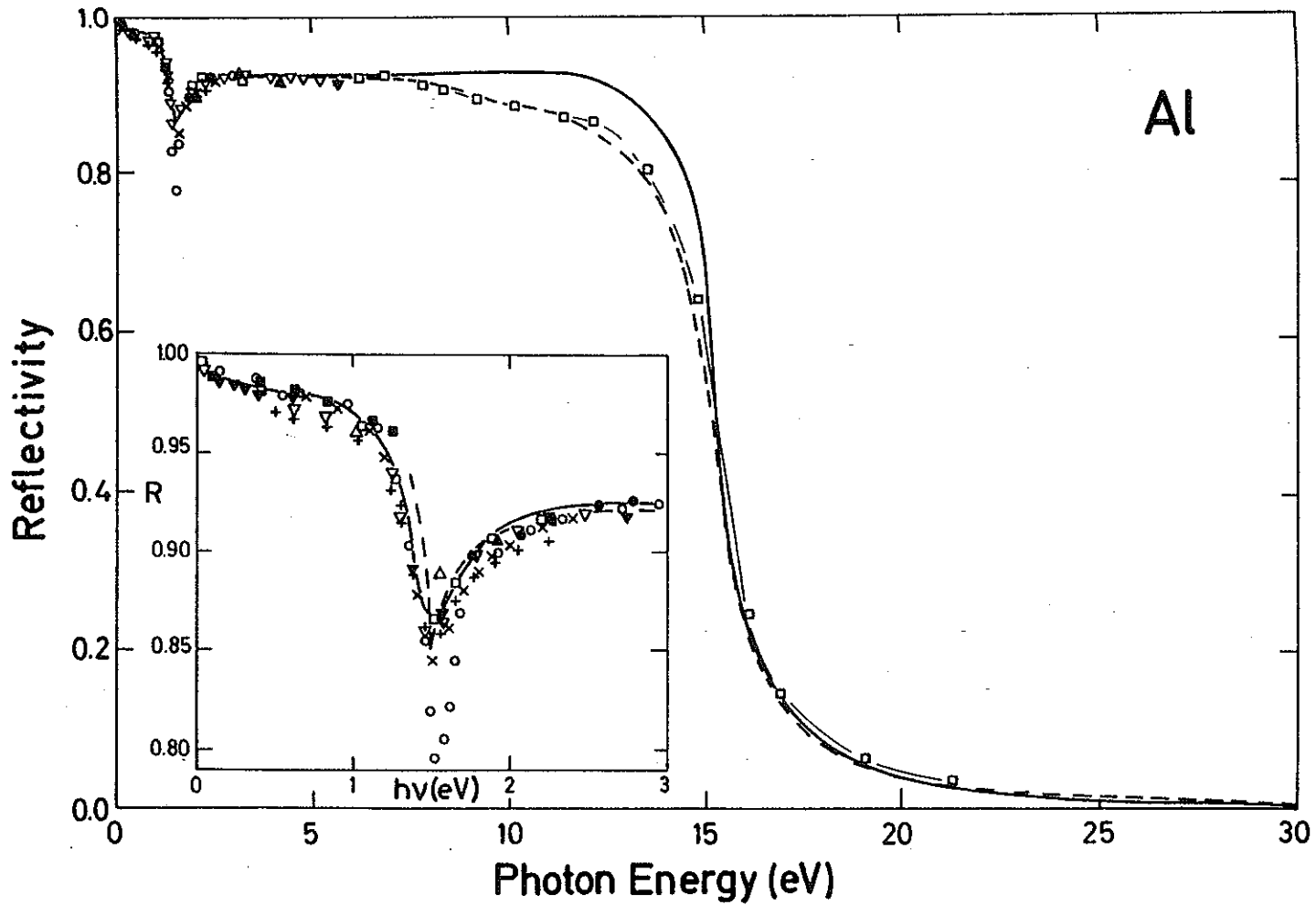


Fig. 18 Reflectivity of Al. Results by SS80 (—); SH64 (+++); DH64 (▽▽▽);
 MM71 (xxx); HKL77 (●●●); BL70 (ooo); EPS63 (□□□); HW61 (▲▲▲);
 BG68 (■ ■ ■); BB66 (▼▼▼); HGK75 (---); GMS60 (△△△).

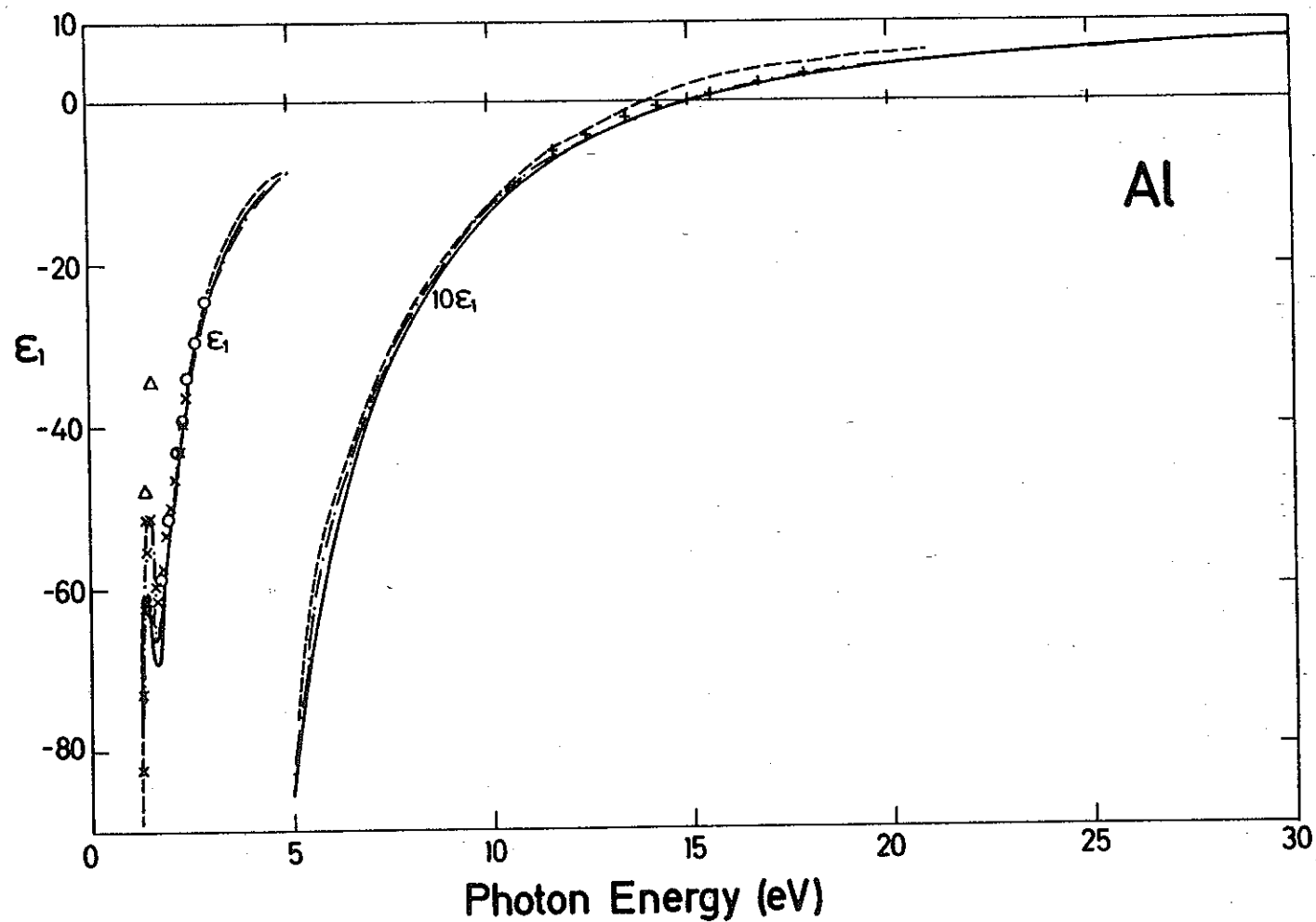


Fig. 19 ϵ_1 for Al. Results by SS80 (—); EPS63 (---); MM71 (xxx); LM62 (+++); HKL71 (ooo); HGK75 (---); GMS60 ($\Delta\Delta\Delta$).

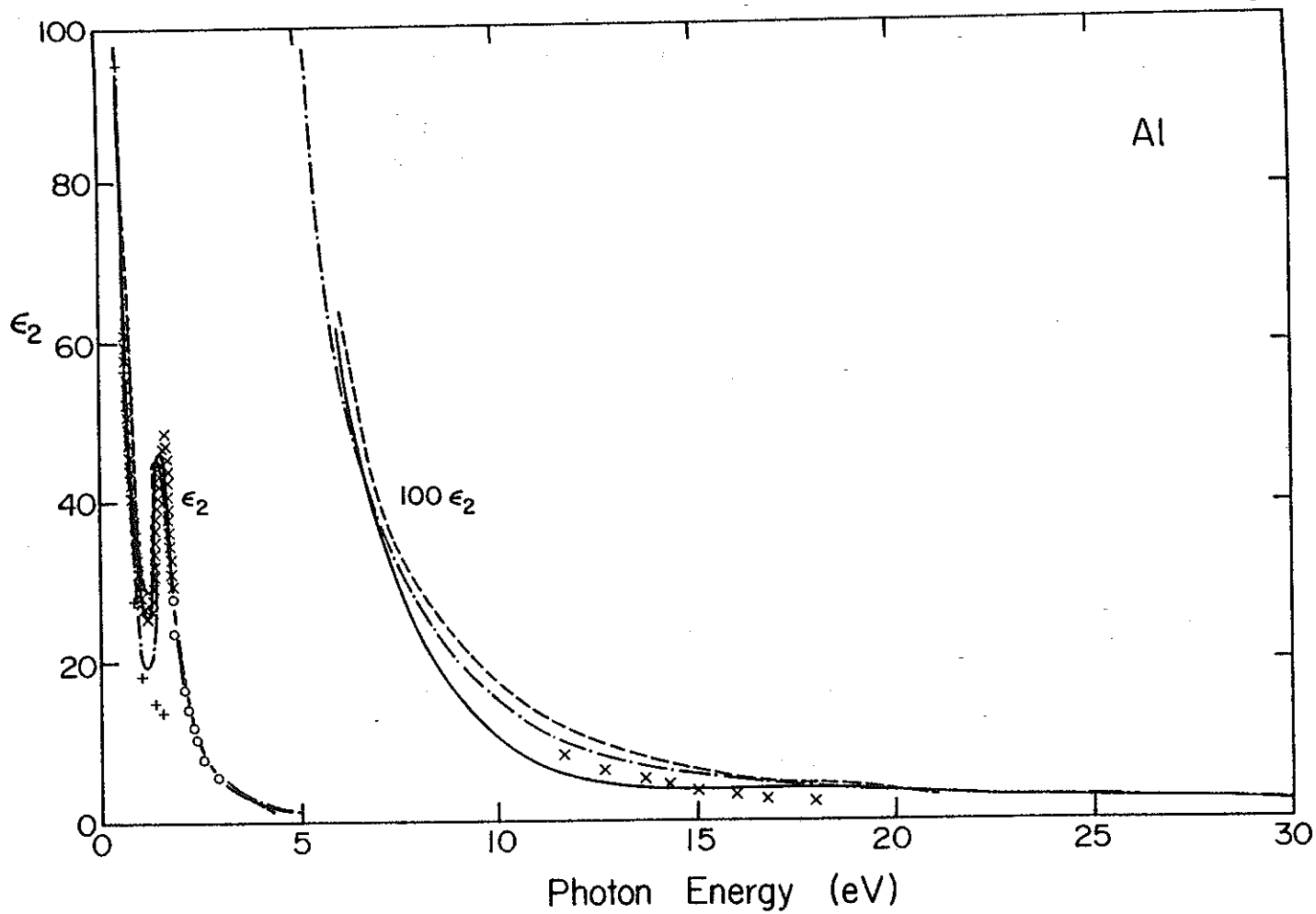


Fig. 20 ϵ_2 for Al. Results by SS80 (—); LM62 (xxx, ~12-18 eV); HGK75 (-.-); EPS63 (---); MM71 (xxx, ~1-3 eV); GMS60 (+++); HKL77 (ooo).

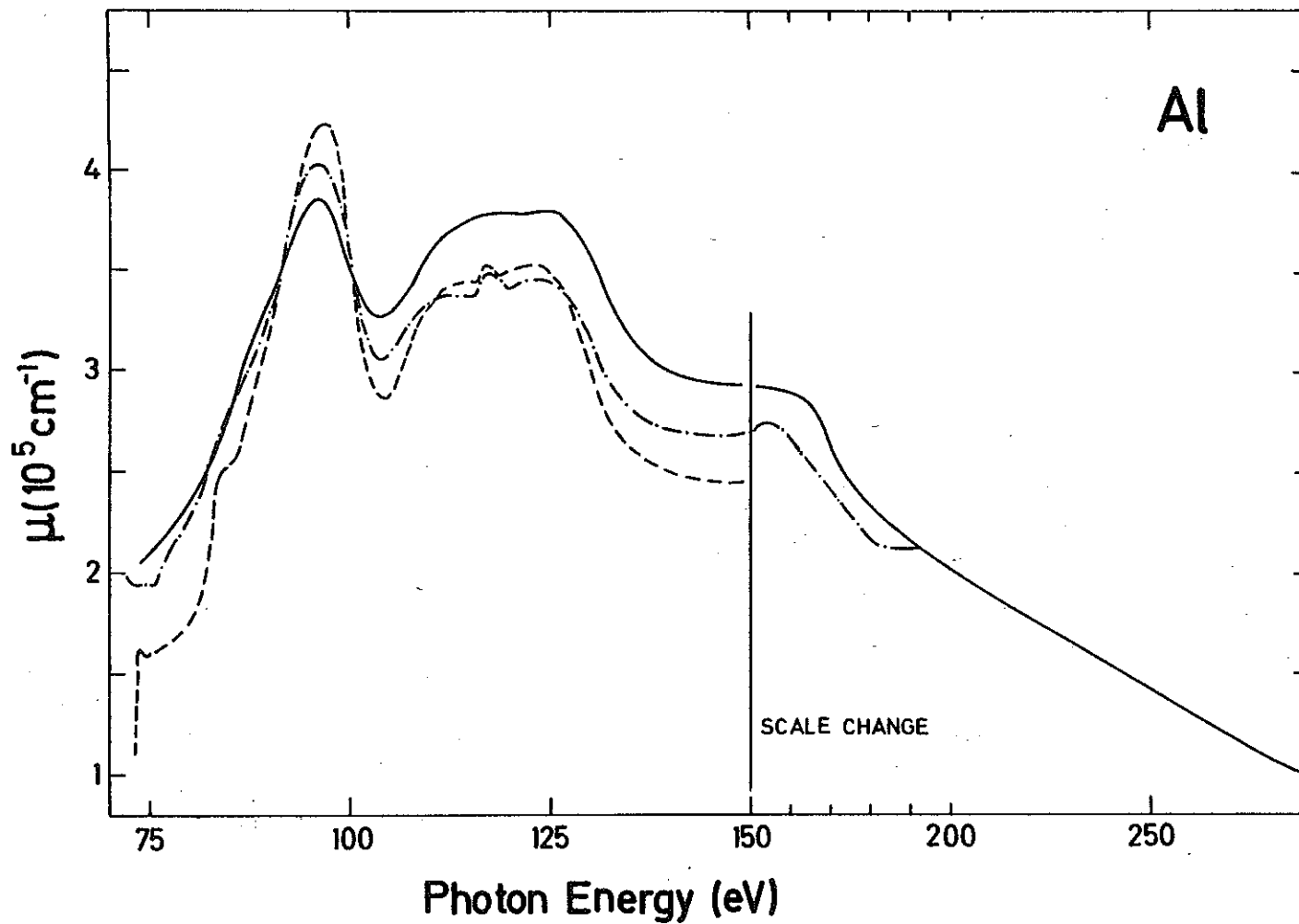


Fig. 21 Absorption coefficient for Al. Results by RSK69 (—); GB70 (-·-); HGK75 (- - -).

Aluminum

publication by E. Shiles, T. Sasaki, M. Inokuti, and D.Y. Smith in Phys. Rev. B 22, 1612 (1980) based on the following tabulation

Energy (eV)	ϵ_1	ϵ_2	n	k	$\text{Im}(-1/\epsilon)$	$R(\phi=0)$
0.040	-31773.000	40168.000	98.595	203.701	0.000	.9923
0.042	-30076.000	36207.000	92.177	196.399	0.000	.9922
0.044	-28384.000	32981.000	86.975	189.601	0.000	.9920
0.046	-26813.000	30297.000	82.598	183.400	0.000	.9919
0.048	-25374.000	27897.000	78.538	177.601	0.000	.9917
0.050	-24028.000	25829.000	74.997	172.199	0.000	.9915
0.052	-22750.000	23943.000	71.686	167.000	0.000	.9914
0.054	-21370.000	22441.000	69.348	161.800	0.000	.9911
0.056	-20379.000	21223.000	67.246	157.801	0.000	.9909
0.058	-19502.000	20079.000	65.150	154.099	0.000	.9907
0.060	-18790.000	18956.000	62.852	150.799	0.000	.9906
0.062	-17989.000	17856.000	60.652	147.200	0.000	.9905
0.064	-17360.000	16900.000	58.599	144.201	0.000	.9904
0.066	-16612.000	15962.000	56.683	140.801	0.000	.9902
0.068	-15929.000	15245.000	55.316	137.800	0.000	.9900
0.070	-15467.000	14577.000	53.790	135.500	0.000	.9899
0.072	-14982.000	13839.000	52.027	132.999	0.000	.9898
0.074	-14511.000	13178.000	50.452	130.600	0.000	.9898
0.076	-14072.000	12542.000	48.877	128.300	0.000	.9897
0.078	-13633.000	11934.000	47.357	125.999	0.000	.9896
0.080	-13214.000	11330.000	45.784	123.734	0.000	.9895
0.082	-12817.000	10808.000	44.434	121.620	0.000	.9895
0.084	-12440.000	10386.000	43.391	119.678	0.000	.9893
0.086	-12097.000	9939.297	42.187	117.800	0.000	.9893
0.088	-11808.000	9493.797	40.886	116.102	0.000	.9893
0.090	-11447.000	9048.598	39.651	114.102	0.000	.9892
0.092	-11114.000	8677.297	38.600	112.401	0.000	.9891
0.094	-10880.000	8280.199	37.366	110.798	0.000	.9891
0.096	-10546.000	7891.398	36.233	108.898	0.000	.9891
0.098	-10245.000	7571.000	35.312	107.201	0.000	.9890
0.100	-9963.598	7278.699	34.464	105.600	0.000	.9889
0.105	-9365.297	6574.699	32.229	102.000	0.000	.9888
0.110	-8769.398	5939.898	30.185	98.390	0.000	.9887
0.115	-8263.000	5399.398	28.352	95.220	0.000	.9886
0.120	-7787.199	4898.598	26.576	92.160	0.000	.9885
0.125	-7342.297	4456.199	24.965	89.250	0.000	.9884
0.130	-6930.098	4065.100	23.498	86.500	0.000	.9884
0.135	-6549.699	3719.300	22.162	83.910	0.000	.9883
0.140	-6204.699	3409.800	20.919	81.500	0.000	.9883
0.145	-5889.297	3121.500	19.699	79.230	0.000	.9882
0.150	-5577.898	2858.600	18.572	76.960	0.000	.9882
0.155	-5297.098	2622.800	17.518	74.860	0.000	.9882
0.160	-5015.797	2407.200	16.549	72.730	0.000	.9882
0.165	-4757.598	2221.700	15.703	70.740	0.000	.9881
0.170	-4512.098	2053.800	14.924	68.810	0.000	.9880
0.175	-4275.898	1910.700	14.274	66.930	0.000	.9879
0.180	-4065.100	1791.000	13.731	65.220	0.000	.9877
0.185	-3875.400	1681.900	13.214	63.640	0.000	.9876
0.190	-3702.800	1577.700	12.691	62.160	0.000	.9875

A1

Energy (eV)	ϵ_1	ϵ_2	n	k	$\text{Im}(-1/\epsilon)$	$R(\phi=0)$
0.195	-3535.500	1481.900	12.207	60.700	0.000	.9873
0.200	-3387.100	1393.200	11.733	59.370	0.000	.9873
0.210	-3096.000	1230.900	10.856	56.691	0.000	.9871
0.220	-2845.300	1103.600	10.162	54.301	0.000	.9868
0.230	-2622.200	994.940	9.550	52.090	0.000	.9865
0.240	-2424.300	905.180	9.041	50.060	0.000	.9861
0.250	-2252.900	828.260	8.586	48.235	0.000	.9858
0.260	-2098.300	760.630	8.173	46.531	0.000	.9855
0.270	-1963.500	701.420	7.795	44.992	0.000	.9852
0.280	-1840.900	647.030	7.430	43.544	0.000	.9849
0.290	-1730.900	598.740	7.093	42.204	0.000	.9846
0.300	-1632.000	553.710	6.759	40.960	0.000	.9844
0.310	-1540.000	511.610	6.433	39.767	0.000	.9843
0.320	-1453.900	473.790	6.134	38.620	0.000	.9841
0.330	-1373.800	441.560	5.883	37.529	0.000	.9838
0.340	-1302.300	413.600	5.661	36.529	0.000	.9836
0.350	-1237.700	387.140	5.438	35.599	0.000	.9834
0.360	-1177.600	361.780	5.212	34.710	0.000	.9832
0.370	-1121.600	337.730	4.987	33.860	0.000	.9831
0.380	-1067.800	315.760	4.781	33.025	0.000	.9830
0.390	-1017.600	296.830	4.605	32.230	0.000	.9828
0.400	-971.470	280.450	4.454	31.485	0.000	.9826
0.420	-890.760	249.350	4.138	30.131	0.000	.9823
0.440	-818.880	221.070	3.829	28.871	0.000	.9821
0.460	-754.370	196.500	3.548	27.694	0.000	.9820
0.480	-696.690	175.420	3.297	26.600	0.000	.9818
0.500	-644.950	157.160	3.072	25.581	0.000	.9817
0.520	-598.200	141.400	2.871	24.626	0.000	.9815
0.540	-555.930	128.090	2.699	23.732	0.000	.9813
0.560	-518.300	116.580	2.545	22.908	0.000	.9811
0.580	-484.210	106.160	2.398	22.135	0.000	.9809
0.600	-452.920	97.295	2.273	21.403	0.000	.9806
0.650	-386.350	78.532	1.987	19.756	0.001	.9801
0.700	-332.780	64.879	1.770	18.328	0.001	.9794
0.750	-289.020	54.332	1.591	17.075	0.001	.9787
0.800	-252.480	46.070	1.444	15.955	0.001	.9778
0.850	-221.460	39.819	1.332	14.941	0.001	.9767
0.900	-194.990	35.454	1.264	14.021	0.001	.9749
0.950	-172.780	32.434	1.228	13.202	0.001	.9726
1.000	-153.880	30.208	1.212	12.464	0.001	.9697
1.050	-137.690	28.460	1.206	11.796	0.001	.9665
1.100	-123.570	26.860	1.201	11.181	0.002	.9630
1.150	-110.510	25.665	1.213	10.582	0.002	.9585
1.200	-98.612	25.231	1.260	10.010	0.002	.9521
1.220	-93.974	25.474	1.302	9.781	0.003	.9484
1.240	-89.971	25.923	1.353	9.581	0.003	.9444
1.260	-86.200	26.100	1.390	9.388	0.003	.9407
1.280	-82.271	26.110	1.422	9.181	0.004	.9369
1.300	-77.922	26.278	1.468	8.949	0.004	.9318
1.320	-72.927	27.435	1.579	8.685	0.005	.9230
1.340	-69.012	30.031	1.768	8.493	0.005	.9114
1.360	-66.705	32.535	1.938	8.394	0.006	.9020
1.380	-64.446	34.505	2.080	8.293	0.006	.8937
1.400	-62.425	36.736	2.237	8.212	0.007	.8852
1.420	-61.074	39.283	2.402	8.176	0.007	.8775
1.440	-60.939	41.511	2.529	8.206	0.008	.8732
1.460	-60.708	43.079	2.620	8.220	0.008	.8701

Al

Energy (eV)	ϵ_1	ϵ_2	n	k	$\text{Im}(-1/\bar{\epsilon})$	$R(\phi=0)$
1.480	-60.965	44.564	2.697	8.261	0.008	.8683
1.500	-61.503	45.609	2.745	8.309	0.008	.8678
1.520	-62.052	46.586	2.777	8.352	0.008	.8678
1.540	-62.953	47.064	2.797	8.413	0.008	.8687
1.560	-64.308	47.378	2.790	8.491	0.007	.8709
1.580	-66.272	46.672	2.719	8.583	0.007	.8757
1.600	-67.029	45.129	2.625	8.597	0.007	.8794
1.650	-68.525	41.606	2.413	8.622	0.006	.8878
1.700	-68.910	36.742	2.143	8.573	0.006	.8977
1.750	-66.676	31.996	1.908	8.385	0.006	.9031
1.800	-64.292	28.572	1.741	8.205	0.006	.9069
1.900	-58.961	23.279	1.488	7.821	0.006	.9116
2.000	-54.236	19.502	1.304	7.479	0.006	.9148
2.100	-49.855	16.425	1.148	7.154	0.006	.9177
2.200	-45.829	13.944	1.018	6.846	0.006	.9200
2.300	-42.126	11.956	0.912	6.554	0.006	.9217
2.400	-38.792	10.381	0.826	6.283	0.006	.9228
2.500	-35.812	9.111	0.755	6.032	0.007	.9234
2.600	-33.154	8.066	0.695	5.800	0.007	.9238
2.700	-30.777	7.188	0.643	5.585	0.007	.9240
2.800	-28.640	6.440	0.598	5.385	0.007	.9242
2.900	-26.709	5.799	0.558	5.198	0.008	.9242
3.000	-24.967	5.258	0.523	5.024	0.008	.9241
3.200	-21.951	4.327	0.460	4.708	0.009	.9243
3.400	-19.424	3.606	0.407	4.426	0.009	.9245
3.600	-17.288	3.035	0.363	4.174	0.010	.9246
3.800	-15.468	2.575	0.326	3.946	0.010	.9247
4.000	-13.901	2.203	0.294	3.740	0.011	.9248
4.200	-12.545	1.899	0.267	3.552	0.012	.9248
4.400	-11.366	1.647	0.244	3.380	0.012	.9249
4.600	-10.333	1.437	0.223	3.222	0.013	.9249
4.800	-9.423	1.260	0.205	3.076	0.014	.9249
5.000	-8.617	1.120	0.190	2.942	0.015	.9244
6.000	-5.700	0.621	0.130	2.391	0.019	.9257
6.500	-4.711	0.479	0.110	2.173	0.021	.9260
7.000	-3.923	0.375	0.095	1.983	0.024	.9262
7.500	-3.285	0.297	0.082	1.814	0.027	.9265
8.000	-2.762	0.238	0.072	1.663	0.031	.9269
8.500	-2.327	0.192	0.063	1.527	0.035	.9272
9.000	-1.962	0.156	0.056	1.402	0.040	.9277
9.500	-1.651	0.127	0.049	1.286	0.046	.9282
10.000	-1.386	0.104	0.044	1.178	0.054	.9286
10.500	-1.157	0.085	0.040	1.076	0.063	.9293
11.000	-0.956	0.070	0.036	0.979	0.076	.9298
11.500	-0.779	0.058	0.033	0.883	0.096	.9283
12.000	-0.624	0.052	0.033	0.791	0.132	.9224
12.500	-0.489	0.048	0.034	0.700	0.199	.9118
13.000	-0.370	0.046	0.038	0.609	0.330	.8960
13.250	-0.317	0.044	0.039	0.564	0.433	.8877
13.500	-0.266	0.042	0.041	0.517	0.585	.8789
13.750	-0.217	0.041	0.044	0.468	0.841	.8662
14.000	-0.171	0.040	0.048	0.417	1.298	.8486
14.100	-0.154	0.040	0.050	0.395	1.577	.8404
14.200	-0.137	0.039	0.053	0.373	1.948	.8312
14.300	-0.120	0.039	0.055	0.350	2.445	.8213
14.400	-0.103	0.038	0.058	0.327	3.137	.8102

Al

Energy (eV)	ϵ_1	ϵ_2	n	k	$\text{Im}(-1/\epsilon)$	$R(\phi=0)$
14.500	-0.087	0.037	0.062	0.301	4.147	.7977
14.550	-0.079	0.037	0.064	0.287	4.877	.7899
14.600	-0.070	0.036	0.067	0.273	5.795	.7802
14.650	-0.062	0.036	0.070	0.259	6.963	.7699
14.700	-0.054	0.036	0.073	0.243	8.551	.7572
14.750	-0.046	0.036	0.079	0.228	10.652	.7408
14.800	-0.037	0.036	0.086	0.211	13.398	.7202
14.850	-0.029	0.037	0.094	0.195	16.675	.6951
14.900	-0.022	0.038	0.104	0.181	19.931	.6680
14.950	-0.015	0.038	0.114	0.166	22.931	.6400
15.000	-0.008	0.038	0.125	0.153	25.070	.6119
15.050	-0.001	0.038	0.137	0.140	26.103	.5820
15.100	0.006	0.038	0.151	0.128	25.297	.5506
15.150	0.013	0.038	0.164	0.117	23.242	.5201
15.200	0.020	0.038	0.178	0.108	20.367	.4903
15.250	0.027	0.038	0.193	0.100	17.326	.4616
15.300	0.034	0.039	0.207	0.094	14.537	.4348
15.350	0.041	0.039	0.221	0.088	12.180	.4104
15.400	0.048	0.039	0.234	0.084	10.294	.3881
15.450	0.054	0.040	0.247	0.081	8.774	.3681
15.500	0.061	0.040	0.258	0.078	7.594	.3501
15.550	0.067	0.040	0.269	0.075	6.592	.3335
15.600	0.073	0.041	0.280	0.073	5.797	.3182
15.650	0.079	0.041	0.290	0.071	5.162	.3047
15.700	0.085	0.041	0.300	0.069	4.607	.2921
15.750	0.091	0.041	0.309	0.067	4.135	.2803
15.800	0.097	0.042	0.318	0.065	3.741	.2694
15.850	0.103	0.042	0.327	0.064	3.400	.2592
15.900	0.108	0.042	0.335	0.063	3.107	.2498
15.950	0.114	0.042	0.343	0.061	2.844	.2410
16.000	0.119	0.042	0.351	0.060	2.603	.2326
16.100	0.131	0.042	0.366	0.057	2.222	.2170
16.200	0.141	0.041	0.380	0.055	1.911	.2031
16.300	0.152	0.041	0.394	0.052	1.661	.1905
16.400	0.163	0.041	0.407	0.050	1.453	.1789
16.500	0.173	0.041	0.419	0.049	1.286	.1684
16.750	0.199	0.040	0.448	0.045	0.981	.1460
17.000	0.223	0.040	0.474	0.042	0.780	.1278
17.250	0.247	0.040	0.498	0.040	0.638	.1129
17.500	0.269	0.040	0.520	0.036	0.537	.1005
17.750	0.290	0.039	0.540	0.036	0.458	.0899
18.000	0.310	0.039	0.558	0.035	0.397	.0809
18.500	0.348	0.038	0.591	0.032	0.312	.0664
19.000	0.384	0.037	0.620	0.030	0.252	.0554
19.500	0.416	0.037	0.646	0.028	0.211	.0467
20.000	0.446	0.036	0.668	0.027	0.179	.0398
20.500	0.474	0.035	0.689	0.025	0.155	.0342
21.000	0.500	0.034	0.707	0.024	0.136	.0296
21.500	0.524	0.034	0.724	0.023	0.122	.0258
22.000	0.546	0.033	0.739	0.022	0.109	.0226
22.500	0.567	0.032	0.753	0.021	0.100	.0199
23.000	0.587	0.031	0.766	0.021	0.091	.0177
23.500	0.605	0.031	0.778	0.020	0.084	.0157
24.000	0.622	0.030	0.789	0.019	0.077	.0140
24.500	0.638	0.029	0.799	0.018	0.072	.0126
25.000	0.654	0.029	0.809	0.018	0.067	.0113
25.500	0.668	0.028	0.817	0.017	0.063	.0102

Al

Energy (eV)	ϵ_1	ϵ_2	n	k	$\text{Im}(-1/\epsilon)$	$R(\phi=0)$
26.000	0.681	0.027	0.826	0.016	0.058	.0092
26.500	0.694	0.027	0.833	0.016	0.055	.0083
27.000	0.706	0.026	0.840	0.015	0.052	.0076
27.500	0.718	0.025	0.847	0.015	0.049	.0069
28.000	0.728	0.025	0.854	0.014	0.047	.0063
28.500	0.739	0.024	0.859	0.014	0.044	.0058
29.000	0.748	0.023	0.865	0.014	0.042	.0053
29.500	0.758	0.023	0.871	0.013	0.039	.0048
30.000	0.766	0.022	0.876	0.013	0.037	.0044
31.000	0.783	0.021	0.885	0.012	0.033	.0037
32.000	0.799	0.020	0.894	0.011	0.031	.0032
33.000	0.813	0.019	0.902	0.011	0.029	.0027
34.000	0.825	0.019	0.909	0.010	0.027	.0023
35.000	0.837	0.018	0.915	0.010	0.026	.0020
36.000	0.848	0.017	0.921	0.009	0.024	.0017
37.000	0.857	0.017	0.926	0.009	0.023	.0015
38.000	0.867	0.016	0.931	0.009	0.022	.0013
39.000	0.875	0.016	0.935	0.008	0.020	.0011
40.000	0.883	0.015	0.940	0.008	0.020	.0010
41.000	0.890	0.015	0.943	0.008	0.019	.0009
42.000	0.897	0.014	0.947	0.007	0.017	.0008
43.000	0.903	0.014	0.951	0.007	0.017	.0007
44.000	0.910	0.013	0.954	0.007	0.016	.0006
45.000	0.915	0.013	0.957	0.007	0.016	.0005
46.000	0.920	0.013	0.959	0.007	0.015	.0004
47.000	0.925	0.012	0.962	0.006	0.014	.0004
48.000	0.930	0.012	0.964	0.006	0.014	.0003
49.000	0.935	0.012	0.967	0.006	0.013	.0003
50.000	0.939	0.011	0.969	0.006	0.013	.0003
51.000	0.943	0.011	0.971	0.006	0.012	.0002
52.000	0.947	0.010	0.973	0.005	0.012	.0002
53.000	0.951	0.010	0.975	0.005	0.011	.0002
54.000	0.955	0.010	0.977	0.005	0.011	.0001
55.000	0.958	0.010	0.979	0.005	0.011	.0001
56.000	0.962	0.009	0.981	0.005	0.010	.0001
57.000	0.965	0.009	0.982	0.005	0.010	.0001
58.000	0.968	0.009	0.984	0.005	0.010	.0001
59.000	0.971	0.009	0.986	0.005	0.010	.0001
60.000	0.975	0.009	0.987	0.004	0.009	.0000
61.000	0.978	0.009	0.989	0.004	0.009	.0000
62.000	0.981	0.009	0.990	0.004	0.009	.0000
63.000	0.984	0.008	0.992	0.004	0.009	.0000
64.000	0.988	0.008	0.994	0.004	0.008	.0000
65.000	0.991	0.008	0.995	0.004	0.008	.0000
66.000	0.994	0.008	0.997	0.004	0.008	.0000
67.000	0.998	0.007	0.999	0.004	0.007	.0000
68.000	1.002	0.007	1.001	0.004	0.007	.0000
69.000	1.007	0.007	1.003	0.004	0.007	.0000
70.000	1.013	0.007	1.006	0.004	0.007	.0000
70.500	1.016	0.007	1.008	0.004	0.007	.0000
71.000	1.020	0.007	1.010	0.004	0.007	.0000
71.500	1.025	0.007	1.013	0.003	0.007	.0000
72.000	1.033	0.007	1.016	0.003	0.007	.0001
72.100	1.035	0.007	1.017	0.003	0.006	.0001
72.200	1.037	0.007	1.018	0.003	0.006	.0001
72.300	1.040	0.007	1.020	0.003	0.006	.0001
72.400	1.044	0.007	1.022	0.003	0.006	.0001

Al

Energy (eV)	ϵ_1	ϵ_2	n	k	$\text{Im}(-1/\bar{\epsilon})$	$R(\phi=0)$
72.500	1.050	0.007	1.025	0.004	0.007	.0002
72.600	1.061	0.008	1.030	0.004	0.007	.0002
72.700	1.069	0.025	1.034	0.012	0.022	.0003
72.800	1.061	0.041	1.030	0.020	0.037	.0003
72.900	1.051	0.041	1.025	0.020	0.037	.0003
73.000	1.049	0.039	1.024	0.019	0.035	.0002
73.100	1.052	0.040	1.026	0.020	0.036	.0003
73.200	1.050	0.049	1.025	0.024	0.045	.0003
73.300	1.043	0.053	1.022	0.026	0.049	.0003
73.400	1.038	0.052	1.019	0.025	0.048	.0002
73.500	1.035	0.051	1.018	0.025	0.047	.0002
73.600	1.033	0.050	1.017	0.024	0.047	.0002
73.700	1.032	0.049	1.016	0.024	0.046	.0002
73.800	1.031	0.049	1.016	0.024	0.046	.0002
73.900	1.030	0.049	1.015	0.024	0.046	.0002
74.000	1.029	0.049	1.015	0.024	0.046	.0002
74.500	1.025	0.049	1.013	0.024	0.047	.0002
75.000	1.022	0.049	1.011	0.024	0.046	.0002
75.500	1.020	0.048	1.010	0.024	0.046	.0002
76.000	1.020	0.048	1.010	0.024	0.046	.0002
76.500	1.019	0.049	1.010	0.024	0.047	.0002
77.000	1.018	0.051	1.009	0.025	0.049	.0002
77.500	1.015	0.051	1.008	0.025	0.049	.0002
78.000	1.014	0.050	1.007	0.025	0.048	.0002
79.000	1.013	0.049	1.007	0.024	0.048	.0002
80.000	1.013	0.049	1.007	0.024	0.048	.0002
81.000	1.014	0.050	1.007	0.025	0.049	.0002
82.000	1.014	0.051	1.007	0.025	0.050	.0002
83.000	1.013	0.053	1.007	0.026	0.051	.0002
84.000	1.013	0.054	1.007	0.027	0.052	.0002
85.000	1.012	0.056	1.007	0.028	0.054	.0002
86.000	1.011	0.057	1.006	0.028	0.055	.0002
87.000	1.010	0.057	1.005	0.029	0.056	.0002
88.000	1.010	0.058	1.005	0.029	0.057	.0002
89.000	1.010	0.059	1.006	0.029	0.058	.0002
90.000	1.010	0.062	1.005	0.031	0.061	.0002
91.000	1.009	0.064	1.005	0.032	0.063	.0003
92.000	1.007	0.067	1.004	0.033	0.066	.0003
93.000	1.004	0.069	1.002	0.035	0.068	.0003
94.000	1.000	0.071	1.000	0.035	0.070	.0003
95.000	0.996	0.071	0.999	0.036	0.071	.0003
96.000	0.992	0.072	0.996	0.036	0.072	.0003
97.000	0.986	0.069	0.994	0.035	0.071	.0003
98.000	0.983	0.065	0.992	0.033	0.067	.0003
99.000	0.982	0.062	0.991	0.031	0.064	.0003
100.000	0.980	0.059	0.991	0.030	0.061	.0002
101.000	0.980	0.056	0.990	0.028	0.058	.0002
102.000	0.980	0.052	0.990	0.026	0.054	.0002
103.000	0.982	0.049	0.992	0.025	0.051	.0002
104.000	0.985	0.049	0.993	0.024	0.050	.0002
105.000	0.987	0.049	0.994	0.024	0.050	.0002
106.000	0.987	0.049	0.994	0.024	0.050	.0002
107.000	0.988	0.049	0.994	0.025	0.050	.0002
108.000	0.988	0.050	0.994	0.025	0.051	.0002
109.000	0.988	0.050	0.994	0.025	0.051	.0002
110.000	0.987	0.051	0.994	0.025	0.052	.0002
111.000	0.987	0.051	0.994	0.025	0.052	.0002

Al

Energy (eV)	ϵ_1	ϵ_2	n	k	$\text{Im}(-1/\epsilon)$	$R(\phi=0)$
112.000	0.986	0.051	0.993	0.025	0.052	.0002
113.000	0.985	0.050	0.993	0.025	0.052	.0002
114.000	0.984	0.050	0.993	0.025	0.051	.0002
115.000	0.984	0.049	0.992	0.025	0.051	.0002
116.000	0.984	0.049	0.992	0.025	0.051	.0002
117.000	0.983	0.049	0.992	0.025	0.050	.0002
118.000	0.983	0.049	0.992	0.025	0.051	.0002
119.000	0.982	0.049	0.991	0.024	0.050	.0002
120.000	0.981	0.048	0.991	0.024	0.049	.0002
122.000	0.981	0.047	0.991	0.024	0.049	.0002
124.000	0.979	0.047	0.990	0.024	0.049	.0002
126.000	0.977	0.046	0.989	0.023	0.048	.0002
128.000	0.975	0.043	0.988	0.022	0.045	.0002
130.000	0.975	0.041	0.987	0.021	0.043	.0001
132.000	0.975	0.038	0.987	0.019	0.040	.0001
134.000	0.975	0.036	0.988	0.018	0.038	.0001
136.000	0.976	0.035	0.988	0.018	0.036	.0001
138.000	0.976	0.033	0.988	0.017	0.035	.0001
140.000	0.977	0.032	0.989	0.016	0.034	.0001
142.000	0.978	0.032	0.989	0.016	0.033	.0001
144.000	0.978	0.031	0.989	0.016	0.032	.0001
146.000	0.978	0.030	0.989	0.015	0.032	.0001
148.000	0.979	0.030	0.989	0.015	0.031	.0001
150.000	0.979	0.029	0.990	0.015	0.030	.0001
152.000	0.979	0.029	0.990	0.015	0.030	.0001
154.000	0.979	0.029	0.990	0.014	0.030	.0001
156.000	0.979	0.028	0.990	0.014	0.029	.0001
158.000	0.979	0.028	0.989	0.014	0.029	.0001
160.000	0.979	0.027	0.989	0.014	0.028	.0001
162.000	0.978	0.027	0.989	0.014	0.028	.0001
164.000	0.978	0.026	0.989	0.013	0.027	.0001
166.000	0.977	0.025	0.989	0.013	0.026	.0001
168.000	0.977	0.023	0.988	0.012	0.024	.0001
170.000	0.978	0.022	0.989	0.011	0.023	.0001
172.000	0.978	0.021	0.989	0.011	0.022	.0001
174.000	0.979	0.020	0.989	0.010	0.021	.0001
176.000	0.979	0.020	0.990	0.010	0.021	.0001
178.000	0.980	0.020	0.990	0.010	0.021	.0001
180.000	0.980	0.019	0.990	0.010	0.020	.0000
185.000	0.980	0.018	0.990	0.009	0.019	.0000
190.000	0.981	0.017	0.990	0.009	0.017	.0000
195.000	0.982	0.016	0.991	0.008	0.016	.0000
200.000	0.982	0.015	0.991	0.007	0.015	.0000
210.000	0.983	0.013	0.992	0.007	0.014	.0000
220.000	0.984	0.012	0.992	0.006	0.012	.0000
230.000	0.985	0.010	0.992	0.005	0.011	.0000
240.000	0.985	0.009	0.993	0.005	0.010	.0000
250.000	0.986	0.008	0.993	0.004	0.009	.0000
260.000	0.987	0.007	0.993	0.004	0.008	.0000
270.000	0.988	0.007	0.994	0.003	0.007	.0000
280.000	0.988	0.006	0.994	0.003	0.006	.0000
290.000	0.989	0.005	0.994	0.003	0.005	.0000
300.000	0.990	0.005	0.995	0.002	0.005	.0000
310.000	0.990	0.004	0.995	0.002	0.004	.0000
320.000	0.991	0.004	0.996	0.002	0.004	.0000
330.000	0.991	0.004	0.996	0.002	0.004	.0000
340.000	0.992	0.003	0.996	0.002	0.003	.0000

Al

Energy (eV)	ϵ_1	ϵ_2	n	k	$\text{Im}(-1/\epsilon)$	$R(\phi=0)$
350.000	0.992	0.003	0.996	0.002	0.003	.0000
360.000	0.992	0.003	0.996	0.001	0.003	.0000
370.000	0.993	0.002	0.996	0.001	0.003	.0000
380.000	0.993	0.002	0.997	0.001	0.002	.0000
390.000	0.993	0.002	0.997	0.001	0.002	.0000
400.000	0.994	0.002	0.997	0.001	0.002	.0000
420.000	0.994	0.002	0.997	0.001	0.002	.0000
440.000	0.995	0.001	0.997	0.001	0.001	.0000
460.000	0.995	0.001	0.998	0.001	0.001	.0000
480.000	0.996	0.001	0.998	0.001	0.001	.0000
500.000	0.996	0.001	0.998	0.000	0.001	.0000
520.000	0.996	0.001	0.998	0.000	0.001	.0000
540.000	0.997	0.001	0.998	0.000	0.001	.0000
560.000	0.997	0.001	0.998	0.000	0.001	.0000
580.000	0.997	0.001	0.998	0.000	0.001	.0000
600.000	0.997	0.000	0.999	0.000	0.000	.0000
620.000	0.997	0.000	0.999	0.000	0.000	.0000
640.000	0.998	0.000	0.999	0.000	0.000	.0000
660.000	0.998	0.000	0.999	0.000	0.000	.0000
680.000	0.998	0.000	0.999	0.000	0.000	.0000
700.000	0.998	0.000	0.999	0.000	0.000	.0000
720.000	0.998	0.000	0.999	0.000	0.000	.0000
740.000	0.998	0.000	0.999	0.000	0.000	.0000
760.000	0.998	0.000	0.999	0.000	0.000	.0000
780.000	0.998	0.000	0.999	0.000	0.000	.0000
800.000	0.998	0.000	0.999	0.000	0.000	.0000
820.000	0.998	0.000	0.999	0.000	0.000	.0000
840.000	0.999	0.000	0.999	0.000	0.000	.0000
860.000	0.999	0.000	0.999	0.000	0.000	.0000
880.000	0.999	0.000	0.999	0.000	0.000	.0000
900.000	0.999	0.000	0.999	0.000	0.000	.0000
920.000	0.999	0.000	0.999	0.000	0.000	.0000
940.000	0.999	0.000	0.999	0.000	0.000	.0000
960.000	0.999	0.000	0.999	0.000	0.000	.0000
980.000	0.999	0.000	0.999	0.000	0.000	.0000
1000.000	0.999	0.000	0.999	0.000	0.000	.0000
1049.999	0.999	0.000	1.000	0.000	0.000	.0000
1099.999	0.999	0.000	1.000	0.000	0.000	.0000
1149.999	0.999	0.000	1.000	0.000	0.000	.0000
1199.999	0.999	0.000	1.000	0.000	0.000	.0000
1250.000	0.999	0.000	1.000	0.000	0.000	.0000
1299.999	0.999	0.000	1.000	0.000	0.000	.0000
1349.999	0.999	0.000	1.000	0.000	0.000	.0000
1400.000	1.000	0.000	1.000	0.000	0.000	.0000
1450.000	1.000	0.000	1.000	0.000	0.000	.0000
1499.999	1.000	0.000	1.000	0.000	0.000	.0000
1509.999	1.000	0.000	1.000	0.000	0.000	.0000
1519.999	1.000	0.000	1.000	0.000	0.000	.0000
1530.000	1.000	0.000	1.000	0.000	0.000	.0000
1539.999	1.000	0.000	1.000	0.000	0.000	.0000
1541.999	1.000	0.000	1.000	0.000	0.000	.0000
1544.000	1.000	0.000	1.000	0.000	0.000	.0000
1545.999	1.000	0.000	1.000	0.000	0.000	.0000
1547.999	1.000	0.000	1.000	0.000	0.000	.0000
1548.999	1.000	0.000	1.000	0.000	0.000	.0000
1549.999	1.000	0.000	1.000	0.000	0.000	.0000
1551.000	1.000	0.000	1.000	0.000	0.000	.0000