

Authors	Energy Range (eV)	Technique	Temperature (K) RT unless specified	Sample				Data Presentation	Remarks Tb
				Film	X-tal	Bulk	Prep		
Pet70	1.55-6.2	Trans, Refl		x				T, R, μ	
Pet72	1.55-4.96	Trans, Refl		x				T	
EBF74	1.5-5.5	Ellips		x			In	σ	
KN75	0.06-4.29	Ellips	80-450			x		n, k, σ	
KT75	0.35-2.5	Ellips	20-300	x				σ, ϵ_1	
WL75	0.2-4.4	Refl	4.2		x		EP	A; KK: σ for E \perp c and E \parallel c	absorptivity measured by calorimetry; observe optical anisotropy
CGT76	0.1-46	Trans		x				Im(ϵ^{-1}); KK: ϵ_1, ϵ_2	energy loss spectroscopy
KN77									review paper
Liu77									review paper covering band structure, optical and photoemission properties

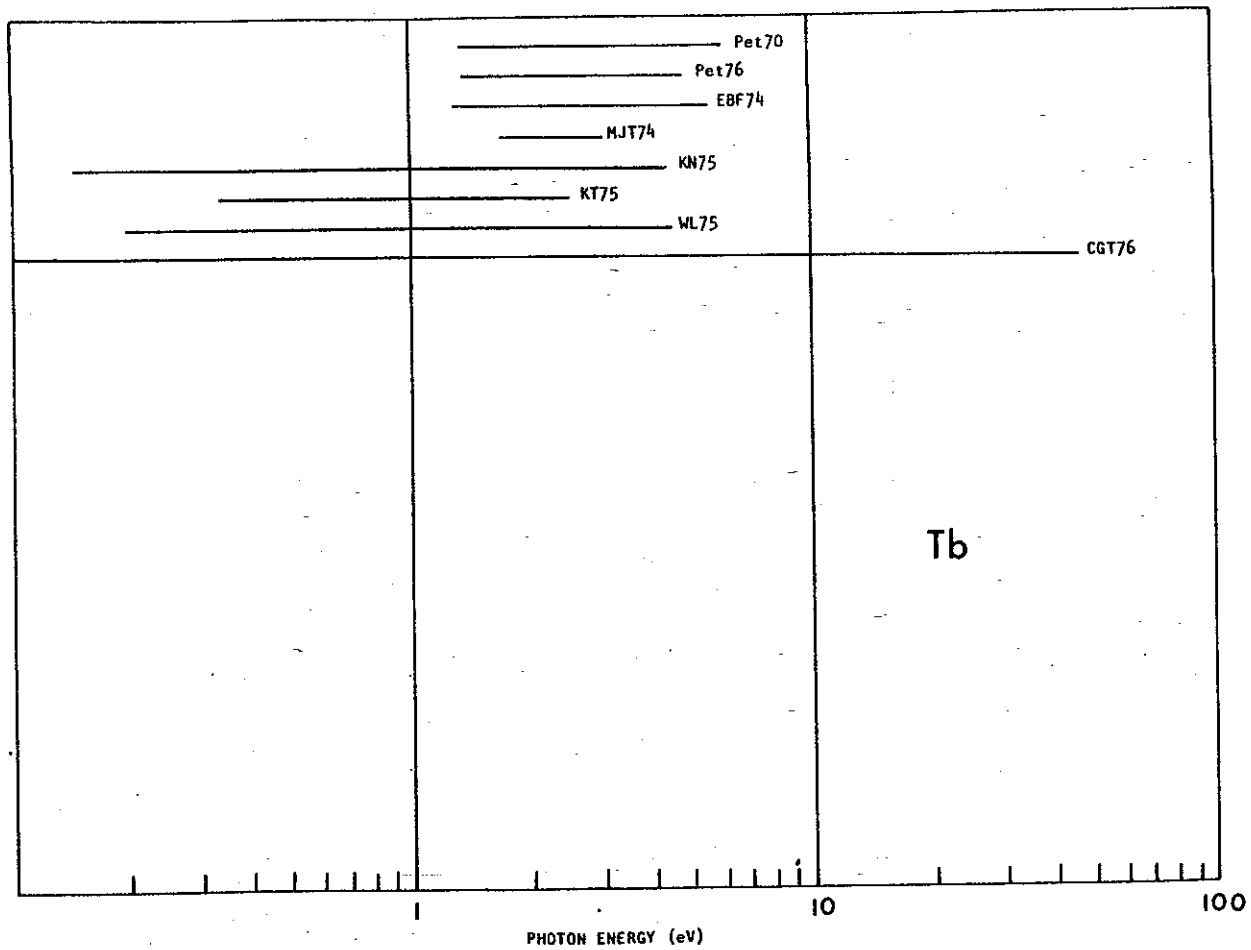


Fig. 62 Survey of available data on Tb.

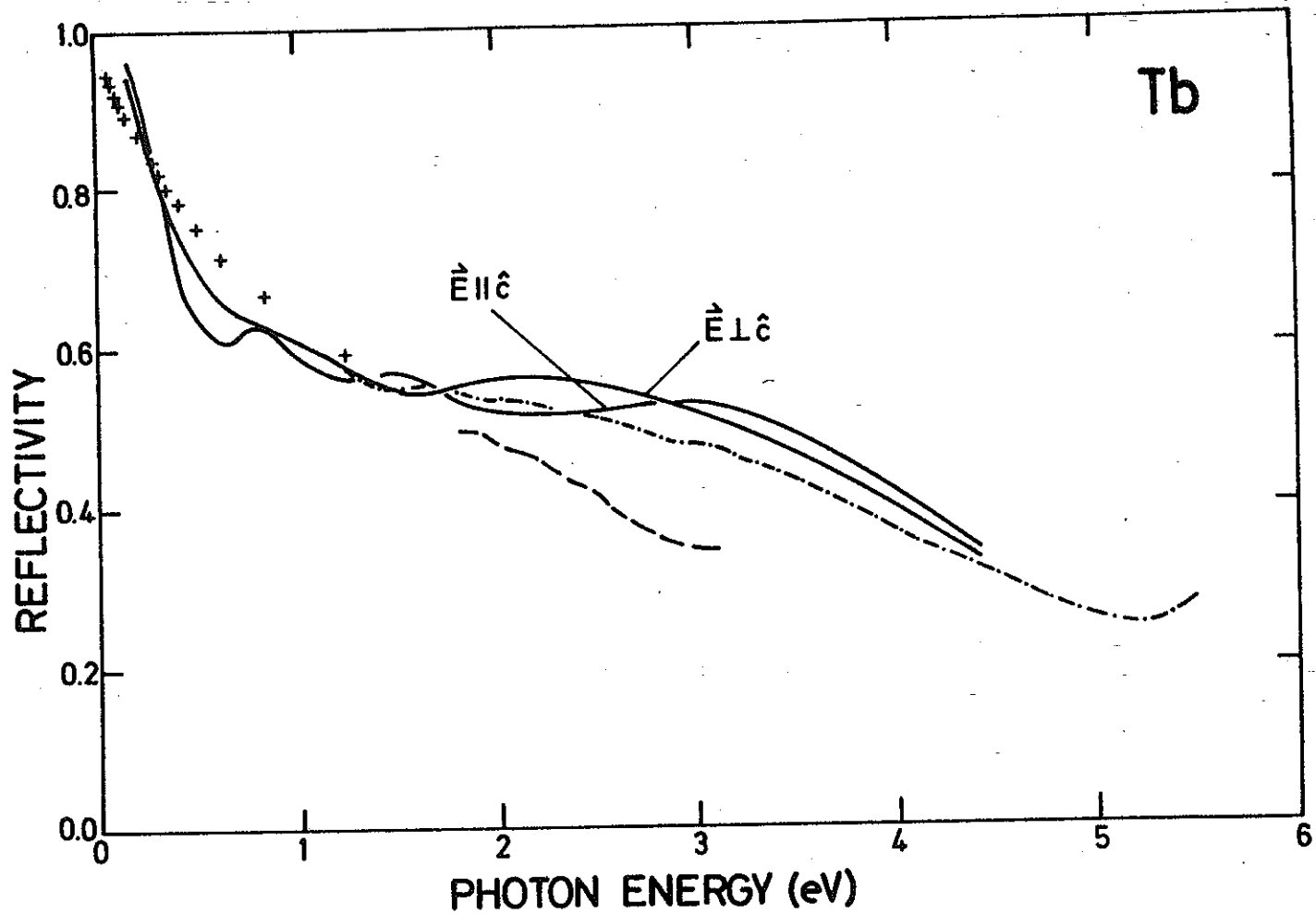


Fig. 63 Reflectivity for Tb. Single crystal results by WL75 for $\vec{E}_{||c}$ and $\vec{E}_{\perp c}$; polycrystalline results by KN75 (+++); EBF74 (---); and MJT74 (---).

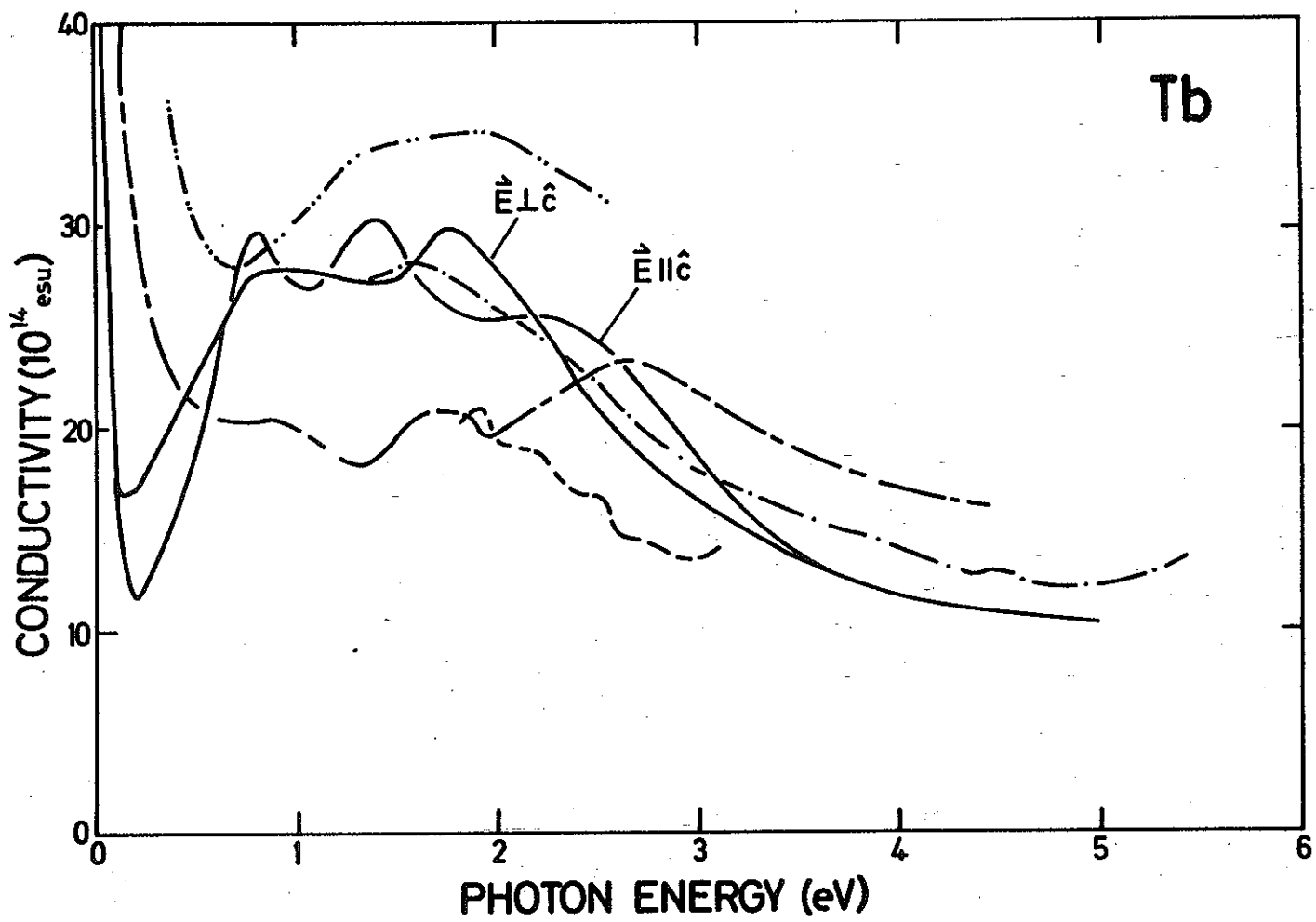


Fig. 64 Optical conductivity of Tb. Single crystal results by WL75 for $\vec{E} \parallel \hat{c}$ and $\vec{E} \perp \hat{c}$; polycrystalline results by KN75 (---); KT75 (— · —); MJT74 (---); and EBF74 (— · —).

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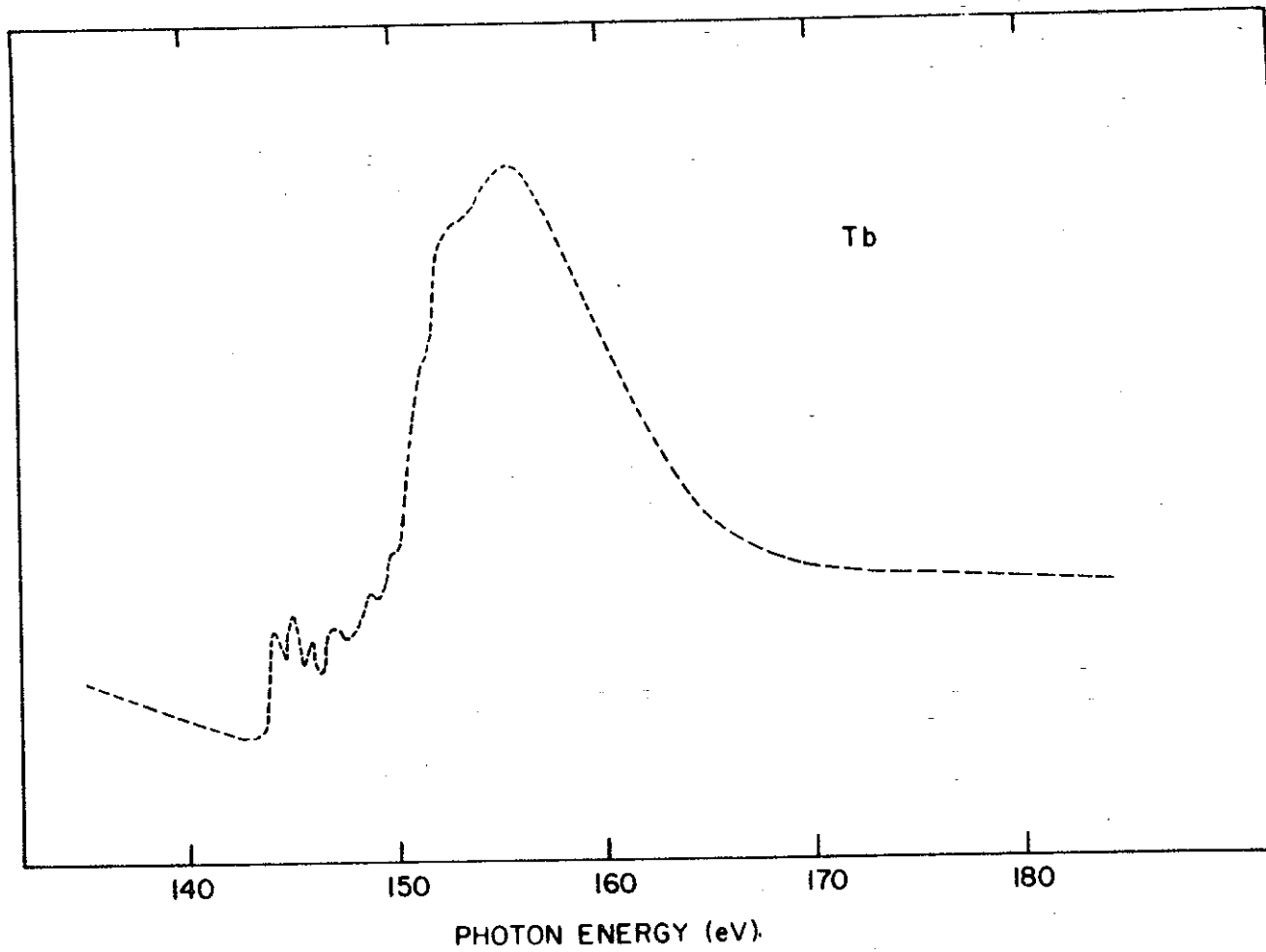


Fig. 65 Absorption coefficient of Tb for $130 \leq h\nu \leq 190$ eV. Results by OL81.

Terbium single crystal with $\vec{E} \parallel \hat{c}$

publication by J.H. Weaver and D.W. Lynch in Phys. Rev. Lett. 34, 1324 (1975)
based on the following tabulation

Energy (eV)	ϵ_1	ϵ_2	n	k	$\text{Im}(-1/\epsilon)$	$R(\phi=0)$
0.10	-553.96	146.83	3.09	1.24	0.00	.105
0.12	-375.09	115.10	2.94	1.21	0.00	.095
0.14	-267.96	98.77	2.97	1.22	0.00	.097
0.16	-200.42	86.90	3.00	1.23	0.00	.099
0.18	-154.51	77.70	3.04	1.23	0.00	.101
0.20	-121.62	70.26	3.07	1.24	0.00	.103
0.22	-96.90	64.92	3.14	1.25	0.00	.108
0.24	-78.42	61.54	3.26	1.28	0.01	.116
0.26	-65.37	57.70	3.30	1.29	0.01	.119
0.28	-54.31	54.19	3.35	1.29	0.01	.122
0.30	-44.97	51.89	3.44	1.31	0.01	.128
0.32	-38.11	50.14	3.53	1.33	0.01	.134
0.34	-33.00	48.13	3.56	1.33	0.01	.136
0.36	-28.37	46.17	3.59	1.34	0.02	.139
0.38	-24.52	44.41	3.62	1.35	0.02	.140
0.40	-21.05	42.93	3.66	1.35	0.02	.143
0.42	-18.16	41.79	3.70	1.36	0.02	.146
0.44	-15.98	40.78	3.73	1.37	0.02	.148
0.46	-14.03	39.80	3.75	1.37	0.02	.149
0.48	-12.68	38.84	3.75	1.37	0.02	.149
0.50	-11.15	37.81	3.76	1.37	0.02	.150
0.52	-9.98	37.06	3.77	1.37	0.03	.150
0.54	-9.17	36.25	3.76	1.37	0.03	.150
0.56	-8.15	35.38	3.75	1.37	0.03	.149
0.58	-7.44	34.76	3.75	1.37	0.03	.149
0.60	-6.86	34.10	3.74	1.37	0.03	.148
0.62	-6.31	33.45	3.72	1.36	0.03	.147
0.64	-5.82	32.91	3.71	1.36	0.03	.147
0.66	-5.57	32.41	3.70	1.36	0.03	.146
0.68	-5.31	31.82	3.67	1.35	0.03	.144
0.70	-5.03	31.30	3.65	1.35	0.03	.142
0.74	-4.90	30.40	3.60	1.34	0.03	.139
0.78	-5.03	29.33	3.52	1.33	0.03	.133
0.82	-5.13	28.07	3.42	1.31	0.03	.127
0.86	-5.10	26.80	3.33	1.29	0.04	.121
0.90	-4.99	25.63	3.25	1.27	0.04	.115
0.95	-4.91	24.34	3.16	1.26	0.04	.109
1.00	-4.89	23.10	3.06	1.24	0.04	.103
1.05	-4.71	21.90	2.97	1.22	0.04	.097
1.10	-4.60	20.87	2.90	1.20	0.05	.092
1.15	-4.44	19.90	2.82	1.19	0.05	.087
1.20	-4.34	19.04	2.76	1.17	0.05	.083
1.25	-4.21	18.21	2.69	1.16	0.05	.079
1.30	-4.06	17.45	2.63	1.15	0.05	.075
1.35	-3.91	16.76	2.58	1.14	0.06	.072
1.40	-3.72	16.14	2.53	1.13	0.06	.069
1.45	-3.54	15.61	2.50	1.12	0.06	.067
1.50	-3.31	15.18	2.47	1.11	0.06	.066
1.55	-3.11	14.92	2.46	1.11	0.06	.065

Tb $\tilde{\epsilon}$ II c

Energy (eV)	ϵ_1	ϵ_2	n	k	$\text{Im}(-1/\tilde{\epsilon})$	$R(\phi=0)$
1.60	-3.10	14.80	2.45	1.11	0.06	.064
1.65	-3.27	14.69	2.43	1.10	0.06	.063
1.70	-3.59	14.47	2.38	1.09	0.07	.060
1.80	-4.26	13.70	2.25	1.06	0.07	.053
1.90	-4.78	12.67	2.09	1.02	0.07	.045
2.00	-5.07	11.56	1.94	0.99	0.07	.037
2.10	-5.20	10.50	1.81	0.95	0.08	.031
2.20	-5.19	9.50	1.68	0.92	0.08	.026
2.30	-5.11	8.57	1.56	0.88	0.09	.022
2.40	-4.94	7.73	1.45	0.85	0.09	.019
2.50	-4.70	6.99	1.36	0.83	0.10	.017
2.60	-4.45	6.34	1.28	0.80	0.11	.015
2.70	-4.16	5.76	1.21	0.78	0.11	.014
2.80	-3.86	5.29	1.16	0.76	0.12	.013
2.90	-3.60	4.88	1.11	0.75	0.13	.013
3.00	-3.33	4.53	1.07	0.73	0.14	.013
3.10	-3.12	4.21	1.03	0.72	0.15	.012
3.20	-2.90	3.93	1.00	0.71	0.16	.012
3.30	-2.70	3.66	0.96	0.69	0.18	.012
3.40	-2.50	3.42	0.93	0.68	0.19	.013
3.50	-2.31	3.19	0.90	0.67	0.21	.013
3.60	-2.11	3.00	0.88	0.66	0.22	.013
3.70	-1.94	2.84	0.87	0.66	0.24	.013
3.80	-1.78	2.69	0.85	0.65	0.26	.014
3.90	-1.62	2.56	0.84	0.65	0.28	.014
4.00	-1.48	2.43	0.83	0.64	0.30	.014
4.10	-1.35	2.32	0.82	0.64	0.32	.014
4.20	-1.20	2.22	0.81	0.64	0.35	.014
4.30	-1.08	2.14	0.81	0.64	0.37	.014
4.40	-0.97	2.08	0.81	0.64	0.39	.014
4.50	-0.91	2.00	0.80	0.63	0.41	.015
4.60	-0.80	1.92	0.80	0.63	0.44	.015
4.80	-0.63	1.80	0.80	0.63	0.49	.015
5.00	-0.46	1.71	0.81	0.64	0.55	.014

Terbium single crystal with $\vec{E} \perp \hat{c}$

publication by J.H. Weaver and D.W. Lynch in Phys. Rev. Lett. 34, 1324 (1975)
based on the following tabulation

Energy (eV)	ϵ_1	ϵ_2	n	k	$\text{Im}(-1/\epsilon)$	$R(\phi=0)$
0.08	-890.29	211.17	3.51	1.33	0.00	.133
0.10	-570.18	141.55	2.94	1.21	0.00	.095
0.12	-392.59	104.63	2.62	1.14	0.00	.074
0.14	-285.49	84.20	2.47	1.11	0.00	.065
0.16	-215.42	66.08	2.23	1.05	0.00	.052
0.18	-164.36	55.40	2.13	1.03	0.00	.047
0.20	-127.29	48.13	2.10	1.02	0.00	.045
0.22	-99.45	44.39	2.17	1.04	0.00	.049
0.24	-78.99	42.07	2.29	1.07	0.01	.055
0.26	-63.58	40.29	2.42	1.10	0.01	.062
0.28	-51.71	39.20	2.57	1.13	0.01	.071
0.30	-42.97	37.45	2.65	1.15	0.01	.076
0.32	-35.31	35.70	2.73	1.17	0.01	.081
0.34	-28.60	34.43	2.84	1.19	0.02	.089
0.36	-22.90	33.70	2.99	1.22	0.02	.098
0.38	-18.48	33.09	3.12	1.25	0.02	.106
0.40	-14.31	32.79	3.28	1.28	0.03	.117
0.42	-11.37	32.85	3.42	1.31	0.03	.127
0.44	-9.16	32.74	3.52	1.33	0.03	.134
0.46	-7.26	32.43	3.60	1.34	0.03	.139
0.48	-5.52	32.09	3.68	1.36	0.03	.144
0.50	-3.95	31.87	3.75	1.37	0.03	.149
0.52	-2.66	31.82	3.83	1.38	0.03	.154
0.54	-1.75	31.80	3.88	1.39	0.03	.158
0.56	-0.89	31.69	3.93	1.40	0.03	.161
0.58	-0.20	31.69	3.97	1.41	0.03	.164
0.60	0.23	31.73	4.00	1.41	0.03	.166
0.62	0.71	31.69	4.03	1.42	0.03	.168
0.64	1.01	31.87	4.06	1.42	0.03	.170
0.66	1.03	32.10	4.07	1.43	0.03	.171
0.68	0.85	32.25	4.07	1.43	0.03	.171
0.70	0.51	32.33	4.05	1.42	0.03	.169
0.74	-0.54	32.20	3.98	1.41	0.03	.165
0.78	-2.22	31.55	3.83	1.38	0.03	.155
0.82	-3.73	29.87	3.63	1.35	0.03	.141
0.86	-4.42	27.72	3.44	1.31	0.04	.128
0.90	-4.44	25.73	3.29	1.28	0.04	.118
0.95	-4.04	23.80	3.17	1.26	0.04	.110
1.00	-3.62	22.33	3.08	1.24	0.04	.104
1.05	-3.04	21.16	3.03	1.23	0.05	.101
1.10	-2.49	20.39	3.00	1.23	0.05	.099
1.15	-2.18	19.96	2.99	1.22	0.05	.098
1.20	-2.17	19.67	2.97	1.22	0.05	.097
1.25	-2.37	19.36	2.93	1.21	0.05	.094
1.30	-2.73	18.98	2.87	1.20	0.05	.090
1.35	-3.17	18.49	2.79	1.18	0.05	.085
1.40	-3.70	17.88	2.70	1.16	0.05	.079
1.45	-4.19	17.08	2.59	1.14	0.06	.072
1.50	-4.56	16.15	2.47	1.11	0.06	.065

Tb $\vec{E} \perp \hat{c}$

Energy (eV)	ϵ_1	ϵ_2	n	k	$\text{Im}(-i/\epsilon)$	$R(\phi=0)$
1.55	-4.71	15.14	2.36	1.09	0.06	.059
1.60	-4.61	14.20	2.27	1.07	0.06	.054
1.65	-4.38	13.44	2.21	1.05	0.07	.051
1.70	-4.17	12.86	2.16	1.04	0.07	.048
1.80	-3.82	11.92	2.09	1.02	0.08	.044
1.90	-3.57	11.22	2.03	1.01	0.08	.041
2.00	-3.47	10.63	1.96	0.99	0.09	.038
2.10	-3.35	10.14	1.91	0.98	0.09	.036
2.20	-3.50	9.68	1.84	0.96	0.09	.033
2.30	-3.60	9.13	1.76	0.94	0.09	.030
2.40	-3.70	8.59	1.68	0.92	0.10	.026
2.50	-3.80	8.01	1.59	0.89	0.10	.023
2.60	-3.85	7.43	1.50	0.87	0.11	.021
2.70	-3.87	6.85	1.41	0.84	0.11	.018
2.80	-3.86	6.28	1.33	0.81	0.12	.016
2.90	-3.81	5.71	1.24	0.79	0.12	.014
3.00	-3.70	5.11	1.14	0.76	0.13	.013
3.10	-3.46	4.58	1.07	0.73	0.14	.013
3.20	-3.19	4.17	1.01	0.71	0.15	.012
3.30	-2.96	3.82	0.97	0.70	0.16	.012
3.40	-2.71	3.51	0.93	0.68	0.18	.013
3.50	-2.47	3.25	0.90	0.67	0.20	.013
3.60	-2.24	3.03	0.87	0.66	0.21	.013
3.70	-2.04	2.86	0.86	0.66	0.23	.013
3.80	-1.86	2.69	0.84	0.65	0.25	.014
3.90	-1.68	2.54	0.83	0.64	0.27	.014
4.00	-1.52	2.41	0.82	0.64	0.30	.014
4.10	-1.36	2.30	0.81	0.64	0.32	.014
4.20	-1.22	2.19	0.80	0.63	0.35	.015
4.30	-1.09	2.10	0.80	0.63	0.38	.015
4.40	-0.97	2.02	0.80	0.63	0.40	.015
4.50	-0.84	1.95	0.80	0.63	0.43	.015
4.60	-0.74	1.90	0.81	0.63	0.46	.014
4.80	-0.57	1.79	0.81	0.64	0.51	.014
5.00	-0.40	1.70	0.82	0.64	0.56	.014