Authors	Energy Range (eV)	Technique	Temperature (K) RT unless specified	Sample				Data Presentation	Remarks
				Film	X-tal	Bulk	Prep		Dy-I
CR65	0.26-0.85	Trans	87-235	x				T	examined effect of magnetic ordering
FZG67	147-157	Trans		x				μ	absorption measurements
ZFG67	~70-500	Trans		x				μ	absorption measurements
KN70	1.13-3.96	Ellips				x	MP	$n,k,\sigma,\varepsilon_1,Im(\varepsilon^{-1})$	measurements taken in N_2 gas
Dan71	~1-50	Trans		x				$Im(\varepsilon^{-1}),\varepsilon_1,\varepsilon_2,\mu$	energy loss spectroscopy
TRZ72	3-48	Refl				x		$Im(\varepsilon^{-1})$	energy loss spectroscopy
KnN73	0.06-1.24	Ellips	80, 293, 460			x		$n,k,\varepsilon_1,\varepsilon_2\omega,\sigma$	
TC73	147-175	Trans		x				μ	energy loss spectroscopy
EBF74	1.5-5.5	Ellips		x			In	σ	
KT75	0.35-2.5	Ellips	20-300	x				σ,ε_1	
Kun75	50-550			x				μ	absorption measurements with synchrotron radiation

Authors	Energy Range (eV)	Technique	Temperature (K) RT unless specified	Sample				Data Presentation	Remarks
				Film	X-tal	Bulk	Prep		Dy-2
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; examined optical anisotropy
CGT76		Trans		x					energy loss spectroscopy
KN77									review paper
Liu77									review paper covering band structure, optical and photoemission properties
Tra77	20-39	Trans	vapor	x				μ	absorption measurements of atomic vapor with synchrotron radiation
Lyn78									review paper
CGW80	~2-60			x				μ,R	fast electron energy loss spectroscopy
Loi Pvt	2-18	m-θ		x			In	KK: $\varepsilon_1, \varepsilon_2, \mu, \sigma$, R, $\mathrm{Im}(\varepsilon^{-1})$	

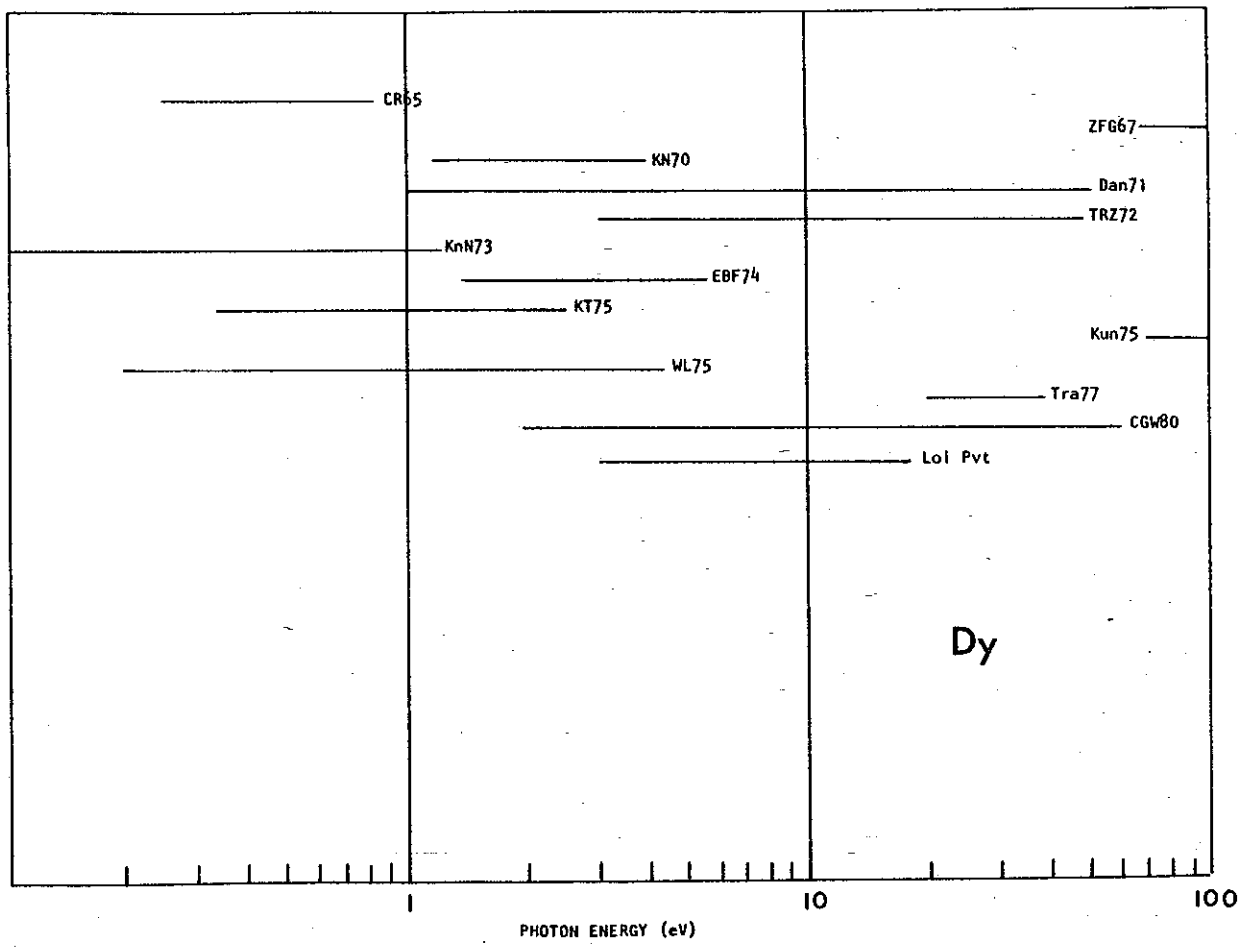

Fig. 66 Survey of available data on Dy.

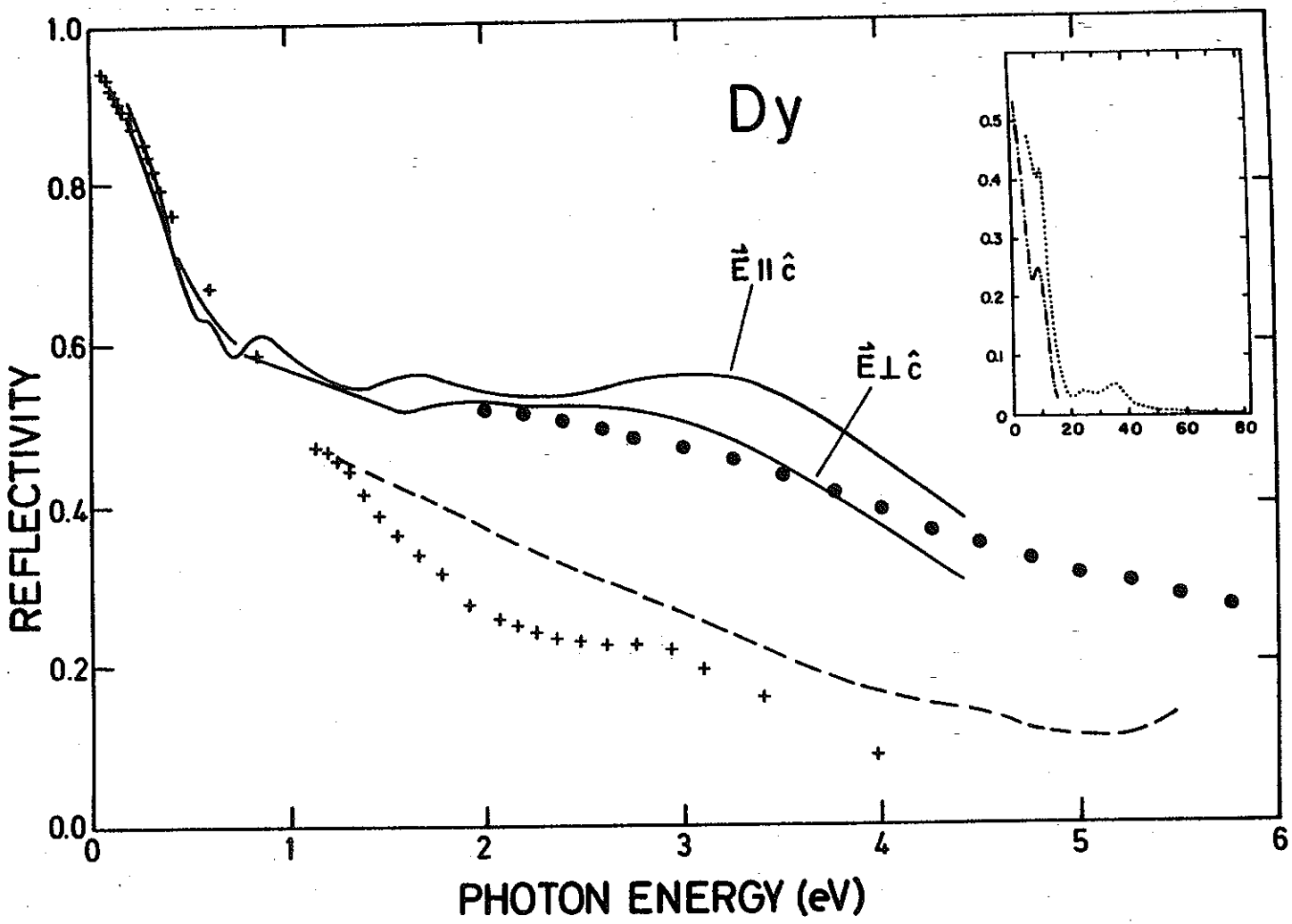

Fig. 67 Reflectivity of Dy. Single crystal results by WL75 for $\vec{E} \parallel \hat{c}$ and $\vec{E} \perp \hat{c}$. Polycrystalline results by EBF74 (---), QLJ81 (••• and —·—); KN70, KnN73 (+++). The results shown in the inset by CGW80 (···) were derived from electron energy loss measurements.

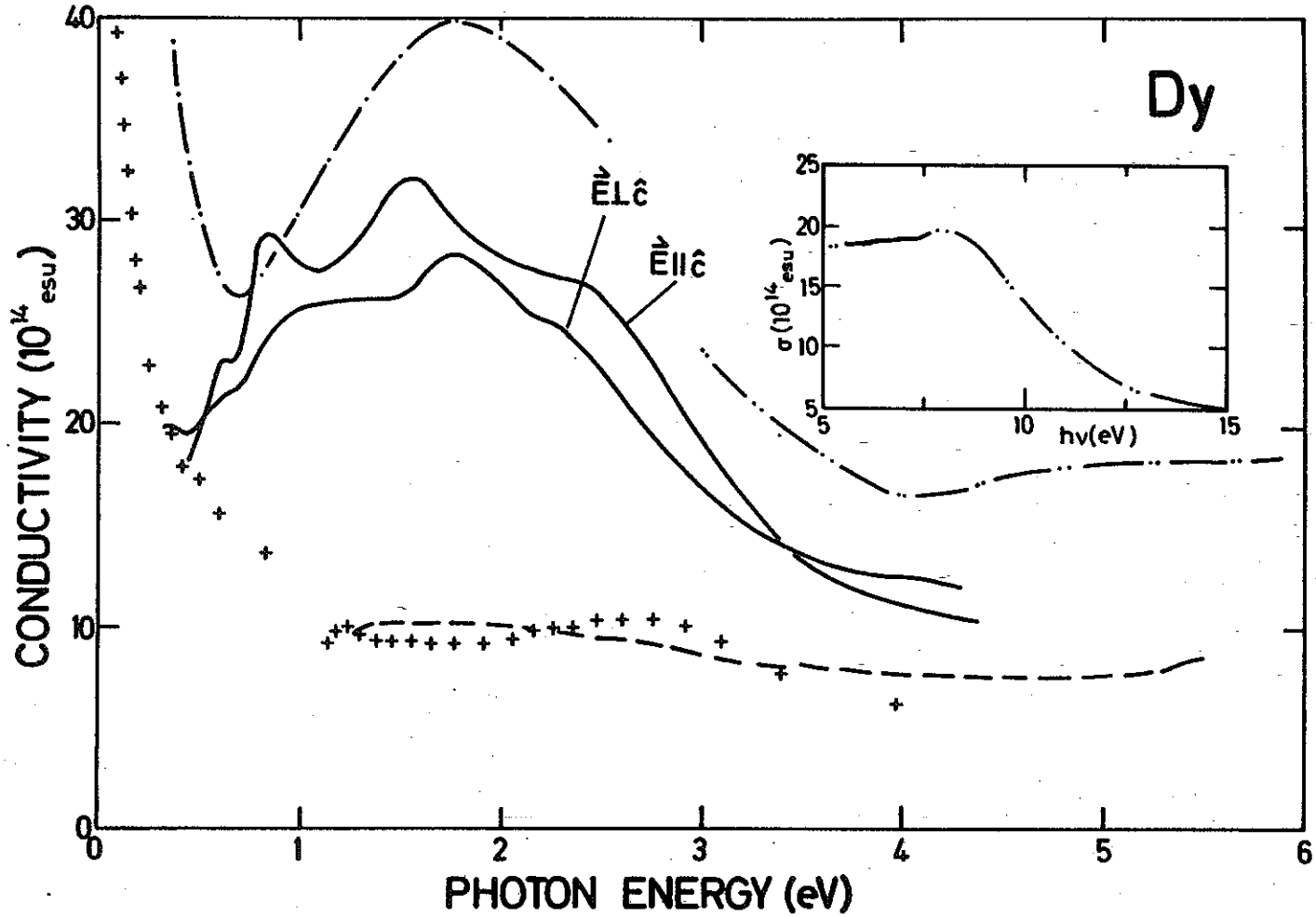

Fig. 68 Optical conductivity for Dy. Single crystal results by WL75 for $\vec{E}\parallel\hat{c}$ and $\vec{E}\perp\hat{c}$. Polycrystalline results by EBF74 (---); KN70, KnN73 (+++); KT75 (—·—); and Loisel (pvt. comm. —··—).

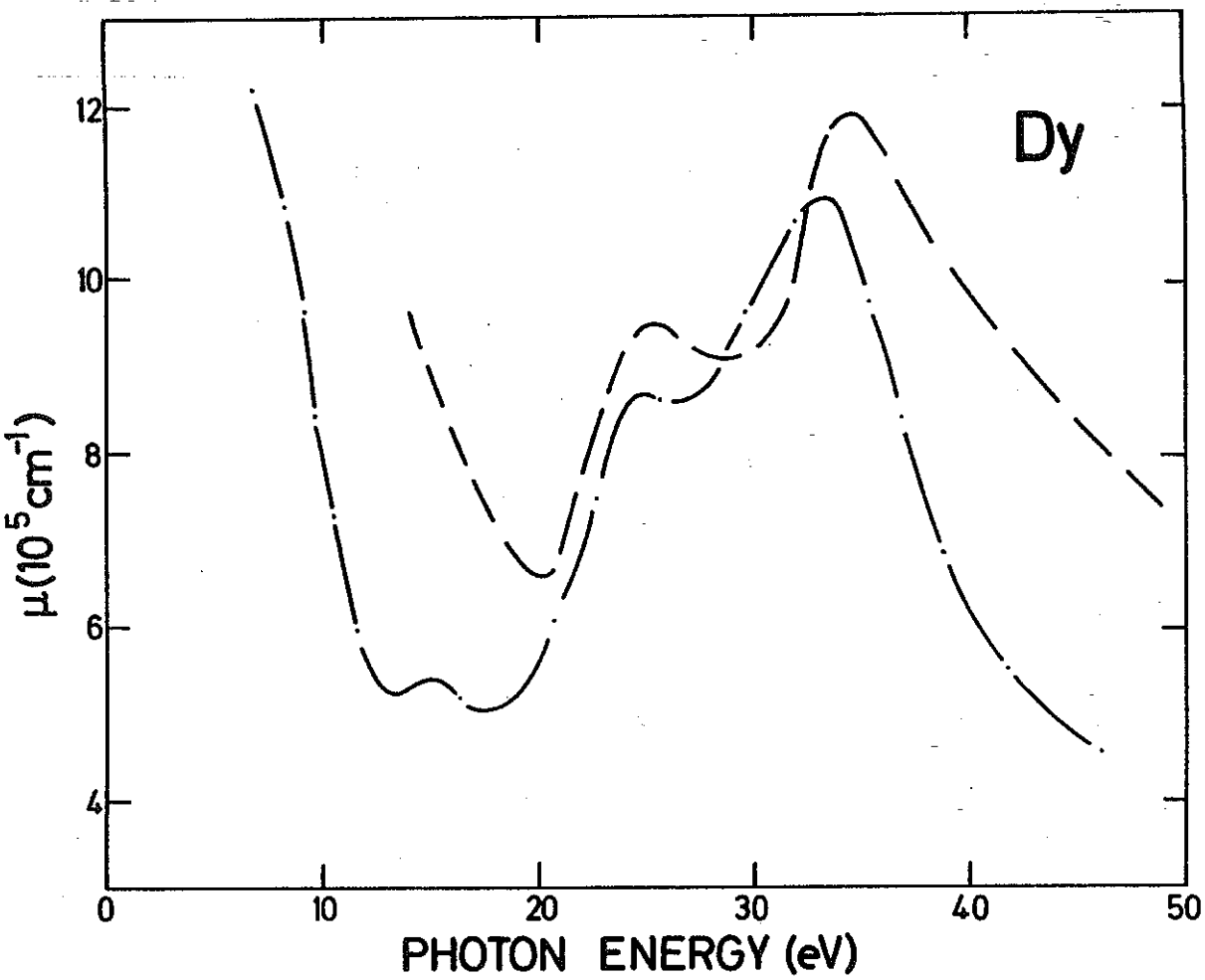

Fig. 69 Absorption coefficient for Dy for $5 \leq h\nu \leq 50$ eV. Polycrystalline results by Dan71 (---) and CGW80 (-·-). Results of CGW80 were derived from electron energy loss measurements.

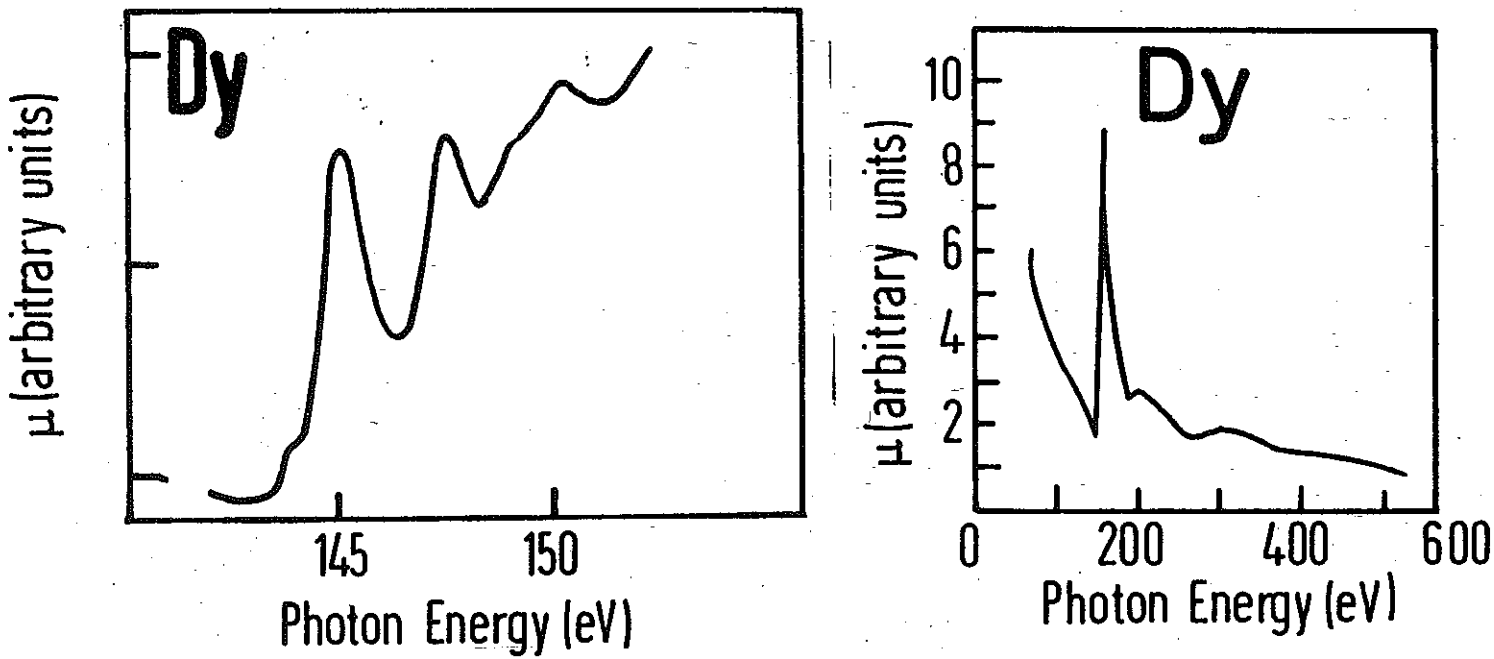

Fig. 70 Absorption coefficient of Dy. FZG67 show fine structure below the onset of the large maxima. Fine structure is interpolated by ZFG67 in the expanded energy range.

Dysprosium 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	$Im(-1/\tilde{\varepsilon})$	$R(\phi=0)$
0.05	1844.97	351.38	43.15	4.64	0.00	.832
0.06	1255.67	219.92	35.57	4.22	0.00	.801
0.07	-890.81	152.19	2.54	1.13	0.00	.070
0.08	-654.75	132.00	2.57	1.13	0.00	.071
0.09	-499.80	118.85	2.64	1.15	0.00	.076
0.10	-393.72	116.89	2.91	1.21	0.00	.093
0.12	-264.09	96.56	2.92	1.21	0.00	.094
0.14	-182.12	93.80	3.37	1.30	0.00	.124
0.16	-135.88	90.58	3.70	1.36	0.00	.146
0.18	-107.83	83.07	3.76	1.37	0.00	.150
0.20	-86.20	76.05	3.79	1.38	0.01	.152
0.22	-70.05	70.85	3.85	1.39	0.01	.156
0.24	-59.10	64.92	3.79	1.38	0.01	.152
0.26	-48.35	60.91	3.84	1.38	0.01	.155
0.28	-41.56	57.70	3.84	1.39	0.01	.155
0.30	-36.36	54.11	3.80	1.38	0.01	.152
0.32	-31.43	51.06	3.78	1.37	0.01	.151
0.34	-28.25	47.94	3.70	1.36	0.02	.146
0.36	-24.45	45.05	3.66	1.35	0.02	.143
0.38	-21.57	42.81	3.63	1.35	0.02	.141
0.40	-19.34	40.48	3.57	1.34	0.02	.137
0.42	-16.76	38.34	3.54	1.33	0.02	.135
0.44	-14.70	36.61	3.52	1.33	0.02	.133
0.46	-12.64	35.03	3.51	1.32	0.03	.133
0.48	-10.55	33.97	3.54	1.33	0.03	.135
0.50	-9.47	33.24	3.54	1.33	0.03	.135
0.52	-8.29	32.29	3.54	1.33	0.03	.135
0.54	-7.43	31.50	3.53	1.33	0.03	.134
0.56	-6.65	30.64	3.51	1.33	0.03	.133
0.58	-5.91	29.83	3.50	1.32	0.03	.132
0.60	-5.13	29.18	3.50	1.32	0.03	.132
0.62	-4.90	28.64	3.48	1.32	0.03	.131
0.64	-4.46	27.78	3.44	1.31	0.04	.128
0.66	-3.98	27.04	3.42	1.31	0.04	.127
0.68	-3.59	26.32	3.39	1.30	0.04	.125
0.70	-2.91	25.59	3.38	1.30	0.04	.124
0.72	-2.33	25.18	3.39	1.30	0.04	.125
0.74	-1.85	24.91	3.40	1.30	0.04	.125
0.76	-1.59	24.72	3.40	1.30	0.04	.126
0.78	-1.38	24.48	3.40	1.30	0.04	.126
0.80	-1.27	24.27	3.39	1.30	0.04	.125
0.84	-1.21	23.77	3.36	1.30	0.04	.123
0.88	-1.27	23.19	3.31	1.29	0.04	.120
0.92	-1.28	22.63	3.27	1.28	0.04	.117
0.96	-1.88	22.05	3.18	1.26	0.05	.111
1.00	-1.70	20.97	3.11	1.25	0.05	.106
1.05	-1.78	20.26	3.05	1.23	0.05	.102
1.10	-1.84	19.45	2.97	1.22	0.05	.097
1.15	-1.91	18.72	2.91	1.21	0.05	.093

Dy $\vec{E} \| \hat{c}$

Energy (eV)	ε_1	ε_2	n	k	Im(-1/$\tilde{\varepsilon}$)	R(ϕ=0)
1.20	-2.01	18.02	2.84	1.19	0.05	.088
1.25	-2.08	17.31	2.77	1.18	0.06	.084
1.30	-2.10	16.63	2.71	1.16	0.06	.080
1.35	-2.06	16.01	2.65	1.15	0.06	.077
1.40	-2.02	15.46	2.60	1.14	0.06	.074
1.45	-1.97	14.97	2.56	1.13	0.07	.071
1.50	-1.85	14.55	2.53	1.13	0.07	.069
1.55	-1.78	14.28	2.51	1.12	0.07	.068
1.60	-1.82	14.10	2.49	1.12	0.07	.067
1.65	-1.97	13.94	2.46	1.11	0.07	.065
1.70	-2.28	13.75	2.41	1.10	0.07	.062
1.75	-2.61	13.42	2.35	1.08	0.07	.059
1.80	-2.92	13.01	2.28	1.07	0.07	.055
1.85	-3.17	12.55	2.21	1.05	0.07	.051
1.90	-3.38	12.06	2.14	1.03	0.08	.047
1.95	-3.52	11.56	2.07	1.02	0.08	.043
2.00	-3.60	11.07	2.01	1.00	0.08	.040
2.05	-3.65	10.61	1.95	0.99	0.08	.037
2.10	-3.64	10.19	1.89	0.97	0.09	.035
2.15	-3.63	9.83	1.85	0.96	0.09	.033
2.20	-3.63	9.51	1.81	0.95	0.09	.031
2.25	-3.67	9.22	1.77	0.94	0.09	.030
2.30	-3.75	8.90	1.72	0.93	0.10	.028
2.35	-3.81	8.56	1.67	0.91	0.10	.026
2.40	-3.87	8.21	1.61	0.90	0.10	.024
2.45	-3.90	7.84	1.56	0.88	0.10	.022
2.50	-3.88	7.47	1.51	0.87	0.11	.021
2.55	-3.86	7.13	1.46	0.85	0.11	.019
2.60	-3.82	6.78	1.41	0.84	0.11	.018
2.65	-3.74	6.46	1.36	0.83	0.12	.017
2.70	-3.68	6.15	1.32	0.81	0.12	.016
2.75	-3.57	5.87	1.28	0.80	0.12	.015
2.80	-3.49	5.61	1.25	0.79	0.13	.015
2.85	-3.39	5.36	1.21	0.78	0.13	.014
2.90	-3.29	5.12	1.18	0.77	0.14	.014
2.95	-3.19	4.90	1.15	0.76	0.14	.013
3.00	-3.10	4.68	1.12	0.75	0.15	.013
3.10	-2.86	4.28	1.07	0.73	0.16	.013
3.20	-2.63	3.96	1.03	0.72	0.18	.012
3.30	-2.41	3.67	1.00	0.71	0.19	.012
3.40	-2.19	3.42	0.97	0.70	0.21	.012
3.50	-1.98	3.21	0.95	0.69	0.23	.013
3.60	-1.79	3.04	0.93	0.68	0.24	.013
3.70	-1.61	2.89	0.92	0.68	0.26	.013
3.80	-1.46	2.77	0.91	0.68	0.28	.013
3.90	-1.32	2.65	0.91	0.67	0.30	.013
4.00	-1.19	2.56	0.90	0.67	0.32	.013
4.10	-1.06	2.51	0.91	0.68	0.34	.013
4.20	-0.94	2.64	0.96	0.69	0.34	.012
4.30	-1.52	2.30	0.79	0.63	0.30	.015
4.40	-1.18	1.70	0.67	0.58	0.40	.020
4.50	-0.58	1.72	0.79	0.63	0.52	.015
4.60	-0.52	1.82	0.83	0.64	0.51	.014
4.80	-0.37	1.77	0.85	0.65	0.54	.014
5.00	-0.22	1.70	0.86	0.66	0.58	.013

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

Energy (eV)	ε_1	ε_2	n	k	Im(-1/$\tilde{\varepsilon}$)	R(ϕ=0)
1.25	-1.53	19.03	2.96	1.22	0.05	.096
1.30	-1.50	18.67	2.94	1.21	0.05	.094
1.35	-1.52	18.37	2.91	1.21	0.05	.093
1.40	-1.65	18.19	2.88	1.20	0.05	.091
1.45	-2.05	18.04	2.84	1.19	0.05	.088
1.50	-2.63	17.71	2.76	1.18	0.06	.083
1.55	-3.14	17.17	2.68	1.16	0.06	.078
1.60	-3.66	16.52	2.57	1.13	0.06	.072
1.65	-4.02	15.71	2.47	1.11	0.06	.065
1.70	-4.14	14.92	2.38	1.09	0.06	.060
1.75	-4.19	14.24	2.31	1.07	0.06	.056
1.80	-4.20	13.63	2.24	1.06	0.07	.052
1.85	-4.20	13.09	2.18	1.05	0.07	.049
1.90	-4.18	12.59	2.13	1.03	0.07	.047
1.95	-4.17	12.13	2.08	1.02	0.07	.044
2.00	-4.13	11.71	2.04	1.01	0.08	.042
2.05	-4.12	11.32	1.99	1.00	0.08	.040
2.10	-4.09	10.93	1.95	0.99	0.08	.038
2.15	-4.05	10.58	1.91	0.98	0.08	.036
2.20	-3.99	10.29	1.88	0.97	0.08	.034
2.25	-3.99	10.05	1.85	0.96	0.09	.033
2.30	-4.02	9.81	1.81	0.95	0.09	.032
2.35	-4.10	9.56	1.78	0.94	0.09	.030
2.40	-4.20	9.31	1.73	0.93	0.09	.029
2.45	-4.30	9.01	1.69	0.92	0.09	.027
2.50	-4.40	8.70	1.64	0.90	0.09	.025
2.55	-4.48	8.37	1.58	0.89	0.09	.023
2.60	-4.55	8.03	1.53	0.87	0.09	.021
2.65	-4.61	7.66	1.47	0.86	0.10	.020
2.70	-4.61	7.30	1.42	0.84	0.10	.018
2.75	-4.62	6.94	1.36	0.83	0.10	.017
2.80	-4.58	6.59	1.31	0.81	0.10	.016
2.85	-4.53	6.26	1.26	0.80	0.10	.015
2.90	-4.47	5.94	1.22	0.78	0.11	.014
2.95	-4.39	5.62	1.17	0.77	0.11	.014
3.00	-4.30	5.33	1.13	0.75	0.11	.013
3.10	-4.10	4.78	1.05	0.72	0.12	.012
3.20	-3.85	4.28	0.98	0.70	0.13	.012
3.30	-3.58	3.84	0.91	0.68	0.14	.013
3.40	-3.29	3.46	0.86	0.66	0.15	.013
3.50	-2.98	3.16	0.83	0.64	0.17	.014
3.60	-2.70	2.92	0.80	0.63	0.18	.015
3.70	-2.44	2.72	0.78	0.62	0.20	.015
3.80	-2.21	2.56	0.77	0.62	0.22	.016
3.90	-2.00	2.42	0.75	0.61	0.25	.016
4.00	-1.82	2.30	0.75	0.61	0.27	.016
4.10	-1.65	2.19	0.74	0.61	0.29	.017
4.20	-1.49	2.09	0.73	0.61	0.32	.017
4.30	-1.35	2.00	0.73	0.60	0.34	.017
4.40	-1.20	1.93	0.73	0.61	0.37	.017
4.50	-1.10	1.85	0.73	0.60	0.40	.017
4.60	-0.98	1.78	0.73	0.60	0.43	.017
4.80	-0.77	1.67	0.73	0.60	0.49	.017
5.00	-0.60	1.56	0.73	0.60	0.56	.017

Dysprosium 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	Im(-1/$\tilde{\varepsilon}$)	R(ϕ=0)
0.06	1560.82	306.16	39.69	4.46	0.00	.820
0.07	1135.86	199.23	33.83	4.11	0.00	.792
0.08	-849.06	146.20	2.53	1.13	0.00	.069
0.09	-655.53	122.93	2.39	1.09	0.00	.061
0.10	-516.24	101.64	2.23	1.05	0.00	.052
0.12	-347.02	96.09	2.56	1.13	0.00	.071
0.14	-243.36	64.61	2.05	1.01	0.00	.043
0.16	-168.64	74.69	2.81	1.19	0.00	.086
0.18	-131.65	73.92	3.11	1.25	0.00	.106
0.20	-105.84	69.72	3.23	1.27	0.00	.114
0.22	-86.54	65.37	3.31	1.29	0.01	.119
0.24	-72.25	61.12	3.35	1.29	0.01	.122
0.26	-61.44	56.76	3.33	1.29	0.01	.121
0.28	-52.80	51.70	3.25	1.27	0.01	.115
0.30	-44.14	47.75	3.23	1.27	0.01	.114
0.32	-36.97	45.19	3.27	1.28	0.01	.117
0.34	-31.85	42.69	3.27	1.28	0.02	.117
0.36	-26.93	40.56	3.30	1.28	0.02	.119
0.38	-23.30	38.58	3.30	1.28	0.02	.119
0.40	-19.83	36.51	3.30	1.28	0.02	.118
0.42	-16.35	34.81	3.32	1.29	0.02	.120
0.44	-13.18	33.65	3.39	1.30	0.03	.125
0.46	-10.54	32.89	3.46	1.32	0.03	.130
0.48	-8.33	32.33	3.54	1.33	0.03	.135
0.50	-6.52	31.88	3.61	1.34	0.03	.140
0.52	-4.61	31.59	3.70	1.36	0.03	.146
0.54	-3.31	31.87	3.79	1.38	0.03	.152
0.56	-2.83	32.17	3.84	1.39	0.03	.155
0.58	-2.63	32.05	3.84	1.39	0.03	.155
0.60	-2.76	31.63	3.81	1.38	0.03	.153
0.62	-2.59	30.78	3.76	1.37	0.03	.150
0.64	-2.48	29.87	3.71	1.36	0.03	.146
0.66	-1.67	28.75	3.68	1.36	0.03	.145
0.68	-0.83	28.16	3.70	1.36	0.04	.146
0.70	0.06	27.75	3.73	1.37	0.04	.148
0.72	1.16	27.68	3.80	1.38	0.04	.152
0.74	1.83	28.30	3.89	1.39	0.04	.158
0.76	2.01	29.16	3.95	1.41	0.03	.163
0.78	1.18	30.09	3.96	1.41	0.03	.163
0.80	0.02	30.11	3.88	1.39	0.03	.158
0.84	-1.54	29.02	3.71	1.36	0.03	.146
0.88	-2.54	27.48	3.54	1.33	0.04	.135
0.92	-2.97	25.80	3.39	1.30	0.04	.125
0.96	-2.98	24.29	3.28	1.28	0.04	.117
1.00	-2.74	23.06	3.20	1.26	0.04	.112
1.05	-2.62	21.86	3.11	1.25	0.05	.106
1.10	-2.13	20.75	3.06	1.24	0.05	.103
1.15	-1.86	20.09	3.03	1.23	0.05	.101
1.20	-1.67	19.50	2.99	1.22	0.05	.098