uthors	Energy Range (eV)	Technique	Temperature (K) RT unless specified	Sample				Data Presentation	Remarks
				Film	X-tal	Bulk	Prep		Cr
Sa39	2.6-27.6	Refl		x			Ex	R	
LSE64	109-539	Trans		x				μ	
LT66	0.06-0.25	Ellips				x	MP	$\varepsilon_2/\lambda, \varepsilon_1$	
LTA66	0.1-3.5	Ellips				x	MP	$\varepsilon_2/\lambda, \varepsilon_1$	
HL67	0.01-.5	Trans, Refl	RT, 107			x		R	
Le67	0.6-4	Ellips				x	MP	ε_2/λ	data from LT66 and LTA66
BHR68	0.62-2.5	Refl	80, 156, 200, 300		x		EP	R^3; KK: σ	
GL68	2-5.6	m-θ				x	MP	$\varepsilon_2/\lambda, \varepsilon_1$	
GSP68	4-40	m-θ	300, 623	x			Ex	$R, \varepsilon_1, \varepsilon_2, Im(\varepsilon^{-1})$	plotted data is at RT, two angles incidence
KN68	0.07-5	Ellips	293,420			x	MP	n,k,σ	mechanically polished plus 450°C anneal at 10^{-6} Torr
MS69	0.5-2.4					x	MP	R	absorption measured by calorimetry; Cr and Cr-Fe
SHK69	40-300	Trans		x			Ex	μ	optical absorption measurements
BD70	0.038-1.65	Refl	80, 300		x		EP	KK: n,k	plotted data is at 300 K
BL70	0.08-5	Refl	4.2		x		EP	A,R; KK: ε_2,σ	absorptivity measured by calorimetry
JPT72	∿0.08-∿0.48	Refl	7.5 and 281			x		A	reflectivities measured relative to Au fi,r
LS72	∿0.05-1.0	Refl	30		x			R	

hors	Energy Range (eV)	Technique	Temperature (K) RT unless specified	Sample				Data Presentation	Remarks
				Film	X-tal	Bulk	Prep		Cr
SST 2	0-30			x			Ex	$Im(\varepsilon^{-1})$	energy loss spectroscopy
U&72	1-12	Refl				x	EP	R; KK: ε_2	
JC 74	0.5-6.5	Trans, Refl		x			Ex	n,k,σ	table of E,n,k
S+74	0.8-4	Ellips				x	EP	$\varepsilon_2/\lambda,\varepsilon_1$	
WGa74	2-120	Trans		x			Ex	$\mu, Im(\varepsilon^{-1})$; KK: $\varepsilon_1,\varepsilon_2$	energy loss spectroscopy
WeG74	2-130	Trans		x			Ex	KK: μ	energy loss spectroscopy
FLS75	0.08-4.13	Refl		x			Ex	R; KK: n,k	
KiN75	0.058-4.9	Ellips	100-430			x	EP	σ	Cr and Cr-Fe alloys; EP and annealed at 973K
KN75	0.07-4.1	Ellips	295			x	MP	$\varepsilon_1,\varepsilon_2$,R,σ,n,k	annealed 10^{-6} Torr, 1073 K
ST77	0.05-0.10	Ellips	295		x		MP	$\varepsilon_2/\lambda,\varepsilon_1$	
GCS79	0.32-5.6	Trans, Refl		x			In	σ	uhv deposition
NC80	0.5-6.5	Trans, Refl				x	Ex	n,k	authors consider Cr values significantly improved over results of JC74; substrate at 700°C during deposition
NCε80	0.5-6.5	Trans, Refl		x				σ	
OL Unpl	4-30	Refl				x	EP	R; KK: $\varepsilon_1,\varepsilon_2$,σ, $Im(\varepsilon^{-1}),\mu$	synchrotron radiation

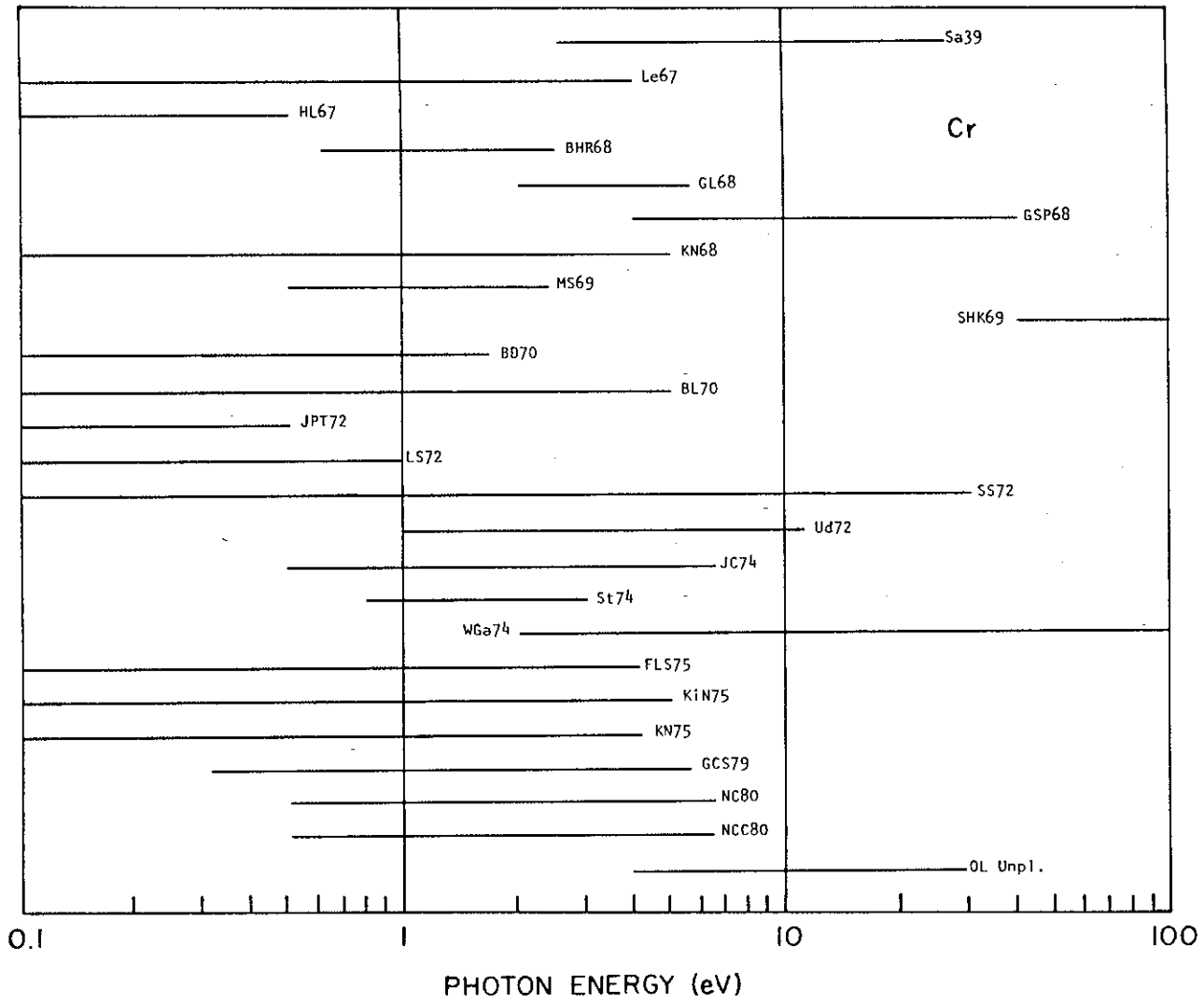

Fig. 12 Survey of available data for Cr

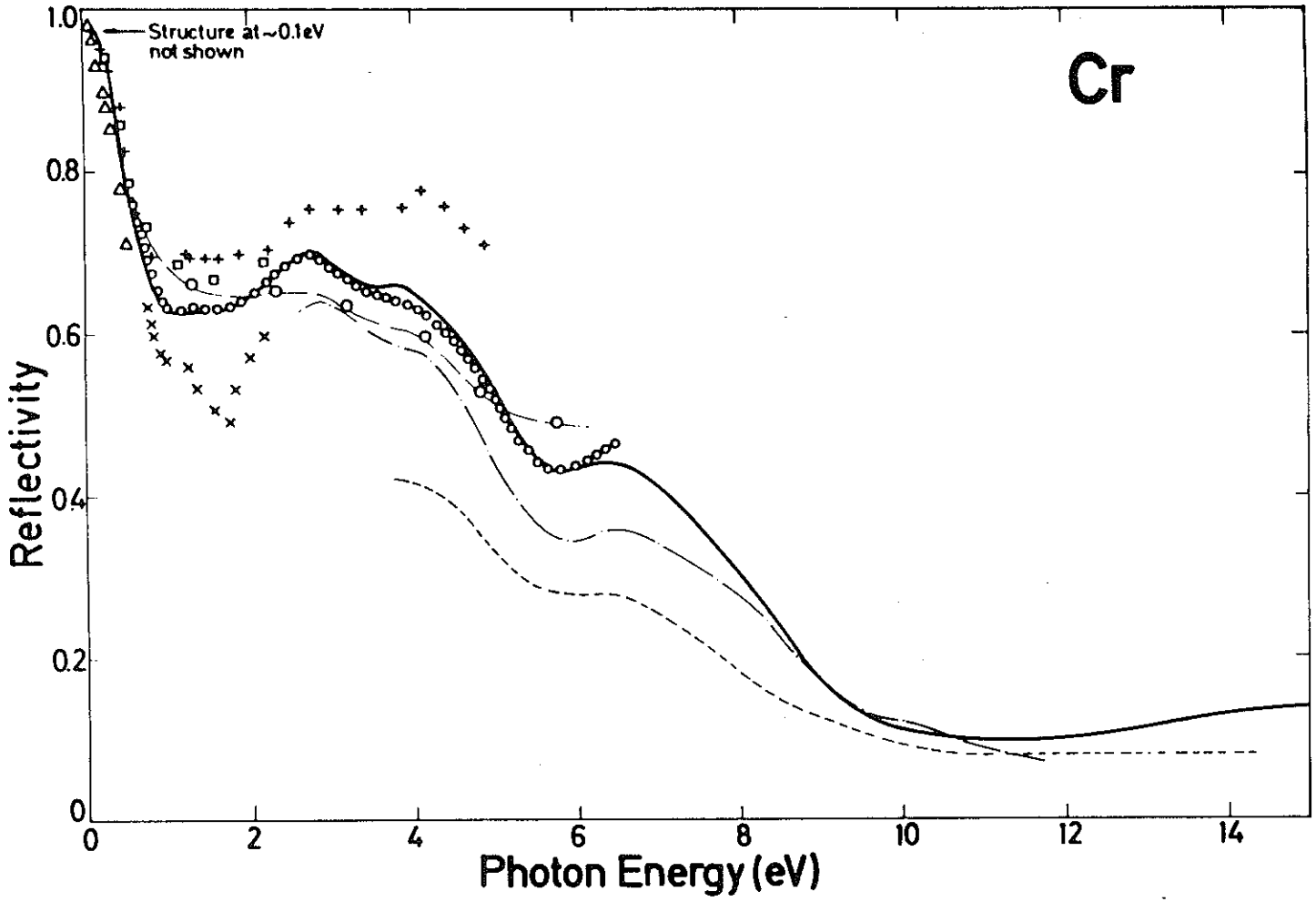

Fig. 13 Reflectivity of Cr. —— BL70 and OL (unpub); +++ KN68; --- GSP68; ooo NC80; ΔΔΔ HL68; □□□ BD70; xxx MS69; o-o-o FLS75; — • — Ud72.

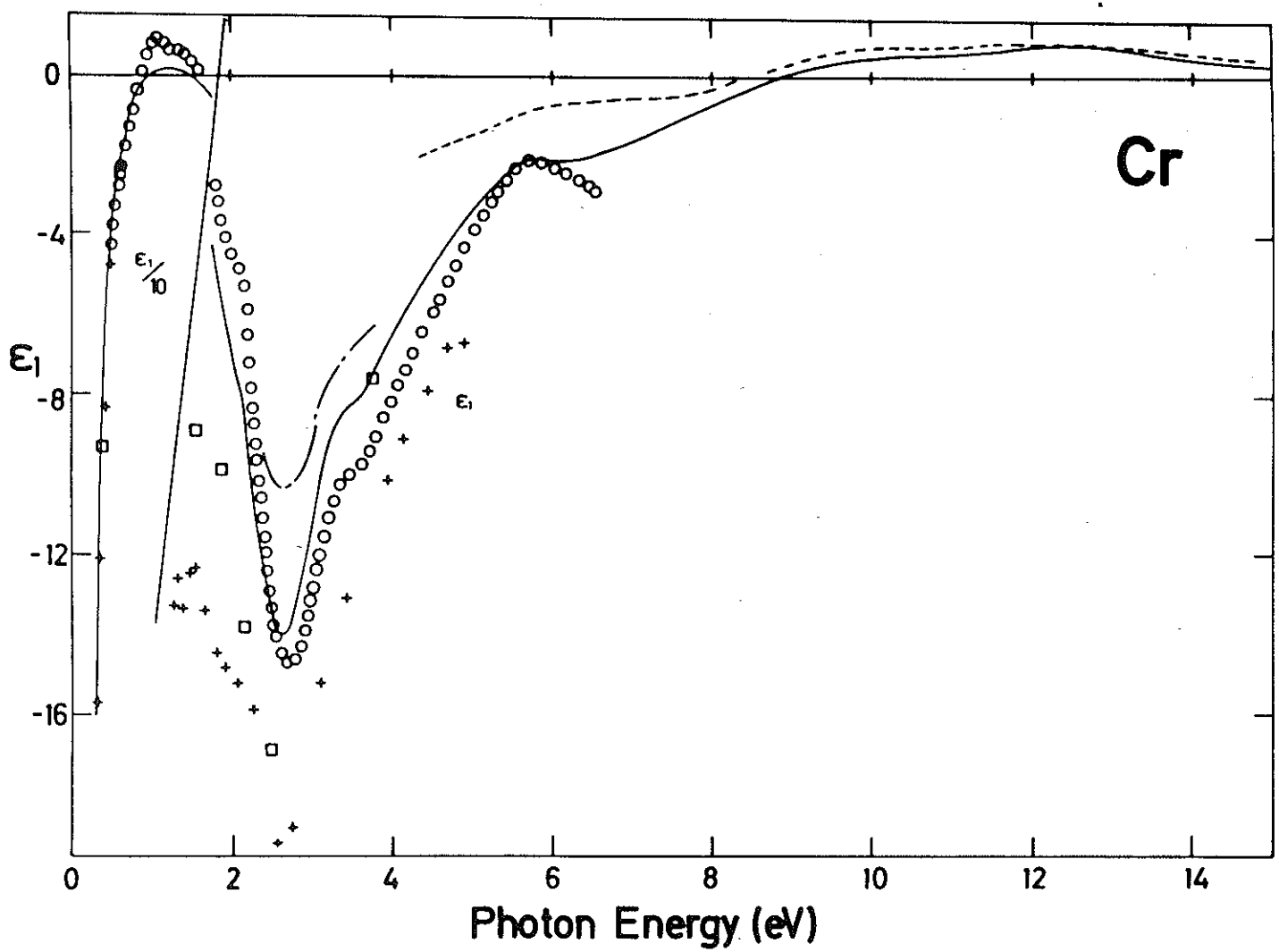

Fig. 14 ε_1 for Cr. —— BL70 and OL (unpub); +++ KN68; --- GSP68; ooo NC80; □□□ BD70; — - — St74.

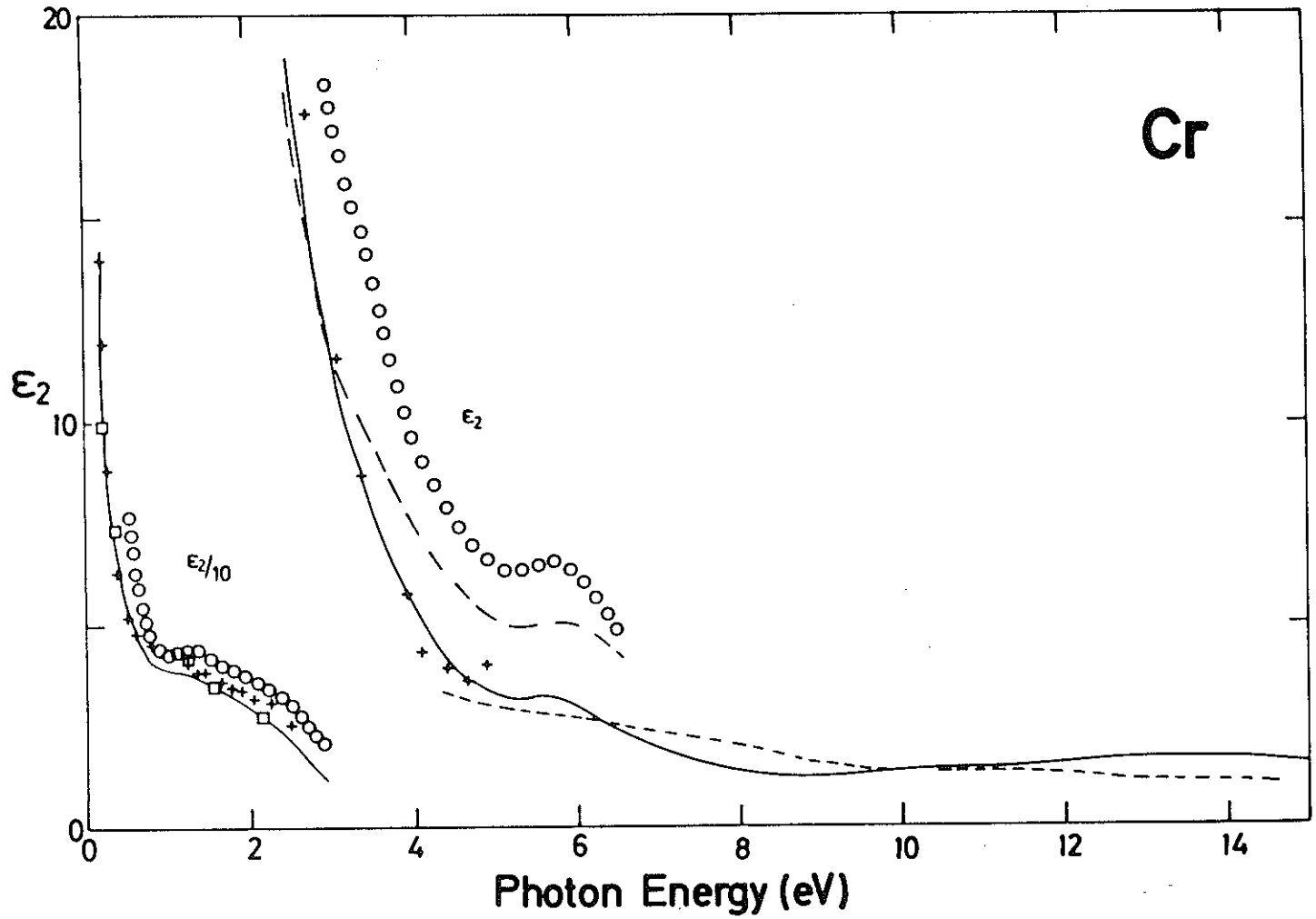

Fig. 15 ε_2 for Cr. —— BL70 and OL (unpub); +++ KN68; --- GSP68; ooo NC80; □□□ BD70; — — — JC75.

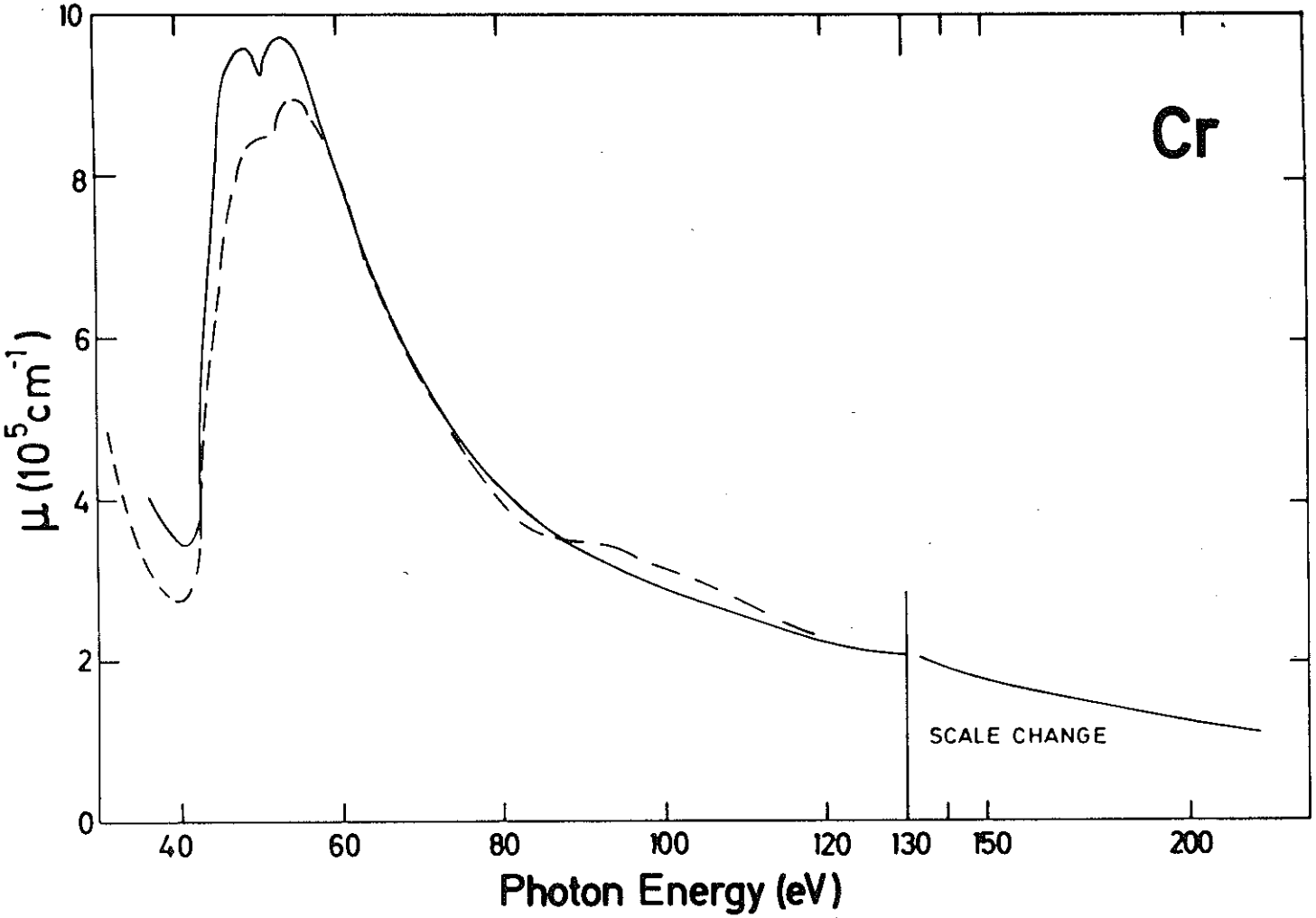

Fig. 16 Absorption coefficient for Cr. —— SHK69; --- WeG74.

Chromium

composite tabulation from L.W. Bos and D.W. Lynch, Phys. Rev. B 2, 4567 (1970) and C.G. Olson and D.W. Lynch (unpub)

Energy (eV)	ε_1	ε_2	n	k	Im(-1/$\tilde{\varepsilon}$)	R(ϕ=0)
0.04	-4030.87	1948.49	14.94	65.22	0.00	.987
0.06	-1315.04	1779.84	21.19	42.00	0.00	.962
0.08	-1596.85	1149.44	13.61	42.22	0.00	.973
0.09	-1008.58	799.00	11.79	33.88	0.00	.964
0.10	-746.14	703.19	11.81	29.76	0.00	.955
0.14	-460.80	807.03	15.31	26.36	0.00	.936
0.18	-567.33	442.84	8.73	25.37	0.00	.953
0.22	-396.98	218.52	5.30	20.62	0.00	.954
0.26	-277.90	133.99	3.91	17.12	0.00	.951
0.30	-194.05	89.98	3.15	14.28	0.00	.943
0.34	-134.94	69.15	2.89	11.97	0.00	.927
0.38	-93.86	62.88	3.09	10.17	0.00	.897
0.42	-68.40	62.16	3.47	8.97	0.01	.862
0.46	-53.41	61.09	3.72	8.20	0.01	.834
0.50	-42.84	58.00	3.83	7.58	0.01	.811
0.54	-34.39	55.36	3.92	7.06	0.01	.788
0.58	-28.11	53.35	4.01	6.65	0.01	.768
0.62	-23.77	50.70	4.01	6.31	0.02	.753
0.66	-19.79	47.14	3.96	5.95	0.02	.736
0.70	-15.17	44.79	4.01	5.59	0.02	.715
0.74	-11.55	43.04	4.06	5.30	0.02	.697
0.78	-8.26	41.58	4.13	5.03	0.02	.680
0.82	-5.18	40.73	4.24	4.81	0.02	.665
0.86	-2.84	40.56	4.35	4.66	0.02	.655
0.90	-1.50	40.75	4.43	4.60	0.02	.650
0.92	-1.01	40.57	4.45	4.56	0.02	.647
0.96	-0.24	40.24	4.47	4.50	0.02	.644
1.00	0.43	39.59	4.47	4.43	0.03	.639
1.04	1.34	39.35	4.51	4.36	0.03	.635
1.08	1.71	39.28	4.53	4.34	0.03	.633
1.12	1.99	39.06	4.53	4.31	0.03	.631
1.16	2.09	38.94	4.53	4.30	0.03	.631
1.20	2.06	38.75	4.52	4.29	0.03	.630
1.24	1.97	38.53	4.50	4.28	0.03	.629
1.28	1.84	38.36	4.49	4.28	0.03	.629
1.32	1.50	38.34	4.47	4.29	0.03	.630
1.36	1.05	38.05	4.42	4.30	0.03	.631
1.40	0.58	37.75	4.38	4.31	0.03	.631
1.44	0.14	37.38	4.33	4.32	0.03	.632
1.46	-0.10	37.23	4.31	4.32	0.03	.632
1.50	-0.54	36.93	4.27	4.33	0.03	.633
1.52	-0.91	36.68	4.23	4.34	0.03	.633
1.77	-4.37	33.53	3.84	4.37	0.03	.639
2.03	-6.88	30.36	3.48	4.36	0.03	.644
2.13	-8.04	29.21	3.34	4.38	0.03	.649
2.22	-9.38	28.02	3.18	4.41	0.03	.656
2.33	-10.93	26.51	2.98	4.45	0.03	.666
2.42	-12.38	24.53	2.75	4.46	0.03	.677
2.53	-13.54	22.14	2.49	4.44	0.03	.688

Cr

Energy (eV)	ε_1	ε_2	n	k	Im(-1/$\tilde{\varepsilon}$)	R(ϕ=0)
2.63	-14.10	19.39	2.22	4.36	0.03	.698
2.72	-13.86	16.78	1.99	4.22	0.04	.703
2.83	-13.22	14.65	1.80	4.06	0.04	.703
2.92	-12.39	12.87	1.65	3.89	0.04	.701
3.03	-11.39	11.47	1.54	3.71	0.04	.695
3.13	-10.39	10.46	1.48	3.54	0.05	.684
3.22	-9.47	9.82	1.44	3.40	0.05	.670
3.33	-8.87	9.46	1.43	3.31	0.06	.660
3.42	-8.59	9.03	1.39	3.24	0.06	.657
3.53	-8.37	8.48	1.33	3.18	0.06	.656
3.63	-8.14	7.84	1.26	3.12	0.06	.661
3.72	-7.81	7.18	1.18	3.04	0.06	.661
3.83	-7.42	6.59	1.12	2.95	0.07	.660
3.92	-7.01	6.06	1.06	2.85	0.07	.657
4.03	-6.57	5.61	1.02	2.76	0.08	.651
4.13	-6.18	5.23	0.98	2.67	0.08	.646
4.22	-5.78	4.86	0.94	2.58	0.09	.639
4.32	-5.38	4.55	0.91	2.49	0.09	.630
4.40	-5.06	4.37	0.90	2.42	0.10	.620
4.50	-4.72	4.20	0.89	2.35	0.11	.607
4.60	-4.43	4.00	0.88	2.28	0.11	.598
4.70	-4.12	3.80	0.86	2.21	0.12	.586
4.80	-3.82	3.66	0.86	2.13	0.13	.572
4.90	-3.54	3.54	0.86	2.07	0.14	.557
5.00	-3.29	3.43	0.85	2.01	0.15	.542
5.10	-3.03	3.35	0.86	1.94	0.16	.523
5.21	-2.75	3.27	0.87	1.87	0.18	.503
5.30	-2.53	3.27	0.90	1.83	0.19	.482
5.39	-2.38	3.34	0.93	1.80	0.20	.466
5.51	-2.22	3.33	0.94	1.76	0.21	.452
5.61	-2.12	3.33	0.95	1.74	0.21	.443
5.71	-2.11	3.38	0.97	1.75	0.21	.440
5.79	-2.07	3.37	0.97	1.74	0.22	.437
5.90	-2.06	3.33	0.96	1.73	0.22	.437
5.99	-2.12	3.26	0.94	1.73	0.22	.444
6.11	-2.11	3.16	0.92	1.72	0.22	.446
6.20	-2.07	3.02	0.89	1.69	0.23	.446
6.29	-2.04	2.94	0.88	1.68	0.23	.446
6.39	-2.02	2.83	0.85	1.66	0.23	.447
6.49	-1.97	2.67	0.82	1.63	0.24	.449
6.60	-1.89	2.56	0.80	1.59	0.25	.444
6.70	-1.84	2.45	0.78	1.57	0.26	.444
6.81	-1.72	2.27	0.75	1.51	0.28	.439
6.89	-1.64	2.25	0.76	1.49	0.29	.429
7.01	-1.57	2.14	0.74	1.45	0.30	.425
7.13	-1.49	2.03	0.72	1.42	0.32	.421
7.21	-1.42	1.96	0.71	1.39	0.33	.414
7.29	-1.36	1.89	0.70	1.36	0.35	.410
7.38	-1.29	1.82	0.69	1.33	0.37	.404
7.52	-1.17	1.70	0.67	1.27	0.40	.392
7.61	-1.06	1.63	0.66	1.23	0.43	.378
7.70	-0.96	1.58	0.67	1.19	0.46	.363
7.80	-0.87	1.54	0.67	1.15	0.49	.347
7.90	-0.77	1.50	0.68	1.11	0.53	.330
8.00	-0.69	1.47	0.68	1.07	0.56	.315
8.10	-0.59	1.44	0.69	1.04	0.60	.296
8.21	-0.50	1.42	0.71	1.00	0.63	.278

Cr

Energy (eV)	ε_1	ε_2	n	k	Im(-1/$\tilde{\varepsilon}$)	R(ϕ=0)
8.32	-0.42	1.40	0.72	0.97	0.66	.261
8.49	-0.29	1.37	0.74	0.92	0.70	.235
8.61	-0.21	1.36	0.76	0.89	0.72	.218
8.73	-0.14	1.36	0.78	0.87	0.73	.204
8.92	-0.04	1.34	0.81	0.83	0.75	.184
9.05	0.04	1.34	0.83	0.81	0.75	.170
9.25	0.15	1.33	0.86	0.77	0.74	.151
9.54	0.29	1.36	0.92	0.74	0.70	.132
9.76	0.37	1.39	0.95	0.73	0.67	.124
10.00	0.43	1.43	0.98	0.73	0.64	.120
10.25	0.48	1.44	1.00	0.72	0.63	.115
10.51	0.52	1.45	1.01	0.72	0.61	.112
10.78	0.57	1.45	1.03	0.70	0.60	.107
11.07	0.62	1.46	1.05	0.69	0.58	.103
11.27	0.68	1.47	1.07	0.69	0.56	.100
11.48	0.71	1.50	1.09	0.69	0.55	.100
11.70	0.74	1.52	1.10	0.69	0.53	.100
12.04	0.78	1.57	1.13	0.70	0.51	.101
12.28	0.79	1.62	1.14	0.71	0.50	.104
12.53	0.79	1.68	1.15	0.73	0.49	.108
12.78	0.76	1.73	1.15	0.75	0.48	.113
13.05	0.72	1.78	1.15	0.77	0.48	.119
13.33	0.65	1.80	1.13	0.80	0.49	.125
13.48	0.61	1.80	1.12	0.80	0.50	.128
13.78	0.54	1.79	1.10	0.82	0.51	.133
13.93	0.51	1.78	1.09	0.82	0.52	.135
14.25	0.44	1.74	1.06	0.82	0.54	.139
14.59	0.38	1.70	1.03	0.82	0.56	.142
14.76	0.36	1.67	1.01	0.82	0.57	.142
14.94	0.33	1.63	1.00	0.82	0.59	.143
15.31	0.31	1.56	0.97	0.80	0.62	.141
15.50	0.29	1.53	0.96	0.80	0.63	.141
15.70	0.28	1.50	0.95	0.79	0.65	.141
16.10	0.27	1.42	0.92	0.77	0.68	.139
16.32	0.26	1.39	0.92	0.76	0.70	.137
16.53	0.27	1.36	0.91	0.75	0.71	.134
16.76	0.27	1.33	0.90	0.74	0.72	.133
16.99	0.27	1.31	0.90	0.73	0.73	.132
17.22	0.27	1.29	0.89	0.72	0.75	.131
17.46	0.27	1.26	0.88	0.72	0.76	.130
17.71	0.26	1.24	0.87	0.71	0.77	.129
17.97	0.25	1.22	0.87	0.70	0.79	.129
18.24	0.24	1.20	0.85	0.70	0.80	.130
18.51	0.23	1.17	0.84	0.69	0.83	.130
18.79	0.22	1.14	0.83	0.68	0.85	.130
19.08	0.21	1.10	0.82	0.68	0.88	.131
19.38	0.20	1.07	0.80	0.67	0.91	.132
19.68	0.19	1.02	0.78	0.65	0.95	.131
20.00	0.19	0.98	0.77	0.64	0.99	.130
20.33	0.19	0.93	0.75	0.62	1.03	.127
20.67	0.20	0.89	0.74	0.60	1.07	.124
21.02	0.21	0.85	0.74	0.58	1.11	.121
21.38	0.22	0.82	0.73	0.56	1.15	.117
21.75	0.22	0.78	0.72	0.54	1.19	.116
22.14	0.23	0.74	0.71	0.52	1.23	.112
22.55	0.24	0.70	0.70	0.50	1.28	.109
22.96	0.25	0.66	0.69	0.48	1.33	.105

Cr

Energy (eV)	ε_1	ε_2	n	k	$Im(-1/\tilde{\varepsilon})$	$R(\phi=0)$
23.40	0.26	0.62	0.68	0.45	1.38	.101
23.85	0.28	0.57	0.68	0.43	1.42	.096
24.31	0.30	0.53	0.67	0.39	1.43	.089
24.80	0.33	0.49	0.68	0.36	1.42	.080
25.31	0.36	0.45	0.68	0.33	1.36	.072
25.83	0.39	0.43	0.70	0.31	1.27	.063
26.38	0.42	0.40	0.71	0.28	1.18	.055
26.96	0.45	0.38	0.72	0.26	1.09	.048
27.56	0.48	0.36	0.73	0.25	1.01	.043
28.18	0.51	0.35	0.75	0.23	0.91	.037
28.84	0.54	0.34	0.77	0.22	0.83	.032
29.52	0.56	0.33	0.78	0.21	0.78	.030