thors	Energy Range (eV)	Technique	Temperature (K) RT unless specified	Sample				Data Presentation	Remarks
				Film	X-tal	Bulk	Prep		
K62	0.12-0.62	Ellips				x		$n,k,\varepsilon_1,\varepsilon_2,R$	
65	0.05-5	Ellips				x	MP	n,k,σ	
'66	0.06-0.25	Ellips				x	MP	$\varepsilon_2/\lambda,\varepsilon_1$	
'A66	0.1-3.5	Ellips				x	MP	$\varepsilon_2/\lambda,\varepsilon_1$	
:67	0.1-4	Ellips				x	MP	ε_2/λ	data taken from LT66 and LTA66
\K67	3-14.4					x		R	polarimetry for $3 < h\nu < 5$ eV, reflectance for $4 < h\nu < 7$ eV. and photoemission for $7.5 < h\nu < 14.4$ eV
1K69	40-300	Trans		x			Ex	μ	optical absorption measurements with synchrotron radiation
R70	1-50	m-θ		x			Ex	R; $\varepsilon_1,\varepsilon_2,\mathrm{Im}(\varepsilon^{-1})$	optical constants determined by both KK analysis and two-angles of incidence technique.
S72	0-30			x			Ex	$\mathrm{Im}(\varepsilon^{-1})$	energy loss spectroscopy
B74			1100-1750			x		ε_N at $\lambda = 6450$ Å	
GS74	0.32-5.5	Trans, Refl		x			In	T,σ	ultra high vacuum film deposition
C74	0.64-6.6	Trans, Refl		x			Ex	n,k,σ	table of E,n,k
t74	0.8-4	Ellips	RT and 77			x	MP	$\varepsilon_2/\lambda,\varepsilon_1$	
eG74	∿25-130	Trans		x			Ex	μ	energy loss spectroscopy
Ga74	2-120	Trans		x				$\mu,\mathrm{Im}(\varepsilon^{-1})$; KK: $\varepsilon_1,\varepsilon_2$	energy loss spectroscopy

Authors	Energy Range (eV)	Technique	Temperature (K) RT unless specified	Sample				Data Presentation	Remarks
				Film	X-tal	Bulk	Prep		V
WL074	0.1-35	Refl	4.2 K for $h\nu < 4.88$ eV RT for $h\nu > 4.88$ eV			x	EP	A,R; KK: $\varepsilon_1,\varepsilon_2$, $Im(\varepsilon^{-1}), Im(\varepsilon+1)^{-1}$	absorption measured by calorimetry at $h\nu < 4.88$ eV, reflectivity measured for $h\nu > 4.88$ eV with synchrotron radiatio See also RCF80
CGS76	0.32-5.5	Trans, Refl		x			In	σ	
BDL77	0.03-3.1	Refl				x	MP	R	Also emissivity for $400 \leq T \leq 850$ K
GCS79	0.32-5.6	Trans, Refl		x			In	σ	ultra high vacuum film deposition
NC80	0.5-6.5	Trans, Refl		x			Ex	n,k,σ	authors consider V values only slightly improved over JC74
NCC80	0.5-6.5	Trans, Refl		x			Ex	σ	

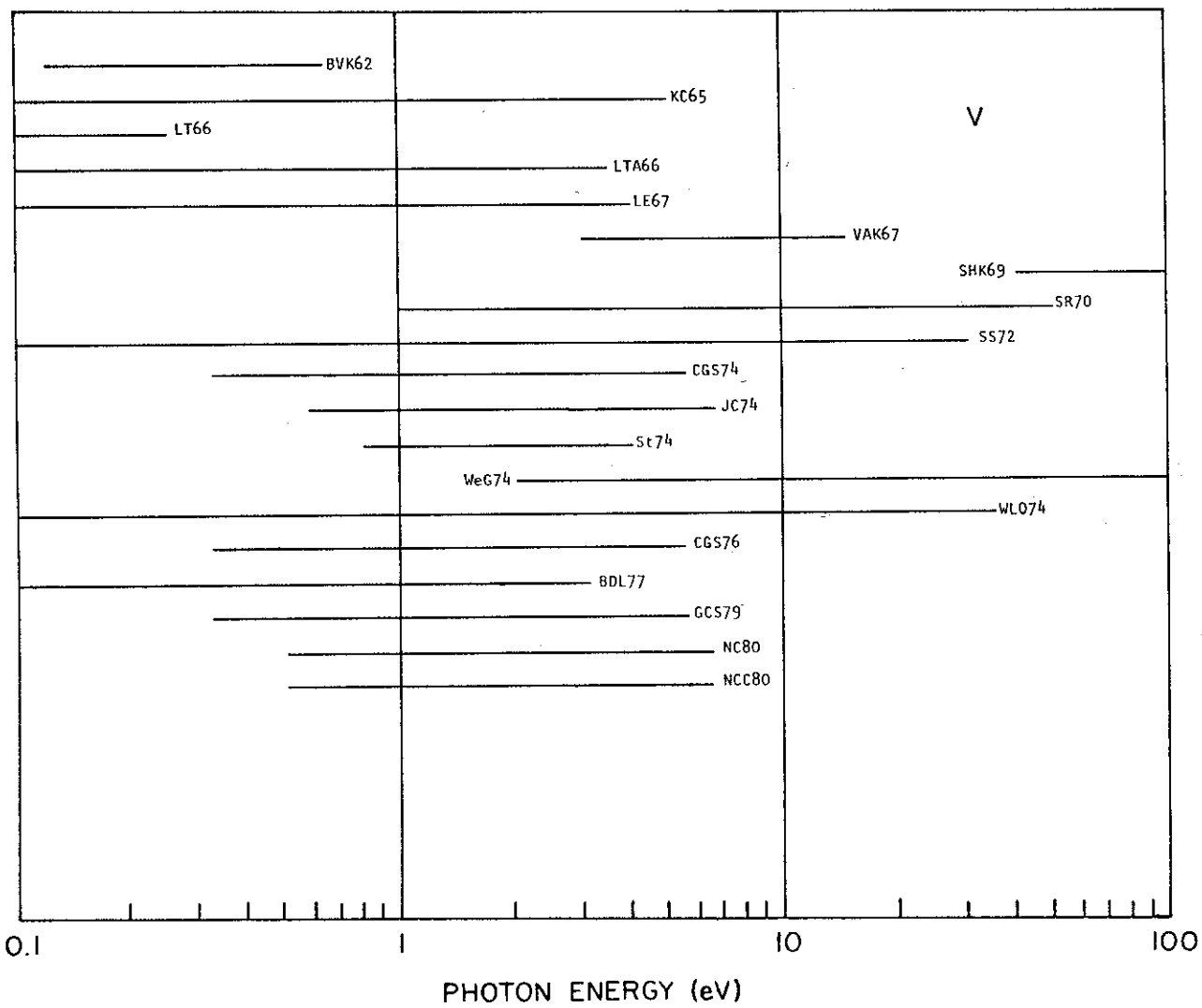

Fig. 7 Survey of available data for V

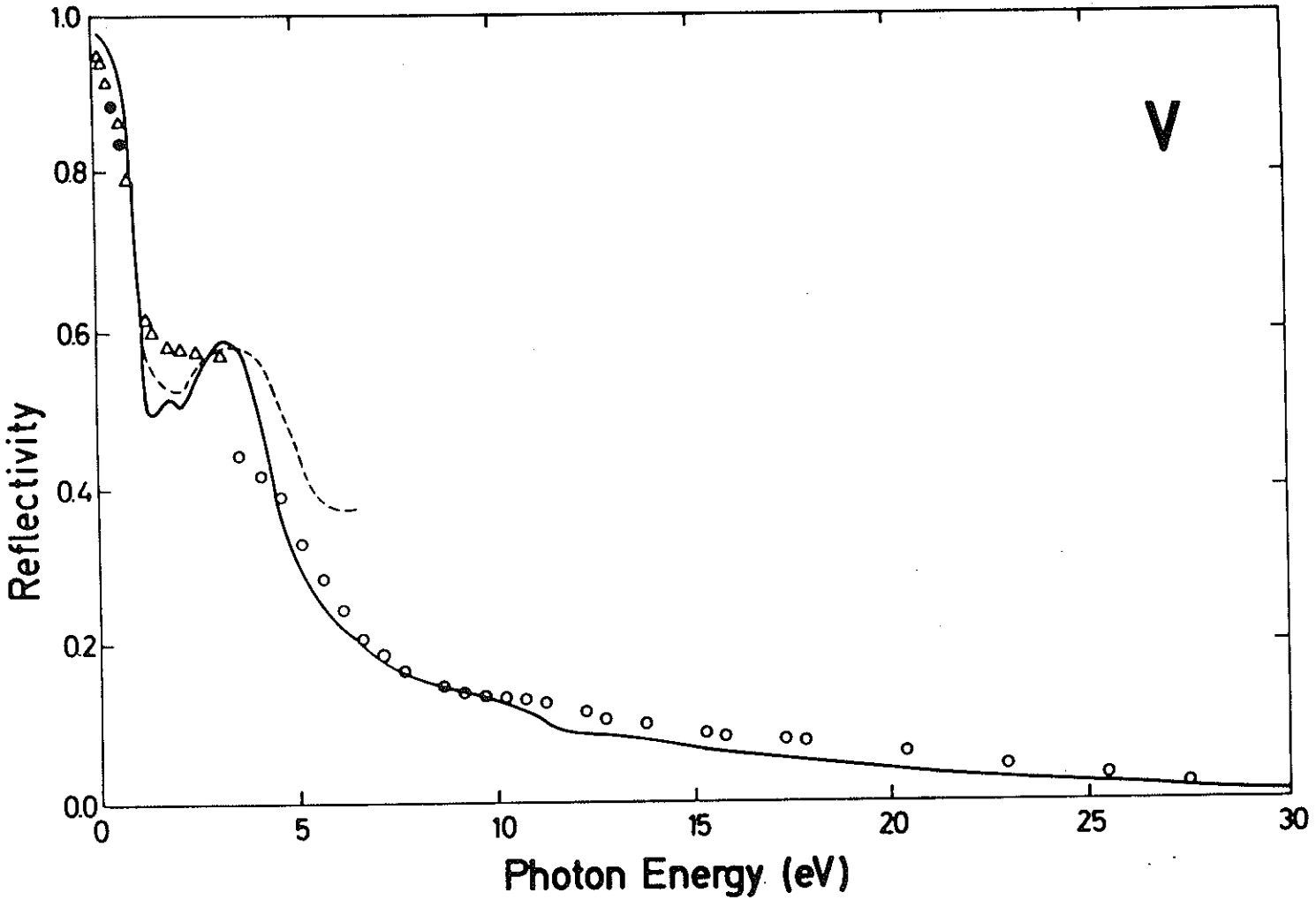

Fig. 8 Reflectivity of V. —— WL074; --- NC80; ΔΔΔ BDL77; ooo SR70; ●●● BVK62

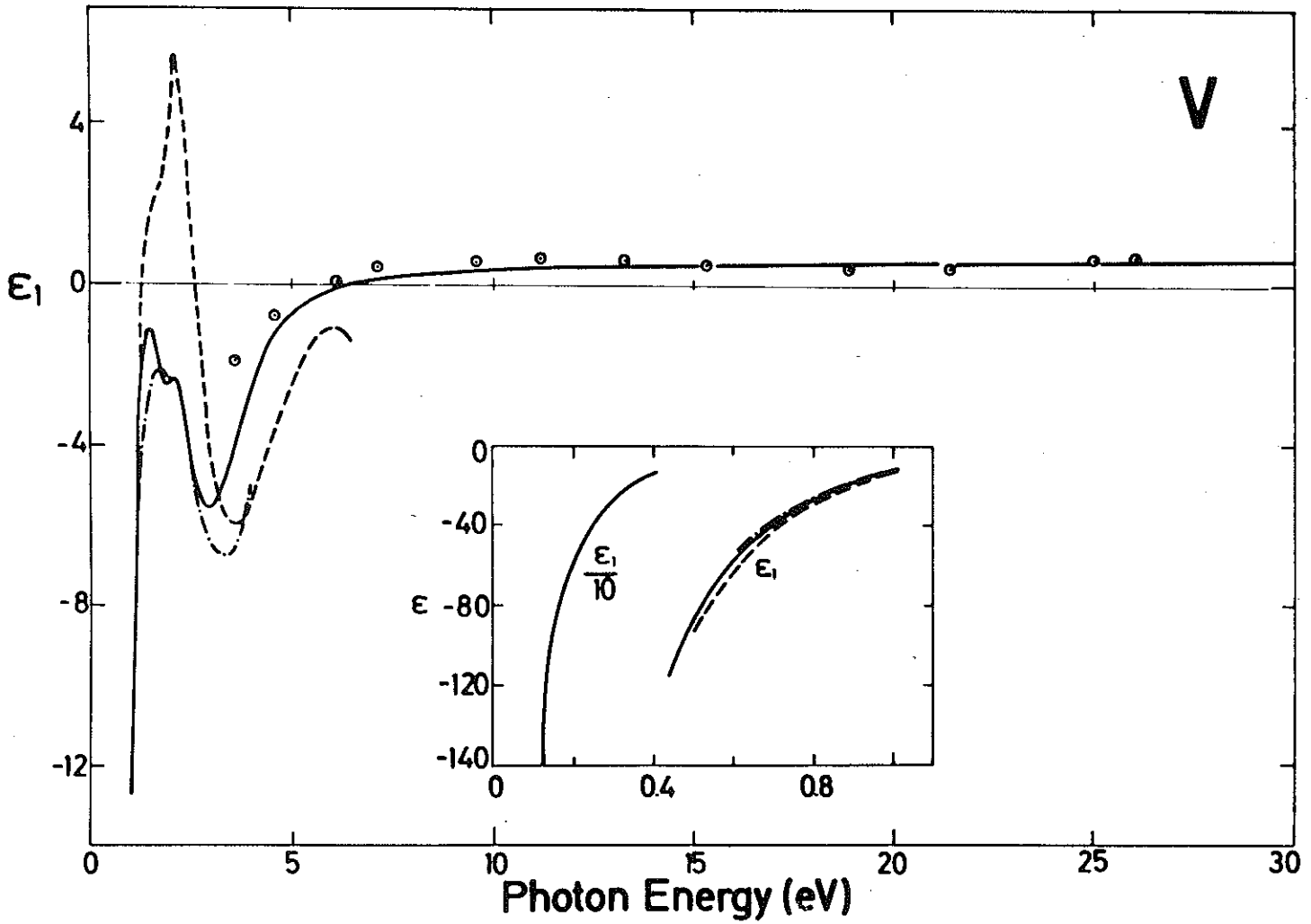

Fig. 9 ε_1 for V. —— WL074; --- NC80; -·-·- St74; 000 SR70.

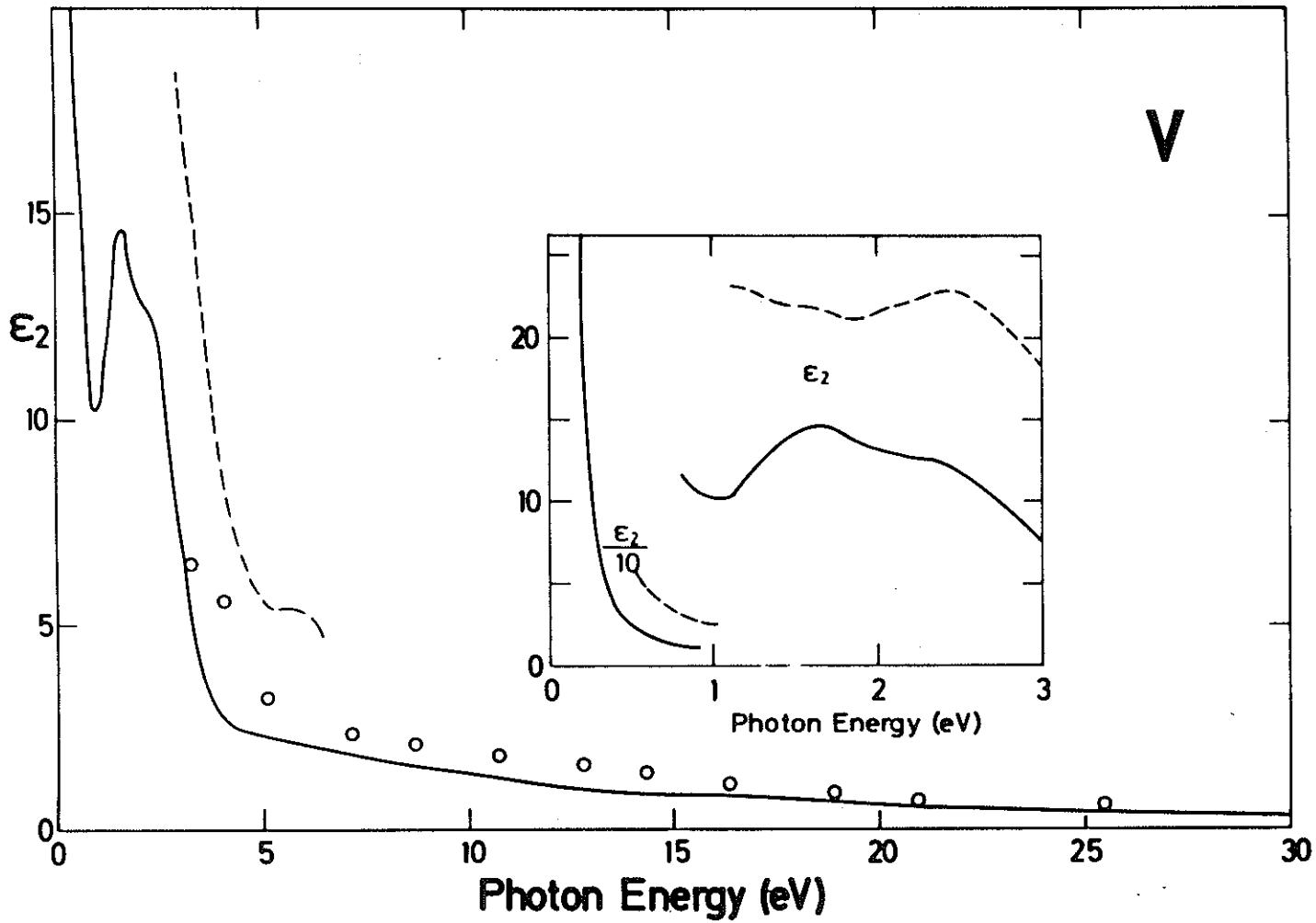

Fig. 10 ε_2 for V. —— WL074; ---NC80; ooo SR70

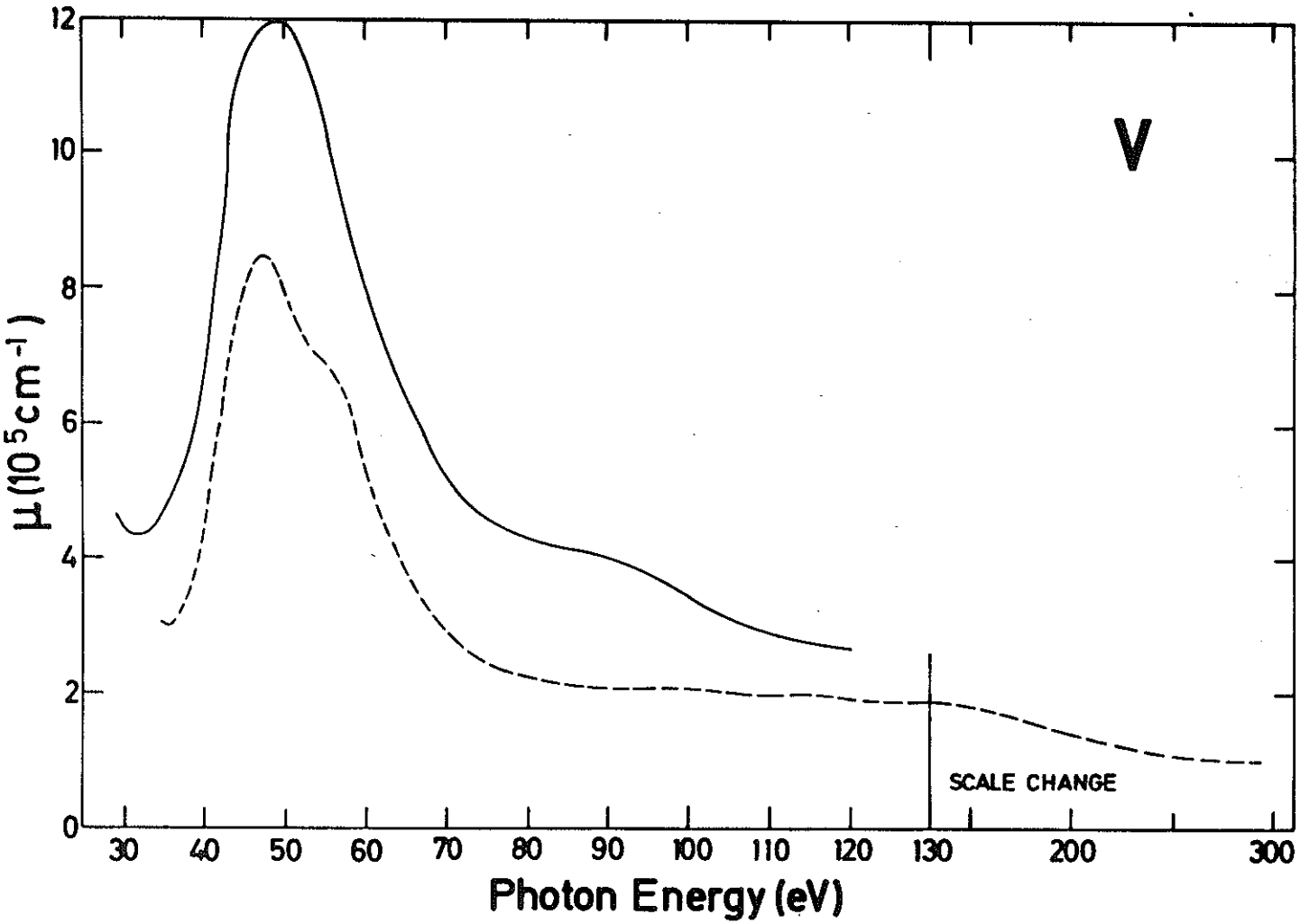

Fig. 11 Absorption coefficient for V. —— WeG74; --- SHK69.

Vanadium

publication by J.H. Weaver, D.W. Lynch, and C.G. Olson in Phys. Rev. B 10, 501 (1973) based on the following tabulation

Energy (eV)	ε_1	ε_2	n	k	Im(-1/$\tilde{\varepsilon}$)	R(ϕ=0)
0.10	-1941.45	1177.26	12.83	45.89	0.00	.978
0.12	-1428.27	741.24	9.51	38.97	0.00	.977
0.16	-868.69	346.81	5.77	30.03	0.00	.976
0.20	-575.21	189.43	3.90	24.30	0.00	.975
0.24	-404.94	114.63	2.82	20.32	0.00	.974
0.28	-296.58	73.93	2.13	17.35	0.00	.973
0.32	-224.17	53.98	1.79	15.08	0.00	.970
0.36	-175.15	41.04	1.54	13.32	0.00	.966
0.40	-139.72	32.91	1.38	11.90	0.00	.962
0.44	-113.70	27.59	1.28	10.74	0.00	.957
0.48	-93.94	23.32	1.19	9.77	0.00	.952
0.52	-78.42	20.64	1.16	8.93	0.00	.945
0.56	-66.29	18.30	1.11	8.22	0.00	.938
0.60	-56.47	16.74	1.10	7.59	0.00	.929
0.64	-48.48	15.00	1.07	7.04	0.01	.921
0.68	-41.63	14.04	1.07	6.54	0.01	.909
0.72	-36.01	12.90	1.06	6.09	0.01	.898
0.76	-31.03	12.28	1.08	5.67	0.01	.882
0.80	-26.91	11.70	1.10	5.30	0.01	.864
0.85	-22.53	11.17	1.14	4.88	0.02	.839
0.90	-18.83	10.63	1.18	4.50	0.02	.811
0.95	-15.52	10.30	1.25	4.13	0.03	.775
1.00	-12.64	10.22	1.34	3.80	0.04	.730
1.05	-10.19	10.26	1.46	3.51	0.05	.682
1.10	-8.06	10.42	1.60	3.26	0.06	.632
1.15	-6.18	10.69	1.76	3.04	0.07	.583
1.20	-4.59	11.10	1.93	2.88	0.08	.543
1.25	-3.31	11.61	2.09	2.77	0.08	.515
1.30	-2.29	12.21	2.25	2.71	0.08	.498
1.35	-1.62	12.88	2.38	2.70	0.08	.491
1.40	-1.24	13.50	2.48	2.72	0.07	.491
1.45	-1.14	14.02	2.54	2.76	0.07	.495
1.50	-1.18	14.36	2.57	2.79	0.07	.499
1.55	-1.32	14.56	2.58	2.82	0.07	.503
1.60	-1.46	14.64	2.57	2.84	0.07	.507
1.65	-1.72	14.65	2.55	2.87	0.07	.511
1.70	-1.94	14.51	2.52	2.88	0.07	.512
1.75	-2.11	14.32	2.49	2.88	0.07	.514
1.80	-2.29	14.10	2.45	2.88	0.07	.515
1.85	-2.43	13.81	2.41	2.87	0.07	.515
1.90	-2.56	13.44	2.36	2.85	0.07	.514
2.00	-2.42	13.14	2.34	2.81	0.07	.509
2.05	-2.37	12.92	2.32	2.78	0.07	.506
2.10	-2.40	12.86	2.31	2.78	0.08	.506
2.15	-2.47	12.81	2.30	2.79	0.08	.507
2.20	-2.64	12.77	2.28	2.80	0.08	.510
2.25	-2.84	12.68	2.25	2.81	0.08	.513
2.30	-3.02	12.60	2.23	2.83	0.08	.516
2.35	-3.34	12.52	2.19	2.86	0.07	.522

Energy (eV)	ε_1	ε_2	n	k	Im(-1/$\tilde{\varepsilon}$)	R(ϕ=0)
2.40	-3.68	12.36	2.15	2.88	0.07	.528
2.45	-4.07	12.10	2.09	2.90	0.07	.535
2.50	-4.36	11.77	2.02	2.91	0.07	.540
2.55	-4.67	11.43	1.96	2.92	0.07	.546
2.60	-4.96	11.02	1.89	2.92	0.08	.552
2.65	-5.18	10.56	1.81	2.91	0.08	.557
2.70	-5.33	10.10	1.74	2.89	0.08	.561
2.75	-5.46	9.64	1.68	2.88	0.08	.566
2.80	-5.53	9.19	1.61	2.85	0.08	.569
2.85	-5.60	8.76	1.55	2.83	0.08	.573
2.90	-5.65	8.29	1.48	2.80	0.08	.577
2.95	-5.62	7.85	1.42	2.76	0.08	.579
3.00	-5.59	7.43	1.36	2.73	0.09	.582
3.05	-5.53	7.00	1.30	2.69	0.09	.584
3.10	-5.43	6.61	1.25	2.64	0.09	.585
3.15	-5.32	6.23	1.20	2.60	0.09	.586
3.20	-5.17	5.90	1.16	2.55	0.10	.585
3.25	-5.04	5.59	1.12	2.51	0.10	.586
3.40	-4.63	4.71	0.99	2.37	0.11	.586
3.60	-3.94	3.76	0.87	2.17	0.13	.575
3.80	-3.18	3.13	0.80	1.96	0.16	.547
4.00	-2.50	2.76	0.78	1.76	0.20	.503
4.10	-2.20	2.63	0.78	1.68	0.22	.477
4.20	-1.92	2.55	0.80	1.60	0.25	.449
4.30	-1.70	2.48	0.81	1.53	0.27	.424
4.40	-1.49	2.43	0.83	1.47	0.30	.400
4.50	-1.30	2.40	0.85	1.42	0.32	.376
4.60	-1.14	2.38	0.87	1.38	0.34	.355
4.70	-1.01	2.38	0.89	1.34	0.36	.338
4.80	-0.92	2.36	0.90	1.31	0.37	.326
4.90	-0.82	2.33	0.91	1.28	0.38	.313
5.00	-0.75	2.29	0.91	1.26	0.39	.304
5.04	-0.72	2.27	0.91	1.25	0.40	.299
5.10	-0.66	2.25	0.92	1.23	0.41	.291
5.16	-0.61	2.23	0.92	1.21	0.42	.285
5.23	-0.56	2.21	0.93	1.19	0.42	.277
5.30	-0.51	2.19	0.93	1.18	0.43	.271
5.37	-0.45	2.18	0.94	1.15	0.44	.262
5.44	-0.40	2.18	0.95	1.14	0.44	.256
5.51	-0.42	2.15	0.94	1.14	0.45	.258
5.58	-0.33	2.11	0.95	1.11	0.46	.245
5.66	-0.29	2.11	0.96	1.10	0.46	.240
5.74	-0.25	2.10	0.96	1.09	0.47	.235
5.82	-0.23	2.09	0.97	1.08	0.47	.231
5.90	-0.18	2.07	0.97	1.06	0.48	.225
5.98	-0.17	2.07	0.98	1.06	0.48	.223
6.08	-0.14	2.04	0.98	1.05	0.49	.219
6.17	-0.12	2.02	0.98	1.04	0.49	.216
6.26	-0.10	1.99	0.97	1.02	0.50	.212
6.36	-0.08	1.96	0.97	1.01	0.51	.208
6.46	-0.04	1.93	0.97	0.99	0.52	.202
6.60	-0.03	1.90	0.97	0.98	0.53	.199
6.66	0.00	1.87	0.97	0.97	0.53	.194
6.77	0.04	1.85	0.97	0.95	0.54	.189
6.88	0.06	1.83	0.97	0.94	0.55	.185
7.00	0.10	1.80	0.98	0.92	0.55	.179
7.12	0.13	1.79	0.98	0.91	0.56	.175

V

Energy (eV)	ε_1	ε_2	n	k	$Im(-1/\tilde{\varepsilon})$	$R(\phi=0)$
7.38	0.15	1.74	0.97	0.89	0.57	.170
7.51	0.19	1.71	0.95	0.87	0.58	.163
7.65	0.19	1.70	0.98	0.87	0.58	.162
7.79	0.23	1.67	0.96	0.85	0.59	.156
7.95	0.23	1.65	0.98	0.85	0.59	.155
8.10	0.25	1.62	0.97	0.83	0.60	.152
8.26	0.29	1.59	0.99	0.81	0.61	.146
8.43	0.31	1.59	0.98	0.81	0.61	.143
8.61	0.29	1.59	0.98	0.81	0.61	.145
8.79	0.29	1.56	0.97	0.81	0.62	.144
8.98	0.28	1.52	0.96	0.79	0.64	.142
9.16	0.29	1.48	0.95	0.78	0.65	.139
9.46	0.29	1.44	0.94	0.77	0.67	.136
9.68	0.29	1.40	0.93	0.75	0.68	.134
9.92	0.28	1.35	0.91	0.74	0.71	.133
10.08	0.31	1.31	0.91	0.72	0.72	.127
10.42	0.29	1.26	0.89	0.71	0.75	.126
10.69	0.30	1.19	0.88	0.68	0.79	.120
10.97	0.33	1.13	0.87	0.65	0.82	.112
11.27	0.37	1.07	0.87	0.62	0.83	.102
11.59	0.44	1.03	0.88	0.58	0.82	.091
11.92	0.47	1.04	0.90	0.58	0.80	.088
12.04	0.47	1.05	0.90	0.58	0.80	.089
12.28	0.46	1.03	0.89	0.58	0.81	.089
12.46	0.47	1.01	0.89	0.57	0.81	.086
12.58	0.47	1.01	0.89	0.57	0.82	.086
12.72	0.47	0.99	0.88	0.56	0.82	.085
12.92	0.47	0.98	0.88	0.55	0.83	.083
13.05	0.47	0.97	0.88	0.55	0.83	.082
13.19	0.47	0.96	0.88	0.55	0.84	.083
13.33	0.47	0.94	0.87	0.54	0.85	.080
13.48	0.47	0.93	0.87	0.53	0.85	.079
13.62	0.48	0.92	0.87	0.53	0.86	.079
13.78	0.48	0.90	0.87	0.52	0.87	.077
13.93	0.48	0.89	0.86	0.51	0.87	.075
14.09	0.49	0.87	0.86	0.50	0.87	.074
14.25	0.50	0.86	0.86	0.50	0.87	.071
14.42	0.50	0.85	0.86	0.49	0.87	.071
14.59	0.50	0.84	0.86	0.49	0.88	.070
14.76	0.50	0.83	0.86	0.48	0.88	.069
14.94	0.51	0.81	0.86	0.47	0.89	.067
15.02	0.52	0.80	0.86	0.47	0.88	.065
15.30	0.52	0.80	0.86	0.46	0.88	.064
15.50	0.53	0.78	0.86	0.46	0.88	.062
15.70	0.53	0.78	0.86	0.45	0.88	.062
15.90	0.53	0.77	0.85	0.45	0.89	.061
16.10	0.53	0.75	0.85	0.44	0.89	.060
16.31	0.52	0.74	0.85	0.44	0.90	.060
16.53	0.53	0.73	0.84	0.43	0.90	.059
16.87	0.53	0.71	0.84	0.42	0.91	.057
17.10	0.53	0.69	0.84	0.41	0.91	.056
17.34	0.53	0.68	0.83	0.41	0.92	.055
17.59	0.53	0.66	0.83	0.40	0.92	.054
17.84	0.53	0.64	0.83	0.39	0.93	.052
18.10	0.54	0.63	0.82	0.38	0.92	.051
18.37	0.54	0.62	0.82	0.37	0.92	.049
18.64	0.54	0.60	0.82	0.37	0.92	.048

V

Energy (eV)	ε_1	ε_2	n	k	Im(-1/$\tilde{\varepsilon}$)	R(ϕ=0)
18.78	0.54	0.59	0.82	0.36	0.92	.047
19.07	0.55	0.57	0.82	0.35	0.91	.045
19.37	0.55	0.56	0.82	0.34	0.90	.044
19.68	0.55	0.55	0.82	0.34	0.90	.043
19.83	0.55	0.54	0.81	0.33	0.90	.042
20.00	0.56	0.52	0.81	0.32	0.90	.041
20.15	0.56	0.52	0.81	0.32	0.89	.040
20.32	0.56	0.51	0.81	0.31	0.88	.039
20.49	0.57	0.50	0.81	0.31	0.87	.038
20.66	0.57	0.49	0.81	0.30	0.87	.038
20.84	0.57	0.49	0.81	0.30	0.86	.036
21.01	0.58	0.48	0.81	0.29	0.85	.036
21.19	0.58	0.47	0.81	0.29	0.85	.035
21.38	0.58	0.46	0.81	0.28	0.83	.034
21.56	0.59	0.46	0.81	0.28	0.83	.033
21.75	0.59	0.45	0.82	0.28	0.82	.032
21.94	0.59	0.44	0.81	0.27	0.81	.032
22.14	0.59	0.43	0.81	0.27	0.81	.032
22.34	0.59	0.42	0.81	0.26	0.80	.031
22.54	0.60	0.41	0.81	0.25	0.78	.029
22.75	0.60	0.40	0.81	0.25	0.76	.028
22.96	0.61	0.40	0.82	0.24	0.75	.027
23.17	0.61	0.39	0.82	0.24	0.74	.026
23.39	0.62	0.38	0.82	0.23	0.72	.025
23.61	0.62	0.38	0.82	0.23	0.71	.025
23.84	0.63	0.37	0.82	0.22	0.70	.024
24.07	0.63	0.36	0.82	0.22	0.68	.023
24.30	0.63	0.35	0.82	0.21	0.67	.023
24.55	0.64	0.35	0.83	0.21	0.66	.022
24.80	0.64	0.34	0.83	0.20	0.64	.021
25.05	0.65	0.33	0.83	0.20	0.62	.020
25.20	0.65	0.33	0.83	0.20	0.62	.020
25.50	0.66	0.32	0.83	0.19	0.60	.019
25.60	0.66	0.32	0.83	0.19	0.59	.019
25.80	0.66	0.31	0.83	0.19	0.58	.018
26.00	0.66	0.31	0.83	0.18	0.57	.018
26.20	0.67	0.30	0.84	0.18	0.56	.017
26.40	0.67	0.29	0.84	0.18	0.55	.017
26.60	0.67	0.29	0.84	0.17	0.54	.016
26.80	0.68	0.28	0.84	0.17	0.52	.016
27.00	0.68	0.28	0.84	0.16	0.51	.015
27.20	0.69	0.27	0.84	0.16	0.50	.015
27.40	0.69	0.27	0.85	0.16	0.49	.014
27.60	0.69	0.26	0.85	0.16	0.48	.014
27.80	0.70	0.26	0.85	0.15	0.47	.013
28.00	0.70	0.26	0.85	0.15	0.46	.013
28.50	0.71	0.25	0.86	0.14	0.44	.012
29.00	0.72	0.24	0.86	0.14	0.41	.011
29.50	0.73	0.23	0.86	0.13	0.39	.010
30.00	0.74	0.22	0.87	0.13	0.37	.009
30.50	0.75	0.21	0.87	0.12	0.35	.009
31.00	0.75	0.20	0.88	0.12	0.33	.008
31.50	0.76	0.20	0.88	0.11	0.32	.007
32.00	0.77	0.19	0.89	0.11	0.30	.007
32.50	0.79	0.18	0.89	0.10	0.28	.006
33.00	0.80	0.18	0.90	0.10	0.26	.005
33.50	0.81	0.17	0.91	0.10	0.25	.005

V

Energy (eV)	ε_1	ε_2	n	k	$Im(-1/\tilde{\varepsilon})$	$R(\phi=0)$
34.00	0.82	0.18	0.91	0.10	0.25	.005
34.50	0.83	0.18	0.92	0.10	0.24	.004
35.00	0.84	0.17	0.92	0.09	0.24	.004
35.50	0.86	0.18	0.93	0.09	0.23	.004
36.00	0.87	0.18	0.94	0.10	0.23	.004
36.50	0.87	0.19	0.94	0.10	0.24	.004
37.00	0.88	0.19	0.94	0.10	0.24	.004
37.50	0.89	0.20	0.95	0.11	0.24	.004
38.00	0.89	0.21	0.95	0.11	0.25	.004
38.50	0.89	0.22	0.95	0.11	0.26	.004
39.00	0.89	0.22	0.95	0.12	0.26	.004
39.50	0.89	0.23	0.95	0.12	0.28	.004
40.00	0.89	0.24	0.95	0.13	0.28	.005