Authors	Energy Range (eV)	Technique	Temperature (K) RT unless specified	Sample				Data Presentation	Remarks
				Film	X-tal	Bulk	Prep		Pd
Sa39	2.6-27.6	Refl		x			Ex	R	
MT57	∿2.07-4.1	Trans, Refl		x			Ex	R,n,k	10^{-5} Torr
Lo64	1-6	Trans, Refl		x			Ex	R,T,n,k,$-\varepsilon_1$	
DM65	0.09-1.0	Ellips				x		n,k	table of λ,n,k
LTA66	0.1-3.5	Ellips				x	MP	$\varepsilon_2/\lambda,\varepsilon_1$	
LT66	0.06-0.25	Ellips				x	MP	$\varepsilon_2/\lambda,-\varepsilon_1$	
Ro66	3-60	m-θ		x			Ex	R,ε_1,ε_2,Im(ε^{-1})	plotted R at Θ = 18°; plotted ε_1,ε_2 from a two angles of incidence technique
BKN67	0.07-13	Refl, Ellips				x	MP	n,k,R,σ,ε_1,ε_2, Im(ε^{-1}); KK: σ,ε_1,ε_2	R measured for $h\nu > 4.13$ eV, Beattie method $h\nu < 5$ eV
Le67	<4	Ellips				x	MP	ε_2/λ	data from LT66 and LTA66
VAK67	3-14.4					x	Ex	R	polarimetry $3 < E < 5$ eV, reflectance $4 < h\nu < 7$ eV, photoemission $7.5 < h\nu < 14.4$ eV
Ri68	∿0.8-7.7	Ellips		x				n,k,Im(ε^{-1})	
YS68	2.2-11.6	Refl		x			In	R; KK; ε_1,ε_2,σ, Im(ε^{-1}),μ	∿10^{-9} Torr
Da69	5-75	Trans		x			Ex	Im(ε^{-1}), KK: ε_1,ε_2	energy loss spectroscopy
DFR70	2-30	Trans		x				Im(ε^{-1}),ε_1,ε_2,μ	energy loss spectroscopy

Authors	Energy Range (eV)	Technique	Temperature (K) RT unless specified	Sample				Data Presentation	Remarks
				Film	X-tal	Bulk	Prep		Pd
VAW70	2-24	Refl		x			In	R; KK: n,k,ε_1,ε_2,σ, $Im(\varepsilon^{-1})$, $Im(\varepsilon+1)^{-1}$	$\sim 10^{-8}$ Torr
DKM73	0.138-0.31	Ellips				x	EP	n,k	
DKM74	0.73-2.88	Ellips				x	EP	n,k,σ	
JC74	0.5-6.5	Trans, Refl		x			Ex	n,k,σ	table of E,n,k
WG74	2-120	Trans		x				KK: μ	energy loss spectroscopy, then KK analysis
WB75	0.15-4.4	Refl	4.2			x	Heat	A; KK: σ	optical absorptivity; aqua regia and heati $\sim$1300 K in He atmosphere
We75	0-30								discussion paper
WO76	20-250	Trans		x			Ex	μ	optical absorption measurements with synchrotron radiation
LAT78	0.1-6.2	m-θ		x			Ex	n,k	surface plasmon excitation

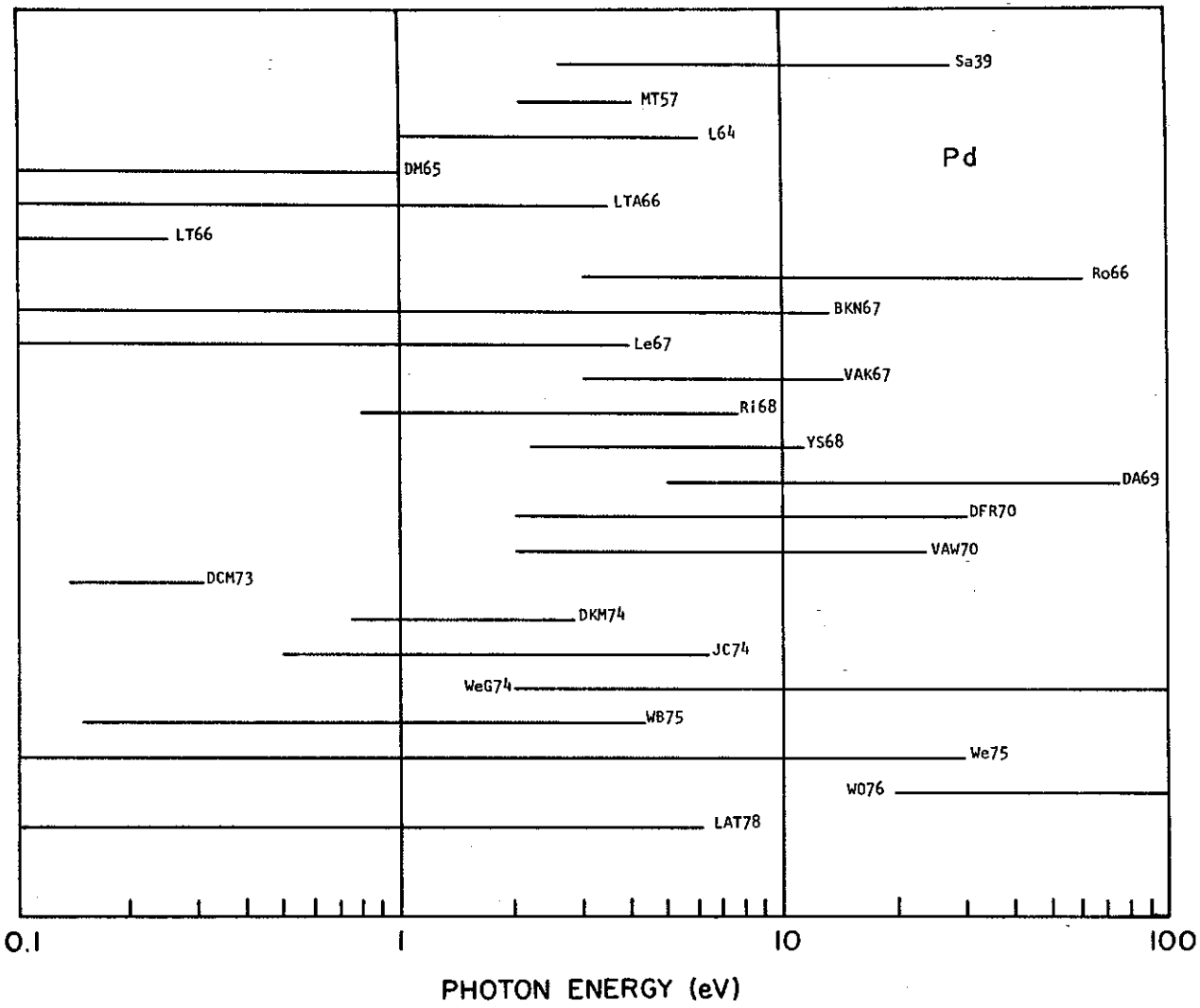

Fig. 62 Survey of available data for Pd

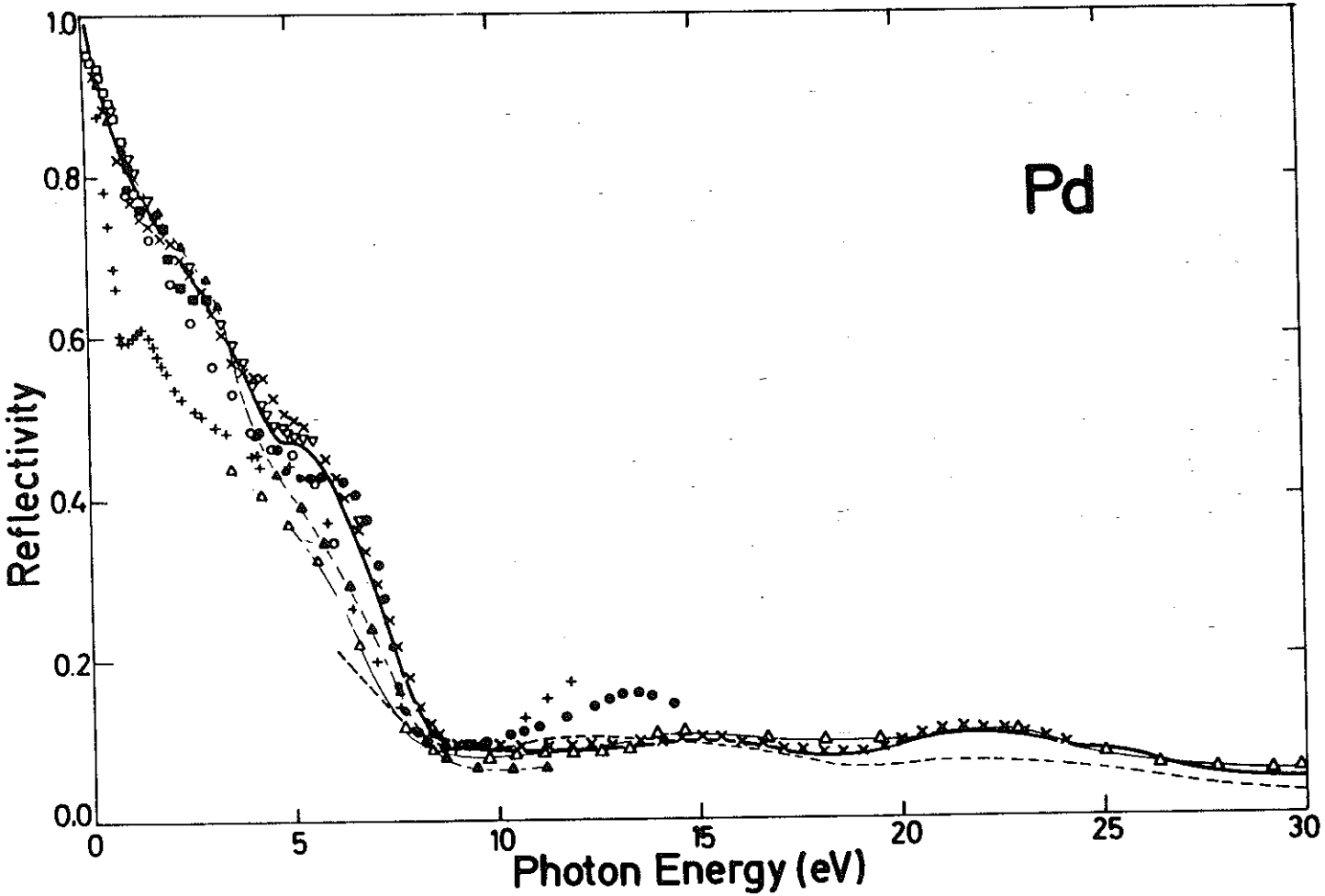

Fig. 63 Reflectivity of Pd. —— WB75; xxx VAW70; ΔΔΔ Ro66; ▲▲▲YS68; --- DFR70; +++ BKN67; ▽▽▽ JC74; ●●● VAK67; ooo Lo64; □□□ DKM73; ■■■DKM74.

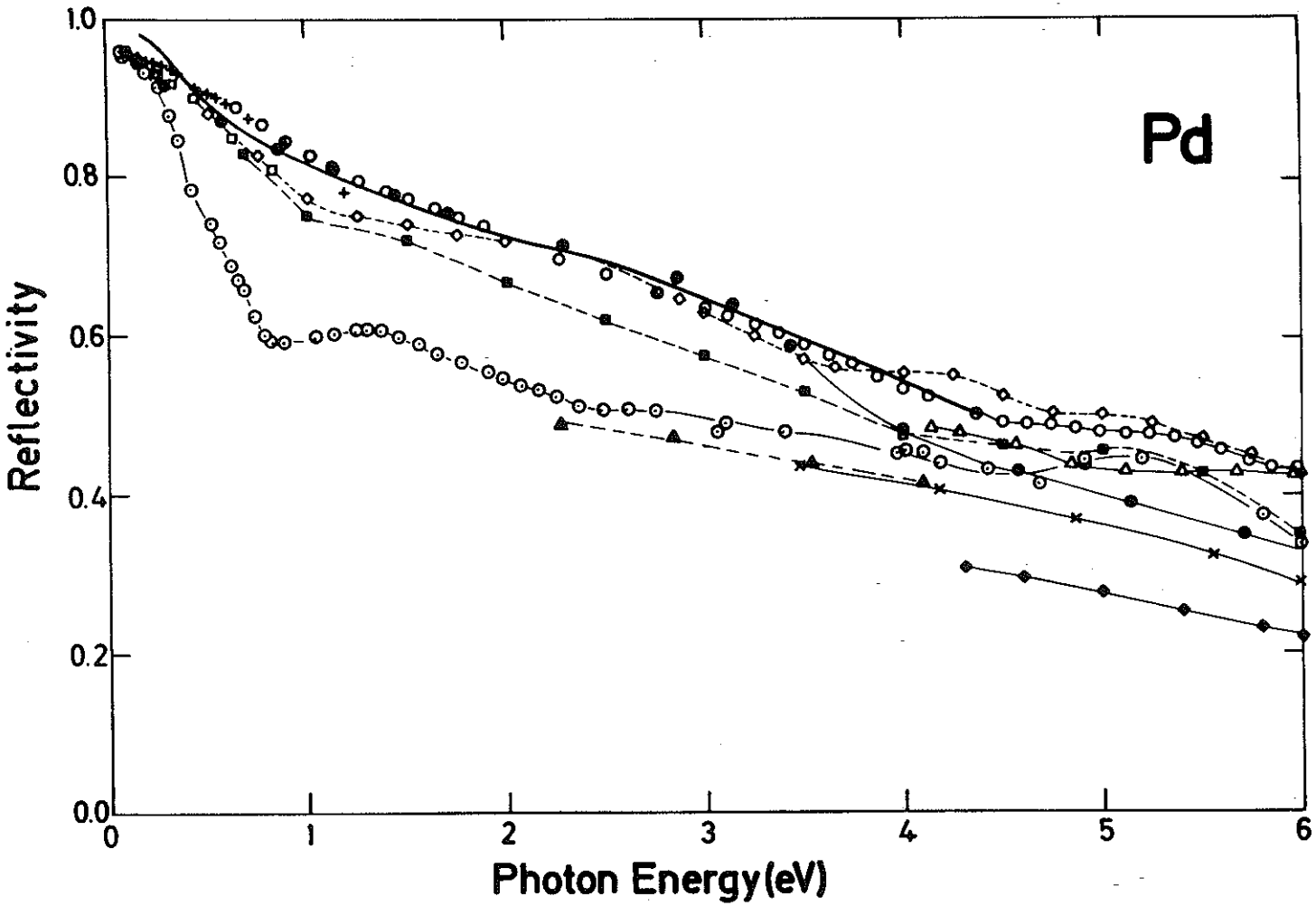

Fig. 64 Reflectivity of Pd for $0 \leq h\nu \leq 6$ eV. —— WB75; ◇◇◇VAW70; ◆◆◆DFR70; ●●● YS68; xxx Ro66; 000 BKN67; ΔΔΔ VAK67; ooo JC74; +++ DKM73; ▲▲▲MT57; ■■■ Lo64; □□□ DM65.

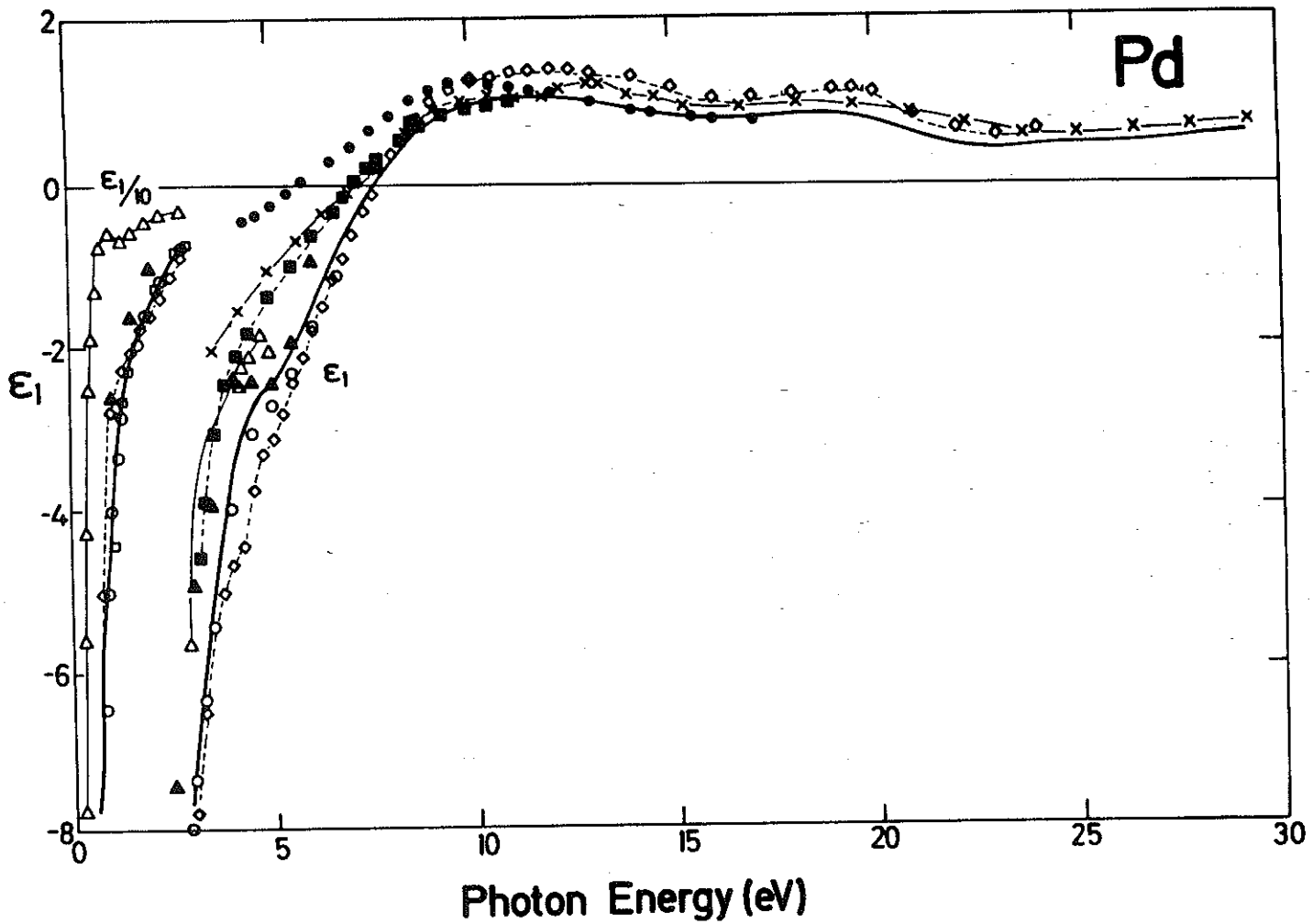

Fig. 65 ε_1 for Pd. —— WB75; xxx Ro66: □□□ DKM73; ooo JC74; ▲▲▲ Lo64; ΔΔΔ BKN67; ●●● DFR70; ■■■ YS68; ◇◇◇ VAW70.

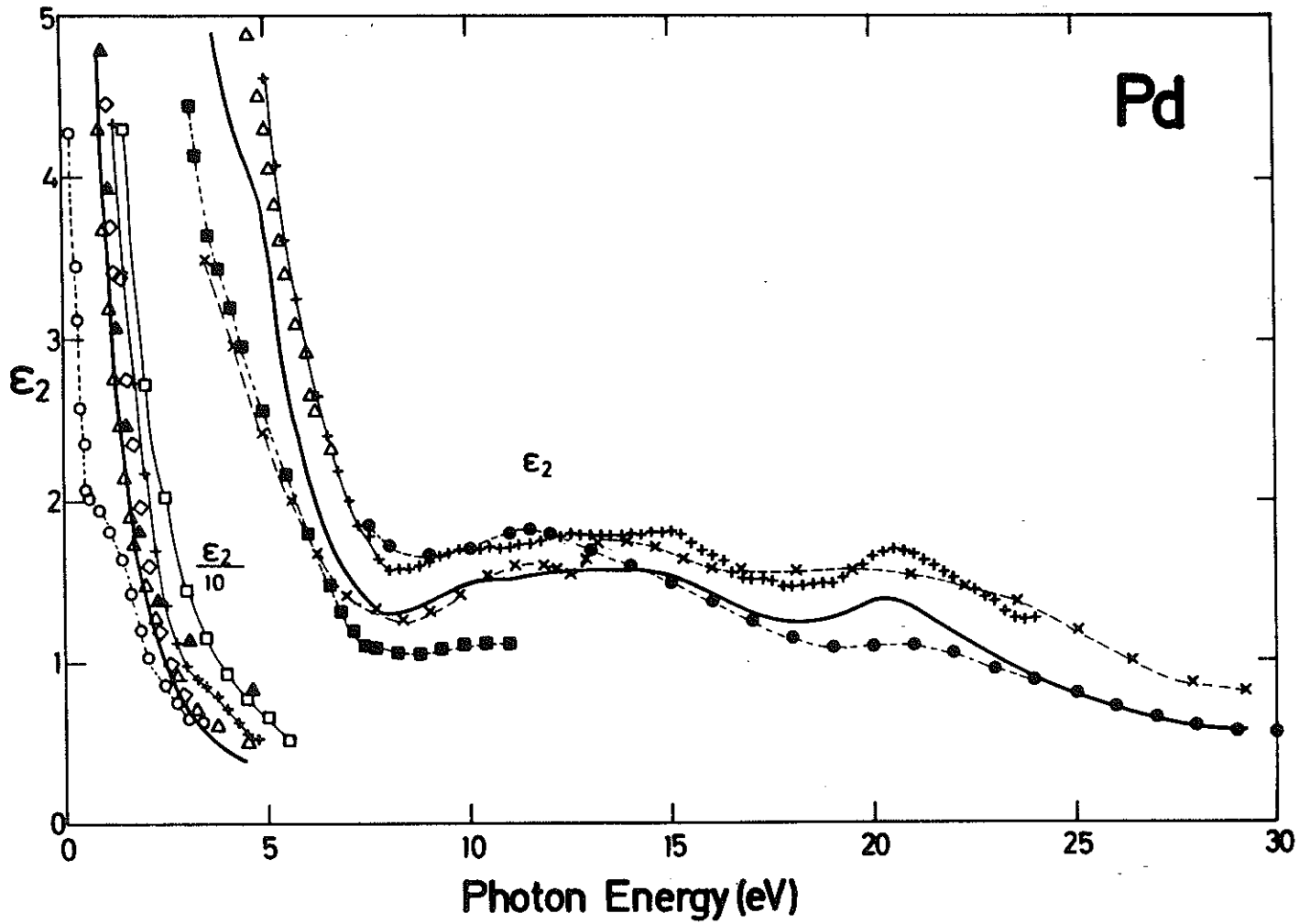

Fig. 66 ε_2 for Pd. —— WB75; xxx Ro66; ◇◇◇DKM74; ▲▲▲ Ri68; ΔΔΔ JC74; □□□Lo64; ooo BKN67; ●●● DFR70; ■■■ YS68; +++ VAW70;

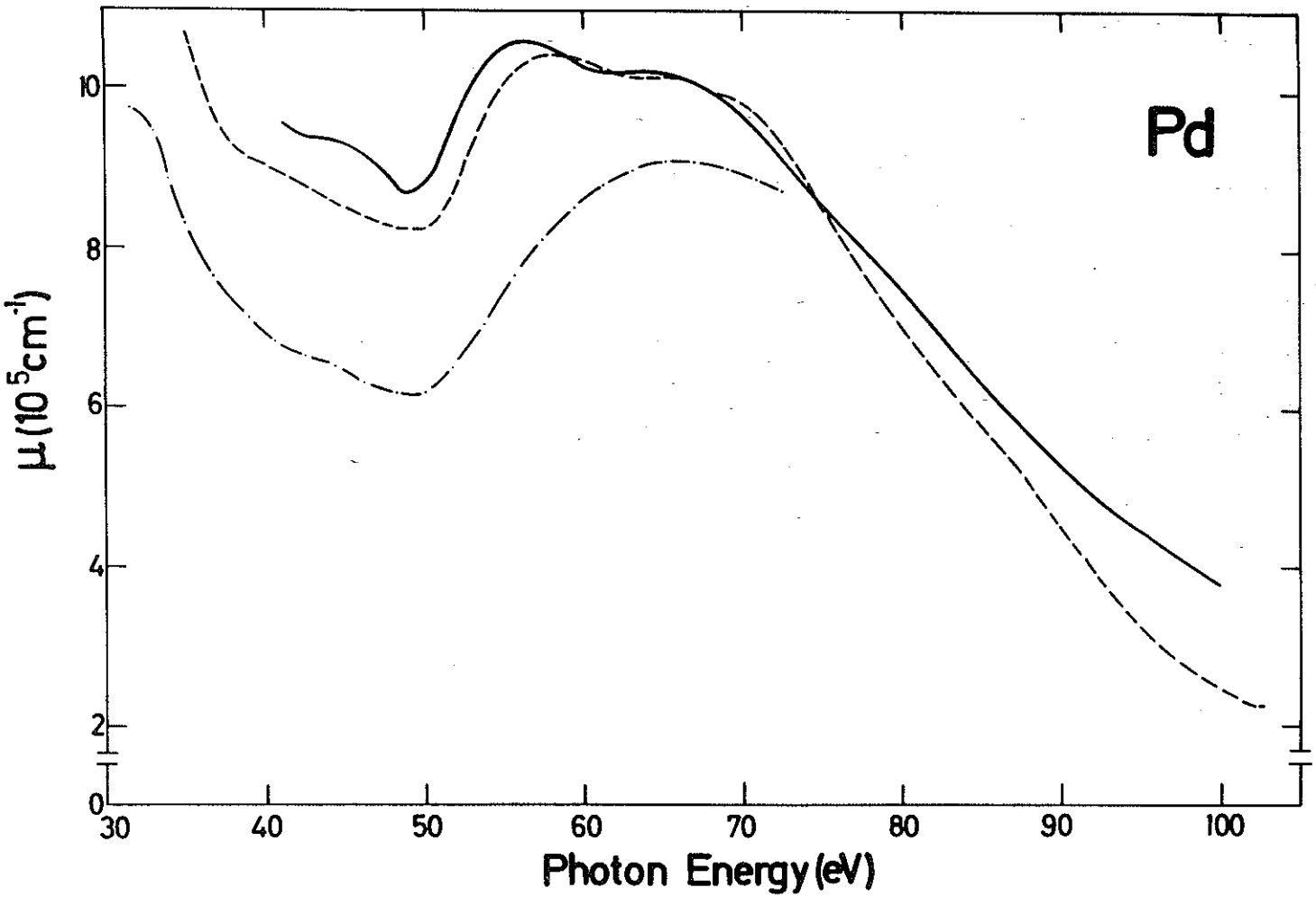

Fig. 67 Absorption coefficient for Pd. —W076; -·- DFR70; --- WG74.

Palladium

publication by J.H. Weaver and R.L. Benbow in Phys. Rev. B 12, 3509 (1975) based on the following tabulation; data above 4 eV from other groups

Energy (eV)	ε_1	ε_2	n	k	Im(-1/$\tilde{\varepsilon}$)	R(ϕ=0)
0.10	-2914.61	447.22	4.13	54.15	0.00	.994
0.11	-2406.39	378.64	3.85	49.21	0.00	.994
0.12	-2019.55	324.33	3.60	45.08	0.00	.993
0.13	-1712.91	279.30	3.36	41.52	0.00	.992
0.14	-1469.42	254.73	3.31	38.48	0.00	.991
0.15	-1273.08	224.57	3.13	35.82	0.00	.990
0.16	-1108.90	212.28	3.17	33.45	0.00	.989
0.17	-979.48	201.10	3.20	31.46	0.00	.987
0.18	-872.71	187.30	3.15	29.71	0.00	.986
0.19	-779.59	172.30	3.07	28.09	0.00	.985
0.20	-697.50	163.07	3.07	26.59	0.00	.983
0.22	-569.33	149.17	3.10	24.06	0.00	.979
0.24	-472.90	138.31	3.15	21.97	0.00	.975
0.26	-396.17	125.38	3.11	20.15	0.00	.971
0.28	-332.20	122.41	3.30	18.52	0.00	.964
0.30	-285.46	122.99	3.56	17.27	0.00	.955
0.32	-250.16	115.55	3.56	16.21	0.00	.950
0.34	-216.10	115.24	3.80	15.18	0.00	.940
0.36	-191.72	114.66	3.98	14.41	0.00	.932
0.38	-172.12	114.79	4.17	13.77	0.00	.923
0.40	-158.00	113.37	4.27	13.27	0.00	.916
0.42	-146.39	110.83	4.31	12.85	0.00	.911
0.44	-136.80	107.33	4.31	12.46	0.00	.906
0.46	-128.36	103.32	4.27	12.11	0.00	.902
0.48	-120.94	98.95	4.20	11.77	0.00	.899
0.50	-114.16	93.92	4.10	11.44	0.00	.896
0.52	-106.97	89.51	4.03	11.10	0.00	.891
0.54	-100.56	85.67	3.97	10.79	0.00	.887
0.56	-94.79	82.25	3.92	10.49	0.01	.883
0.58	-89.77	78.78	3.85	10.23	0.01	.880
0.60	-84.80	75.67	3.80	9.96	0.01	.876
0.64	-76.39	70.16	3.70	9.49	0.01	.868
0.68	-69.24	65.48	3.61	9.07	0.01	.860
0.72	-63.45	61.09	3.51	8.70	0.01	.854
0.76	-58.15	57.28	3.43	8.36	0.01	.847
0.80	-53.71	53.94	3.35	8.06	0.01	.840
0.84	-49.93	50.89	3.27	7.79	0.01	.834
0.88	-46.65	47.96	3.18	7.53	0.01	.829
0.92	-43.52	45.35	3.11	7.29	0.01	.822
0.96	-40.76	43.16	3.05	7.08	0.01	.816
1.00	-38.52	41.13	2.99	6.89	0.01	.811
1.05	-36.10	38.65	2.90	6.67	0.01	.806
1.10	-33.86	36.33	2.81	6.46	0.01	.800
1.15	-31.85	34.29	2.73	6.27	0.02	.795
1.20	-30.17	32.33	2.65	6.10	0.02	.790
1.25	-28.53	30.58	2.58	5.93	0.02	.785
1.30	-27.18	28.95	2.50	5.78	0.02	.781
1.35	-26.02	27.27	2.42	5.64	0.02	.778
1.40	-24.76	25.73	2.34	5.50	0.02	.774

Pd

Energy (eV)	ε_1	ε_2	n	k	Im(-1/$\tilde{\varepsilon}$)	R(ϕ=0)
1.45	-23.69	24.20	2.26	5.36	0.02	.771
1.50	-22.50	22.69	2.17	5.22	0.02	.767
1.55	-21.13	21.58	2.13	5.07	0.02	.760
1.60	-20.12	20.59	2.08	4.95	0.02	.755
1.65	-19.13	19.72	2.04	4.83	0.03	.749
1.70	-18.32	18.89	2.00	4.72	0.03	.745
1.75	-17.55	18.13	1.96	4.63	0.03	.740
1.80	-16.91	17.40	1.92	4.54	0.03	.737
1.85	-16.36	16.53	1.86	4.45	0.03	.734
1.90	-15.59	15.83	1.82	4.35	0.03	.729
1.95	-15.00	15.22	1.78	4.26	0.03	.725
2.00	-14.46	14.60	1.75	4.18	0.03	.721
2.10	-13.43	13.48	1.67	4.03	0.04	.714
2.20	-12.53	12.44	1.60	3.88	0.04	.707
2.30	-11.68	11.49	1.53	3.75	0.04	.700
2.40	-10.91	10.61	1.47	3.61	0.05	.693
2.50	-10.12	9.84	1.41	3.48	0.05	.685
2.60	-9.40	9.20	1.37	3.36	0.05	.676
2.70	-8.78	8.60	1.32	3.25	0.06	.668
2.80	-8.17	8.07	1.29	3.13	0.06	.658
2.90	-7.62	7.62	1.26	3.03	0.07	.648
3.00	-7.13	7.20	1.23	2.94	0.07	.639
3.10	-6.69	6.82	1.20	2.85	0.07	.630
3.20	-6.29	6.45	1.17	2.77	0.08	.622
3.30	-5.89	6.11	1.14	2.68	0.08	.613
3.40	-5.51	5.80	1.12	2.60	0.09	.602
3.50	-5.14	5.55	1.10	2.52	0.10	.591
3.60	-4.82	5.31	1.08	2.45	0.10	.581
3.70	-4.51	5.09	1.07	2.38	0.11	.570
3.80	-4.23	4.90	1.06	2.31	0.12	.558
3.90	-3.97	4.72	1.05	2.25	0.12	.547
4.00	-3.73	4.53	1.03	2.19	0.13	.537
4.10	-3.42	4.44	1.04	2.12	0.14	.519
4.20	-3.26	4.36	1.04	2.09	0.15	.510
4.40	-2.95	4.15	1.03	2.01	0.16	.493
4.50	-2.79	4.07	1.03	1.97	0.17	.483
4.60	-2.69	4.00	1.03	1.94	0.17	.476
4.70	-2.61	3.93	1.03	1.91	0.18	.472
4.80	-2.57	3.85	1.01	1.90	0.18	.470
4.90	-2.55	3.72	0.99	1.88	0.18	.471
5.00	-2.52	3.58	0.96	1.86	0.19	.472
5.10	-2.48	3.40	0.93	1.83	0.19	.474
5.20	-2.41	3.21	0.90	1.79	0.20	.474
5.30	-2.30	3.04	0.87	1.75	0.21	.470
5.40	-2.19	2.89	0.85	1.70	0.22	.463
5.60	-1.96	2.64	0.81	1.62	0.24	.449
5.80	-1.77	2.41	0.78	1.54	0.27	.437
6.00	-1.54	2.20	0.76	1.45	0.30	.418
6.20	-1.33	2.04	0.74	1.37	0.34	.397
6.40	-1.14	1.88	0.73	1.29	0.39	.375
6.60	-0.95	1.74	0.72	1.21	0.44	.350
6.80	-0.74	1.63	0.73	1.13	0.51	.316
7.00	-0.57	1.54	0.73	1.05	0.57	.287
7.20	-0.40	1.47	0.75	0.98	0.63	.255
7.40	-0.24	1.40	0.77	0.91	0.69	.223
7.60	-0.10	1.35	0.79	0.85	0.74	.195
7.80	0.07	1.29	0.83	0.78	0.77	.163

Pd

Energy (eV)	ε_1	ε_2	n	k	Im(-1/$\tilde{\varepsilon}$)	R(ϕ=0)
8.00	0.25	1.28	0.88	0.73	0.75	.133
8.20	0.38	1.32	0.94	0.70	0.70	.117
8.40	0.42	1.34	0.96	0.70	0.68	.114
8.60	0.57	1.31	1.00	0.65	0.64	.097
8.80	0.64	1.36	1.04	0.65	0.60	.094
9.00	0.72	1.38	1.07	0.64	0.57	.090
9.25	0.79	1.42	1.10	0.65	0.54	.089
9.50	0.83	1.46	1.12	0.65	0.52	.089
9.75	0.86	1.48	1.13	0.65	0.51	.089
10.00	0.88	1.49	1.14	0.65	0.50	.088
10.25	0.91	1.49	1.15	0.65	0.49	.087
10.50	0.93	1.51	1.16	0.65	0.48	.087
10.75	0.96	1.51	1.17	0.64	0.47	.086
11.00	0.98	1.52	1.18	0.64	0.46	.086
11.25	0.99	1.54	1.19	0.65	0.46	.087
11.50	1.00	1.54	1.19	0.65	0.46	.087
11.75	1.00	1.56	1.20	0.65	0.45	.089
12.00	1.00	1.57	1.20	0.66	0.45	.089
12.25	0.99	1.58	1.20	0.66	0.45	.090
12.50	0.98	1.59	1.19	0.67	0.46	.091
12.75	0.97	1.58	1.19	0.67	0.46	.091
13.00	0.96	1.58	1.18	0.67	0.46	.091
13.25	0.95	1.57	1.18	0.67	0.46	.091
13.50	0.94	1.58	1.18	0.67	0.47	.092
13.75	0.93	1.57	1.17	0.67	0.47	.092
14.00	0.92	1.57	1.17	0.67	0.47	.093
14.25	0.90	1.57	1.16	0.68	0.48	.094
14.50	0.87	1.57	1.15	0.68	0.49	.095
14.75	0.85	1.57	1.15	0.68	0.49	.096
15.00	0.81	1.56	1.13	0.69	0.51	.098
15.25	0.77	1.53	1.11	0.69	0.52	.098
15.50	0.75	1.48	1.10	0.68	0.54	.096
15.75	0.74	1.45	1.09	0.67	0.55	.094
16.00	0.73	1.42	1.08	0.66	0.56	.092
16.25	0.71	1.39	1.07	0.65	0.57	.091
16.50	0.73	1.34	1.06	0.63	0.58	.086
16.75	0.75	1.31	1.06	0.62	0.57	.082
17.00	0.77	1.31	1.07	0.61	0.57	.081
17.25	0.76	1.30	1.07	0.61	0.57	.081
17.50	0.76	1.29	1.06	0.61	0.58	.080
17.75	0.78	1.26	1.06	0.60	0.57	.078
18.00	0.79	1.26	1.07	0.59	0.57	.077
18.25	0.80	1.27	1.07	0.59	0.57	.077
18.50	0.80	1.27	1.07	0.59	0.56	.077
18.75	0.80	1.27	1.07	0.59	0.56	.077
19.00	0.81	1.28	1.08	0.59	0.56	.077
19.25	0.81	1.30	1.08	0.60	0.55	.079
19.50	0.80	1.32	1.08	0.61	0.55	.080
19.75	0.78	1.36	1.08	0.63	0.55	.084
20.00	0.73	1.39	1.07	0.65	0.56	.090
20.25	0.68	1.39	1.05	0.66	0.58	.094
20.50	0.62	1.38	1.03	0.67	0.60	.098
20.75	0.57	1.36	1.01	0.67	0.63	.101
21.00	0.52	1.33	0.99	0.67	0.65	.103
21.50	0.46	1.25	0.95	0.66	0.70	.103
22.00	0.42	1.17	0.91	0.64	0.76	.103
22.50	0.40	1.09	0.88	0.62	0.81	.101

Pd

Energy (eV)	ε_1	ε_2	n	k	Im(-1/$\tilde{\varepsilon}$)	R(ϕ=0)
23.00	0.39	1.02	0.86	0.59	0.86	.097
23.50	0.40	0.95	0.85	0.56	0.90	.091
24.00	0.42	0.90	0.84	0.54	0.91	.086
25.04	0.39	0.81	0.81	0.51	1.00	.084
26.40	0.45	0.68	0.80	0.43	1.02	.066
27.80	0.52	0.61	0.81	0.38	0.95	.052
29.20	0.54	0.58	0.82	0.35	0.92	.046