Authors	Energy Range (eV)	Technique	Temperature (K) RT unless specified	Sample				Data Presentation	Remarks
				Film	X-tal	Bulk	Prep		Pt
Sa39	2.6-27.6	Refl		x			Ex	R	
HT59	5.6-21.2	Refl		x			Ex	R	
MC61	6.2-24.8	Trans, Refl		x			In	R	
JMC63	5.6-24.8	Refl		x			In	R,n, and k at λ = 584,735,1216 Å	substrate temperature 373 K
DH64	0.03-5.6	Refl		x			Ex	R	
Ba66	0.6-2.6	Ellips	300-1900			x	Heat	n,k	filaments at various T
LT66	0.06-0.25	Ellips				x	MP	$\varepsilon_2/\lambda,\varepsilon_1$	
LTA66	0.1-3.5	Ellips				x	MP	$\varepsilon_2/\lambda,\varepsilon_1$	
Le67	<4	Ellips				x	MP	ε_2/λ	data from LT66 and LTA66
JCF68	∿78-∿506	Trans		x			Ex	μ/ρ	soft x-ray absorption
YSH68	0.06-21.2	Refl, m-θ		x			Ex	R; KK: $\varepsilon_1,\varepsilon_2,\mu$, $Im(\varepsilon^{-1})$	table E,R(θ)
HRH69	6.2-12.4	Refl		x			Ex	R	varied substrates, substrate T, and thickness
Ro70	∿25-∿170	m-θ		x			Ex	R,n,μ	
Hu71	6.2-41.3	Refl		x			Ex	R	
JPT72	∿0.08-∿0.48	Refl				x	Ex	R	

Authors	Energy Range (eV)	Technique	Temperature (K) RT unless specified	Sample				Data Presentation	Remarks
				Film	X-tal	Bulk	Prep		Pt
CNN72	0.17-4.7	Ellips	295, 77			x	Ex	$n,k,R,\varepsilon_1,\varepsilon_2,\sigma$	MP and annealed ∿1025 K, 10^{-6} Torr
Ji72	6.2-31	m-θ		x			Ex	$R,n,k,\varepsilon_1,\varepsilon_2,Im(\varepsilon^{-1})$	
SR72	3-50	Refl		x			Ex	R; KK: $\varepsilon_1,\varepsilon_2,Im(\varepsilon^{-1}),$ $Im(\varepsilon+1)^{-1},\mu$	
Aks74	0.12-1.24		373-773					ε_N	emissivity
AH74	6.2-82.7	Refl		x			Ex	R	substrate temperature 573 K
ASM74			1100-1800					ε at λ = 6450 Å, λ = 5460 Å	emissivity
AG74	2-∿120	Trans		x			Ex	KK: μ	energy loss spectroscopy, then KK
Ae75	0.1-30	Refl	4.2			x	EP	R; KK: ε_2	sample boiled in auqa regia; absorptivity measured by calorimetry for $h\nu < 4.88$ eV
ST77	0.05-0.1	Ellips	295		x		MP	$\varepsilon_2/\lambda,\varepsilon_1$	
HAH79	5.6-82.7	m-θ		x			Ex	$R,n,k,\varepsilon_1,\varepsilon_2,Im(\varepsilon^{-1})$	substrate temperature 313, 573 K; ∿10^{-5} Torr
DMW80	0-120	Trans, Refl		x	x	x	In	μ	electron loss spectroscopy and optical absorption with synchrotron radiation

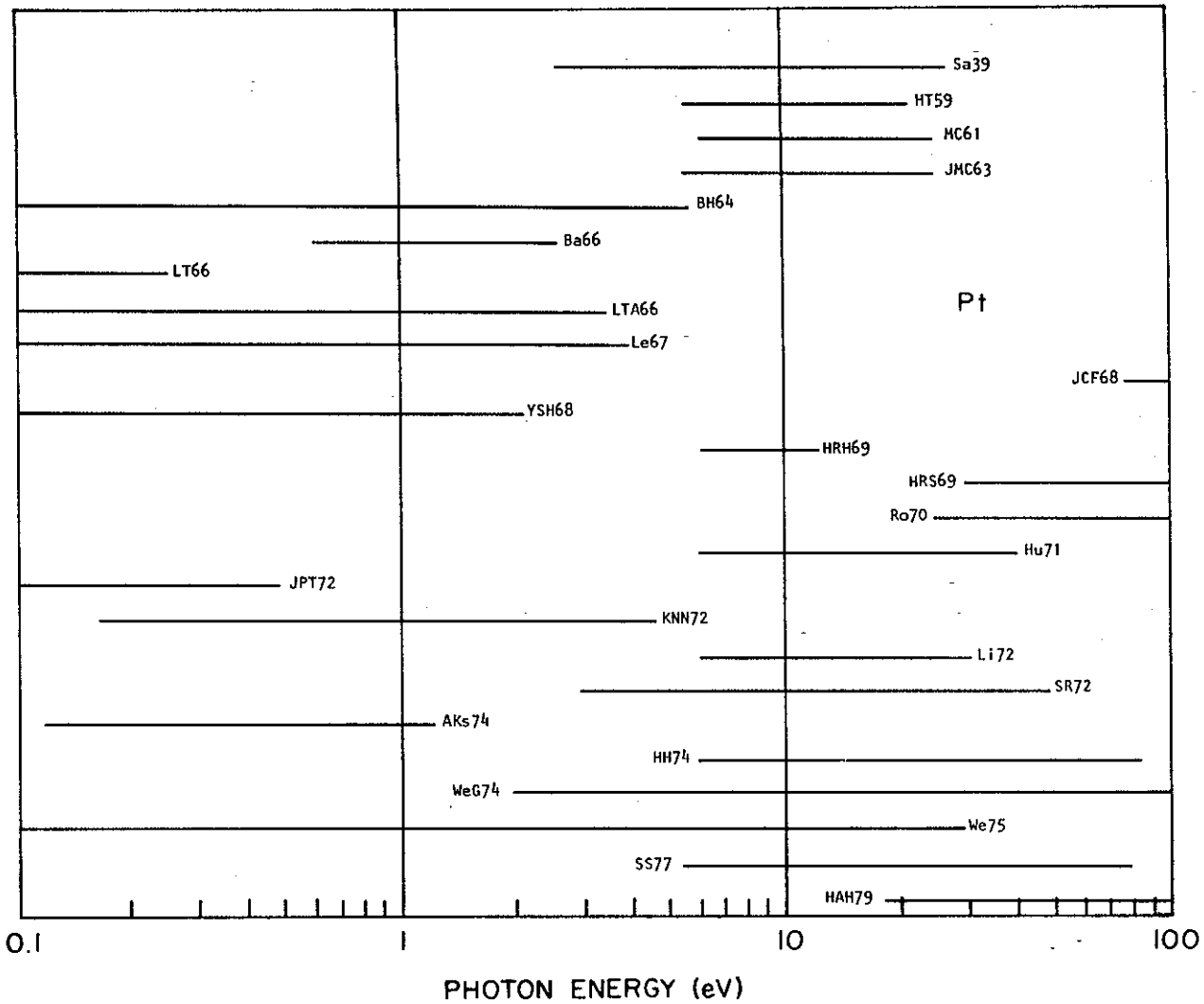

Fig. 99 Survey of available data for Pt

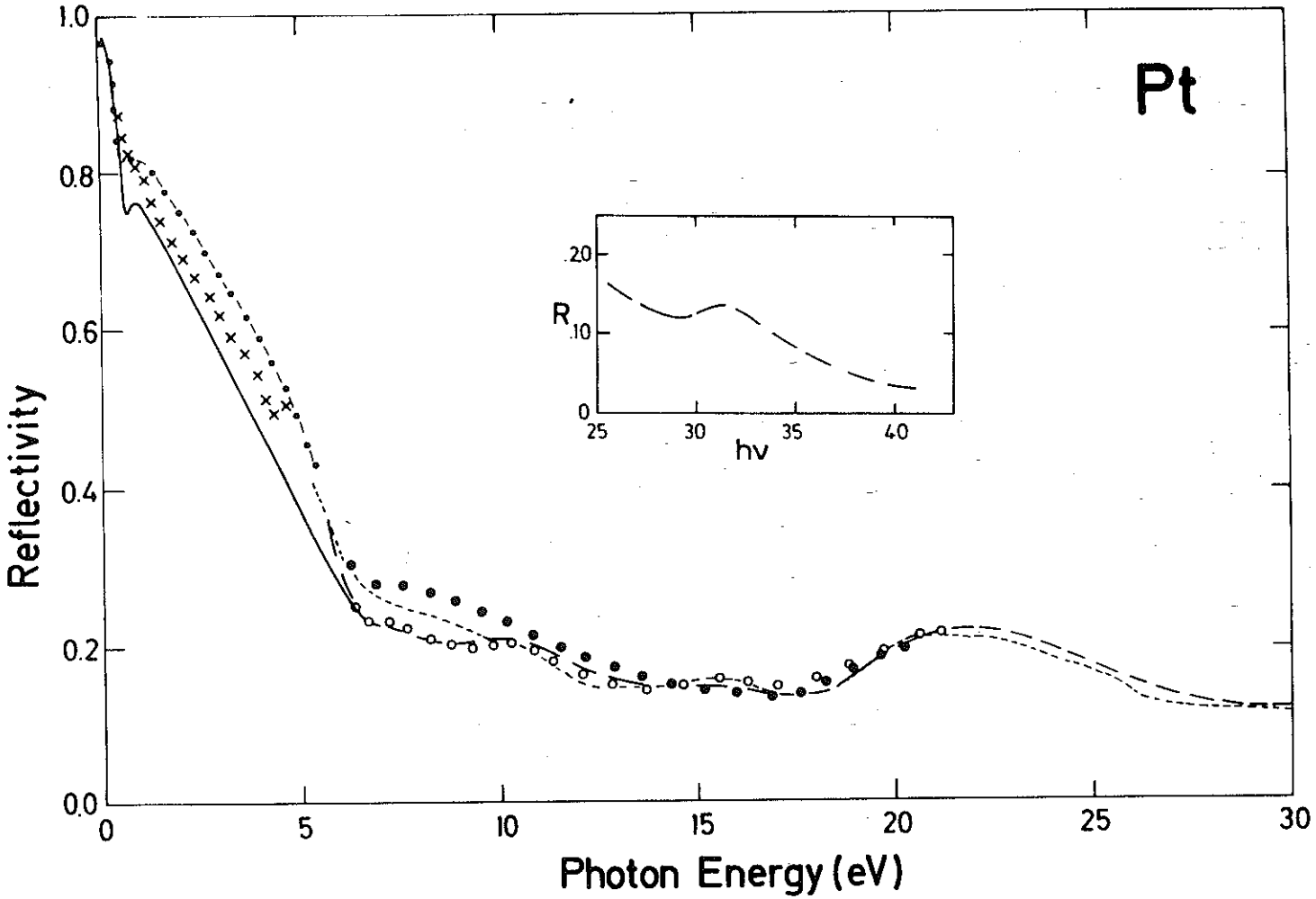

Fig. 100 Reflectivity of Pt. —— We75; xxx KNN72; --- SR72; -•- DH64; ooo YSH68; ●●● JMC63; — — HAH79.

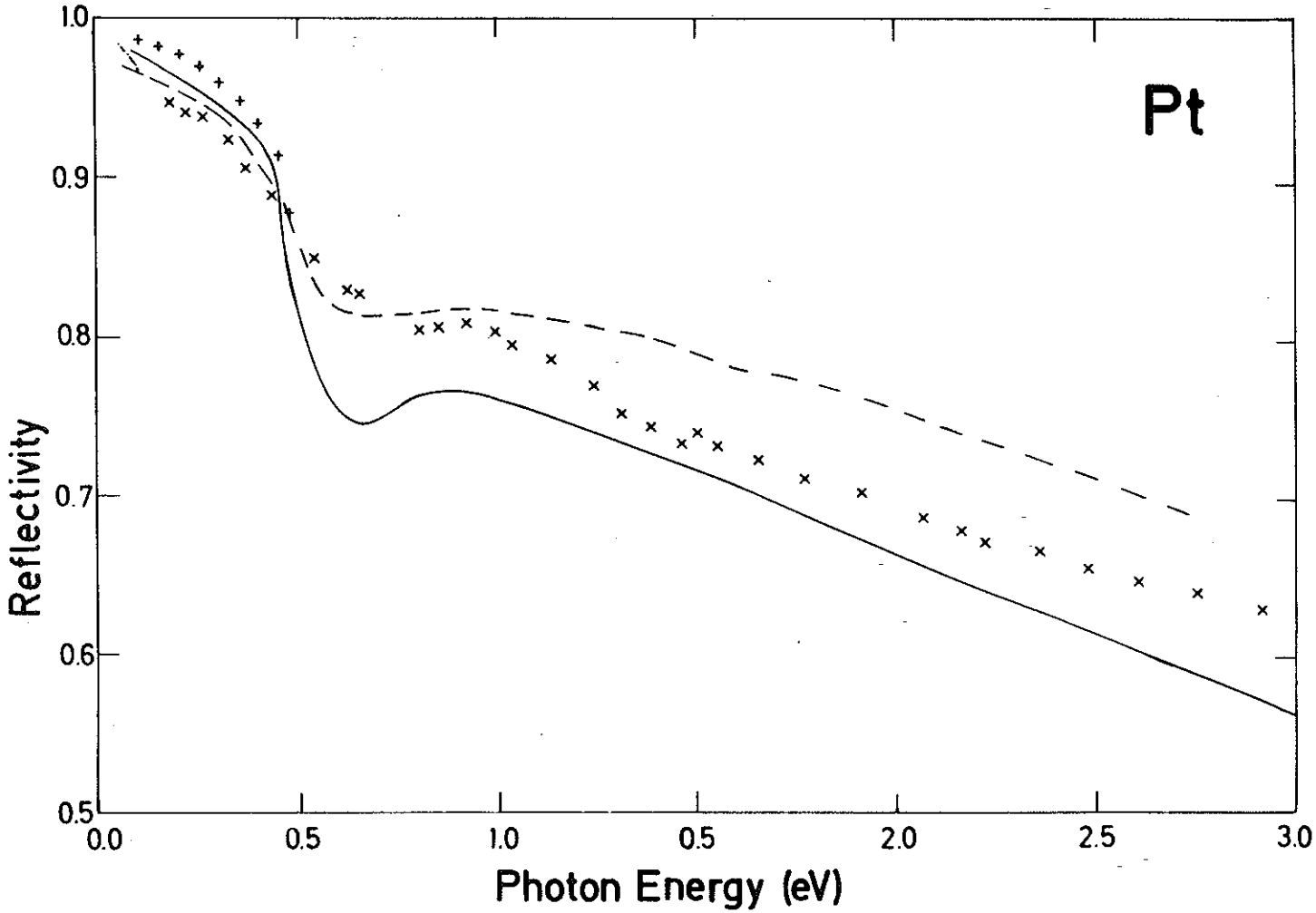

Fig. 101 Reflectivity of Pt for $0 \leq h\nu \leq 3$ eV. —— We75; xxx KNN72; +++ JPT72; --- DH64; -·- ST77.

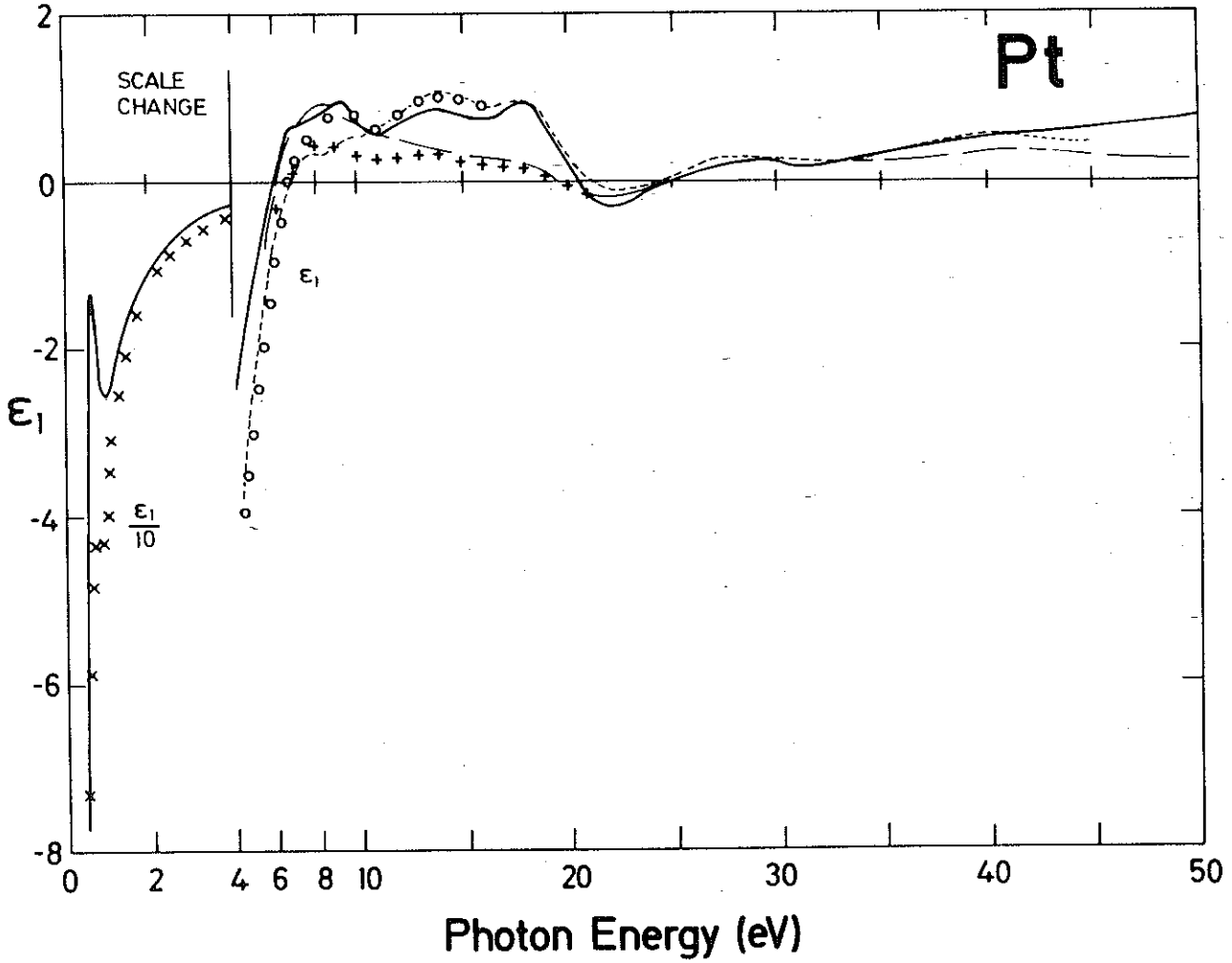

Fig. 102 ε_1 for Pt. —— We75; --- SR72; xxx KNN72; +++ Li72; ooo YSH68; — — HAH79.

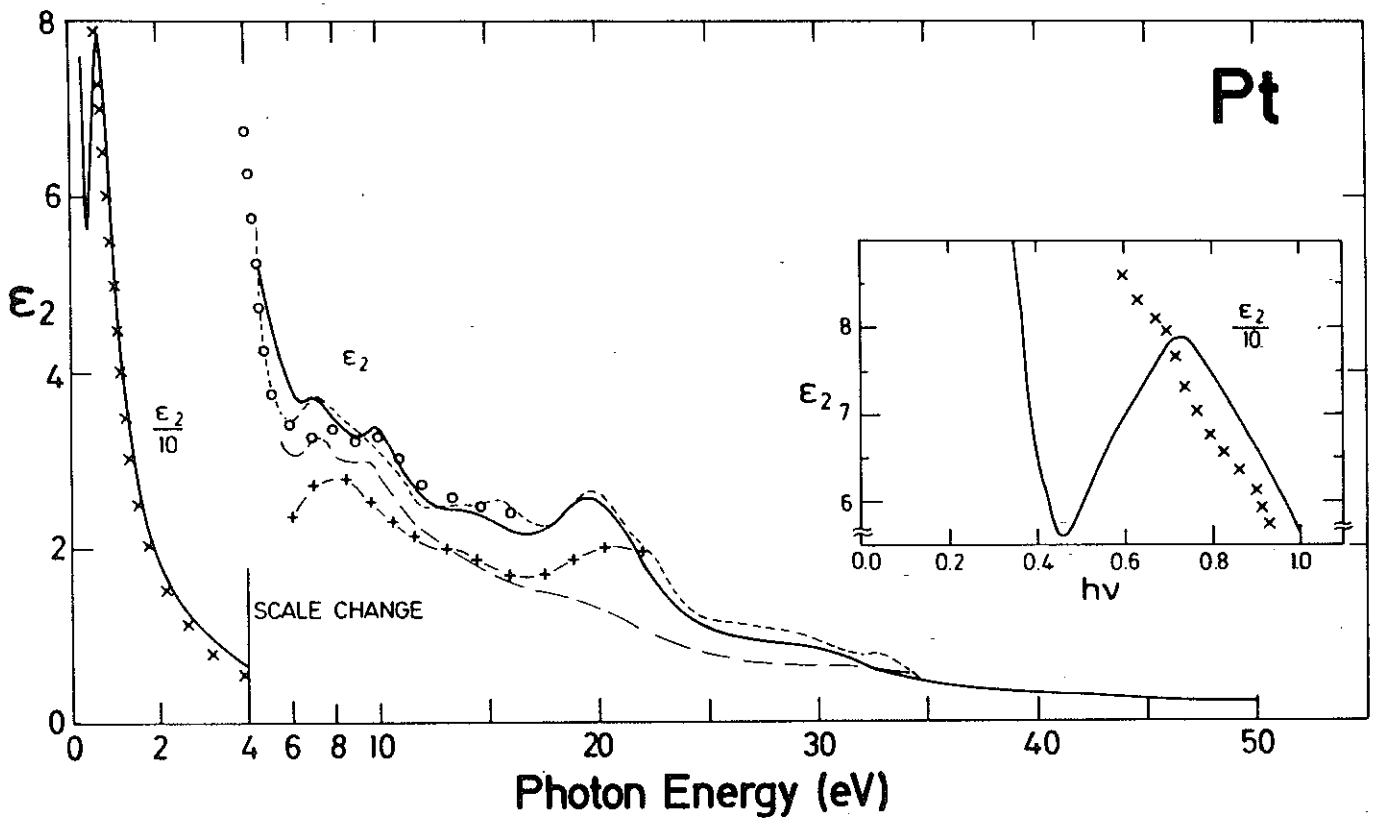

Fig. 103 ε_2 for Pt. —— We75; --- SR72; xxx KNN72; +++ Li72; ooo YSH68; — — HAH79.

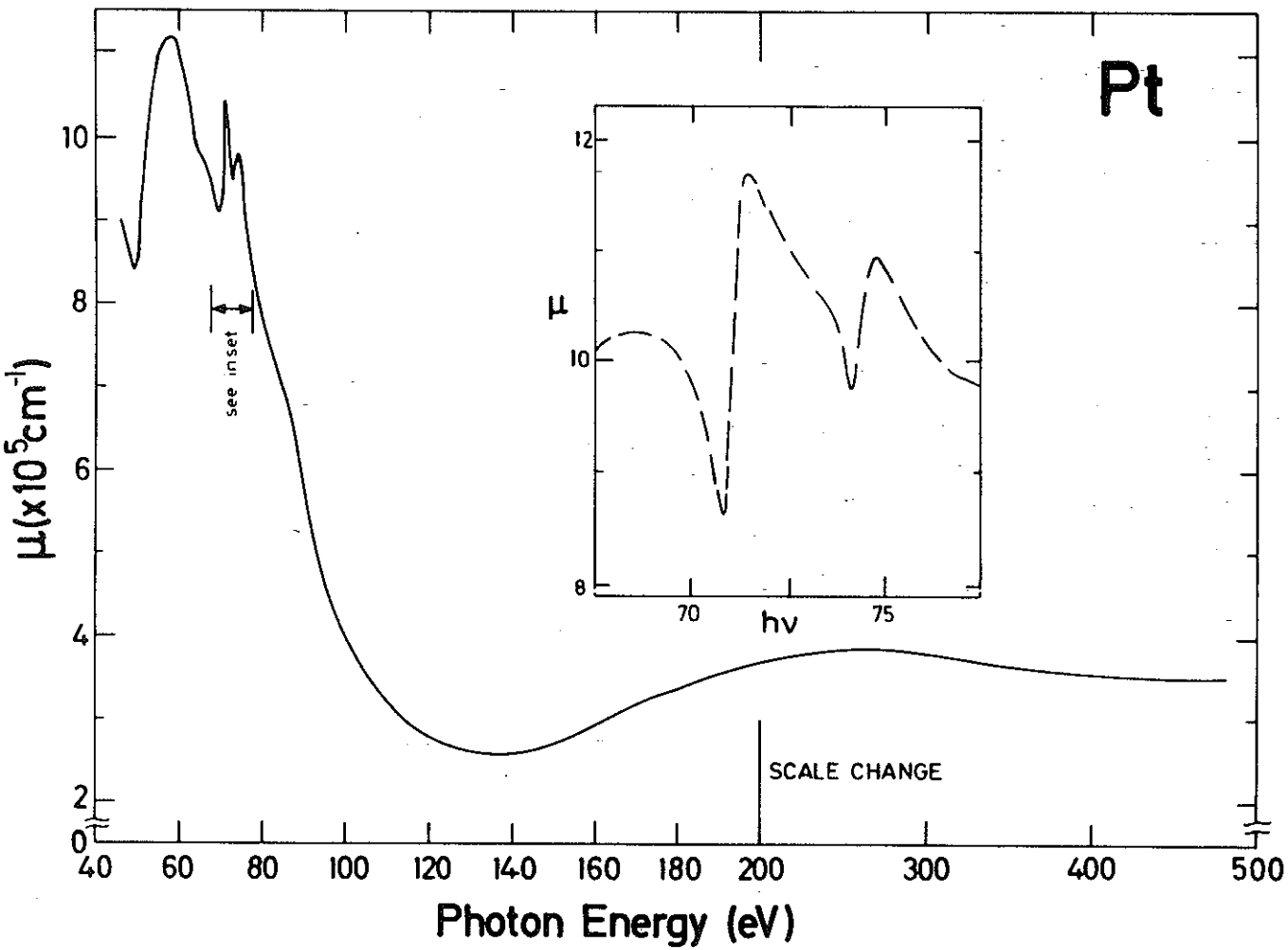

Fig. 104 Absorption coefficient for Pt. —— HRS69. --- (inset) by DMW80.

Platinum

publication by J.H. Weaver in Phys. Rev. B 11, 1416 (1975) using results of G. Hass and W.R. Hunter in the VUV based on the following tabulation

Energy (eV)	ε_1	ε_2	n	k	Im(-1/$\tilde{\varepsilon}$)	R(ϕ=0)
0.10	-1825.31	1181.84	13.21	44.72	0.00	.976
0.13	-1250.94	728.18	9.91	36.73	0.00	.973
0.15	-903.98	509.65	8.18	31.16	0.00	.969
0.17	-691.50	368.54	6.78	27.16	0.00	.966
0.20	-538.86	282.83	5.90	23.95	0.00	.962
0.22	-432.56	224.77	5.24	21.45	0.00	.958
0.25	-354.25	182.48	4.70	19.40	0.00	.954
0.28	-293.87	149.85	4.24	17.66	0.00	.950
0.30	-245.74	126.85	3.92	16.16	0.00	.945
0.32	-208.49	106.27	3.57	14.88	0.00	.941
0.35	-175.95	89.67	3.28	13.66	0.00	.936
0.38	-147.76	75.96	3.03	12.53	0.00	.930
0.40	-121.61	63.92	2.81	11.38	0.00	.922
0.43	-96.56	59.91	2.92	10.25	0.00	.903
0.45	-77.61	56.35	3.03	9.31	0.01	.882
0.47	-59.29	56.47	3.36	8.40	0.01	.850
0.50	-44.21	60.25	3.91	7.71	0.01	.813
0.52	-36.30	63.70	4.30	7.40	0.01	.793
0.55	-30.02	65.46	4.58	7.14	0.01	.777
0.57	-23.88	67.00	4.86	6.89	0.01	.762
0.60	-19.15	69.25	5.13	6.75	0.01	.753
0.63	-16.36	71.60	5.34	6.70	0.01	.749
0.65	-13.90	73.63	5.52	6.66	0.01	.746
0.68	-13.26	76.18	5.66	6.73	0.01	.748
0.70	-14.07	78.05	5.71	6.83	0.01	.751
0.73	-16.08	78.83	5.67	6.95	0.01	.756
0.75	-18.26	78.16	5.57	7.02	0.01	.759
0.77	-19.96	76.62	5.44	7.04	0.01	.761
0.80	-21.44	74.72	5.31	7.04	0.01	.762
0.82	-22.43	72.57	5.17	7.01	0.01	.763
0.85	-23.32	70.47	5.05	6.98	0.01	.763
0.88	-24.16	68.29	4.91	6.95	0.01	.764
0.90	-24.96	65.89	4.77	6.91	0.01	.765
0.95	-25.59	61.02	4.50	6.77	0.01	.763
1.00	-25.79	56.31	4.25	6.62	0.01	.762
1.05	-25.20	51.86	4.03	6.44	0.02	.758
1.10	-24.11	48.15	3.86	6.24	0.02	.753
1.15	-23.29	44.99	3.70	6.08	0.02	.749
1.20	-22.48	42.02	3.55	5.92	0.02	.746
1.30	-20.61	36.91	3.29	5.61	0.02	.736
1.40	-18.66	32.92	3.10	5.32	0.02	.725
1.50	-17.23	29.61	2.92	5.07	0.03	.716
1.60	-15.79	26.76	2.76	4.84	0.03	.706
1.70	-14.56	24.32	2.63	4.63	0.03	.697
1.80	-13.35	22.27	2.51	4.43	0.03	.686
1.90	-12.48	20.33	2.38	4.26	0.04	.678
2.00	-11.24	18.73	2.30	4.07	0.04	.664
2.10	-10.37	17.44	2.23	3.92	0.04	.654
2.20	-9.49	16.40	2.17	3.77	0.05	.642

Pt

Energy (eV)	ε_1	ε_2	n	k	Im(-1/$\tilde{\varepsilon}$)	R(ϕ=0)
2.30	-9.05	15.37	2.10	3.67	0.05	.636
2.40	-8.40	14.32	2.03	3.54	0.05	.626
2.50	-7.81	13.42	1.96	3.42	0.06	.616
2.60	-7.23	12.64	1.91	3.30	0.06	.605
2.70	-6.73	11.96	1.87	3.20	0.06	.595
2.80	-6.28	11.33	1.83	3.10	0.07	.585
2.90	-5.86	10.76	1.79	3.01	0.07	.575
3.00	-5.47	10.24	1.75	2.92	0.08	.565
3.10	-5.14	9.76	1.72	2.84	0.08	.556
3.20	-4.80	9.31	1.68	2.76	0.08	.546
3.30	-4.51	8.90	1.65	2.69	0.09	.537
3.40	-4.21	8.51	1.63	2.62	0.09	.527
3.50	-3.96	8.15	1.60	2.55	0.10	.518
3.60	-3.67	7.82	1.58	2.48	0.10	.507
3.70	-3.44	7.55	1.56	2.42	0.11	.498
3.80	-3.28	7.24	1.53	2.37	0.11	.491
3.90	-3.03	6.96	1.51	2.31	0.12	.480
4.00	-2.87	6.70	1.49	2.25	0.13	.472
4.20	-2.48	6.21	1.45	2.14	0.14	.452
4.40	-2.12	5.81	1.43	2.04	0.15	.432
4.60	-1.86	5.43	1.39	1.95	0.16	.415
4.80	-1.51	5.08	1.38	1.85	0.18	.392
5.00	-1.24	4.80	1.36	1.76	0.20	.372
5.20	-0.95	4.56	1.36	1.67	0.21	.350
5.40	-0.72	4.37	1.36	1.61	0.22	.332
5.60	-0.53	4.17	1.36	1.54	0.24	.315
5.70	-0.40	4.06	1.36	1.50	0.24	.304
5.80	-0.30	3.98	1.36	1.47	0.25	.295
5.90	-0.18	3.90	1.37	1.43	0.26	.285
6.00	-0.06	3.85	1.38	1.40	0.26	.276
6.10	0.04	3.80	1.38	1.37	0.26	.268
6.20	0.13	3.75	1.39	1.35	0.27	.261
6.30	0.25	3.69	1.40	1.32	0.27	.252
6.40	0.34	3.68	1.42	1.29	0.27	.246
6.50	0.43	3.67	1.43	1.28	0.27	.241
6.60	0.51	3.66	1.45	1.26	0.27	.236
6.70	0.59	3.67	1.47	1.25	0.27	.233
6.80	0.64	3.68	1.48	1.24	0.26	.231
6.90	0.68	3.70	1.49	1.24	0.26	.230
7.00	0.71	3.72	1.50	1.24	0.26	.230
7.20	0.69	3.73	1.50	1.25	0.26	.231
7.40	0.70	3.67	1.49	1.23	0.26	.228
7.60	0.71	3.62	1.48	1.22	0.27	.225
7.80	0.73	3.55	1.48	1.20	0.27	.221
8.00	0.77	3.48	1.47	1.18	0.27	.216
8.20	0.80	3.43	1.47	1.17	0.28	.212
8.40	0.83	3.39	1.47	1.15	0.28	.209
8.60	0.87	3.35	1.47	1.14	0.28	.205
8.80	0.90	3.32	1.47	1.13	0.28	.202
9.00	0.93	3.30	1.48	1.12	0.28	.200
9.20	0.98	3.30	1.49	1.11	0.28	.198
9.40	0.98	3.34	1.49	1.12	0.28	.200
9.60	0.94	3.37	1.49	1.13	0.28	.203
9.80	0.87	3.38	1.48	1.15	0.28	.207
10.00	0.79	3.36	1.46	1.15	0.28	.209
10.20	0.69	3.31	1.43	1.16	0.29	.211
10.40	0.62	3.22	1.40	1.15	0.30	.210

Energy (eV)	ε_1	ε_2	n	k	Im(-1/$\tilde{\varepsilon}$)	R(ϕ=0)
10.60	0.58	3.12	1.37	1.14	0.31	.207
10.80	0.57	3.02	1.35	1.12	0.32	.203
11.00	0.56	2.93	1.33	1.10	0.33	.199
11.20	0.56	2.84	1.31	1.08	0.34	.194
11.40	0.58	2.75	1.30	1.06	0.35	.188
11.60	0.61	2.68	1.29	1.04	0.35	.183
11.80	0.64	2.62	1.29	1.01	0.36	.177
12.00	0.67	2.58	1.29	1.00	0.36	.173
12.20	0.70	2.53	1.29	0.98	0.37	.169
12.40	0.73	2.50	1.29	0.97	0.37	.165
12.60	0.75	2.47	1.29	0.96	0.37	.162
12.80	0.79	2.44	1.29	0.94	0.37	.158
13.00	0.82	2.43	1.30	0.93	0.37	.156
13.20	0.84	2.43	1.31	0.93	0.37	.155
13.40	0.86	2.43	1.31	0.93	0.37	.154
13.60	0.86	2.44	1.31	0.93	0.36	.155
13.80	0.85	2.43	1.31	0.93	0.37	.155
14.00	0.85	2.43	1.31	0.93	0.37	.155
14.20	0.83	2.43	1.30	0.93	0.37	.156
14.40	0.81	2.42	1.30	0.93	0.37	.156
14.60	0.78	2.41	1.29	0.94	0.38	.157
14.80	0.74	2.37	1.27	0.93	0.38	.157
15.00	0.79	2.31	1.27	0.91	0.39	.150
15.20	0.75	2.35	1.27	0.93	0.39	.155
15.40	0.73	2.30	1.25	0.92	0.39	.153
15.60	0.73	2.27	1.25	0.91	0.40	.151
15.80	0.74	2.23	1.24	0.90	0.40	.148
16.00	0.75	2.21	1.24	0.89	0.41	.146
16.25	0.76	2.19	1.24	0.88	0.41	.144
16.50	0.78	2.17	1.24	0.87	0.41	.142
16.75	0.80	2.15	1.24	0.87	0.41	.140
17.00	0.82	2.14	1.25	0.86	0.41	.138
17.25	0.85	2.14	1.26	0.85	0.40	.136
17.50	0.90	2.16	1.27	0.85	0.40	.135
17.75	0.93	2.21	1.29	0.86	0.38	.137
18.00	0.94	2.29	1.31	0.88	0.37	.142
18.25	0.89	2.38	1.31	0.91	0.37	.150
18.50	0.82	2.44	1.30	0.94	0.37	.157
18.75	0.75	2.48	1.29	0.96	0.37	.163
19.00	0.65	2.52	1.28	0.99	0.37	.171
19.25	0.56	2.53	1.25	1.01	0.38	.177
19.50	0.46	2.53	1.23	1.03	0.38	.184
19.75	0.37	2.52	1.21	1.04	0.39	.190
20.00	0.26	2.50	1.18	1.06	0.40	.197
20.25	0.17	2.46	1.15	1.07	0.40	.203
20.50	0.05	2.42	1.11	1.09	0.41	.212
20.75	-0.05	2.35	1.07	1.09	0.43	.219
21.00	-0.14	2.27	1.03	1.10	0.44	.226
21.25	-0.23	2.16	0.99	1.10	0.46	.234
21.50	-0.29	2.03	0.94	1.08	0.48	.238
21.75	-0.32	1.91	0.90	1.06	0.51	.240
22.00	-0.33	1.79	0.87	1.04	0.54	.240
22.25	-0.32	1.69	0.84	1.01	0.57	.238
22.50	-0.30	1.59	0.81	0.98	0.61	.235
22.75	-0.28	1.51	0.79	0.95	0.64	.231
23.00	-0.25	1.43	0.77	0.92	0.68	.226
23.25	-0.22	1.36	0.76	0.89	0.71	.220

Pt

Energy (eV)	ε_1	ε_2	n	k	Im(-1/$\tilde{\varepsilon}$)	R(ϕ=0)
23.50	-0.19	1.31	0.75	0.87	0.75	.213
23.75	-0.16	1.26	0.75	0.84	0.78	.207
24.00	-0.13	1.21	0.74	0.82	0.82	.201
24.25	-0.10	1.17	0.73	0.80	0.85	.194
24.50	-0.07	1.13	0.73	0.77	0.88	.187
24.75	-0.04	1.10	0.73	0.75	0.91	.181
25.00	-0.01	1.07	0.73	0.73	0.93	.174
25.25	0.02	1.04	0.73	0.72	0.96	.168
25.50	0.04	1.02	0.73	0.70	0.98	.162
25.75	0.07	1.00	0.73	0.68	0.99	.155
26.00	0.09	0.99	0.74	0.67	1.00	.150
26.25	0.11	0.98	0.74	0.66	1.01	.145
26.50	0.13	0.96	0.74	0.65	1.02	.142
26.75	0.14	0.95	0.74	0.64	1.03	.139
27.00	0.15	0.94	0.74	0.63	1.04	.136
27.25	0.16	0.93	0.74	0.62	1.05	.133
27.50	0.17	0.91	0.74	0.62	1.06	.130
27.75	0.19	0.90	0.75	0.61	1.06	.127
28.00	0.19	0.90	0.75	0.60	1.07	.125
28.25	0.20	0.89	0.75	0.59	1.07	.123
28.50	0.21	0.88	0.75	0.59	1.08	.121
28.75	0.22	0.87	0.75	0.58	1.08	.119
29.00	0.22	0.87	0.75	0.58	1.08	.118
29.25	0.22	0.87	0.75	0.58	1.08	.119
29.50	0.21	0.87	0.74	0.58	1.09	.120
29.75	0.20	0.86	0.74	0.58	1.11	.122
30.00	0.19	0.84	0.73	0.58	1.13	.124