^{92}Mo(p,p′), (pol p,p′) 1978KaZV,1966Di01

History			
Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Coral M. Baglin	NDS 113, 2187 (2012)	15-Sep-2012

Others: 1969Li11, 1971Lu07, 1973Ta03, 1975Bu04, 1975Sc06, 1976De09, 1977De03, 1979Pl01, 1981Mo02, 1981Sc04, 1982Ce04, 1982Dj04, 1983Ce02, 1984We08, 1986Pl03, 1994Ri01.

For double-differential cross section data for inclusive (p,p′) reaction (E(p)=120, 160, 200 MeV), see 1994Ri01.

1986Pl03: E(pol p)=20 MeV; θ(c.m.)≈30°−150°. A(θ)×σ(θ) for 1509, 3091, 3925 levels.

1982Ce04,1983Ce02: E(p)=22.3 MeV, FWHM≈40 keV, θ(lab)=13°−170°. Coupled-channel analysis of σ(θ). Deduced β_L, β_{02}, β_{22}, β_{04}. 1509, 2283, 3091, 3580 levels.

1982Dj04: E(p)=201 MeV; FWHM=70 keV; θ(lab)=3°−7°. DWIA and DWBA analysis of σ(θ) for M1 giant resonance.

1981Sc04: E(p)=61.2 MeV, θ(c.m.)≈20°−100°. DWBA (semi-microscopic and collective model) analyses. Deduced β_L for 6 levels.

1981Mo02: E(p)=25-45 MeV, FWHM=25 keV, θ(lab)=10°−120°. DWBA analysis of σ(θ). Deduced β_LR for 5 levels.

1979Pl01: E(pol p)≈20 MeV; θ(c.m.)=30°−150°. α(θ) for 1509, 2283, 4140 levels.

1978KaZV: E(p)=20.39 MeV, FWHM=10-15 keV, θ(lab)=18°−120°, 98.5% ^{92}Mo target. Macroscopic DWBA.

1977De03, 1976De09: E(pol p)=30 MeV, FWHM=80-100 keV, θ(c.m.) ≈25°−125°. Microscopic DWBA and coupled-channel analyses of σ(θ) and analyzing power for 1509, 2283, 2527, 2850 levels. Deduced β_L.

1975Bu04: E(p)=12.5 MeV, FWHM=40-60 keV, θ(c.m.)≈30°−100°. DWBA analysis σ(θ). Deduced β_LR for 5 levels.

1973Ta03: E(pol p)=30.5 MeV, FWHM=100-150 keV, θ(c.m.)≈20°−140°. Collective and microscopic DWBA analyses of σ(θ) and analyzing power. Deduced β_L for 1509 level.

1971Lu07: E(p)=15 MeV, FWHM=50 keV, θ(c.m.)≈20°−150°. Coupled-channel analysis. Deduced β_L for 6 levels.

1966Di01: E(p)=10 MeV, FWHM≈27 keV. Observed 34 levels.

^{92}Mo Levels

E(level)†	L@	β_L&	Comments
0.			
1509 *4*	2	0.087	E(level): 1508 *2* in 1966Di01.
2283 *4*	4	0.066	E(level): 2281 *2* in 1966Di01.
2529 *4*	5	0.084	E(level): 2523 *2* in 1966Di01.
2615 *4*	(6)	0.045	E(level): 2609 *2* in 1966Di01.
2763[a] *4*	(8)[a]		
2853 *4*	3	0.173	
3011 *7*	5[c]	0.019	
3068 *7*			
3096 *7*	2	0.055	
3370 *7*			
3545 *7*	2	0.031	
3583 *7*	3	0.041	
3626[b] *7*			
3692 *7*	4	0.018	
3765‡ *5*			
3810‡ *5*			
3844 *7*	(0)		
3879 *7*	4	0.034	
3929 *7*	2	0.060	
3952 *7*			
3967 *7*	4	0.013	
4024 *7*			
4120 *7*			
4159# *7*	4+5	0.07,0.049	
4189 *7*	(6)	0.034	
4280 *7*			
4312 *7*	(5)	0.063	
4346 *7*			

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^{92}Mo(p,p′), (pol p,p′) 1978KaZV,1966Di01 (continued)

^{92}Mo Levels (continued)

E(level)[†]	L[@]	β_L[&]	E(level)[†]	Γ (MeV)	L[@]	β_L[&]
4432 *7*			5315 *7*			
4495 *7*	(2)	0.050	5353 *7*			
4554 *7*			5388[#] *7*			
4598 *7*			5432 *7*			
4633 *7*			5451 *7*			
4655 *7*			5467 *7*		(4)	0.024
4687 *7*			5517? *7*			
4728 *7*	4	0.037	5601 *7*			
4784 *7*			5631 *7*		(2,3)	0.042,0.06
4874 *7*			5658 *7*			
4898[d] *7*	4	0.037	5679 *7*			
4924 *7*			5710 *7*			
4964 *7*			5745 *7*			
5007 *7*			5784 *7*		(3,2)	0.073,0.049
5074 *7*	4	0.085	5806 *7*		(0)	
5087 *7*	(4)	0.060	5844[#] *7*			
5174 *7*			5894 *7*			
5190 *7*			5950 *7*			
5271 *7*			7.95×10^3[e] *10*	0.70[e] MeV *5*	0[e]	
5289 *7*	(5)	0.028	9.00×10^3[e] *10*	1.1[e] MeV *1*	0[e]	

[†] From 1978KaZV. Evaluator has assigned ΔE=4 keV for E(level)≤3000, and a conservative 7 keV otherwise (1978KaZV report that ΔE varies from 4 for lowest states to 7 for highest energy states). Data from 1966Di01 are in excellent agreement with those from 1978KaZV.

[‡] From 1966Di01; not reported by 1978KaZV.

[#] Unresolved doublet.

[@] From macroscopic DWBA analysis of $\sigma(\theta)$ (1978KaZV).

[&] β_L from 1978KaZV. Additional β_L data exist for levels below 3100 keV (see 1971Lu07, 1973Ta03, 1975Bu04, 1976De09, 1977De03, 1981Mo02, 1981Sc04 and 1982Ce04); they exhibit both E(p) and model dependence, but normally agree within a factor of 2 for a given level.

[a] $\sigma(\theta)$ shape roughly matched by L=8 DWBA (1978KaZV). β=0.005-0.014 from 1981Sc04.

[b] Weak 3626 peak slightly broadened; possible doublet (1978KaZV).

[c] 1978KaZV observe L=5 for 3008-level, but state is weak and authors cannot rule out a 4^- assignment for this level.

[d] From figs. 4.2.1 (40° p spectrum) and 4.3.2 (measured and DWBA predicted $\sigma(\theta)$ of 1978KaZV; tabulated value (4979) is out of numerical order and clearly is a misprint.

[e] From 1982Dj04. $\sigma(\theta)$ fitted well by DWBA ΔL=0 shape; suggested configuration: $((\nu\ g_{7/2})(\nu\ g_{9/2})^{-1})$.