

⁹²Mo(e,e') **1990Mi07**

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

Others: [1990Co25](#), [1987MiZL](#), [1985Mi15](#), [1980Dz04](#), [1973Ph02](#), [1971Si17](#).

[1973Ph02](#): E(e)=209 MeV; $\theta=35^\circ-110^\circ$; measured $\sigma(\theta)$.

[1985Mi15](#): E(e)=100-370 MeV; $\theta=40^\circ-105^\circ$; FWHM \leq 20 keV. DWBA and PWBA analysis of $\sigma(\theta)$.

[1990Mi07](#), [1987MiZL](#): E(e)=100-380 MeV; momentum transfer=0.5-3.1 fm⁻¹; dp/p=4-6 x10⁻⁵; 97.4% ⁹²Mo target; $\theta(\text{lab})=40^\circ-105^\circ, 155^\circ$; DWBA analysis of form factors (see also [1990Co25](#)).

See [1973An03](#) and [1974Ho32](#) for analysis of 2⁺ and 3⁻ level data of [1973Ph02](#). For rms radii from elastic scattering, see [1980Dz04](#) (R=4.09, 4.00 fm for E(e)=209, 302 MeV) and [1971Si17](#) (R=4.41 fm 4).

[1990Mi07](#) deduce occupation number for (π 1g_{9/2}) orbit in ⁹²Mo.

⁹²Mo Levels

E(level) [†]	T _{1/2} [‡]	Mult [#]	Comments
0			
1509	0.331 ps 15	E2	B(E2) \uparrow =0.109 5 (1987MiZL)
2282		E4	B(E4) \uparrow =0.0034 9 (1987MiZL)
2527		E5	B(E5) \uparrow =0.00341 17 (1987MiZL)
2612		E6	B(E6) \uparrow =0.00027 5 (1987MiZL)
2760 [@]		E8	
2850		E3	B(E3) \uparrow =0.0760 25 (1987MiZL)
3092	30.3 fs 21	E2	B(E2) \uparrow =0.0268 18 (1987MiZL)
3369		E4	B(E4) \uparrow =0.00037 11 (1987MiZL)
3545		E2	B(E2) \uparrow =0.0020 6 (1987MiZL)
3583		E3	B(E3) \uparrow =0.0044 4 (1987MiZL)
3626		E7	
3879		E4	B(E4) \uparrow =0.0015 3 (1987MiZL)
3929	10.5 fs 13	E2	B(E2) \uparrow =0.0188 20 (1987MiZL)
4020			
4120			
4159 10		E5	B(E5) \uparrow =0.0048 4 (1987MiZL)
4189			
4312		E5	B(E5) \uparrow =0.00035 5 (1987MiZL)
4344			
4495		E2	B(E2) \uparrow =0.0065 7 (1987MiZL)
4555 ^b		E7	B(E7) \uparrow =0.000107 11 (1987MiZL)
4580			
4595 10		(E2) ^{&a}	B(E2) \uparrow =0.052 12 (1987MiZL)
4634			
4690		(M6)	
4728		E4 ^{&}	B(E4) \uparrow =0.00116 27 (1987MiZL)
4874			
4900		E4 ^{&}	
4925		M7	
4964			
4979		E4,M4 ^{&}	
5007		(E1) ^{&c}	B(E1) \uparrow =0.0005 4 (1987MiZL)
5090 10		E4 ^{&}	B(E4) \uparrow =0.0032 4 (1987MiZL)

[†] From [1987MiZL](#) if ΔE is given; from [1990Mi07](#) (text or form factor and transition charge density plots In fig. 8.18) otherwise. Note that [1990Mi07](#) observe a number of additional levels (several of them strongly excited) between 5 and 8 MeV, but specific energies are not given.

 $^{92}\text{Mo}(e,e')$ **1990Mi07 (continued)**

 ^{92}Mo Levels (continued)

‡ From B(ML) and adopted branching.

From 1990Mi07, based on comparison of DWBA predictions with experimental form factors, except As noted.

@ From data for this level, 1990Mi07 deduce rms radius of 5.06 fm 4 for (π 1g_{9/2}) orbit (see also plot of measured and calculated π g_{9/2} orbit radii in this mass region in fig. 2, of 1985Mi15).

& From 1987MiZL.

^a E2 predictions fit form factor reasonably well, but E2 assignment is not conclusive.

^b (π 1f_{7/2}) orbit radius=4.35 fm 8 (charge), 3.95 fm 10 (current), determined by fitting E7 form factors (1990Mi07).

^c Inclusion of two densities essential for fit; E2 and E4 ruled out (1987MiZL).