^{94}Mo(p,p′γ) 1981Ad03

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	D. Abriola(a), A. A. Sonzogni	NDS 107, 2423 (2006)	1-Jan-2006

1981Ad03: E=4.8 MeV. Enriched target. Ge(Li), FWHM=1.9 keV at 1332 keV. Measured Eγ, Iγ, γ(θ), Doppler-shift attenuation.
If not indicated otherwise the quoted data are from this work.
1973InZY: E=14.5 MeV. Ge(Li), silicon detectors. Measured Eγ, Iγ, pγ-coin for transitions deexciting the 2533 level.

^{94}Mo Levels

E(level)	J^{π} †	$T_{1/2}$ ‡
0	0^+	
871.1	2^+	>0.9 ps
1573.6	4^+	>0.2 ps
1863.9	2^+	0.13 ps *+7−3*
2067.1	2^+	32 fs *+10−5*
2533	3^-	

† From Adopted Levels.
‡ From Doppler-shift attenuation.

γ(^{94}Mo)

E_i(level)	J_i^{π}	E_γ	I_γ †	E_f	J_f^{π}	Mult.‡	δ‡	α&	Comments
871.1	2^+	871.1	100	0	0^+	(E2)		0.0011	α=0.0011
1573.6	4^+	702.5	100	871.1	2^+	(E2)		0.0019	α=0.0019
1863.9	2^+	992.8	92	871.1	2^+	(M1+E2)	−0.87 *13*		δ: other: δ=−3.2 *+7−9*.
		1863.9	8	0	0^+	(E2)			
2067.1	2^+	1196.0	90	871.1	2^+	(M1+E2)	+0.62 *18*		
		2067.1	10	0	0^+	(E2)			
2533	3^-	467#	15@	2067.1	2^+				
		669#	15@	1863.9	2^+				
		960#	20@	1573.6	4^+				
		1662#	50@	871.1	2^+				

† Branching ratios for each level.
‡ From γ(θ). Quadrupole γ′s are assumed to be E2. D+Q transitions are probably M1+E2 because of the large δ′s.
# Deduced from levels reported by 1973InZY.
@ From 1973InZY.
& Total theoretical internal conversion coefficients, calculated using the BrIcc code (2008Ki07) with Frozen orbital approximation based on γ-ray energies, assigned multipolarities, and mixing ratios, unless otherwise specified.

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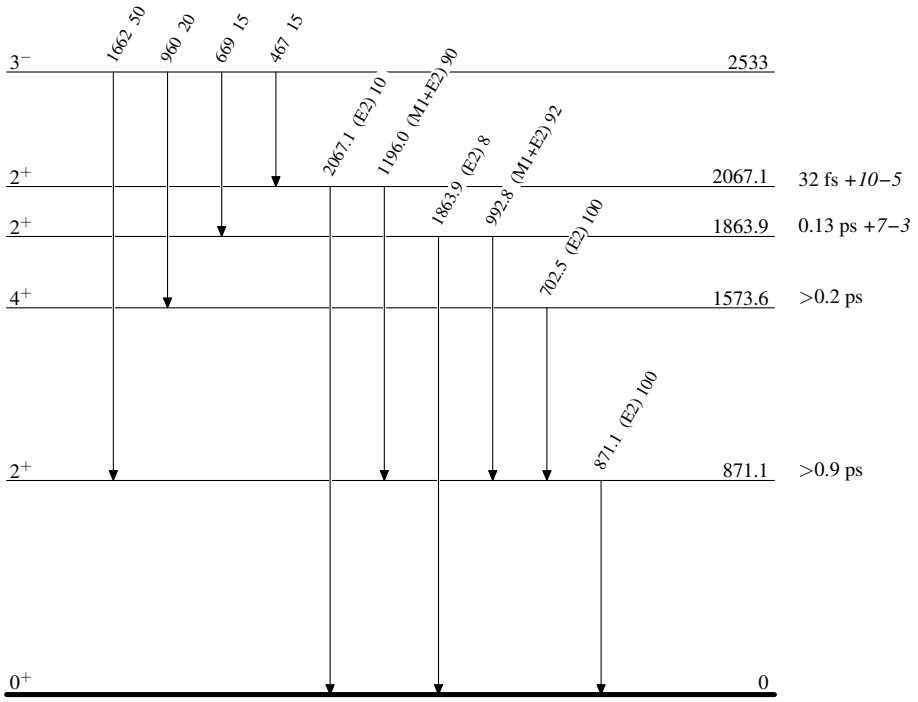
Level Scheme

Intensities: % photon branching from each level



$^{94}_{42}Mo_{52}$