

$^{94}\text{Mo}(\gamma, \gamma')$ 2003Fr02

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

2003Fr02: E=4.0,3.3 MeV. Measured E_γ , I_γ , and $\gamma\gamma$ using three HPGe detectors.

1981Sc10: Monochromatic photons from radioactive sources (E=2 MeV to 4 MeV). Ge(Li), FWHM=2.0 keV at 1.33 MeV.

 ^{94}Mo Levels

E(level) [†]	J ^π	E(level) [†]	J ^π	E(level) [†]	J ^π	E(level) [†]	J ^π
0	0 ⁺	1864.32 8	2 ⁺	2739.93 7	1 ⁺	3511.88 14	1 ⁽⁺⁾
871.14 6	2 ⁺	2067.39 7	2 ⁺	3128.68 9	1 ⁺	6555 [‡]	(1,2 ⁺)
1741.66 16	0 ⁺	2393.05 7	2 ⁺	3260.8 5	1 ⁻		

[†] From least-squares fit to E_γ .

[‡] Observed only by 1981Sc10.

 $\gamma(^{94}\text{Mo})$

$E_i(\text{level})$	J _i ^π	E_γ [‡]	I_γ ^{†‡}	E_f	J _f ^π	Comments
871.14	2 ⁺	871.09 10	100	0	0 ⁺	E _γ : from adopted gammas.
1741.66	0 ⁺	871.4 5		871.14	2 ⁺	
1864.32	2 ⁺	993.1 1	10.3 10	871.14	2 ⁺	
		1864.3 2	100.0 10	0	0 ⁺	
2067.39	2 ⁺	1196.2 1	100.0 7	871.14	2 ⁺	
		2067.4 1	15.1 7	0	0 ⁺	
2393.05	2 ⁺	325.7 3	0.61 14	2067.39	2 ⁺	
		528.7 3	0.72 3	1864.32	2 ⁺	
		1521.8 1	100.0 20	871.14	2 ⁺	
		2393.1 1	11.11 22	0	0 ⁺	
2739.93	1 ⁺	672.0 7	3.0 5	2067.39	2 ⁺	
		875.5 2	24.4 5	1864.32	2 ⁺	
		998.2 2	4.44 10	1741.66	0 ⁺	
		1868.8 1	100.0 20	871.14	2 ⁺	
		2739.9 1	65.4 13	0	0 ⁺	
3128.68	1 ⁺	1061.1 5	1.16 11	2067.39	2 ⁺	
		1264.3 1	18.3 4	1864.32	2 ⁺	
		2257.6 1	4.29 10	871.14	2 ⁺	
		3128.5 2	100.0 3	0	0 ⁺	
3260.8	1 ⁻	3260.7 5	100	0	0 ⁺	
3511.88	1 ⁽⁺⁾	1770.4 2	49 9	1741.66	0 ⁺	
		2640.7 3	51.6 13	871.14	2 ⁺	
		3511.6 2	100.0 11	0	0 ⁺	
6555	(1,2 ⁺)	4487	84 16	2067.39	2 ⁺	
		4692	16 8	1864.32	2 ⁺	
		5683	107 16	871.14	2 ⁺	
		6555	100	0	0 ⁺	

[†] Relative photon branching for each level.

[‡] From a combination of four experiments: (γ, γ'), ^{94}Tc ε decay, ($\alpha, n\gamma$) and ($n, n'\gamma$), unless noted otherwise.

$^{94}\text{Mo}(\gamma,\gamma')$ **2003F-02**

Level Scheme

Intensities: Relative photon branching from each level

