^{94}Nb β^- decay (6.263 min) 1971Ha54

History

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

Parent: ^{94}Nb: E=40.892 *12*; $J^\pi=3^+$; $T_{1/2}$=6.263 min *4*; Q(β^-)=2045.2 *20*; %β^- decay=0.50 *6*
1971Ha54: Ge(Li), FWHM=4.0 keV at 1.33 MeV. NaI(Tl). Measured Eγ, Iγ, $\gamma\gamma$.
Other measurements: 1962Ki08, 1963Re01.

^{94}Mo Levels

E(level)	J^π[†]
0	0^+
871.0 *10*	2^+
1573.0 *15*	4^+
1864.0 *15*	2^+

[†] From Adopted Levels.

β^- radiations

E(decay)	E(level)	Iβ^-[†]	Log *ft*	Comments
(222 *3*)	1864.0	0.00075 *16*	6.76 *11*	av Eβ=62.16
(513 *3*)	1573.0	0.0032 *6*	7.34 *10*	av Eβ=160.87
(1215.1 *22*)	871.0	0.50 *6*	6.50 *8*	av Eβ=444.01

[†] Absolute intensity per 100 decays.

$\gamma(^{94}Mo)$

E$_\gamma$	I$_\gamma$[‡]	E$_i$(level)	J_i^π	E$_f$	J_f^π	Mult.[†]	δ[†]	α[#]	Comments
702	0.63 *4*	1573.0	4^+	871.0	2^+	E2		0.00186	α=0.00186; α(K)=0.00161 *5*; α(L)=0.00019 *1*
871	100	871.0	2^+	0	0^+	E2		0.00108	α=0.00108; α(K)=0.00094 *3*; α(L)=0.00011
993	0.15 *2*	1864.0	2^+	871.0	2^+	M1+E2	−2.0 *3*	0.00080	α=0.00080; α(K)=0.00070

[†] From adopted gammas.
[‡] For absolute intensity per 100 decays, multiply by 0.0050 *6*.
[#] 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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Decay Scheme

Intensities: $I_{(\gamma+ce)}$ per 100 parent decays