Adopted Levels, Gammas

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	Coral M. Baglin	NDS 111,275 (2010)	1-Oct-2009

Q(β^-)=2.87×10^3 *3*; S(n)=5.62×10^3 *3*; S(p)=6.84×10^3 *4*; Q(α)=1.41×10^3 *8* 2012Wa38
Note: Current evaluation has used the following Q record 2866 26 *5616* 26 *6840* 40 *1420* 75 2003Au03,2009AuZZ.
S(n),Q(α): From 2009AuZZ; 5617 *26* and 1420 *80*, respectively, in 2003Au03.

^{184}Ta Levels

Cross Reference (XREF) Flags

A ^{184}Hf β^- decay

E(level)†	Jπ‡	$T_{1/2}$	XREF	Comments
0.0	(5$^-$)	8.7 h *1*	A	%β^-=100 Jπ: log *ft*=6.8 to (5)$^+$ 1699, 7.4 to (6)$^+$ 1746; possible configuration: ((ν 3/2[512])+(π 7/2[404])) (1984Bu37). $T_{1/2}$: from 1955Bu80.
47.9 *2*	(3$^-$)		A	Jπ: E2 48γ to (5$^-$) g.s.; configuration: ((ν 1/2[510])-(π 7/2[404])).
89.3 *3*	(2$^-$)		A	Jπ: M1 41γ to (3$^-$) 48; M1+E2 139γ from J=1 *228*; configuration: ((ν 3/2[512])-(π 7/2[404])).
228.4 *4*	1$^{(-)}$		A	Jπ: M1+E2 139γ to π=(−) 89; log *ft*=6.6, log $f^{1u}t$<8.5 from 0$^+$ in β^- decay; configuration: ((ν 7/2[503])⊗(π 7/2[404])).
272.3 *4*	(0$^-$)		A	Jπ: M1 44γ to 1$^{(-)}$ 228; configuration: ((ν 7/2[503])-(π 7/2[404])).
453.3 *5*	1$^{(+)}$		A	Jπ: log *ft*=6.7, log $f^{1u}t$<8.5 from 0$^+$ in β^- decay; configuration: ((ν 7/2[503])-(π 9/2[514])).
617.2 *5*	1$^{(+)}$		A	Jπ: log *ft*=6.3, log $f^{1u}t$<8.5 from 0$^+$ in β^- decay; configuration: ((ν 9/2[624])-(π 7/2[404])).

† From Eγ.
‡ Based on calculations by 1973Wa18 with n-p intrinsic configuration energies estimated from systematics.

$\gamma(^{184}Ta)$

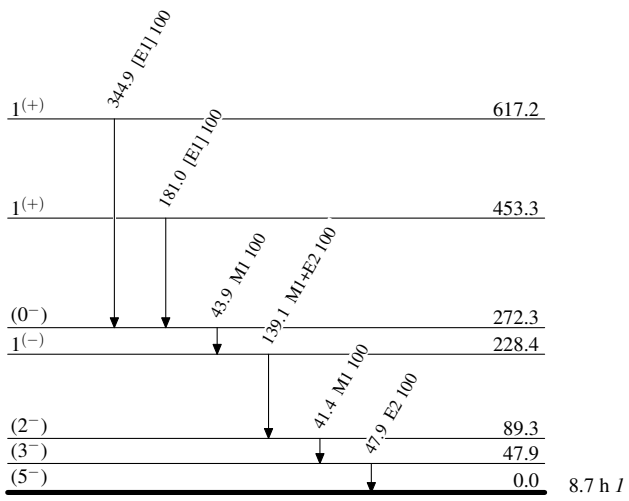
E_i(level)	J^π_i	E_γ†	I_γ†	E_f	J^π_f	Mult.†	δ†	α‡
47.9	(3$^-$)	47.9 *2*	100	0.0	(5$^-$)	E2		94.6 *24*
89.3	(2$^-$)	41.4 *2*	100	47.9	(3$^-$)	M1		9.71 *20*
228.4	1$^{(-)}$	139.1 *2*	100	89.3	(2$^-$)	M1+E2	1.9 *+4−3*	1.20 *5*
272.3	(0$^-$)	43.9 *2*	100	228.4	1$^{(-)}$	M1		8.17 *16*
453.3	1$^{(+)}$	181.0 *2*	100	272.3	(0$^-$)	[E1]		0.0785
617.2	1$^{(+)}$	344.9 *2*	100	272.3	(0$^-$)	[E1]		0.01585

† From ^{184}Hf β^- decay.
‡ 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.

Adopted Levels, Gammas

Level Scheme

Intensities: Relative photon branching from each level



$^{184}_{73}Ta_{111}$