Adopted Levels, Gammas

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	E. Browne, J. K. Tuli	NDS 110,507 (2009)	1-Oct-2008

S(n)=1.36×10^4 *syst*; S(p)=−1736 *7*; Q(α)=4.4×10^3 *syst* 2012Wa38
Note: Current evaluation has used the following Q record −1740 104070 syst 2003Au03.
2007Se06: Observed gs p decay to 144Er gs and a 1044% *21* branch to 2$^+$ excited state.
2003Ka04: Observed 9.6% *15* p branch to 2$^+$ level in 144Er.
2001Ry01, 2001Ry02: Fine structure, that is, decay to 2$^+$ in daughter ^{144}Er nucleus, was reported in preliminary form.
2000So11: ^{90}Zr(^{197}Au,x), E=30 MeV/nucleon. Identification using a 1200 mass separator at Michigan State University.
1998Ba13: ^{92}Mo(^{58}Ni,p4n) E=307 MeV (ORNL), g.s. to g.s. transition reported. Other: 1999BaZR.
Theoretical works:
2001Go20: β_2=0.26, β_4=−0.04, S(p)=−2.1 MeV.
1997Mo25: S(p)=−1.00 MeV, S(2p)=0.35 MeV, Q(α)=4.23 MeV, $T_{1/2}(\beta)$=0.5117 s, $T_{1/2}(\alpha)$=33110 s.
1995Mo29: β_2=0.249, β_4=−0.078, β_6=0.008.
1995Ab38: β_2=0.35, β_4=−0.04, S(p)=−1.2 MeV.
1976Li30: S(p)=−1.45 MeV, Q(α)=4.73 MeV.

^{145}Tm Levels

Cross Reference (XREF) Flags

A ^{58}Ni(^{92}Mo,p4nγ)

E(level)	J$^\pi$[†]	$T_{1/2}$	XREF	Comments
0[‡]	(11/2$^-$)	3.17 μs *20*	A	%p=100 (2007Se06) $T_{1/2}$: from 2007Se06. Others: 3.1 μs *3* (2003Ka04), 3.5 μs *10* (1998Ba13).
338.4[‡] *4*	(15/2$^-$)		A	
868.8[‡] *7*	(19/2$^-$)		A	
1555.0[‡] *9*	(23/2$^-$)		A	
2373.8[‡] *11*	(27/2$^-$)		A	
3311.5[‡] *14*	(31/2$^-$)		A	

[†] From gs rotational band properties similar to expected for an h11/2 p decoupled band (2007Se06).
[‡] Band(A): Decoupled πh$_{11/2}$ band. Particle-rotor model and core- quasi-article model calculations consistent with presence of triaxility with asymmetry parameter γ≈20°.

γ(^{145}Tm)

E_i(level)	J_i^π	E_γ	I_γ	E_f	J_f^π
338.4	(15/2$^-$)	338.4 *4*	100	0	(11/2$^-$)
868.8	(19/2$^-$)	530.4 *5*	100	338.4	(15/2$^-$)
1555.0	(23/2$^-$)	686.2 *5*	100	868.8	(19/2$^-$)
2373.8	(27/2$^-$)	818.8 *7*	100	1555.0	(23/2$^-$)
3311.5	(31/2$^-$)	937.7 *8*	100	2373.8	(27/2$^-$)

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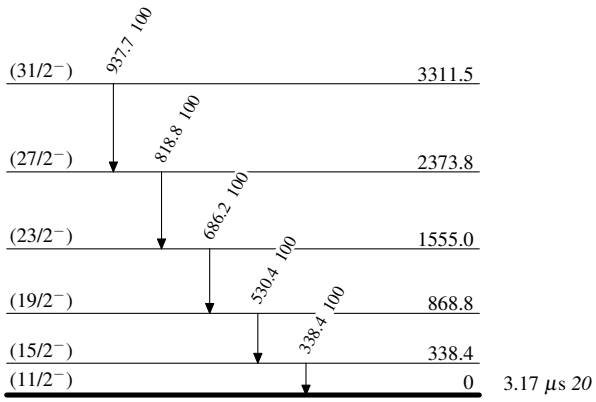
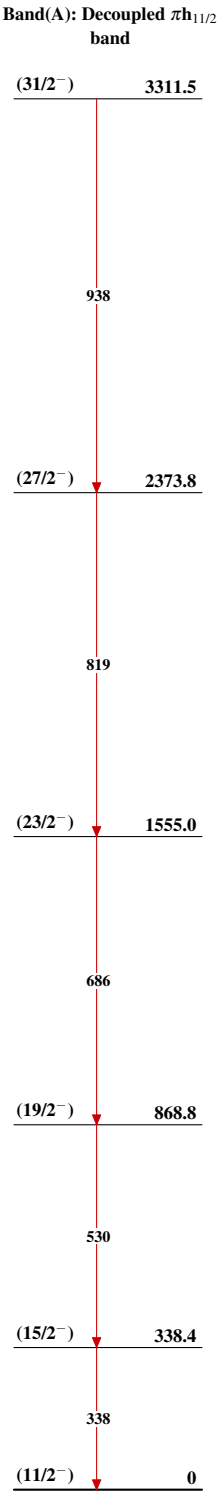
Level Scheme

Intensities: Relative photon branching from each level



$^{145}_{69}Tm_{76}$

Adopted Levels, Gammas



$^{145}_{69}Tm_{76}$