^{148}Pm IT decay (41.29 d)

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	N. Nica	NDS 117, 1 (2014)	1-Oct-2013

Parent: ^{148}Pm: E=137.9 *3*; $J^{\pi}=5^-,6^-$; $T_{1/2}$=41.29 d *11*; %IT decay=4.2 *6*
See also ^{148}Pm β^- decay (41.29 d).
Measured: γ (1970Gr09,1962Re03), ce (1963Ba31,1961Ha23,1970GrYP).

^{148}Pm Levels

E(level)	J^{π}[†]	$T_{1/2}$[†]	Comments
0.0	1^-	5.368 d *2*	
75.80 *10*	$1^-,2^-$		
137.9 *3*	$5^-,6^-$	41.29 d *11*	%IT=4.2 *6*; derived from 4.6 *5* (1971Mo04) after reducing it to conform to a lower Iγ(1465) adopted in the decay of ^{148}Pm g.s. Others: 6.5% 17, from Iγ(1460) in the decay of 41 d activity, and 5.1% 18, from Iγ(75) (1962Re03); 6.9% 7 (1963Ba31).

[†] Adopted Levels.

$\gamma(^{148}Pm)$

E_γ[‡]	I_γ[@]	E_i(level)	J_i^π	E_f	J_f^π	Mult.[#]	α[†]	$I_{(\gamma+ce)}$[@]	Comments
61.30 *5*		137.9	$5^-,6^-$	75.80	$1^-,2^-$	E4	1.359×10^4	100	ce(K)/(γ+ce)=0.00218 *5*; ce(L)/(γ+ce)=0.736 *8*; ce(M)/(γ+ce)=0.210 *4*; ce(N+)/(γ+ce)=0.0515 *11* ce(N)/(γ+ce)=0.0464 *10*; ce(O)/(γ+ce)=0.00515 *11*; ce(P)/(γ+ce)=3.19×10^{-6} *7* Mult.: L1:L2:L3=≤15:300 *20*:300 *20* (1970GrYP), K:L2:L3=weak:100:100 (1961Ha23), K:L:M+=<80:880 *110*:290 *60* (1963Ba31); ce(L)(61.5γ)/ce(L)(75.5γ)=10 *2* (1963Ba31). Additional information 1.
75.8 *1*	22.2 *5*	75.80	$1^-,2^-$	0.0	1^-	M1	3.44	100	ce(K)/(γ+ce)=0.657 *6*; ce(L)/(γ+ce)=0.0927 *16*; ce(M)/(γ+ce)=0.0198 *4*; ce(N+)/(γ+ce)=0.00517 *10* ce(N)/(γ+ce)=0.00446 *9*; ce(O)/(γ+ce)=0.000672 *13*; ce(P)/(γ+ce)=4.23×10^{-5} *8* I_γ: I(75.8γ)/I(630γ in ^{148}Sm)=0.0128 *21* (unweighted average of 0.0105 *22* (1970Gr09), 0.011 *4* (1962Re03), 0.017 *5* (1963Ba31)). Mult.: α(K)exp=2.5 *8*, K:L:M+=790 *120*:90 *18*:18 *8* (1963Ba31), K:L1:L3=≈6:1:<1 (1961Ha23), L1:L2+L3=100 *10*:≤10 (1970GrYP).

[†] Additional information 2.

Continued on next page (footnotes at end of table)

^{148}Pm IT decay (41.29 d) (continued)

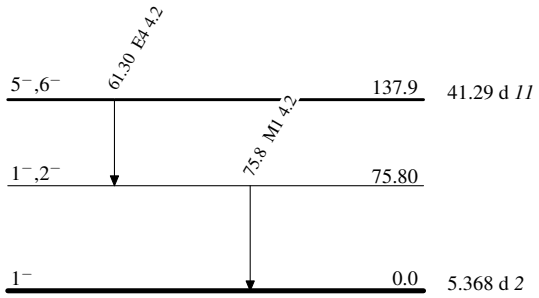
$\gamma(^{148}Pm)$ (continued)

‡ From 1970GrYP.
# From α data (1962Re03,1963Ba31,1970GrYP).
@ For absolute intensity per 100 decays, multiply by 0.042 *6*.

^{148}Pm IT decay (41.29 d)

Decay Scheme

Intensities: $I_{(\gamma+ce)}$ per 100 parent decays
%IT=4.2 *6*



$^{148}_{61}Pm_{87}$