^{148}Er ε decay (4.6 s) 1988To03,1989Ta11

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

Parent: ^{148}Er: E=0.0; $J^\pi=0^+$; $T_{1/2}$=4.6 s *2*; Q(ε)=6510 *80*; %ε+%$β^+$ decay=100.0
^{148}Er-Q(ε): From 2011AuZZ.
Measured: γ (1989Ta11,1988To03,1982No08), γγ, (K x ray)γ (1989Ta11,1988To03), delayed p (1988To03).
No normalization has been given since the decay scheme is incomplete.

^{148}Ho Levels

Delayed proton emission probability ≈0.15% (1988To03).

E(level)†	J^π	$T_{1/2}$	Comments
0.0	(1^+)	2.2 s *11*	J^π: 1988To03 estimate that the sum of the total transition intensities of 142γ, 244γ, and 315γ (if they are M1+E2) represent ≈25% of the total $β^-$ decay strength. Hence, they estimate ≈75% of the $β^-$ decay strength populating the g.s. with log *ft*≈4.7 and assign (1^+) to the g.s.
141.6 *4*			
243.8 *4*			
315.2 *4*			
429.1 *7*			
512.5 *7*			
524.6 *11*			
609.5 *3*			
924.9 *4*			
1311.8 *3*			
1636.8 *5*			
2121.8 *5*			

† From a least-squares fit to Eγ data.

γ(^{148}Ho)

Iγ normalization: From Iγ(absolute)=6.4% *14* for 243.8γ and 5.8% *13* for 315.2γ (1982No08).

E_γ†	I_γ‡#	E_i(level)	E_f	J^π_f	Comments
141.6 *4*	60 *3*	141.6	0.0	(1^+)	
243.8 *4*	100 *5*	243.8	0.0	(1^+)	I_γ: 6.4% *14* (1982No08).
268.7 *5*	20 *5*	512.5	243.8		
287.5 *5*	30 *5*	429.1	141.6		
315.2 *4*	97 *7*	315.2	0.0	(1^+)	I_γ: 5.8% *13* (1982No08).
383 *1*	24 *7*	524.6	141.6		E_γ,I_γ: estimated from coincidence data.
609.5 *3*	81 *6*	609.5	0.0	(1^+)	
924.9 *4*	33 *7*	924.9	0.0	(1^+)	
1027.3 *4*	28 *7*	1636.8	609.5		
1311.8 *3*	126 *11*	1311.8	0.0	(1^+)	
2121.8 *5*	16 *5*	2121.8	0.0	(1^+)	

† From 1989Ta11.
‡ Relative intensity (1989Ta11).
# For absolute intensity per 100 decays, multiply by 0.062 *13*.

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Decay Scheme

Intensities: Relative I_γ

Legend

$I_\gamma < 2\% \times I_\gamma^{max}$
$I_\gamma < 10\% \times I_\gamma^{max}$
$I_\gamma > 10\% \times I_\gamma^{max}$