

$^{58}\text{Ni}(^{92}\text{Mo},\text{p}4\text{n}\gamma)$ 2007Se06,2005Se26

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

2007Se06: E=417 MeV produced using ATLAS accelerator at ANL. Measured $E\gamma$, $I\gamma$, $\gamma\gamma$ coin and $\gamma\gamma$ using Gammasphere array of 90 Compton-suppressed HPGe detectors. Nuclei were separated using the Argonne fragment mass analyzer and implanted in a Double-Sided Si strip detector to measure proton decays, and another HPGe detector was used to record $\gamma\gamma$ coincidence measurements.

2005Se26: E=512 MeV. Measured $E\gamma$, $I\gamma$, $\gamma\gamma$ coin, and $\gamma\gamma$ using the Gammasphere array. A Double-Sided Si Strip Detector was used in the process of tagging γ rays by proton decays. Others: [2005ROZY](#), [2004SeZW](#).

All data are from [2007Se06](#).

 ^{145}Tm Levels

E(level)	J^π	$T_{1/2}$	Comments
$0^{\dagger}$	$11/2^-$	$3.17 \mu\text{s}$ 20	$\%p=100$ $T_{1/2}$: from 2007Se06 . $\%p=10.4$ 2I to 2^+ level in ^{144}Er (2007Se06).
338.4 † 4	$15/2^-$		
868.8 † 7	$19/2^-$		
1555.0 † 9	$23/2^-$		
2373.8 † 11	$(27/2^-)$		
3311.5 † 14	$(31/2^-)$		

† Band(A): Decoupled $\pi h_{11/2}$ band.

 $\gamma(^{145}\text{Tm})$

E_γ	I_γ	$E_i(\text{level})$	J_i^π	E_f	J_f^π
338.4 4	100 18	338.4	$15/2^-$	0	$11/2^-$
^x 478.1 10	38 14				
530.4 5	84 19	868.8	$19/2^-$	338.4	$15/2^-$
686.2 5	105 25	1555.0	$23/2^-$	868.8	$19/2^-$
^x 805.9 8	78 28				
818.8 7	35 21	2373.8	$(27/2^-)$	1555.0	$23/2^-$
^x 926.8 7	36 22				
937.7 8	22 15	3311.5	$(31/2^-)$	2373.8	$(27/2^-)$

^x γ ray not placed in level scheme.

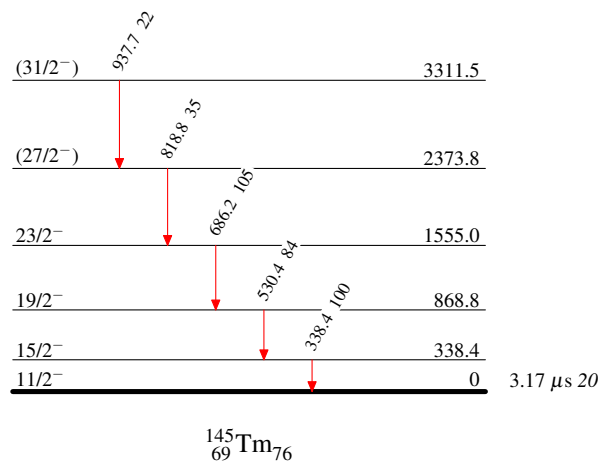
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Level Scheme

Intensities: Relative I_γ

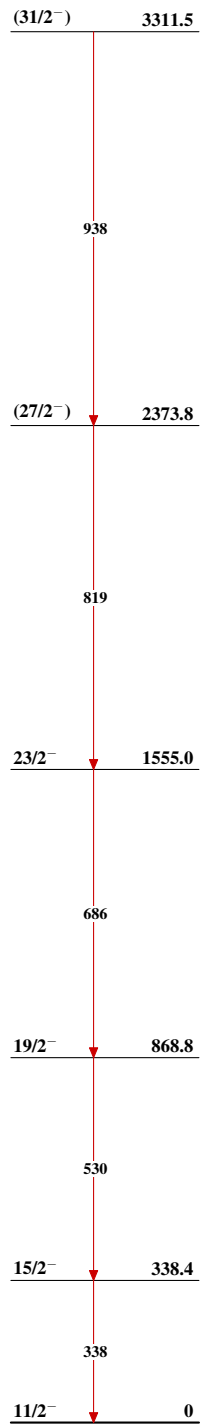
Legend

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



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Band(A): Decoupled $\pi h_{11/2}$
band



$^{145}_{69}\text{Tm}_{76}$