

$^{144}\text{Sm}(\text{p},\text{p}'\gamma)$  1996Wi07

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	A. A. Sonzogni	NDS 93, 599 (2001)	1-Dec-2000

1996Wi07: E=10.20 MeV. Proton-Gamma coincidence; scattered protons detected in Si detectors at 90°, resolution=90 keV; gammas detected using OSIRIS-cube spectrometer: 6 escape-suppressed Ge.

 $^{144}\text{Sm}$  Levels

E(level)	$J^\pi$ <sup>†</sup>	$T_{1/2}$	Comments
0	0 <sup>+</sup>	stable	
1660.1	2 <sup>+</sup>	84 fs 3	$T_{1/2}$ : from 1987Ra01.
1810.3	3 <sup>-</sup>	24.5 ps 35	$T_{1/2}$ : from 1989Ba01.
3225.5	1 <sup>-</sup>	1.94 fs 26	$T_{1/2}$ : from widths measured by 1976Me17 and branching ratios of 1996Wi07. It is proposed that this state arises from the coupling of the 2 <sup>+</sup> (1660 keV) state with the 3 <sup>-</sup> (1810 keV) state.

<sup>†</sup> As given by authors, in agreement with adopted values.

 $\gamma(^{144}\text{Sm})$ 

$E_\gamma$	$I_\gamma$	$E_i(\text{level})$	$J_i^\pi$	$E_f$	$J_f^\pi$
150.2 2	100	1810.3	3 <sup>-</sup>	1660.1	2 <sup>+</sup>
1414.9 5	1.5 3	3225.5	1 <sup>-</sup>	1810.3	3 <sup>-</sup>
1565.8 4	1.9 3	3225.5	1 <sup>-</sup>	1660.1	2 <sup>+</sup>
1660.1 2	100	1660.1	2 <sup>+</sup>	0	0 <sup>+</sup>
1810.4 3	7.1 9	1810.3	3 <sup>-</sup>	0	0 <sup>+</sup>
3225.5 2	100	3225.5	1 <sup>-</sup>	0	0 <sup>+</sup>

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## Level Scheme

Intensities: Type not specified

## Legend

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

