

$^{144}\text{Sm}(^{42}\text{Ca},4n\gamma)$  2000Je09

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	Balraj Singh	NDS 130, 21 (2015)	15-Jul-2015

2000Je09 (also 2002Ju12,2001Ju09,2000MuZW) E=213 MeV. Measured  $E\gamma$ ,  $I\gamma$  and  $\gamma\gamma$  using the Jurosphere II array comprised of seven TESSA, five Nordball, and 15 Eurogam Phase I escape suppressed Ge detectors.

 $^{182}\text{Pb}$  Levels

E(level)	$J^\pi$ <sup>†</sup>
0	0 <sup>+</sup>
888.3 <sup>‡</sup> 3	(2 <sup>+</sup> )
1119.5 <sup>‡</sup> 4	(4 <sup>+</sup> )
1433.2 <sup>‡</sup> 4	(6 <sup>+</sup> )
1825.5 <sup>‡</sup> 5	(8 <sup>+</sup> )
2288.2 <sup>‡</sup> 6	(10 <sup>+</sup> )
2812.2 <sup>‡</sup> 8	(12 <sup>+</sup> )

<sup>†</sup> From systematics. Also probable band assignment.

<sup>‡</sup> Band(A):  $K^\pi=(2^+)$ , prolate band.

 $\gamma(^{182}\text{Pb})$ 

$E_\gamma$	$I_\gamma$	$E_i(\text{level})$	$J_i^\pi$	$E_f$	$J_f^\pi$
231.2 2	73 17	1119.5	(4 <sup>+</sup> )	888.3	(2 <sup>+</sup> )
313.7 2	68 12	1433.2	(6 <sup>+</sup> )	1119.5	(4 <sup>+</sup> )
392.3 3	29 5	1825.5	(8 <sup>+</sup> )	1433.2	(6 <sup>+</sup> )
462.7 4	24 4	2288.2	(10 <sup>+</sup> )	1825.5	(8 <sup>+</sup> )
524.0 4	14 3	2812.2	(12 <sup>+</sup> )	2288.2	(10 <sup>+</sup> )
888.3 3	100 7	888.3	(2 <sup>+</sup> )	0	0 <sup>+</sup>

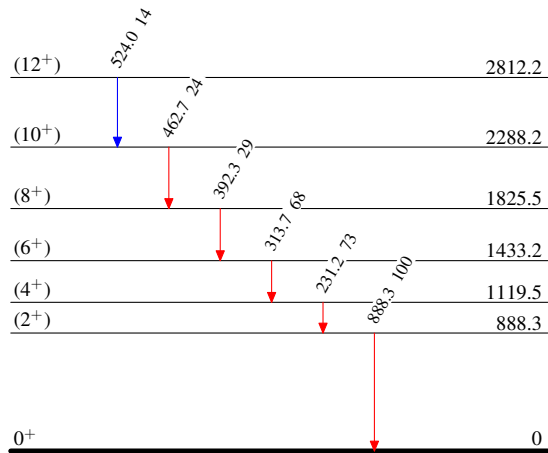
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## Level Scheme

Intensities: Relative  $I_\gamma$ 

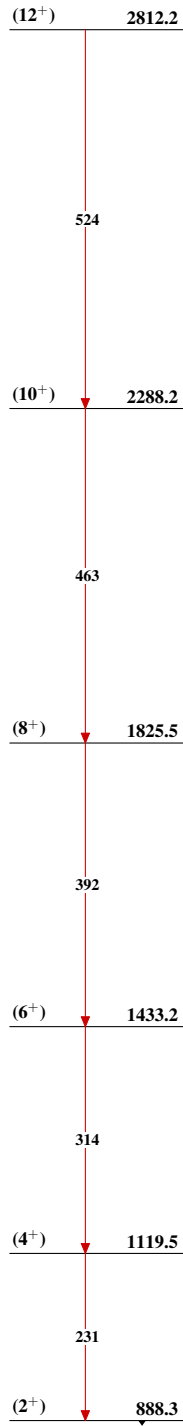
## Legend

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

 $^{182}_{82}\text{Pb}_{100}$

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Band(A):  $K^\pi=(2^+)$ ,  
prolate band

 $^{182}_{82}\text{Pb}_{100}$