^{144}Sm(^{39}K,p2nγ) 1988Dr05

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	E. A. Mccutchan	NDS 126, 151 (2015)	1-Feb-2015

E(^{39}K)=183 MeV. Measured Eγ, Iγ, $\gamma\gamma$ coin, p-$\gamma\gamma$ coin, $\gamma(\theta)$ using HERA array consisting of 21 Compton-suppressed HPGe detectors and a silicon detector for protons.

α: Additional information 1.

^{180}Hg Levels

E(level)[†]	J$^\pi$[‡]
0.0[#]	0^+
434.1[#]	2^+
706.3[#]	4^+
1032.1[#]	6^+
1436.5[#]	8^+
1913.2[#]	10^+
2454.7[#]	12^+
3054.2[#]	(14^+)
3702[#]	(16^+)

[†] From a least-squares fit to Eγ's by evaluator.
[‡] As suggested by 1988Dr05. Assignments are based on $\gamma(\theta)$ and assumed rotational structure.
[#] g.s. band.

$\gamma(^{180}Hg)$

E$_\gamma$	I$_\gamma$	E$_i$(level)	J$_i^\pi$	E$_f$	J$_f^\pi$	Mult.[†]	α	Comments
272.2	85 *2*	706.3	4^+	434.1	2^+	E2	0.1429	Mult.: α(exp) from transition intensity balance supports an E2 multipolarity.
325.8	71 *1*	1032.1	6^+	706.3	4^+	E2	0.0836	
404.4	47 *1*	1436.5	8^+	1032.1	6^+	E2[‡]	0.0461	
434.1	100	434.1	2^+	0.0	0^+	E2	0.0383	
476.7	28 *1*	1913.2	10^+	1436.5	8^+	E2	0.0303	
541.5	15 *1*	2454.7	12^+	1913.2	10^+	E2[‡]	0.0223	
599.5	11 *2*	3054.2	(14^+)	2454.7	12^+		0.01762	
[x]605.0	6 *1*							
[x]609.1	7 *2*							
[x]619.8	6 *1*							
[x]628.4	4 *1*							
648	5 *1*	3702	(16^+)	3054.2	(14^+)		0.01481	

[†] Based on measured anisotropies and DCO ratios. Quadrupole transitions are assumed to be E2.
[‡] From DCO ratio only.
[x] γ ray not placed in level scheme.

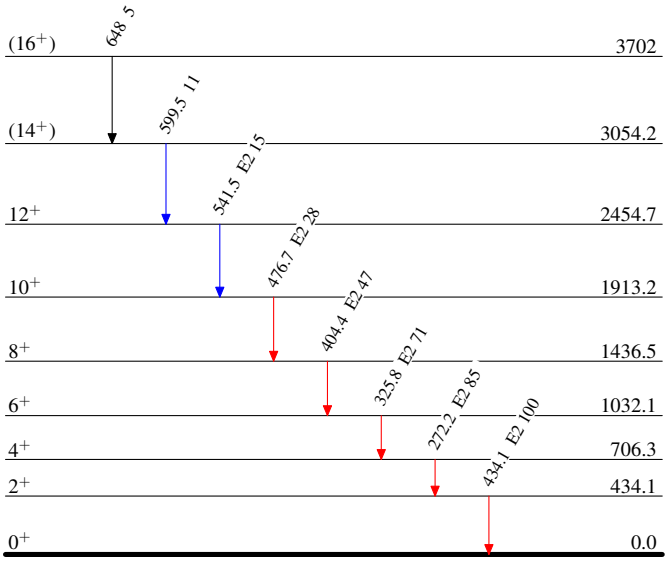
^{144}Sm(^{39}K,p2nγ) 1988Dr05

Level Scheme

Intensities: Relative I_γ

Legend

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



$^{180}_{80}Hg_{100}$