^{58}Ni(^{58}Ni,pnγ) 2006Sm02

History			
Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Jean Blachot	NDS 113, 515 (2012)	1-Jan-2012

Measured Eγ, Iγ, $\gamma\gamma$, $\gamma(\theta)$, pγ coin, γ(recoil) coin using Gammasphere composed of 101 Ge detectors, and Microball of 95 CsI scintillators. Recoiling residues were dispersed according to mass/charge ratio using Fragment Mass Analyzer (FMA) at Argonne.

^{114}Cs Levels

E(level)†	J$^\pi$	E(level)†	J$^\pi$	E(level)†	J$^\pi$	E(level)†	J$^\pi$
0+x	(10$^+$)	1108.2+x *2*		2160.0+x‡ *2*	(17$^+$)	4047.4+x‡ *3*	(21$^+$)
229.0+x‡ *1*	(11$^+$)	1334.6+x‡ *2*	(15$^+$)	2437.0+x? *5*		5064.4+x?‡ *5*	(23$^+$)
671.5+x‡ *2*	(13$^+$)	1692.2+x *2*		3077.9+x‡ *2*	(19$^+$)	6154.4+x?‡ *7*	(25$^+$)

† From Eγ's.
‡ Band(A): $\nu h_{11/2}\otimes\pi h_{11/2}$, α=1. The second signature is not seen.

γ(^{114}Cs)

E$_\gamma$†	E$_i$(level)	J$_i^\pi$	E$_f$	J$_f^\pi$	E$_\gamma$†	E$_i$(level)	J$_i^\pi$	E$_f$	J$_f^\pi$
229.0‡ *1*	229.0+x	(11$^+$)	0+x	(10$^+$)	663.1# *1*	1334.6+x	(15$^+$)	671.5+x	(13$^+$)
277.0@ *4*	2437.0+x?		2160.0+x	(17$^+$)	825.4 *1*	2160.0+x	(17$^+$)	1334.6+x	(15$^+$)
357.6‡ *1*	1692.2+x		1334.6+x	(15$^+$)	917.9 *1*	3077.9+x	(19$^+$)	2160.0+x	(17$^+$)
436.7‡ *1*	1108.2+x		671.5+x	(13$^+$)	969.5 *1*	4047.4+x	(21$^+$)	3077.9+x	(19$^+$)
442.5# *1*	671.5+x	(13$^+$)	229.0+x	(11$^+$)	1017.0@ *4*	5064.4+x?	(23$^+$)	4047.4+x	(21$^+$)
584.0@ *4*	1692.2+x		1108.2+x		1090.0@ *4*	6154.4+x?	(25$^+$)	5064.4+x?	(23$^+$)

† Uncertainties are stated as 0.1 to 0.4 keV by 2006Sm02, the evaluator assigns 0.1 to strong γ rays and 0.4 keV to weak γ rays.
‡ ΔJ=1, dipole (D) from $\gamma(\theta)$ data, no coefficients are listed by 2006Sm02.
# ΔJ=2, quadrupole (Q) from $\gamma(\theta)$ data, no coefficients are listed by 2006Sm02.
@ Placement of transition in the level scheme is uncertain.

Legend

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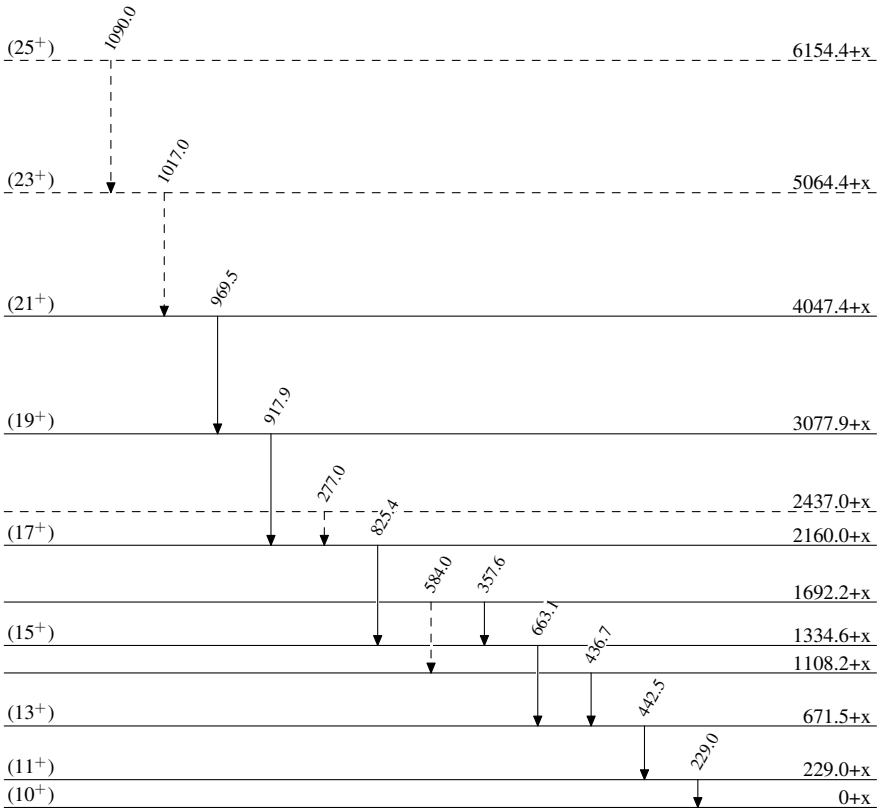
Level Scheme

γ Decay (Uncertain)



$^{114}_{55}Cs_{59}$

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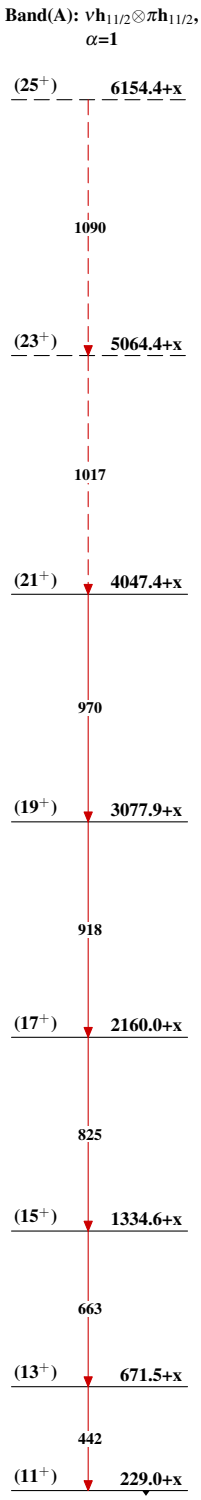

$^{114}_{55}Cs_{59}$