^{58}Ni(^{12}C,2nγ) 1998Sk02

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	E. A. Mccutchan	NDS 113, 1735 (2012)	1-Mar-2012

E(^{12}C) = 40 MeV on 99.8% enriched ^{58}Ni foil. Measured Eγ, Iγ, $\gamma\gamma$ using 6 EUROBALL Cluster detectors in close geometry with back-catcher BGO crystals. Some results also presented in 1998SkZZ.

^{68}Se Levels

E(level)[†]	J$^\pi$[‡]
0	0^+
854.2 *3*	(2^+)
1197.2?	(2^+)
1942.3 *9*	(4^+)
2766.2 *12*	(6^+)
3571.4 *12*	(5^-)
4198.7 *13*	(7^-)

[†] From least-squares fit to Eγ's by evaluator.
[‡] Suggested from systematics of neighboring even-even nuclei.

γ(^{68}Se)

E$_\gamma$	I$_\gamma$	E$_i$(level)	J$_i^\pi$	E$_f$	J$_f^\pi$	Comments
343[†‡]		1197.2?	(2^+)	854.2	(2^+)	No coincidence observed between 343γ and 1088γ; coincidence between 343γ and 854γ could not be established.
627.3 *6*	20 *11*	4198.7	(7^-)	3571.4	(5^-)	I$_\gamma$: from spectrum gated on 854γ and 1088γ.
823.9[†] *8*	18 *11*	2766.2	(6^+)	1942.3	(4^+)	I$_\gamma$: from spectrum gated on 854γ and 1088γ.
854.2 *3*		854.2	(2^+)	0	0^+	
1088.1 *9*	100 *17*	1942.3	(4^+)	854.2	(2^+)	I$_\gamma$: from spectrum gated on 854γ.
1629.1 *7*	50 *25*	3571.4	(5^-)	1942.3	(4^+)	I$_\gamma$: from spectrum gated on 854γ.

[†] Not reported by 2000Fi08 in ^{12}C(^{58}Ni, 2nγ). 1990Li25 observed a 343γ in ^{68}Se recoil-gated spectrum in ^{12}C(^{58}Ni, 2nγ).
[‡] Placement of transition in the level scheme is uncertain.

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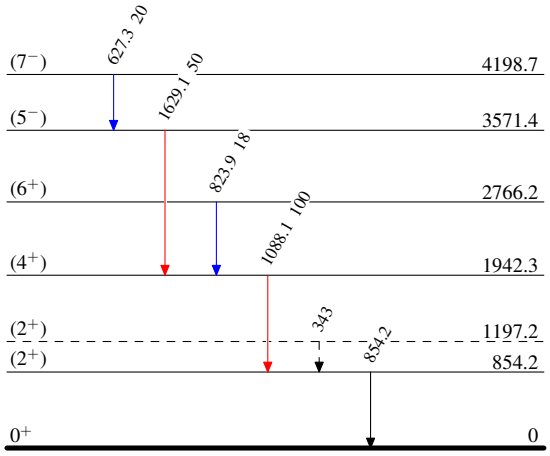
Level Scheme

Intensities: Relative I_γ

Legend

$I_\gamma < 2\% \times I_\gamma^{max}$
$I_\gamma < 10\% \times I_\gamma^{max}$
$I_\gamma > 10\% \times I_\gamma^{max}$
γ Decay (Uncertain)



$^{68}_{34}Se_{34}$