^{1}H(^{91}Br,2pγ) 2017Ch18

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	S. K. Basu, E. A. Mccutchan	NDS 165, 1 (2020)	1-Mar-2020

2017Ch18: E(^{91}Br) ≈ 270 MeV beam from ^{9}Be(^{238}U,F), E=345 MeV/nucleon reaction. Beam extracted using BigRIPS spectrometer at RIBF-RIKEN facility and ^{90}Se recoils identified by the ZeroDegree spectrometer. Measured particle spectra using time projection chamber (TPC) of the MINOS ensemble and Eγ, Iγ, $\gamma\gamma$ using DALI2 array of 186 NaI(Tl) detectors.

^{90}Se Levels

E(level)[†]	J$^{\pi}$[‡]
0.0	0$^+$
547 *8*	(2$^+$)
964 *9*	(2$^+$)
1238 *11*	(4$^+$)
1627 *9*	(3,4$^+$)

[†] From a least-squares fit to Eγ, by evaluators.
[‡] As proposed in 2017Ch18 based on systematics of even-even nuclei.

γ(^{90}Se)

E$_i$(level)	J$_i^{\pi}$	E$_\gamma$	I$_\gamma$[†]	E$_f$	J$_f^{\pi}$	Comments
547	(2$^+$)	548 *9*		0.0	0$^+$	
964	(2$^+$)	419 *8*	23	547	(2$^+$)	
		960 *15*	77	0.0	0$^+$	
1238	(4$^+$)	691 *7*		547	(2$^+$)	
1627	(3,4$^+$)	663[‡]		964	(2$^+$)	This transition was not observed, probably not resolved from 691γ.
		1075 *24*		547	(2$^+$)	

[†] Relative photon branching.
[‡] Placement of transition in the level scheme is uncertain.

Legend

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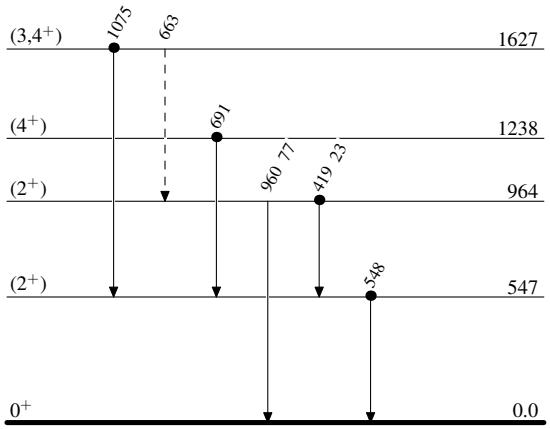
Level Scheme

Intensities: % photon branching from each level

γ Decay (Uncertain)

Coincidence



$^{90}_{34}Se_{56}$