^{9}Be(^{133}Sn,Xγ) 2013Wa28

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Balraj Singh	ENSDF	15-Jan-2014

Includes ^{9}Be(^{132}Sn,Xγ).

2013Wa28: In-beam γ-ray spectroscopy from ^{9}Be + ^{132},^{133}Sn interaction. ^{132},^{133}Sn beams at 230 MeV were produced as cocktail beam in the fission of 345 MeV ^{238}U beam by tungsten target followed by fragment separation using BigRIPS separator at RIBF-RIKEN facility, by using ΔE-E and TOF techniques. The cocktail beam of mainly ^{132},^{133}Sn at 230 MeV was incident on a secondary ^{9}Be target inducing reactions to produce excitations in ^{120},^{122},^{124},^{126}Pd residues, identified through energy loss, TOF and magnetic rigidity using ZeroDegree spectrometer. Measured Eγ, Iγ, (particle)γ-coin using DALI2 array of 186 NaI(Tl) scintillation detectors. Particles were detected by $LaBr_3$(Ce) scintillation detectors.

^{122}Pd Levels

E(level)	J$^{\pi}$[†]
0	0^+
499 *9*	(2^+)
1164 *20*	(4^+)

[†] From systematics of even-even nuclei and IBM-model predictions.

γ(^{122}Pd)

E$_\gamma$	E$_i$(level)	J$_i^\pi$	E$_f$	J$_f^\pi$	Comments
499 *9*	499	(2^+)	0	0^+	I$_\gamma$: most intense peak in γ spectrum figure 2b in 2013Wa28.
665 *18*	1164	(4^+)	499	(2^+)	I$_\gamma$: weak peak in γ spectrum figure 2b in 2013Wa28.

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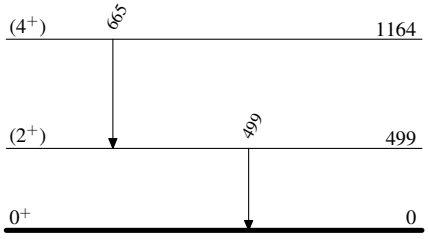
Level Scheme



$^{122}_{46}Pd_{76}$