

$^9\text{Be}(^{133}\text{Sn},\text{X}\gamma)$  2013Wa28

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

Includes  $^9\text{Be}(^{132}\text{Sn},\text{X}\gamma)$ .

**2013Wa28:** In-beam  $\gamma$ -ray spectroscopy from  $^9\text{Be} + ^{132,133}\text{Sn}$  interaction.  $^{132,133}\text{Sn}$  beams at 230 MeV were produced as cocktail beam in the fission of 345 MeV  $^{238}\text{U}$  beam by tungsten target followed by fragment separation using BigRIPS separator at RIBF-RIKEN facility, by using  $\Delta E$ -E and TOF techniques. The cocktail beam of mainly  $^{132,133}\text{Sn}$  at 230 MeV was incident on a secondary  $^9\text{Be}$  target inducing reactions to produce excitations in  $^{120,122,124,126}\text{Pd}$  residues, identified through energy loss, TOF and magnetic rigidity using ZeroDegree spectrometer. Measured  $E_\gamma$ ,  $I_\gamma$ , (particle) $\gamma$ -coin using DALI2 array of 186 NaI(Tl) scintillation detectors. Particles were detected by LaBr<sub>3</sub>(Ce) scintillation detectors.

 $^{124}\text{Pd}$  Levels

E(level)	$J^\pi$ <sup>†</sup>
0	0 <sup>+</sup>
590 11	(2 <sup>+</sup> )
1300 22	(4 <sup>+</sup> )

<sup>†</sup> From systematics of even-even nuclei.

 $\gamma(^{124}\text{Pd})$ 

$E_\gamma$	$E_i(\text{level})$	$J_i^\pi$	$E_f$	$J_f^\pi$	Comments
590 11	590	(2 <sup>+</sup> )	0	0 <sup>+</sup>	$I_\gamma$ : most intense peak in $\gamma$ spectrum figure 2c in <a href="#">2013Wa28</a> .
710 19	1300	(4 <sup>+</sup> )	590	(2 <sup>+</sup> )	$I_\gamma$ : weak peak in $\gamma$ spectrum figure 2c in <a href="#">2013Wa28</a> .

 $^9\text{Be}(^{133}\text{Sn},\text{X}\gamma)$  2013Wa28Level Scheme