^{9}Be(^{133}Sn,Xγ),(^{132}Sn,Xγ)   **2013Wa28**

	History		
Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Balraj Singh	ENSDF	30-Jun-2017

2013Wa28: levels and gamma rays in ^{120}Pd populated via in-beam γ-ray spectroscopy. Radioactive cocktail beam of ^{132,133}Sn at 230 MeV/nucleon was produced in W(^{238},F) fission and purified via Bρ-ΔE-Bρ method and identified by Bρ-ΔE-TOF using BigRIPS spectrometer and standard detectors at RIBF-RIKEN facility. Secondary cocktail beam was incident on ^{9}Be target and residues were identified by ZeroDegree spectrometer with magnetic fields set to maximize for ^{125}Pd. Particle identification was achieved by Bρ-ΔE-TOF method and gamma rays were detected in coincidence with residues using DALI2 array of 186 large-volume NaI(Tl) detectors. Deduced levels, J, π. Comparison with interacting boson model (IBM) calculations.

^{120}Pd Levels

E(level)	J$^\pi$
0	0$^+$
424 *9*	(2$^+$)†
1027 *18*	(4$^+$)†

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

γ(^{120}Pd)

E$_\gamma$	E$_i$(level)	J$_i^\pi$	E$_f$	J$_f^\pi$
424 *9*	424	(2$^+$)	0	0$^+$
603 *14*	1027	(4$^+$)	424	(2$^+$)

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Level Scheme

$^{120}_{46}$Pd$_{74}$