Be(^{238}U,Fγ):XUNDL-3 2019Wa14

Compiled (unevaluated) dataset from 2019Wa14: Phys Lett B 792, 263 (2019).
Compiled by Amani Ahnuar and Jun Chen (NSCL, MSU), May 19, 2019.

2019Wa14: ^{125}Pd isotopes were produced from in-flight of fission of ^{238}U beam of 345 MeV/nucleon with 7-12 pnA intensity on a Be target at the RI-Beam Factory (RIBF) in the RIKEN Nishina Center. Fission products were transported through the BigRIPS-ZeroDegree spectrometer and implanted into the WAS3ABi active stopper consisting of eight layers of double-sided silicon-strip detectors (DSSSDs) and γ rays were detected using the EURCA γ-ray spectrometer consisting of 12 Cluster-type detectors, each of which contains 7 HPGe crystals packed closely. Measured Eγ, Iγ, γ(t). Deduced levels, spin-parities, half-life. Results are compared to the shell-model calculation, suggesting the competition between proton and neutron excitations in the proton-hole and neutron-hole systems in the south-west quadrant of the doubly magic nucleus ^{132}Sn.

^{125}Pd Levels

E(level)[†]	J$^{\pi}$[‡]	T$_{1/2}$[#]
0	(11/2$^-$)	
756.56 *9*	(15/2$^-$)	
1581.51 *13*	(19/2$^-$)	
1696.83 *14*	(19/2$^+$)	
1805.23 *18*	(23/2$^+$)	144 ns *4*

[†] From a least-squares fit to γ-ray energies (by compilers).
[‡] As given in 2019Wa14.
[#] From weighted average of results from 108.4γ(t), 115.3γ(t), 824.9γ(t) and 756.6γ(t).

γ(^{125}Pd)

E$_\gamma$[†]	I$_\gamma$[†]	E$_i$(level)	J$_i^{\pi}$	E$_f$	J$_f^{\pi}$	Mult.[‡]
108.4 *1*	48 *6*	1805.23	(23/2$^+$)	1696.83	(19/2$^+$)	E2
115.32 *6*	100 *11*	1696.83	(19/2$^+$)	1581.51	(19/2$^-$)	E1
756.56 *9*	100 *11*	756.56	(15/2$^-$)	0	(11/2$^-$)	E2
824.94 *9*	93 *11*	1581.51	(19/2$^-$)	756.56	(15/2$^-$)	E2

[†] From 2019Wa14.
[‡] As given in 2019Wa14.

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