^{198}Pt(^{82}Se,Xγ) 2014Jo05

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	M. S. Basunia	ENSDF	1-Feb-2017

Other: 2015Jo04.

Two-proton transfer from ^{198}Pt target populating states in ^{196}Os.

^{82}Se beam at E=426 MeV was provided by the Tandem-ALPI accelerator complex at LNL, Legnaro. Target=2 mg/cm^2 ^{198}Pt. Beam-like fragments were detected by PRISMA spectrometer with optimization for Kr isotopes, binary partner of Os isotopes. Measured Eγ, Iγ, $\gamma\gamma$-coin, (particle)γ-coin using AGATA array with five triple clusters, each cluster having three hexagonal tapered coaxial HPGe detectors with 36 outer segments with a common core contact. Deduced levels, J, π.

No delayed γ rays were observed within a time window of 8-400 ns.

^{196}Os Levels

E(level)	J$^\pi$
0.0[†]	0$^+$
324.4[†] *10*	(2$^+$)
791.4[†] *14*	(4$^+$)
1430.6?[†] *17*	(6$^+$)

[†] Band(A): Ground-state band.

γ(^{196}Os)

E$_\gamma$	I$_\gamma$[†]	E$_i$(level)	J$_i^\pi$	E$_f$	J$_f^\pi$	Comments
324.4 *10*	100 *12*	324.4	(2$^+$)	0.0	0$^+$	I$_\gamma$: Other: 100 *17*.
467.0 *10*	41 *10*	791.4	(4$^+$)	324.4	(2$^+$)	I$_\gamma$: Other: 31 *11*.
639.2[‡] *10*	12 *8*	1430.6?	(6$^+$)	791.4	(4$^+$)	E$_\gamma$: 2014Jo05 expected coincidence with 467.0γ and 324.4γ for the proposed placement, but note that it did not appear possibly due to the low statistics. I$_\gamma$: Other: 22 *10*.

[†] For Q value <30 MeV (reconstruction condition). Other values, with conditions of Q <12 MeV and a multiplicity of one for γ rays, are listed in comments section. Former condition useful for γ-γ coin studies with higher statistics.

[‡] Placement of transition in the level scheme is uncertain.

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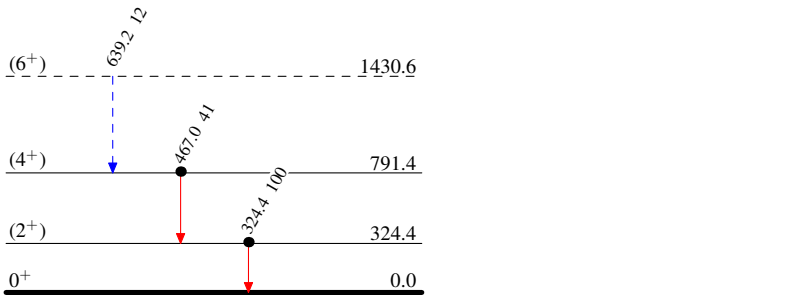
Level Scheme

Intensities: Relative I_γ



$^{196}_{76}Os_{120}$

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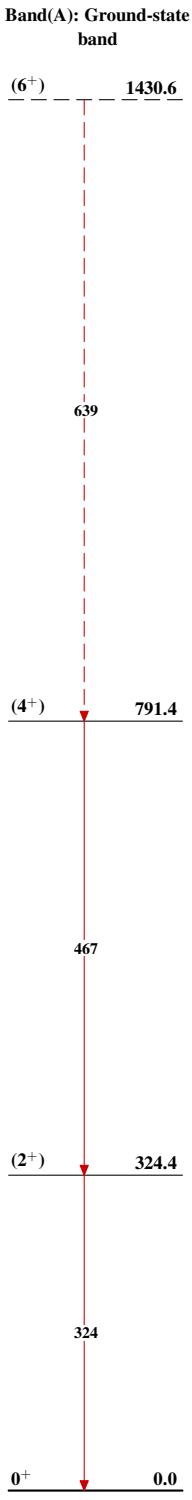

$^{196}_{76}Os_{120}$