^{141}Pr(^{28}Si,3nγ) 1997Zh11

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Coral M. Baglin	NDS 109, 1103 (2008)	1-Mar-2008

E=127 MeV; 98.0% ^{141}Pr metallic stacked-foil target; γ detector array (seven Compton-suppressed HPGE detectors and one planar HPGE detector); measured Eγ, excit (E=123, 127, 131 MeV), x-γ coin, $\gamma\gamma$ coin (127 MeV).

^{166}Ta Levels

E(level)†	J$^\pi$‡	E(level)†	J$^\pi$‡	E(level)†	J$^\pi$‡	E(level)†	J$^\pi$‡
0.0+x@	(9$^-$)	495.0+x@ *11*	(13$^-$)	1597.8+x@ *14*	(17$^-$)	2972.1+x@ *17*	(21$^-$)
53.6+x# *8*	(10$^-$)	754.6+x# *11*	(14$^-$)	1946.3+x# *15*	(18$^-$)	3304.9+x# *17*	(22$^-$)
147.6+x@ *8*	(11$^-$)	992.3+x@ *12*	(15$^-$)	2273.2+x@ *15*	(19$^-$)	3653.9+x@ *18*	(23$^-$)
320.1+x# *10*	(12$^-$)	1309.2+x# *13*	(16$^-$)	2626.7+x# *16*	(20$^-$)	3972.1+x# *19*	(24$^-$)

† From least-squares fit to Eγ, assigning 1 keV uncertainty to each datum.

‡ Authors′ values. bandhead J assumes smooth energy variation with Z for levels with assigned configuration In neighboring isotones. J for higher-energy levels is based on observed band structure.

Band(A): (ν i$_{13/2}$)⊗(π h$_{11/2}$), α=0 band. Configuration assignment is based on yrast band configurations of (ν i$_{13/2}$) and (π h$_{11/2}$), respectively, for yrast bands In ^{165}Hf and ^{165}Ta (1997Zh11).

@ Band(a): (ν i$_{13/2}$)⊗(π h$_{11/2}$), α=1 band. See comment on signature-partner band.

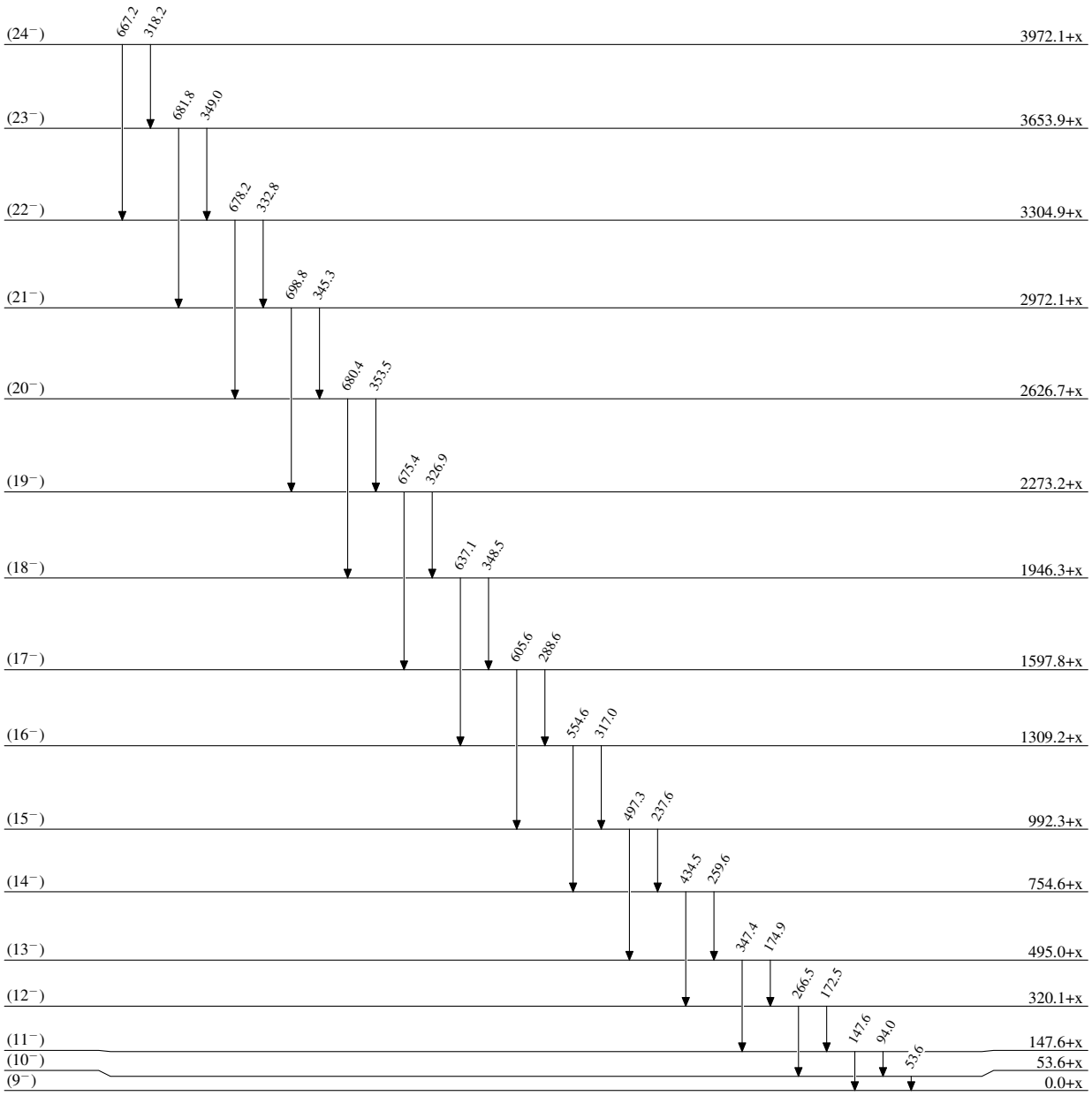
γ(^{166}Ta)

E$_\gamma$†	E$_i$(level)	J$_i^\pi$	E$_f$	J$_f^\pi$	E$_\gamma$†	E$_i$(level)	J$_i^\pi$	E$_f$	J$_f^\pi$
53.6	53.6+x	(10$^-$)	0.0+x	(9$^-$)	348.5	1946.3+x	(18$^-$)	1597.8+x	(17$^-$)
94.0	147.6+x	(11$^-$)	53.6+x	(10$^-$)	349.0	3653.9+x	(23$^-$)	3304.9+x	(22$^-$)
147.6	147.6+x	(11$^-$)	0.0+x	(9$^-$)	353.5	2626.7+x	(20$^-$)	2273.2+x	(19$^-$)
172.5	320.1+x	(12$^-$)	147.6+x	(11$^-$)	434.5	754.6+x	(14$^-$)	320.1+x	(12$^-$)
174.9	495.0+x	(13$^-$)	320.1+x	(12$^-$)	497.3	992.3+x	(15$^-$)	495.0+x	(13$^-$)
237.6	992.3+x	(15$^-$)	754.6+x	(14$^-$)	554.6	1309.2+x	(16$^-$)	754.6+x	(14$^-$)
259.6	754.6+x	(14$^-$)	495.0+x	(13$^-$)	605.6	1597.8+x	(17$^-$)	992.3+x	(15$^-$)
266.5	320.1+x	(12$^-$)	53.6+x	(10$^-$)	637.1	1946.3+x	(18$^-$)	1309.2+x	(16$^-$)
288.6	1597.8+x	(17$^-$)	1309.2+x	(16$^-$)	667.2	3972.1+x	(24$^-$)	3304.9+x	(22$^-$)
317.0	1309.2+x	(16$^-$)	992.3+x	(15$^-$)	675.4	2273.2+x	(19$^-$)	1597.8+x	(17$^-$)
318.2	3972.1+x	(24$^-$)	3653.9+x	(23$^-$)	678.2	3304.9+x	(22$^-$)	2626.7+x	(20$^-$)
326.9	2273.2+x	(19$^-$)	1946.3+x	(18$^-$)	680.4	2626.7+x	(20$^-$)	1946.3+x	(18$^-$)
332.8	3304.9+x	(22$^-$)	2972.1+x	(21$^-$)	681.8	3653.9+x	(23$^-$)	2972.1+x	(21$^-$)
345.3	2972.1+x	(21$^-$)	2626.7+x	(20$^-$)	698.8	2972.1+x	(21$^-$)	2273.2+x	(19$^-$)
347.4	495.0+x	(13$^-$)	147.6+x	(11$^-$)					

† Uncertainty unstated by authors.

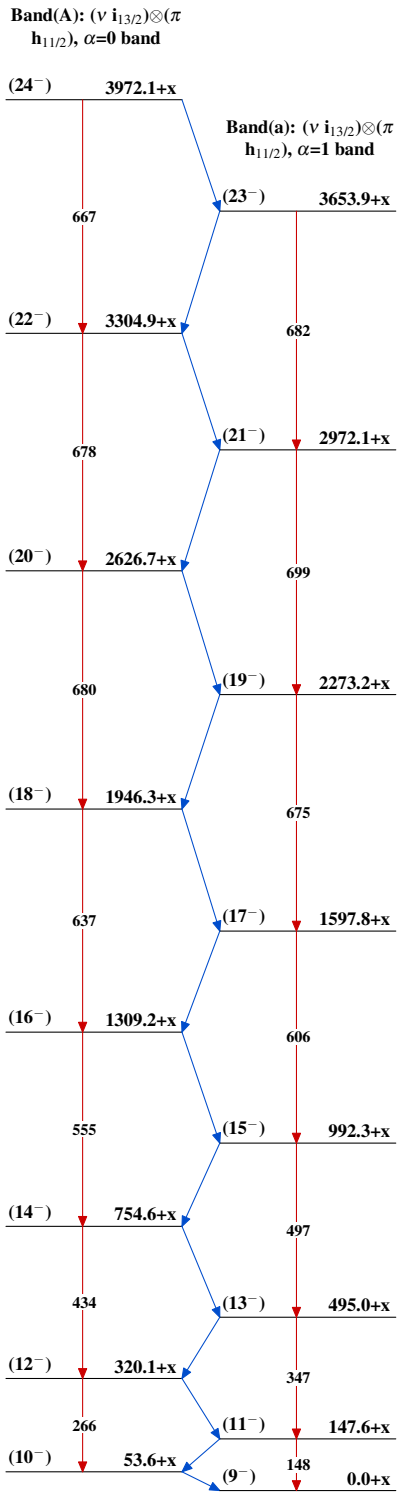
^{141}Pr(^{28}Si,3nγ) 1997Zh11

Level Scheme



$^{166}_{73}Ta_{93}$

^{141}Pr(^{28}Si,3nγ) 1997Zh11



$^{166}_{73}Ta_{93}$