^{181}Ta(^{27}Al,6nγ),^{192}Pt(^{16}O,6nγ) 1995Fr21,1994Fr11

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	F. G. Kondev	NDS 196,342 (2024)	1-Sep-2023

^{181}Ta(^{27}Al,6nγ); Beam: E=132 and 150 MeV; Target: 200-300 μg/cm^2 thick.
^{192}Pt(^{16}O,6nγ); Beam: E=110 MeV; Target: 1 mg/cm^2 thick, 57% ^{192}Pt, 40% ^{194}Pt, 3% others.
Gamma rays were detected with 4 coaxial Ge detectors (^{181}Ta(^{27}Al,6n)) or 10 compton-suppressed Ge detectors (^{192}Pt(^{16}O,6n)) at target position. Gamma rays were correlated with residules detected with mass 202 at focal plane of Argonne's FMA, and in coincidence with the Rn x-rays. Prompt $\gamma\gamma$ coin were measured in ^{16}O-induced reaction.

^{202}Rn Levels

E(level)†	J$^\pi$‡
0.0	0$^+$
503.90 *10*	2$^+$
1073.00 *15*	4$^+$
1698.4 *6*	6$^+$
1789.1 *5*	6$^+$
2076.9 *6*	8$^+$

† From least-squares fit to Eγ.
‡ From Adopted Levels.

γ(^{202}Rn)

E$_\gamma$	I$_\gamma$†	E$_i$(level)	J$_i^\pi$	E$_f$	J$_f^\pi$
287.8 *3*	22 *5*	2076.9	8$^+$	1789.1	6$^+$
503.9 *1*	100 *13*	503.90	2$^+$	0.0	0$^+$
569.1 *1*	71 *12*	1073.00	4$^+$	503.90	2$^+$
625.4 *5*	33 *12*	1698.4	6$^+$	1073.00	4$^+$
716.1 *4*	54 *13*	1789.1	6$^+$	1073.00	4$^+$

† From ^{181}Ta(^{27}Al,6n) reaction at E=150 MeV (1994Fr11).

^{181}Ta(^{27}Al,6nγ),^{192}Pt(^{16}O,6nγ) 1995Fr21,1994Fr11

Level Scheme

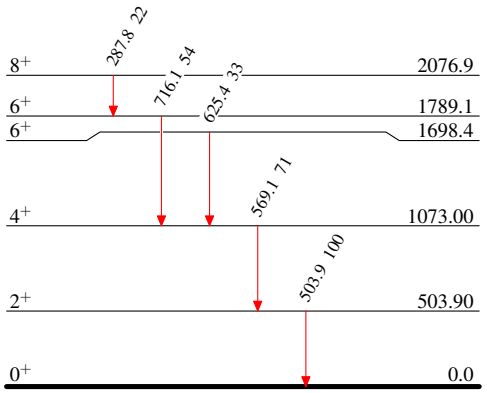
Intensities: Relative I_γ

Legend

$I_\gamma < 2\% \times I_\gamma^{max}$

$I_\gamma < 10\% \times I_\gamma^{max}$

$I_\gamma > 10\% \times I_\gamma^{max}$



$^{202}_{86}Rn_{116}$