^{96}Ru(α,2nγ) 1983Be63

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Jun Chen, Balraj Singh	NDS 164, 1 (2020)	15-Feb-2020

1983Be63 (also 1985Be06): E=30-55 MeV alpha beams were produced from the Buenos Aires Synchrocyclotron. Target was 97% enriched ^{96}Ru. γ rays were detected with two coaxial detectors (FWHM=2.3 and 3 keV). Measured Eγ, Iγ, $\gamma\gamma$-coin, $\gamma(\theta)$. Deduced levels, J, π. Six transitions reported for yrast band up to 12^+.

Other: 1970SiZK.

All data are from 1983Be63, unless otherwise noted.

^{98}Pd Levels

E(level)[†]	J$^\pi$[‡]
0.0	0^+
862.6 *3*	2^+
1540.9 *5*	4^+
2111.5 *6*	6^+
2772.0 *6*	8^+
3643.6 *7*	10^+
4444.8 *8*	12^+

[†] From a least-squares fit to γ-ray energies.

[‡] From 1983Be63, based on $\gamma(\theta)$ data assuming Mult=E2 for stretched quadrupole transition.

γ(^{98}Pd)

E$_\gamma$	I$_\gamma$	E$_i$(level)	J$_i^\pi$	E$_f$	J$_f^\pi$	Mult.[†]	Comments
570.6 *3*	60 *8*	2111.5	6^+	1540.9	4^+	Q	A_2=+0.38 *8*; A_4=−0.15 *10*
660.5 *3*	40 *10*	2772.0	8^+	2111.5	6^+	Q	A_2=+0.37 *8*; A_4=−0.15 *12*
678.3 *3*	78 *8*	1540.9	4^+	862.6	2^+	Q	A_2=+0.32 *5*; A_4=−0.13 *7*
801.2 *3*	5 *2*	4444.8	12^+	3643.6	10^+	Q	A_2=+0.35 *15*; A_4=−0.10 *20*
862.6 *3*	100 *10*	862.6	2^+	0.0	0^+	Q	A_2=+0.30 *3*; A_4=−0.15 *5*
871.6 *3*	25 *8*	3643.6	10^+	2772.0	8^+	Q	A_2=+0.38 *8*; A_4=−0.18 *10*
							Additional information 1.

[†] Stretched quadrupole (ΔJ=2, most likely E2) from $\gamma(\theta)$ (1983Be63).

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Level Scheme

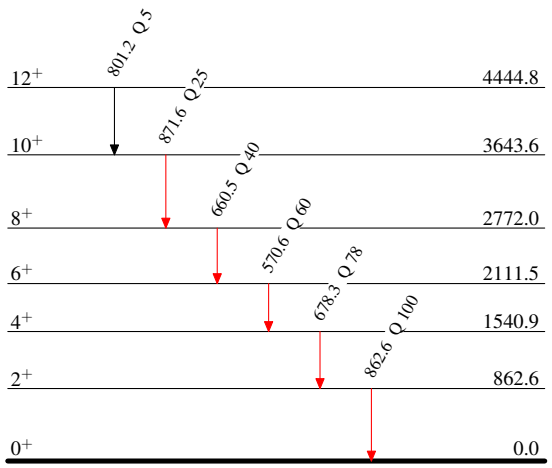
Intensities: Relative I_γ

Legend

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

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

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



$^{98}_{46}Pd_{52}$