

$^{96}\text{Zr}(^{10}\text{B},\text{p}3\text{n}\gamma)$ 2005La07

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	D. De Frenne	NDS 110, 1745 (2009)	31-Dec-2008

E=42 MeV. Measured E_γ , I_γ , gggg, $\gamma\gamma(\theta)$ using GAMMASPHERE array. Deduced quasi- γ band.

 ^{102}Ru Levels

E(level)	J^π	E(level)	J^π	E(level)	J^π	E(level)	J^π
0 [†]	0 ⁺	1521.2 [#]	2 3 ⁺	2584.8 [‡]	4 6 ⁺	3430.1 [†]	4 10 ⁺
474.7 [†]	2 ⁺	1798.0 [‡]	3 4 ⁺	2703.0 [†]	4 8 ⁺	3915.0 [#]	6 9 ⁺
1103.3 [‡]	2 2 ⁺	1872.3 [†]	3 6 ⁺	3033.7 [#]	4 7 ⁺	4293.0 [‡]	9 (10 ⁺)
1105.6 [†]	2 4 ⁺	2218.6 [#]	3 5 ⁺	3393.2 [‡]	7 (8 ⁺)	4752.9 [#]	8 (11 ⁺)

[†] Band(A): g.s. band.

[‡] Band(B): quasi- γ band, even spin.

[#] Band(b): quasi- γ band, odd spin.

 $\gamma(^{102}\text{Ru})$

E_γ	I_γ	$E_i(\text{level})$	J_i^π	E_f	J_f^π	Comments
417.8 4	2.9 4	1521.2	3 ⁺	1103.3	2 ⁺	R(asymmetry)=0.60 15.
474.7 1	100 3	474.7	2 ⁺	0	0 ⁺	R(asymmetry)=1.03 1.
628.4 3	5.1 7	1103.3	2 ⁺	474.7	2 ⁺	R(asymmetry)=1.11 16; $\Delta J=0$, dipole transition.
631.0 2	89 3	1105.6	4 ⁺	474.7	2 ⁺	R(asymmetry)=1.05 1.
692.4 4	1.6 2	1798.0	4 ⁺	1105.6	4 ⁺	R(asymmetry)=0.94 11; $\Delta J=0$, dipole transition.
694.8 4	3.0 6	1798.0	4 ⁺	1103.3	2 ⁺	
697.2 3	5.4 6	2218.6	5 ⁺	1521.2	3 ⁺	R(asymmetry)=1.07 12.
712.4 5	<1	2584.8	6 ⁺	1872.3	6 ⁺	
727.1 2	28 1	3430.1	10 ⁺	2703.0	8 ⁺	R(asymmetry)=1.07 3.
766.7 2	69 2	1872.3	6 ⁺	1105.6	4 ⁺	R(asymmetry)=1.03 1.
786.8 4	1.8 2	2584.8	6 ⁺	1798.0	4 ⁺	R(asymmetry)=1.15 10.
808.4 5	<1	3393.2	(8 ⁺)	2584.8	6 ⁺	
815.1 4	2.5 3	3033.7	7 ⁺	2218.6	5 ⁺	R(asymmetry)=1.04 10.
830.7 2	59 2	2703.0	8 ⁺	1872.3	6 ⁺	R(asymmetry)=1.04 2.
837.9 5	<1	4752.9	(11 ⁺)	3915.0	9 ⁺	
881.3 4	1.5 2	3915.0	9 ⁺	3033.7	7 ⁺	R(asymmetry)=0.99 9.
899.8 5	<1	4293.0	(10 ⁺)	3393.2	(8 ⁺)	
1046.3 3	7.7 9	1521.2	3 ⁺	474.7	2 ⁺	R(asymmetry)=0.71 12.
1103.4 3	3.3 2	1103.3	2 ⁺	0	0 ⁺	
1113.2 4	2.2 3	2218.6	5 ⁺	1105.6	4 ⁺	R(asymmetry)=0.73 6.
1161.5 5	<1	3033.7	7 ⁺	1872.3	6 ⁺	

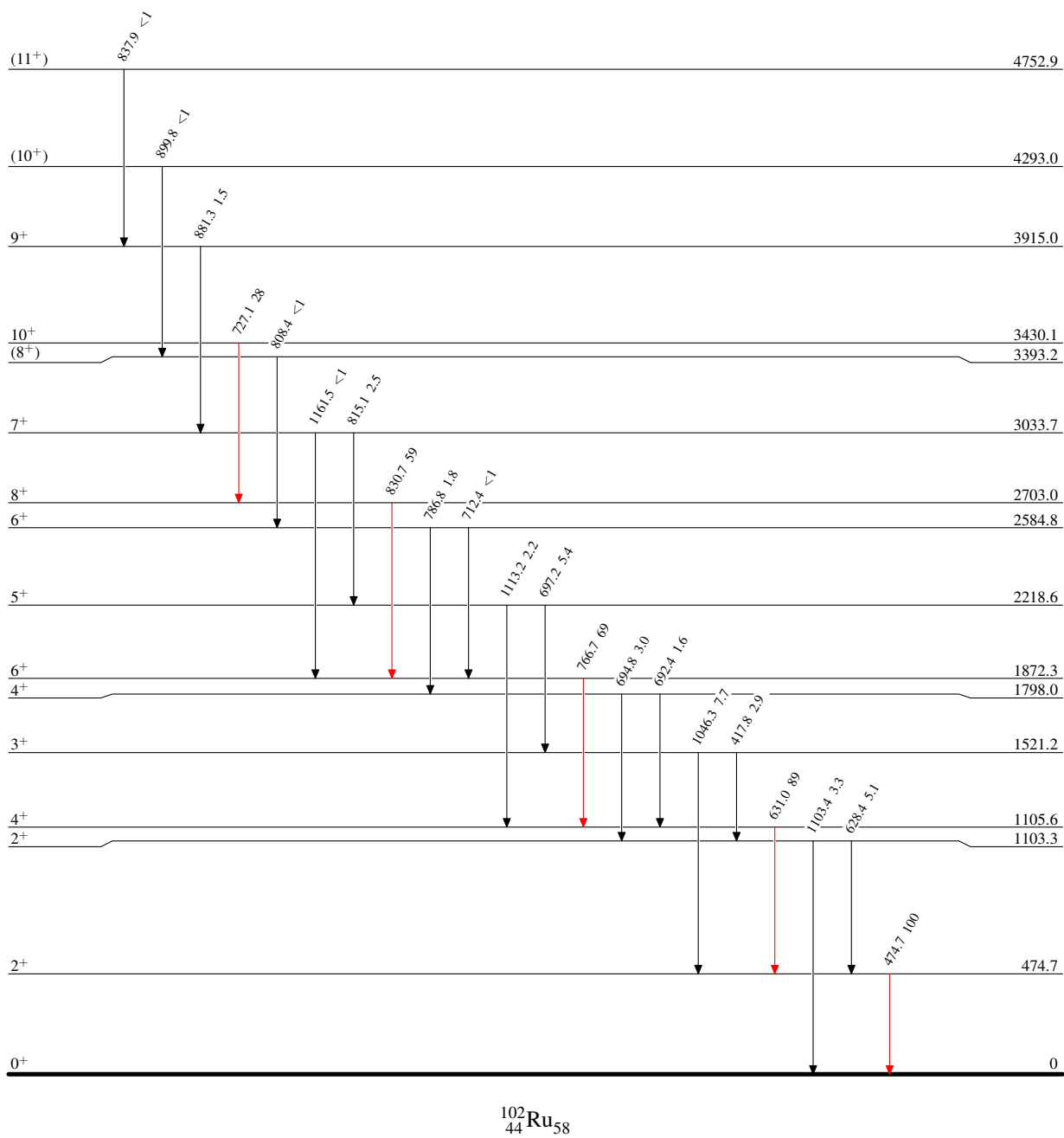
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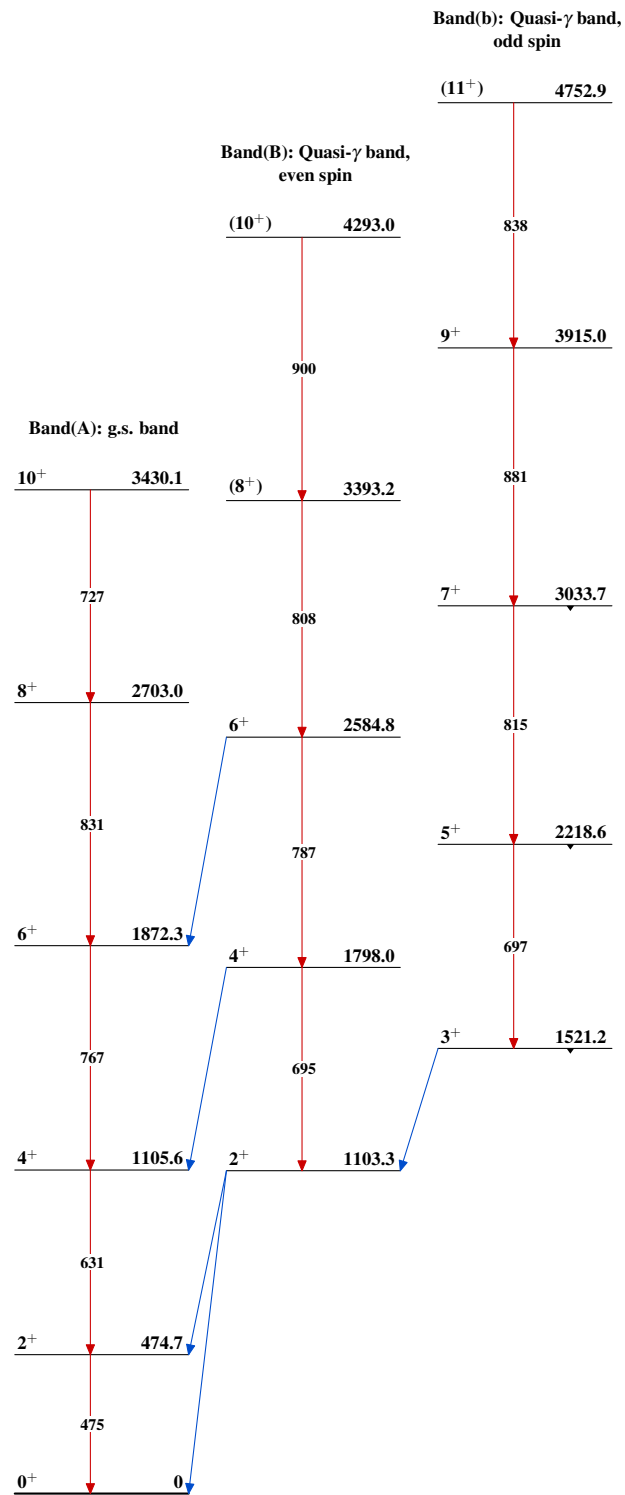
Level Scheme

Intensities: Relative I_γ

Legend

- $I_\gamma < 2\% \times I_\gamma^{\text{max}}$
- $I_\gamma < 10\% \times I_\gamma^{\text{max}}$
- $I_\gamma > 10\% \times I_\gamma^{\text{max}}$



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