

$^{58}\text{Ni}(^{16}\text{O},\text{pn}\gamma)$ 1999Fo14

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	D. Abriola(a), A. A. Sonzogni		NDS 111,1 (2010)	1-May-2009

E=59.5 MeV. Measured $E\gamma$, $\gamma\gamma$, $I\gamma$, $\gamma\gamma(\theta)$ (DCO) using Gammasphere array of HPGe detectors.
 Level energies, spins and parities have not been adopted from this dataset in this evaluation.

 ^{72}Br Levels

E(level) [†]	J ^π	E(level) [†]	J ^π	E(level) [†]	J ^π	E(level) [†]	J ^π
0.0	(3) ⁺	1346.4 [‡] 16	(8 ⁺)	3634.0 [#] 20	(13 ⁺)	7888 [#] 3	(19 ⁺)
379.4 8	(2 ⁺)	1450.1 [#] 18	(9 ⁺)	4721.4 [‡] 22	(14 ⁺)	7923 [‡] 3	(18 ⁺)
398.6 8	(2 ⁺)	2189.5 [‡] 18	(10 ⁺)	4891.6 [#] 22	(15 ⁺)	9836 [#] 3	(21 ⁺)
669.0 7	(4 ⁺)	2501.1 [#] 19	(11 ⁺)	6249.2 [‡] 24	(16 ⁺)		
992.7 12	(6 ⁺)	3334.2 [‡] 19	(12 ⁺)	6272.8 [#] 24	(17 ⁺)		

[†] From least-squares fit to $E\gamma$'s assuming $\Delta E\gamma=1$ keV.

[‡] Band(A): $\pi g_{9/2} \nu g_{9/2}$ decoupled band, $\alpha=0$.

[#] Band(a): $\pi g_{9/2} \nu g_{9/2}$ decoupled band, $\alpha=1$.

 $\gamma(^{72}\text{Br})$

E_γ	I_γ	$E_i(\text{level})$	J_i^π	E_f	J_f^π	E_γ	I_γ	$E_i(\text{level})$	J_i^π	E_f	J_f^π
103.9	435 40	1450.1	(9 ⁺)	1346.4	(8 ⁺)	842.9	434 40	2189.5	(10 ⁺)	1346.4	(8 ⁺)
270.4	569 50	669.0	(4 ⁺)	398.6	(2 ⁺)	1050.9	345 40	2501.1	(11 ⁺)	1450.1	(9 ⁺)
289.6	270 30	669.0	(4 ⁺)	379.4	(2 ⁺)	1133.0	391 50	3634.0	(13 ⁺)	2501.1	(11 ⁺)
299.7	64 10	3634.0	(13 ⁺)	3334.2	(12 ⁺)	1144.6	194 30	3334.2	(12 ⁺)	2189.5	(10 ⁺)
311.7	161 20	2501.1	(11 ⁺)	2189.5	(10 ⁺)	1257.6	245 30	4891.6	(15 ⁺)	3634.0	(13 ⁺)
323.7	1000	992.7	(6 ⁺)	669.0	(4 ⁺)	1381.2	90 20	6272.8	(17 ⁺)	4891.6	(15 ⁺)
353.7	968 30	1346.4	(8 ⁺)	992.7	(6 ⁺)	1387.2	94 20	4721.4	(14 ⁺)	3334.2	(12 ⁺)
379.4	192 25	379.4	(2 ⁺)	0.0	(3) ⁺	1527.8	70 20	6249.2	(16 ⁺)	4721.4	(14 ⁺)
398.6	332 35	398.6	(2 ⁺)	0.0	(3) ⁺	1615.6	40 15	7888	(19 ⁺)	6272.8	(17 ⁺)
669.0	57 10	669.0	(4 ⁺)	0.0	(3) ⁺	1673.9	59 20	7923	(18 ⁺)	6249.2	(16 ⁺)
739.5	19 5	2189.5	(10 ⁺)	1450.1	(9 ⁺)	1947.7	18 10	9836	(21 ⁺)	7888	(19 ⁺)

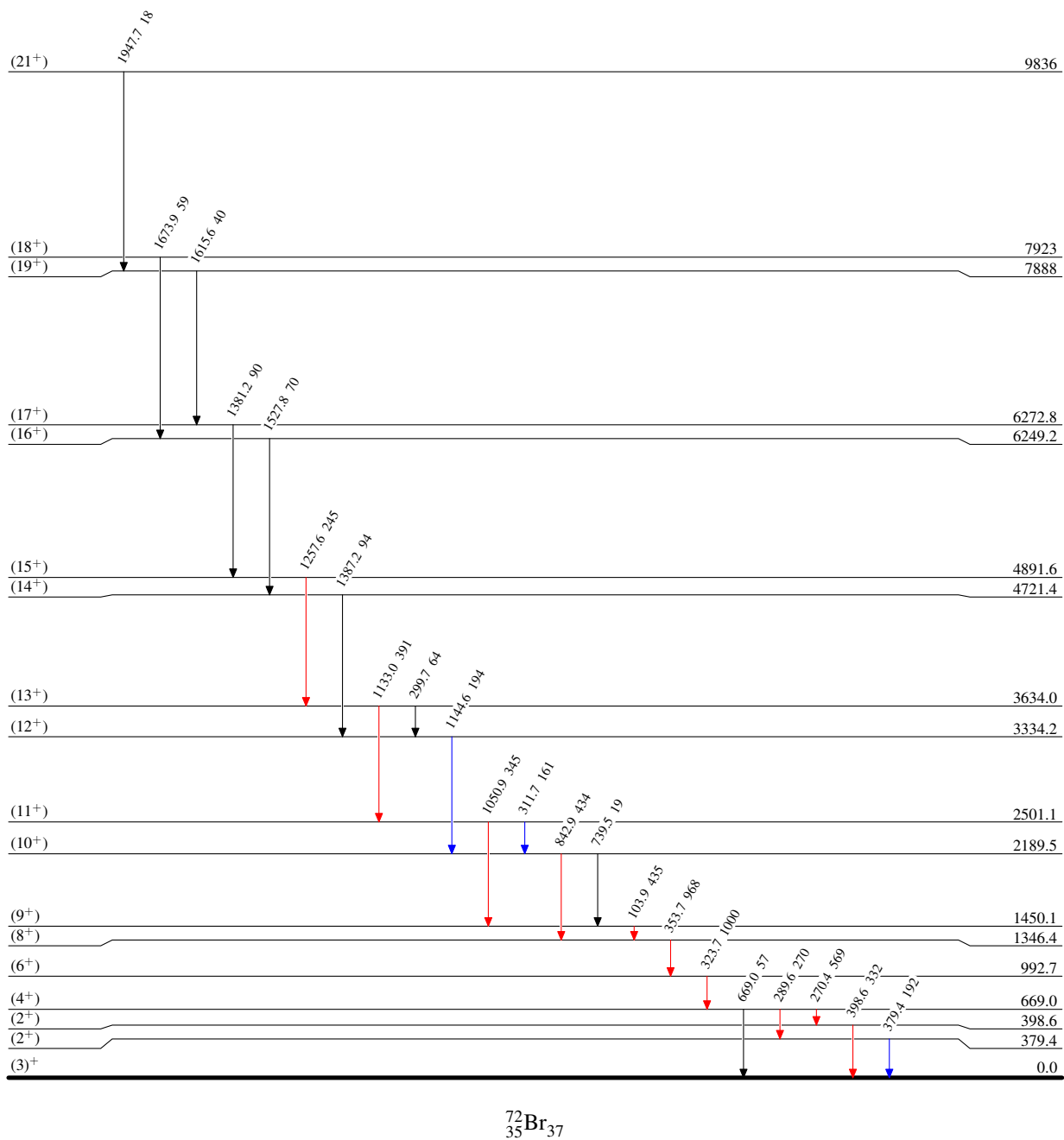
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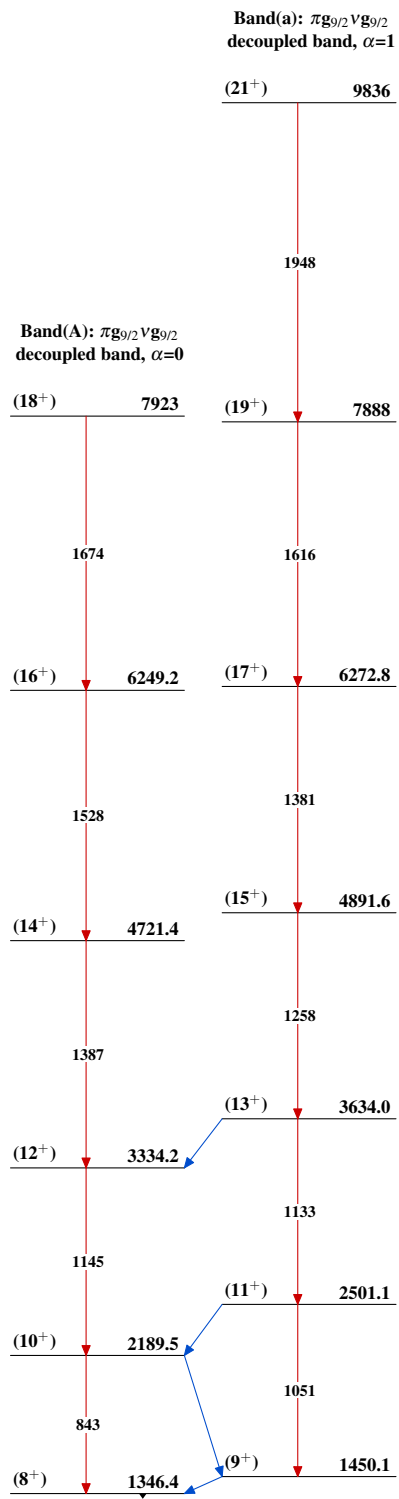
Level Scheme

Intensities: Relative I_γ

Legend

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



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