^{173}Yb(^{24}Mg,Xγ) 2003Fo09

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Jean Blachot	ENSDF	1-Jul-2008

Includes ^{176}Yb(^{23}Na,xγ) E=129 MeV; and ^{208}Pb(^{18}O,xγ) E=91 MeV.

E=134.5 MeV. Measured Eγ, Iγ, γγ, and γγγ using the Gammasphere array comprised of 92 Compton-suppressed large volume HPGe detectors for the ^{197}Pb (compound nucleus) experiment, and 100 Ge detectors for the ^{199}Tl and ^{226}Th (compound nuclei) experiments.

^{108}Rh Levels

E(level)[†]	Jπ	Comments
0	1^+	
0+x	(5^+)	
142.80+x *20*	(6^-)	
244.7+x *3*	(7^-)	
307.7+x[‡] *11*	(8^-)	E(level): 245-455 (2003Fo09) from systematics of 8^- states in ^{100}Rh, ^{102}Rh and ^{104}Rh; if 63γ taken from literature is non-existent.
490.1+x[#] *11*	(9^-)	
802.5+x[‡] *11*	(10^-)	
1085.6+x[#] *11*	(11^-)	
1467.9+x[‡] *11*	(12^-)	
1859.5+x[#] *11*	(13^-)	

[†] From least-squares fit to Eγ's.
[‡] Band(A): $\pi g_{9/2}\nu h_{11/2}$, α=0.
[#] Band(a): $\pi g_{9/2}\nu h_{11/2}$, α=1.

γ(^{108}Rh)

E_γ[†]	I_γ[‡]	E_i(level)	J_i^π	E_f	J_f^π	Comments
(63)		307.7+x	(8^-)	244.7+x	(7^-)	E_γ: from literature; not reported by 2003Fo09.
101.9 *2*		244.7+x	(7^-)	142.80+x	(6^-)	
142.8 *2*		142.80+x	(6^-)	0+x	(5^+)	
182.4 *2*	100	490.1+x	(9^-)	307.7+x	(8^-)	
283.1 *2*	30.2 *50*	1085.6+x	(11^-)	802.5+x	(10^-)	
312.3 *2*	53.2 *60*	802.5+x	(10^-)	490.1+x	(9^-)	
382.2 *2*	16.9 *20*	1467.9+x	(12^-)	1085.6+x	(11^-)	
391.6 *2*	11.7 *20*	1859.5+x	(13^-)	1467.9+x	(12^-)	
494.8 *6*	5.6 *10*	802.5+x	(10^-)	307.7+x	(8^-)	
595.6 *2*	17.7 *20*	1085.6+x	(11^-)	490.1+x	(9^-)	
665.5 *6*	5.3 *8*	1467.9+x	(12^-)	802.5+x	(10^-)	
774.0 *6*	3.7 *7*	1859.5+x	(13^-)	1085.6+x	(11^-)	

[†] Δ(Eγ) assigned as 0.2 keV for Iγ>10 and 0.6 keV for Iγ<10, based on a general statement by 2003Fo09.
[‡] From ^{173}Yb(^{24}Mg,xγ). The notation for the uncertainties in Table I of 2003Fo09 has been clarified (e-mail reply of June 23, 2003 from one of the authors (N. Fotiades) of 2003Fo09); for example 30.2(5) for 283.1γ denotes 30.20 *50*.

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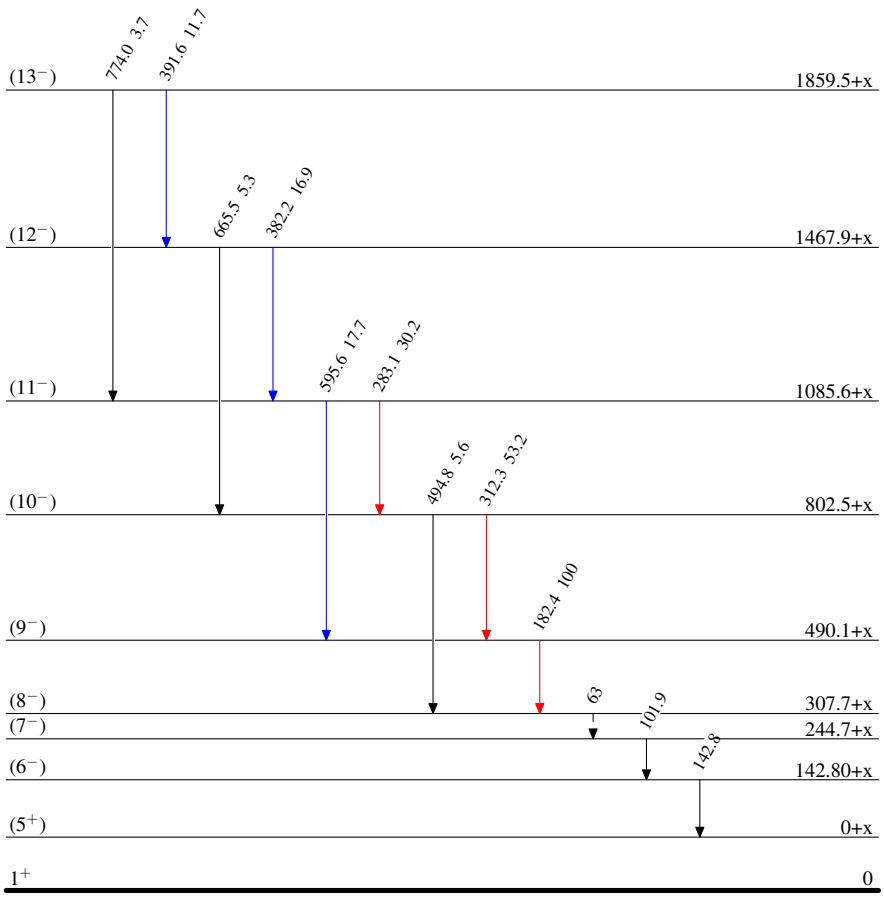
Level Scheme

Intensities: Relative I_γ

Legend

- $I_\gamma < 2\% \times I_\gamma^{max}$
- $I_\gamma < 10\% \times I_\gamma^{max}$
- $I_\gamma > 10\% \times I_\gamma^{max}$
- γ Decay (Uncertain)



$^{108}_{45}Rh_{63}$

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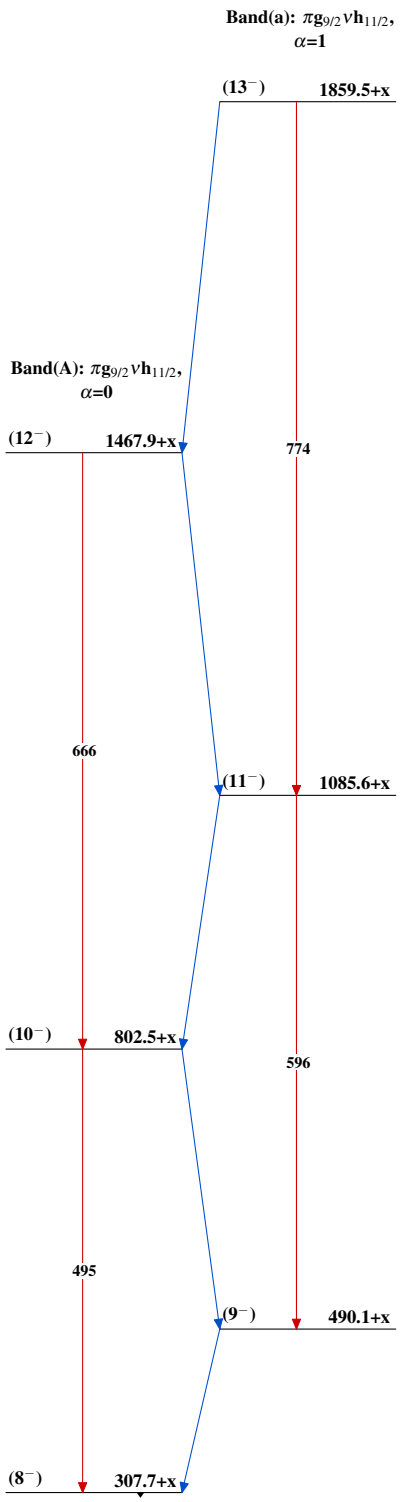

$^{108}_{45}Rh_{63}$