^{98}Ru(p,nγ) 1993ViZZ,1994SiZZ

History

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

1993ViZZ (also 1994SiZZ,2001SeZY): E=6.0-9.2 MeV. Measured Eγ, Iγ, γγ-coin.
1970As08: E=5.7-7.6 MeV. Measured Eγ, excitation function. Hauser-Feshbach analysis of excitation function data.
Level scheme is based on list of levels and γ rays given by 1994SiZZ and 1993ViZZ, respectively.

^{98}Rh Levels

E(level)†	Jπ‡	Comments
0.0	$(2)^+$	Jπ: Hauser-Feshbach analysis suggests $J=3^+$ (1970As08), but this is inconsistent with M1 γ from 1^+ (112 level).
106.8 *2*	$(3)^+$	
112.4 *2*	1^+	
174.6 *3*	(2^+)	
214.1 *2*		
291.3 *2*		
403.5? *3*		
415.5? *3*		
441.8?		Level proposed by 1994SiZZ, but none of the γ rays given by 1993ViZZ fits this level. This level is not included in the Adopted dataset.

† From a least-squares fit to γ-ray energies, unless otherwise noted.
‡ From Adopted Levels.

γ(^{98}Rh)

Eγ†	Iγ†	Ei(level)	J_i^π	Ef	J_f^π	Eγ†	Iγ†	Ei(level)	Ef	J_f^π
67.7 *2*	17 *3*	174.6	(2^+)	106.8	$(3)^+$	x234.9 *4*	9 *2*			
x95.2 *2*	19 *3*					x236.3 *4*	10 *2*			
106.8 *2*	100	106.8	$(3)^+$	0.0	$(2)^+$	291.3 *2*	43 *5*	291.3	0.0	$(2)^+$
112.4 *2*	70 *8*	112.4	1^+	0.0	$(2)^+$	x304.9 *4*	9 *2*			
174.6 *3*	26 *4*	174.6	(2^+)	0.0	$(2)^+$	x311.2 *4*	14 *3*			
184.4 *4*	6 *2*	291.3		106.8	$(3)^+$	x375.6 *3*	15 *3*			
201.4‡ *4*	14 *3*	415.5?		214.1		x388.9 *5*	18 *4*			
214.1 *2*	40 *6*	214.1		0.0	$(2)^+$	403.5‡ *3*	21 *4*	403.5?	0.0	$(2)^+$

† From 1993ViZZ. 1970As08 report one γ ray with Eγ=104 *2*.
‡ Placement of transition in the level scheme is uncertain.
x γ ray not placed in level scheme.

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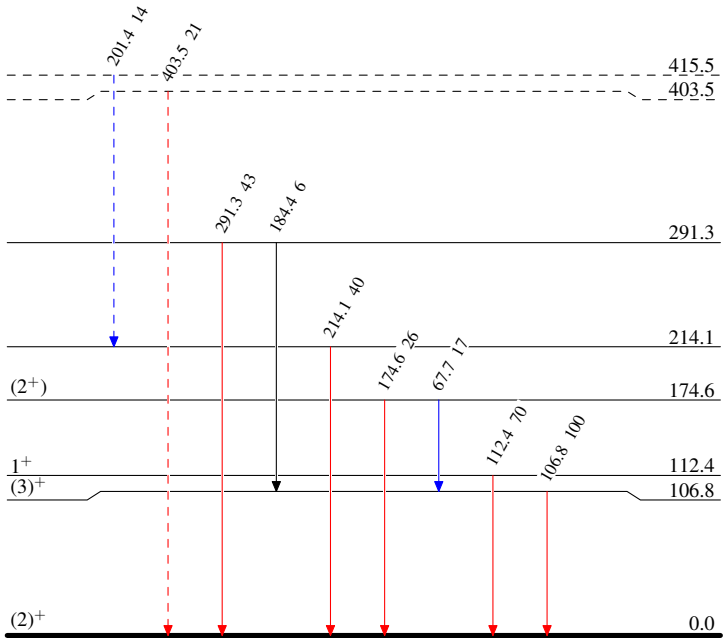
Level Scheme

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)



$^{98}_{45}Rh_{53}$