^{198}Pt(^{70}Zn,Xγ) 2000Is01

History			
Type	Author	Citation	Literature Cutoff Date
Full Evaluation	E. A. Mccutchan	NDS 113, 1735 (2012)	1-Mar-2012

E(^{70}Zn)=566 MeV. Fragments identified with four ΔE and one total E Si detectors. Measured Eγ, Iγ, γ(t), γ(pol), $\gamma\gamma$- and fragment-γ coincidences with four HPGe detectors. The same data are quoted in 2001Is02 and 2002Is03.

^{68}Ni Levels

E(level)[†]	J$^\pi$[‡]	T$_{1/2}$[#]
0.0[@]	0$^+$	
2033.0[@]	2$^+$	
2846.8	5$^-$	
3147.3[@]	4$^+$	
3170.4?	(4)	
3442.1[&]	5	
3555.8[&]	6	
3933.1[&]	7$^{(-)}$	
3998.5[@]	6$^+$	
4207.8[@]	8$^+$	23 ns *1*

[†] From a least-squares fit to Eγ's by evaluator.
[‡] Assignments from 2001Is02.
[#] From γ(t) following implantation of fragment.
[@] Band(A): $\nu g^2_{9/2}\nu p^{-2}_{1/2}$ configuration. From comparison to the level spacings in ^{70}Ni, the 6$^+$ and 8$^+$ states have a very pure $\nu g^2_{9/2}\nu p^{-2}_{1/2}$ configuration while the 4$^+$ contains a significant admixture of other components, likely the $(\nu g^2_{9/2}\nu f^{-2}_{5/2})_{4+}$ configuration.
[&] Band(B): Possible $(\nu g_{9/2}\nu f^{-1}_{5/2})_{7^-,6^-,5-}$ configuration. Excitation energy also consistent with $(\pi g_{9/2}\pi f^{-1}_{7/2})_{7-}$ and $[\pi(f_{5/2},p_{3/2})\pi f^{-1}_{7/2}]_{6^+,5+}$ configurations.

γ(^{68}Ni)

E$_\gamma$	I$_\gamma$	E$_i$(level)	J$^\pi_i$	E$_f$	J$^\pi_f$	Mult.	E$_\gamma$	I$_\gamma$	E$_i$(level)	J$^\pi_i$	E$_f$	J$^\pi_f$
113.3	36	3555.8	6	3442.1	5	D[†]	652.0	17	4207.8	8$^+$	3555.8	6
209.3	100	4207.8	8$^+$	3998.5	6$^+$	E2[‡]	708.5	58	3555.8	6	2846.8	5$^-$
271.6[#@]	21	3442.1	5	3170.4?	(4)		851.2	37	3998.5	6$^+$	3147.3	4$^+$
274.7	112	4207.8	8$^+$	3933.1	7$^{(-)}$	D[†]	1114.3	29	3147.3	4$^+$	2033.0	2$^+$
323.6[#@]	18	3170.4?	(4)	2846.8	5$^-$		1151.8	55	3998.5	6$^+$	2846.8	5$^-$
377.2	92	3933.1	7$^{(-)}$	3555.8	6	D[†]	2033.0	29	2033.0	2$^+$	0.0	0$^+$
595.3	16	3442.1	5	2846.8	5$^-$							

[†] Stretched dipole from γ-ray anisotropy.
[‡] Stretched quadrupole from γ-ray anisotropy; M2 is excluded by comparison to RUL.
[#] Ordering of 272γ and 324γ is reversed in ^{68}Co β^- decay (0.20 s) (2000Mu10). The evaluator adopts the ordering given in β^- decay.
[@] Placement of transition in the level scheme is uncertain.

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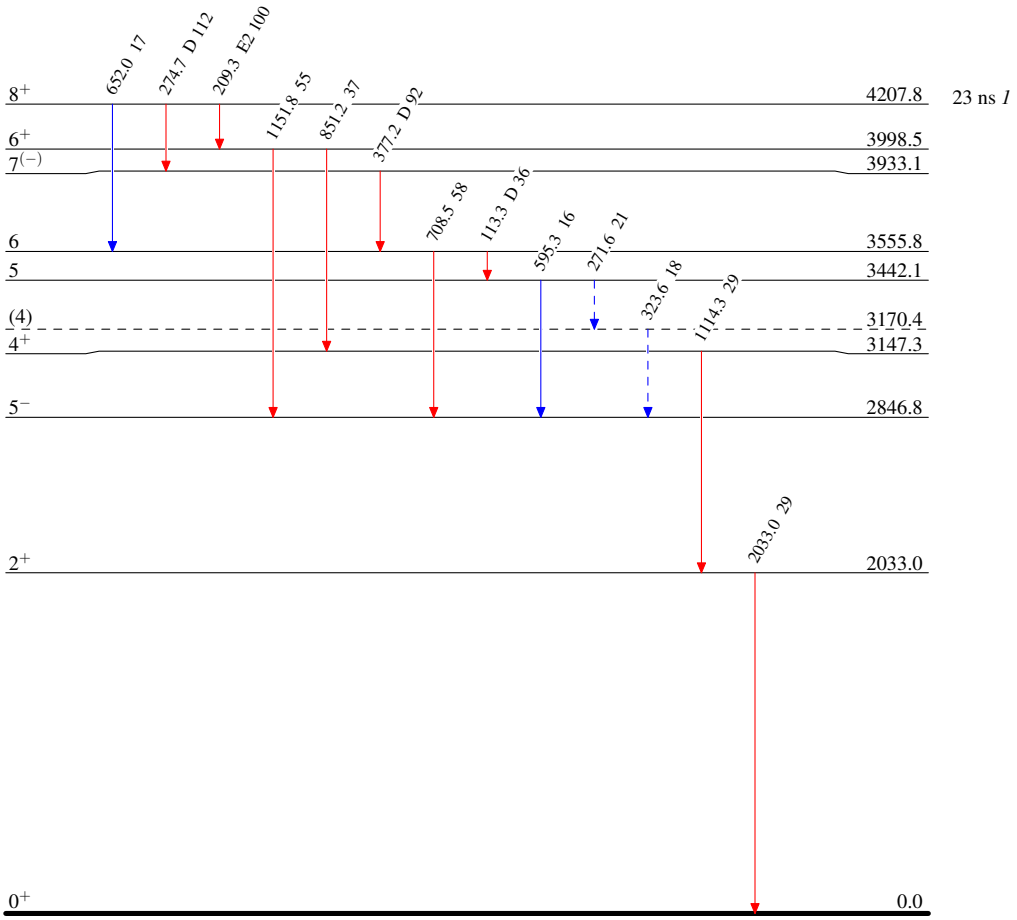
Level Scheme

Intensities: Type not specified

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)



$^{68}_{28}Ni_{40}$

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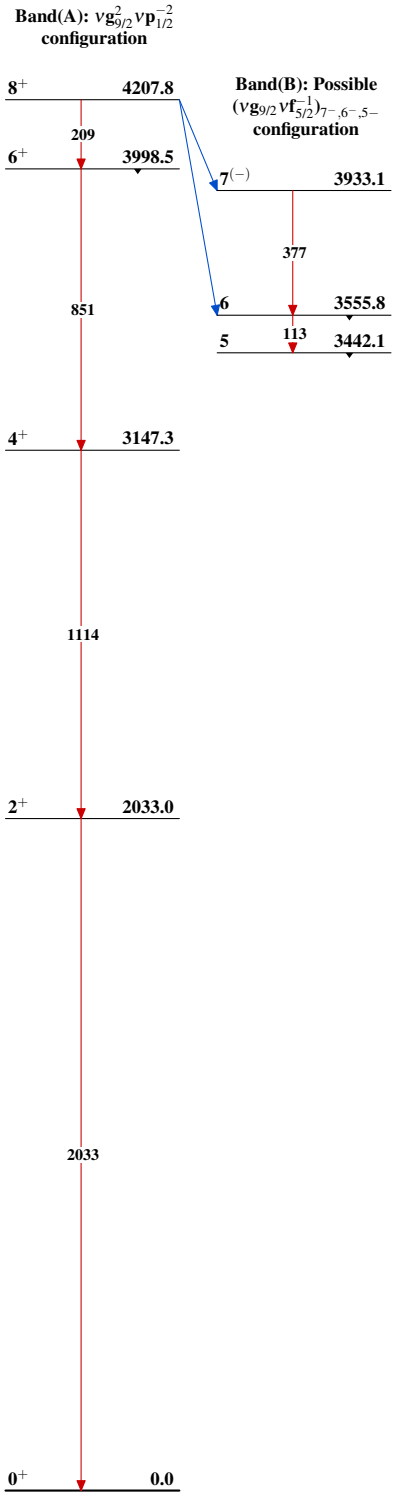

$^{68}_{28}Ni_{40}$