^{252}Cf SF decay 2003Zh14

History			
Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Jean Blachot	NDS 111, 1471 (2010)	1-May-2009

Parent: ^{252}Cf: E=0.0; $J^\pi=0^+$; $T_{1/2}$=2.645 y *8*; %SF decay=?

Measured Eγ, Iγ, γγ, and γγγ using the GAMMASPHERE detector array comprised of 102 Compton-suppressed Ge detectors.

^{113}Ru Levels

E(level)[†]	J^π[‡]
0.0+x	
113.36+x[@] *24*	(9/2$^-$)
260.44+x[#] *24*	(11/2$^-$)
522.5+x[@] *3*	(13/2$^-$)
676.5+x[#] *4*	(15/2$^-$)
1082.4+x[@] *4*	(17/2$^-$)
1238.8+x[#] *5*	(19/2$^-$)
1935.6+x[#] *6*	(23/2$^-$)
2740.2+x[#] *6*	(27/2$^-$)
3612.2+x[#] *7*	(31/2$^-$)

[†] From least-squares fit to Eγ′s, assuming Δ(Eγ)= 0.3 keV.
[‡] Based on band assignment.
[#] Band(A): possible $\nu h_{11/2}$, α=−1/2.
[@] Band(B): possible $\nu h_{11/2}$, α=+1/2.

γ(^{113}Ru)

E_γ	I_γ	E_i(level)	J_i^π	E_f	J_f^π	E_γ	I_γ	E_i(level)	J_i^π	E_f	J_f^π
113.4	>100	113.36+x	(9/2$^-$)	0.0+x		416.1	57	676.5+x	(15/2$^-$)	260.44+x	(11/2$^-$)
147.1	100	260.44+x	(11/2$^-$)	113.36+x	(9/2$^-$)	559.9	10	1082.4+x	(17/2$^-$)	522.5+x	(13/2$^-$)
154.0	8	676.5+x	(15/2$^-$)	522.5+x	(13/2$^-$)	562.3	52	1238.8+x	(19/2$^-$)	676.5+x	(15/2$^-$)
260.4	14	260.44+x	(11/2$^-$)	0.0+x		696.8	26	1935.6+x	(23/2$^-$)	1238.8+x	(19/2$^-$)
262.1	23	522.5+x	(13/2$^-$)	260.44+x	(11/2$^-$)	804.5	8	2740.2+x	(27/2$^-$)	1935.6+x	(23/2$^-$)
405.9	9	1082.4+x	(17/2$^-$)	676.5+x	(15/2$^-$)	872.0	2	3612.2+x	(31/2$^-$)	2740.2+x	(27/2$^-$)
409.2	21	522.5+x	(13/2$^-$)	113.36+x	(9/2$^-$)						

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Level Scheme

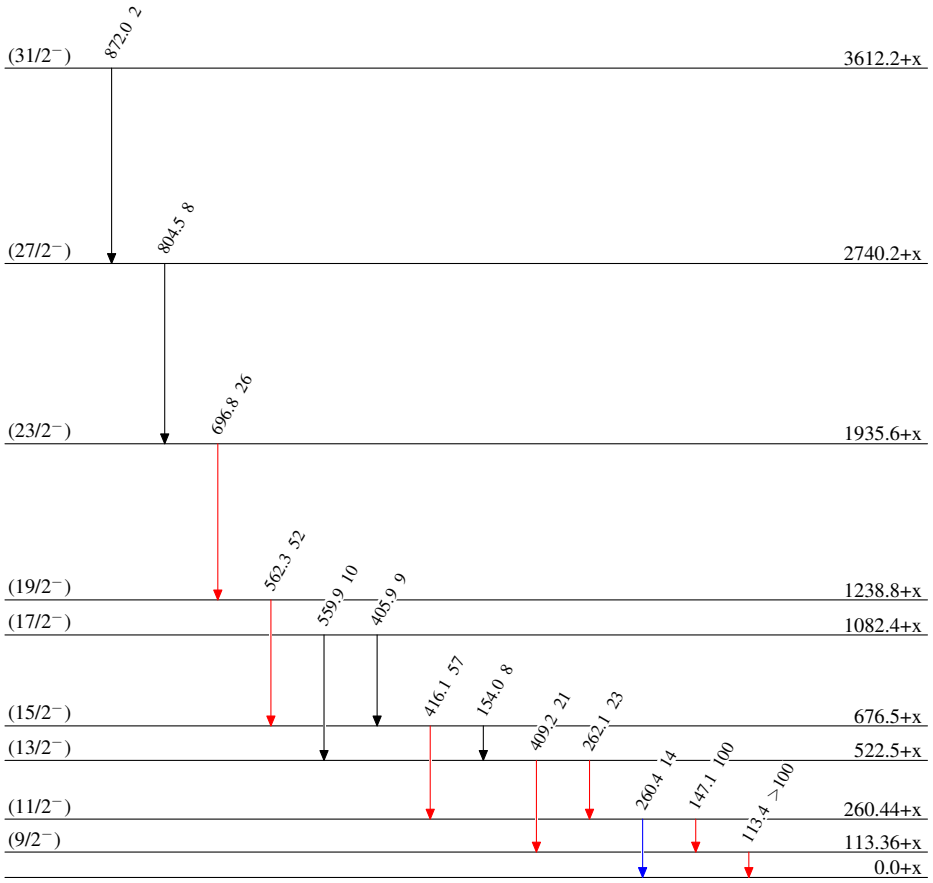
Intensities: Relative I_γ

Legend

$I_\gamma < 2\% \times I_\gamma^{max}$

$I_\gamma < 10\% \times I_\gamma^{max}$

$I_\gamma > 10\% \times I_\gamma^{max}$



$^{113}_{44}Ru_{69}$

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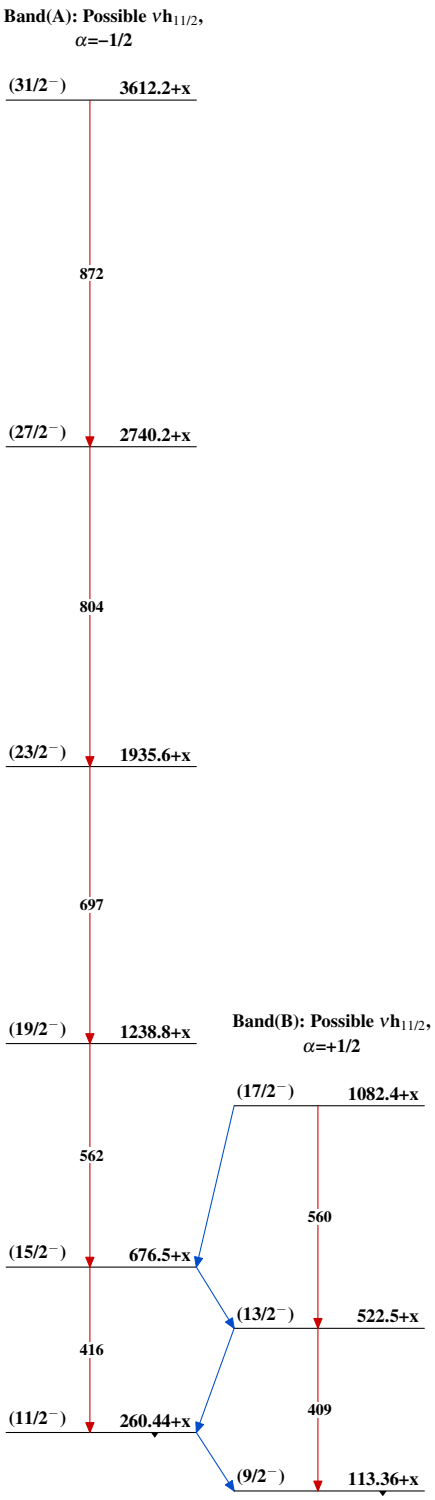

$^{113}_{44}Ru_{69}$