^{198}Pt(^{76}Ge,Xγ)　　**1998Is11**

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Balraj Singh and Jun Chen	NDS 188,1 (2023)	17-Jan-2023

1998Is11: E(^{76}Ge)=635 MeV from the JAERI tandem booster. Measured Eγ, γ(t), $\gamma\gamma$- and fragment-γ coin with an annular silicon detector and γ detectors. Deduced levels, J, π, band structure, isomer T$_{1/2}$. Comparison with shell-model calculations.

All data are from 1998Is11.

^{71}Cu Levels

E(level)[†]	J$^{\pi}$[‡]	T$_{1/2}$	Comments
0.0[#]	3/2$^-$		
534.4 6	(5/2$^-$,7/2$^-$)		
1189.1[#] 4	7/2$^-$		
1785.9 8	9/2$^+$		J$^{\pi}$: (9/2$^-$) in the Adopted Levels.
2128.2[#] 6	11/2$^-$		
2622.9[#] 6	15/2$^-$		
2755.9[#] 7	19/2$^-$	0.25 μs 3	%IT=100
			Proposed configuration=νg$^2_{9/2}$•πp$_{3/2}$ (1998Is11).
			T$_{1/2}$: weighted average (by 1998Is11) of four values obtained from γ(t) of 133.0γ, 494.7γ, 939.1γ and 1189.1γ.

[†] From a least-squares fit to Eγ data.
[‡] Proposed by 1998Is11 based on band assignments and shell-model predictions.
[#] Band(A): πp$_{3/2}$⊗ν(g$^2_{9/2}$).

γ(^{71}Cu)

E$_\gamma$	I$_\gamma$	E$_i$(level)	J$^{\pi}_i$	E$_f$	J$^{\pi}_f$	Mult.	α[†]	Comments
133.0 3	78 9	2755.9	19/2$^-$	2622.9	15/2$^-$	[E2]	0.208 4	α(K)=0.184 3; α(L)=0.0205 4; α(M)=0.00285 5; α(N)=7.28×10^{-5} 12
342.4 9	13 6	2128.2	11/2$^-$	1785.9	9/2$^+$			
494.7 3	100 8	2622.9	15/2$^-$	2128.2	11/2$^-$			
534.4 6	21 7	534.4	(5/2$^-$,7/2$^-$)	0.0	3/2$^-$			
939.1 4	81 8	2128.2	11/2$^-$	1189.1	7/2$^-$			
1189.1 4	75 7	1189.1	7/2$^-$	0.0	3/2$^-$			
1251.6 9	12 9	1785.9	9/2$^+$	534.4	(5/2$^-$,7/2$^-$)			

[†] Total theoretical internal conversion coefficients, calculated using the BrIcc code (2008Ki07) with Frozen orbital approximation based on γ-ray energies, assigned multipolarities, and mixing ratios, unless otherwise specified.
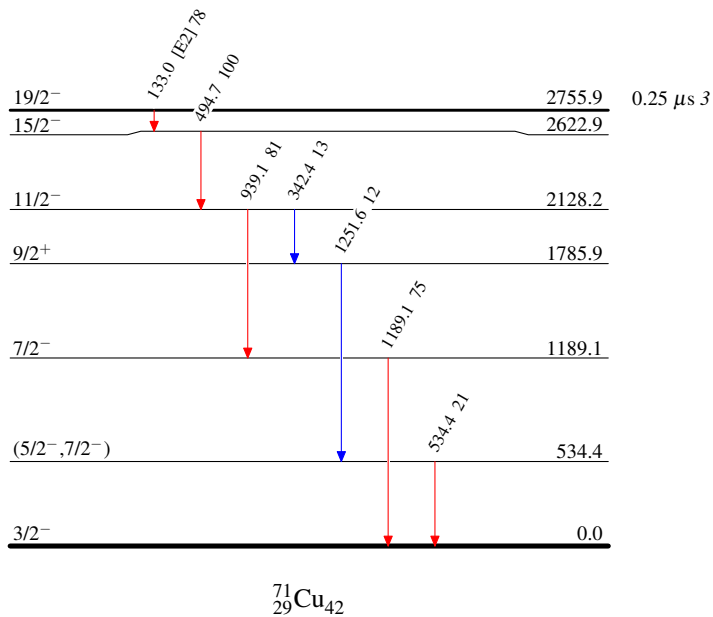
<u>^{198}Pt(^{76}Ge,Xγ)</u>   **1998Is11**

<u>Level Scheme</u>

Intensities: Relative I$_\gamma$

Legend

I$_\gamma$ < 2% × I$_\gamma^{max}$
I$_\gamma$ < 10% × I$_\gamma^{max}$
I$_\gamma$ > 10% × I$_\gamma^{max}$

19/2$^-$		2755.9 0.25 μs 3
15/2$^-$		2622.9
11/2$^-$		2128.2
9/2$^+$		1785.9
7/2$^-$		1189.1
(5/2$^-$,7/2$^-$)		534.4
3/2$^-$		0.0

133.0 [E2] 78
494.7 100
939.1 81
342.4 13
1251.6 12
1189.1 75
534.4 21

$^{71}_{29}$Cu$_{42}$

^{198}Pt(^{76}Ge,Xγ)   1998Is11

Band(A): $\pi p_{3/2} \otimes \nu(g_{9/2}^2)$

19/2⁻		2755.9
	133	
15/2⁻		2622.9
	495	
11/2⁻		2128.2
	939	
7/2⁻		1189.1
	1189	
3/2⁻		0.0

${}^{71}_{29}$Cu$_{42}$

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