^{9}Be(^{76}Ge,Xγ),Ni(^{86}Kr,Xγ) 1998Gr14,2003Ma50

History

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

1998Gr14: Ni(^{86}Kr,Xγ) E=60.3 MeV/nucleon at GANIL. Measured Eγ, $\gamma\gamma$, γ(t) fragment-γ coin. using Alpha and LISE3 spectrometers. Deduced levels, J, π, $T_{1/2}$.

2003Ma50: ^{9}Be(^{76}Ge,X) E=60 MeV/nucleon at GANIL. Measured Eγ, Iγ, $\gamma\gamma$(t) using an array of four small BaF_2 at the LISE spectrometer. Deduced $T_{1/2}$.

^{71}Cu Levels

E(level)[†]	J$^{\pi}$[‡]	$T_{1/2}$	Comments
0.0[#]	3/2$^{(-)}$		
534.2 *4*			
981.1? *5*			
1189.4[#] *4*	(7/2^{-})		
1633.2? *8*			
1786.3 *5*			
2128.4[#] *5*	(11/2^{-})		
2151.2? *4*			
2622.4[#] *5*	(15/2^{-})	0.328 ns *17*	$T_{1/2}$: from γ(t) (2003Ma50) in ^{9}Be(^{76}Ge ,X) reaction. Value taken from table 1 of 2003Ma50. Listed as 320 ps *17* in figures 1 and 2 of 2003Ma50. B(E2)(W.u.)=2.94 listed in authors' table gives 376 ps.
2755.4 *7*	(19/2^{-})	0.275 μs *14*	%IT=100 $T_{1/2}$: from γ(t) in Ni(^{86}Kr,Xγ) (1998Gr14).

[†] From a least-squares fit to Eγ data, assuming 0.5 keV uncertainty for Eγ values, except 1 keV for 652γ and 2151.0γ. The 495γ was omitted from the fitting procedure.
[‡] As proposed in 1998Gr14.
[#] Band(A): Band based on 3/2$^{(-)}$.

γ(^{71}Cu)

E$_\gamma$[†]	E$_i$(level)	J$_i^{\pi}$	E$_f$	J$_f^{\pi}$	E$_\gamma$[†]	E$_i$(level)	J$_i^{\pi}$	E$_f$	J$_f^{\pi}$
133.0	2755.4	(19/2^{-})	2622.4	(15/2^{-})	652[‡]	1633.2?		981.1?	
342.2	2128.4	(11/2^{-})	1786.3		939.0	2128.4	(11/2^{-})	1189.4	(7/2^{-})
471.0	2622.4	(15/2^{-})	2151.2?		981.0[‡]	981.1?		0.0	3/2$^{(-)}$
494.2	2622.4	(15/2^{-})	2128.4	(11/2^{-})	1189.4	1189.4	(7/2^{-})	0.0	3/2$^{(-)}$
495[‡]	2128.4	(11/2^{-})	1633.2?		1252.3	1786.3		534.2	
534.4	534.2		0.0	3/2$^{(-)}$	2151.0[‡]	2151.2?		0.0	3/2$^{(-)}$

[†] From 1998Gr14.
[‡] Placement of transition in the level scheme is uncertain.

Legend

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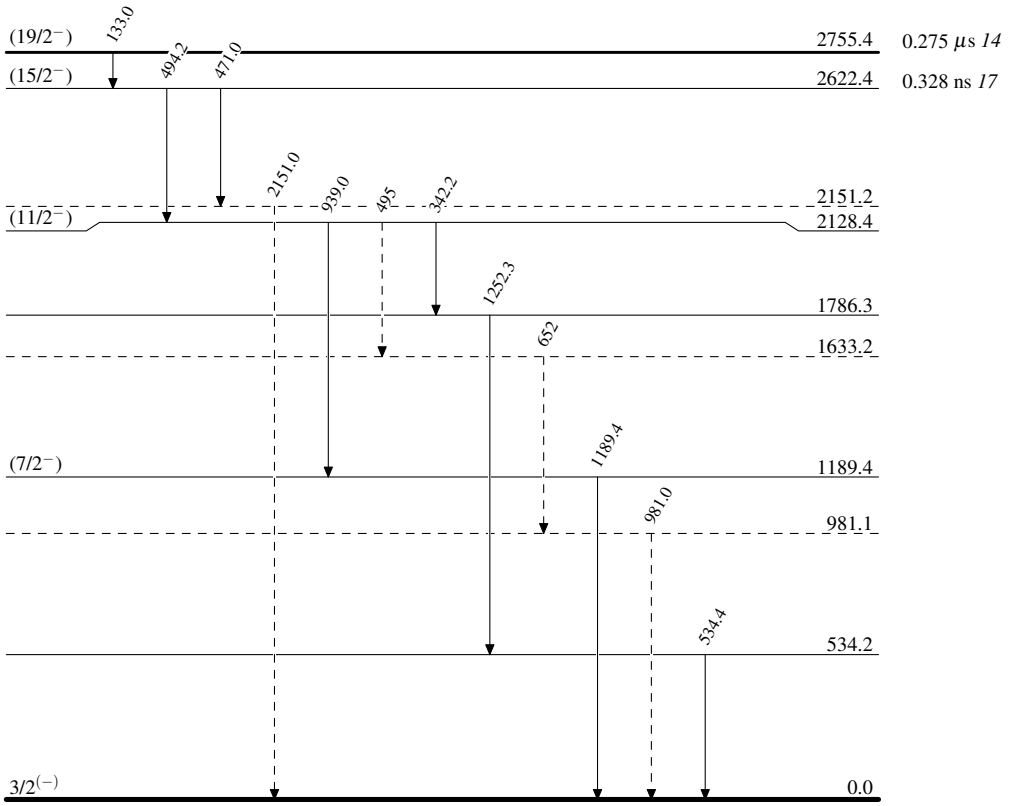
Level Scheme

γ Decay (Uncertain)



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

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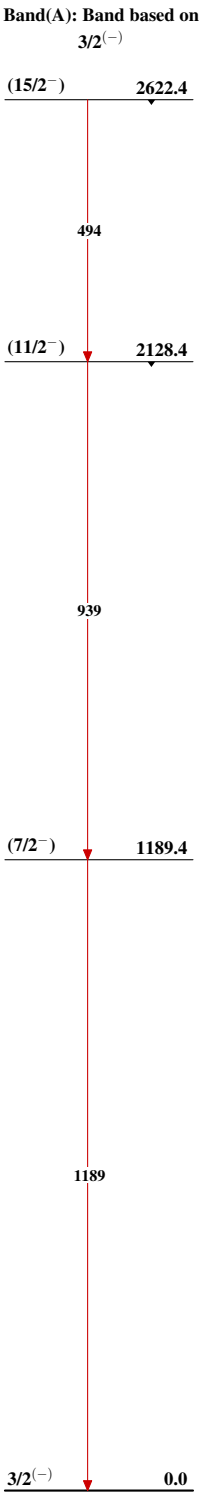

$^{71}_{29}Cu_{42}$