^{122}Sn(^{82}Kr,3nγ) 2008An05

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	F. G. Kondev	NDS 187,355 (2023)	20-Sep-2022

^{122}Sn(^{82}Kr,3nγ), E=355 MeV beam delivered at JYFL, Finland. Measured Eγ, Iγ, $\gamma\gamma$, ce, $\gamma\alpha$ coin using recoil-decay tagging method with the JUROGAM array of 43 EUROGAM type escape-suppressed HPGe detectors at angles of 72°, 86°, 94°, 108°, 134° and 158°. Reaction products were separated with the RITU recoil separator and implanted in the double-sided silicon strip detectors of the GREAT spectrometer. Reaction ^{152}Sm(^{52}Cr,3nγ), E=231 MeV was also used.

^{201}Rn Levels

E(level)†	J$^\pi$‡	$T_{1/2}$	Comments
0.0	(3/2$^-$)	7.0 s *4*	%α=?; %ε+%β^+=? J$^\pi$,$T_{1/2}$: From Adopted Levels. configuration: $\nu\ p^{-1}_{3/2}$.
245 *12*	13/2$^+$	3.8 s *1*	%α=?; %ε+%β^+=? Additional information 1. J$^\pi$,$T_{1/2}$,E(level): From Adopted Levels. configuration: $\nu\ i^{-1}_{13/2}$.
718.30 *20*	(17/2$^+$)		configuration: $\nu\ (i^{-1}_{13/2})\otimes 2^+$.
1266.2 *3*	(21/2$^+$)		configuration: $\nu\ (i^{-1}_{13/2})\otimes 4^+$.
1364.9? *4*	(21/2$^+$)		
1819.3? *4*	(25/2$^+$)		

† From a least-squares fit to Eγ, unless otherwise stated.
‡ From 2008An05, unless otherwise stated.

γ(^{201}Rn)

E$_\gamma$	I$_\gamma$	E$_i$(level)	J$_i^\pi$	E$_f$	J$_f^\pi$
x323.4 *5*	8‡ *3*				
x337.3 *4*	12‡ *3*				
x346.3 *3*	22‡ *4*				
x370.7 *5*	6‡ *3*				
x397.8 *3*	100† *32*				
454.0@ *3*	29‡ *5*	1819.3?	(25/2$^+$)	1364.9?	(21/2$^+$)
x464.7 *6*	9‡ *3*				
473.3 *2*	100‡ *7*	718.30	(17/2$^+$)	245	13/2$^+$
x536.8 *5*	24† *17*				
548.1 *2*	68‡ *7*	1266.2	(21/2$^+$)	718.30	(17/2$^+$)
553.5@ *3*	24‡ *4*	1819.3?	(25/2$^+$)	1266.2	(21/2$^+$)
x564.3 *2*	43‡ *5*				
x583# *2*	55† *40*				
x587.1 *5*	13‡ *3*				
x590# *2*	42† *32*				
x619.6 *7*	12‡ *4*				
x623.6 *5*	19‡ *4*				
646.2@ *3*	33‡ *4*	1364.9?	(21/2$^+$)	718.30	(17/2$^+$)
x700 *1*	39† *23*				

Continued on next page (footnotes at end of table)

^{122}Sn(^{82}Kr,3nγ) 2008An05 (continued)

$\gamma(^{201}Rn)$ (continued)

† γ ray associated with the $J^{\pi}=3/2^{-}$ ground state. Intensities are normalized to 100 for the 397.8 γ ray.
‡ γ ray associated with the $J^{\pi}=13/2^{+}$ isomer. Intensities are normalized to 100 for the 473.3 γ ray.
# Doublet.
@ Placement of transition in the level scheme is uncertain.
x γ ray not placed in level scheme.

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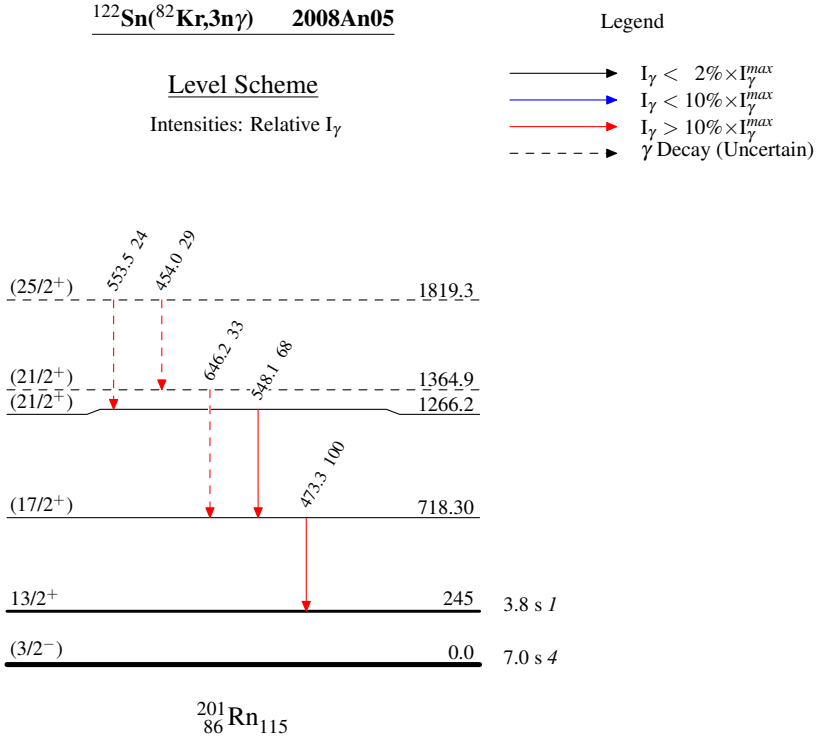
Level Scheme

Intensities: Relative I_γ



$^{201}_{86}Rn_{115}$