^{92}Mo(^{78}Kr,3p2nγ) 2015Da03

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Balraj Singh and Jun Chen	NDS 194,460 (2024)	31-Oct-2022

2015Da03: E(^{78})Kr=380 MeV from K=130 cyclotron at JYFL facility. Measured Eγ, Iγ, Eα, fusion products recoiling out of the target, $\gamma(\theta)$, (recoil)$\alpha\gamma\gamma$-coin, $\alpha\gamma\gamma$-coin. Gamma rays were detected using JUROGAM array of 43 Compton-suppressed HPGe detectors. Reaction residues recoiling out of the target were separated from the primary beam using the gas-filled recoil separator RITU, and collected in the GREAT spectrometer for particle identification based on tof and energy loss information. Recoil-decay tagging (RDT) method. Deduced levels, J, π, band, configurations.

^{165}Re Levels

E(level)[†]	J$^\pi$	T$_{1/2}$	Comments
48[‡] *26*	(11/2$^-$)	1.74 s *6*	%ε+%β^+=87 *3*; %α=13 *3* Additional information 1. E(level),J$^\pi$,T$_{1/2}$: from Adopted Levels. Decay modes from Adopted Levels.
385[#] *1*	(13/2$^-$)		
587[‡] *1*	(15/2$^-$)		
1012[#] *1*	(17/2$^-$)		
1259[‡] *1*	(19/2$^-$)		
2019[‡] *2*	(23/2$^-$)		

[†] From a least-squares fit to Eγ data, assuming 1 keV uncertainty for each γ ray, and keeping the energy of the 48-keV level fixed.
[‡] Band(A): πh$_{11/2}$ band, α=−1/2.
[#] Band(a): πh$_{11/2}$ band, α=+1/2.

$\gamma(^{165}Re)$

E$_\gamma$	E$_i$(level)	J$_i^\pi$	E$_f$	J$_f^\pi$
202[†]	587	(15/2$^-$)	385	(13/2$^-$)
247[#]	1259	(19/2$^-$)	1012	(17/2$^-$)
337[†]	385	(13/2$^-$)	48	(11/2$^-$)
425[‡]	1012	(17/2$^-$)	587	(15/2$^-$)
539[†]	587	(15/2$^-$)	48	(11/2$^-$)
627[‡]	1012	(17/2$^-$)	385	(13/2$^-$)
672[‡]	1259	(19/2$^-$)	587	(15/2$^-$)
760[‡#]	2019	(23/2$^-$)	1259	(19/2$^-$)

[†] Strong γ ray.
[‡] Medium intensity γ ray.
[#] Placement of transition in the level scheme is uncertain.

Legend

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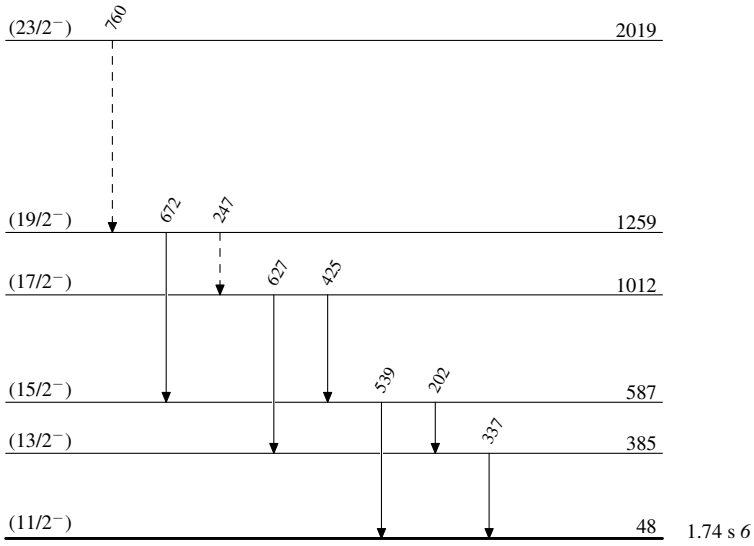
Level Scheme

γ Decay (Uncertain)



$^{165}_{75}Re_{90}$

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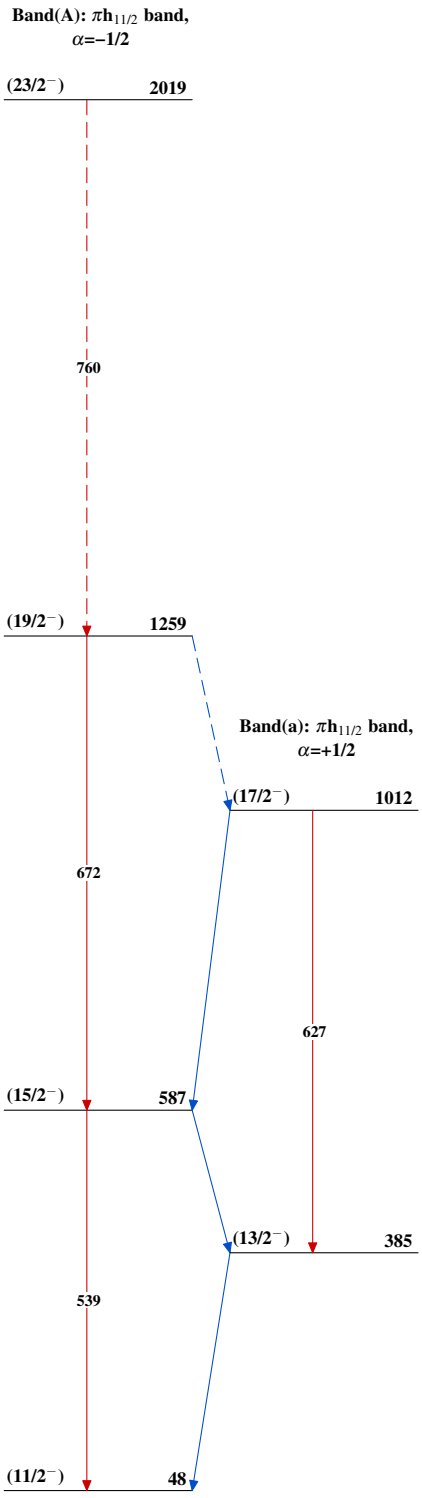

$^{165}_{75}Re_{90}$