^{96}Ru(^{78}Kr,p2nγ) 2003Bb21

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Coral M. Baglin, E. A. Mccutchan	NDS 151, 334 (2018)	30-Jun-2018

2003Bb21: 370 MeV ^{78}Kr beam degraded to 363 MeV mid target; recoils implanted In 16 position-sensitive Si strip detectors At focal plane of RITU recoil separator; JUROSPHERE Ge detector array (15 EUROGAM-1 type detectors, 5 TESSA type detectors and 5 NORDBALL type detectors); recoil-decay tagging technique; multiwire proportional avalanche counter to discriminate recoils and scattered beam; Si detector behind strip detector to veto energetic P or α punching through strip detector; Ge detector behind focal plane for detection of γ and x from daughter products; measured recoil-correlated α and p spectra during the 8 ms following recoil implant; measured Eγ, Iγ, $T_{1/2}$, γ-α and γ-P correlations.

^{171}Au Levels

Proposed level scheme is tentative as low statistics prohibited analysis of $\gamma\gamma$ coincidences. Transitions are placed by assuming the two most intense transitions observed are in cascade feeding the $11/2^-$ isomer.

E(level)	J^π[†]	$T_{1/2}$	Comments
0.0	$(1/2^+)$		
259 *13*	$(11/2^-)$	1.014 ms *19*	E(level): From the Adopted Levels. $T_{1/2}$: from combined p(t) and α(t) (2003Bb21).
870 *13*			
1804 *14*			

[†] From the Adopted Levels.

γ(^{171}Au)

Eγ	Iγ[†]	E$_i$(level)	E$_f$	J^π_f
611 *3*	30 *7*	870	259	$(11/2^-)$
[x]626 *6*	9 *4*			
[x]691 *8*	7 *3*			
[x]706 *5*	9 *4*			
[x]827 *5*	12 *4*			
954 *5*	15 *5*	1804	870	

[†] Intensity measured in coincidence with both proton and alpha decays. 2003Bb21 also provide intensities in coincidence with protons and alphas individually.

[x] γ ray not placed in level scheme.

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Level Scheme

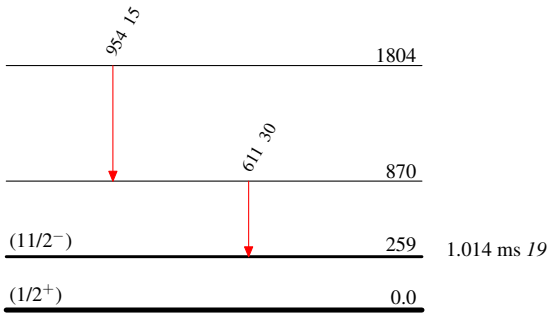
Intensities: Type not specified

Legend

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

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

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



$^{171}_{79}Au_{92}$