Coulomb excitation 2017El04

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	S. K. Basu, E. A. Mccutchan	NDS 165, 1 (2020)	1-Mar-2020

2017El04: Intermediate energy Coulomb excitation using 68 MeV/nucleon ^{90}Kr beam, produced in ^{9}Be(^{96}Zr,X) primary reaction with E=120 MeV/nucleon beam from K500 and K1200 coupled cyclotrons at NSCL-MSU facility. Fragments were separated using A1900 fragment separator. Target was 246 mg/cm^2 thick ^{209}Bi. Measured scattered particles using S800 spectrograph, Eγ, Iγ, (particle)γ-coin using CAESAR array of 192 closely packed CsI(Na) crystals.

^{90}Kr Levels

E(level)	J$^\pi$‡	T$_{1/2}$†	Comments
0	0$^+$		
707	2$^+$	10.7 ps *16*	B(E2)↑=0.1500 *230* (2017El04) Measured σ=180 mb *30* (2017El04).
1362	2$^+$	1.1 ps *+4−2*	B(E2)↑=0.0330 *90* (2017El04) Measured σ=40 mb *10* (2017El04).
2249	(2$^+$)	<0.23 ps	B(E2)↑=0.0150 *110* (2017El04) J$^\pi$: tentative assignment by 2017El04. Measured σ=17 mb *13* (2017El04).

† Deduced by evaluators from B(E2)↑ values in 2017El04, and adopted gamma-ray properties.
‡ From the Adopted Levels.

γ(^{90}Kr)

E$_i$(level)	J$_i^\pi$	E$_\gamma$	I$_\gamma$	E$_f$	J$_f^\pi$	Mult.	Comments
707	2$^+$	707		0	0$^+$	E2	
1362	2$^+$	655		707	2$^+$		
		1362		0	0$^+$	[E2]	
2249	(2$^+$)	1542	100	707	2$^+$		
		2249†	<23	0	0$^+$	[E2]	E$_\gamma$,I$_\gamma$: estimated by 2017El04, the 2249γ was not seen by the authors.

† Placement of transition in the level scheme is uncertain.

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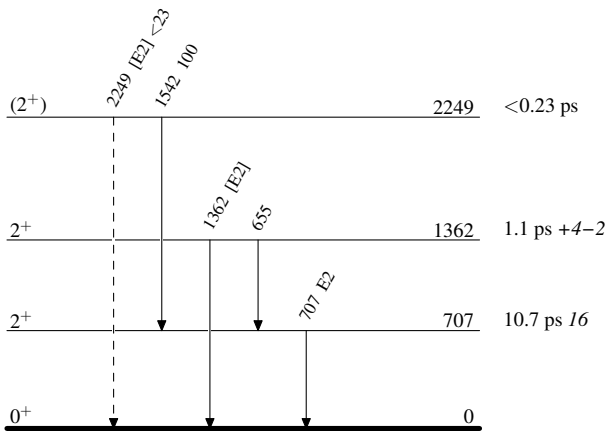
Legend

Level Scheme

Intensities: Relative photon branching from each level

γ Decay (Uncertain)



$^{90}_{36}Kr_{54}$