

$^{48}\text{Ca}(^{48}\text{Ca},4n\gamma)$ 1977KoYY

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	Coral M. Baglin	NDS 113, 2187 (2012)	15-Sep-2012

E=120-130 MeV; in-beam γ spectroscopy (details not given); measured $\gamma\gamma$ -coin, $\gamma(\theta)$ (results unstated); strong population of high-spin yrast levels.

 ^{92}Zr Levels

E(level) [#]	J^{π} [‡]	$T_{1/2}$ [†]
0.0	0 ⁺	
935.0 10	2 ⁺	
1496.0 15	4 ⁺	
2958.0 18	(6 ⁺)	
3309.0 20	(8 ⁺)	1.18 ns 7
4297.0 23	(10 ⁺)	
4948.0 25	(12 ⁺)	
6047 3	(14 ⁺)	
7448 3	(16 ⁺)	
8041? 3	(17 ⁻)	42 ps 14

[†] From recoil-distance measurements.

[‡] Authors' values; strong population of yrast high-spin states expected in this (HL,xn γ) reaction but justification for specific values not given.

[#] Deduced by evaluator using a least-squares fit to γ ray energies, assuming 1 keV uncertainty in E_{γ} . E_{γ} data from this study agree with independently known E_{γ} to better than 1 keV.

 $\gamma(^{92}\text{Zr})$

E_{γ} [†]	I_{γ}	$E_i(\text{level})$	J_i^{π}	E_f	J_f^{π}
351	96	3309.0	(8 ⁺)	2958.0	(6 ⁺)
561	96	1496.0	4 ⁺	935.0	2 ⁺
593 [‡]	35	8041?	(17 ⁻)	7448	(16 ⁺)
651	88	4948.0	(12 ⁺)	4297.0	(10 ⁺)
935	100	935.0	2 ⁺	0.0	0 ⁺
988	97	4297.0	(10 ⁺)	3309.0	(8 ⁺)
1099	64	6047	(14 ⁺)	4948.0	(12 ⁺)
1401	57	7448	(16 ⁺)	6047	(14 ⁺)
1462	98	2958.0	(6 ⁺)	1496.0	4 ⁺

[†] Energies and intensities of γ rays are shown by 1977KoYY in drawing only. Uncertainties are not stated.

[‡] Placement of transition in the level scheme is uncertain.

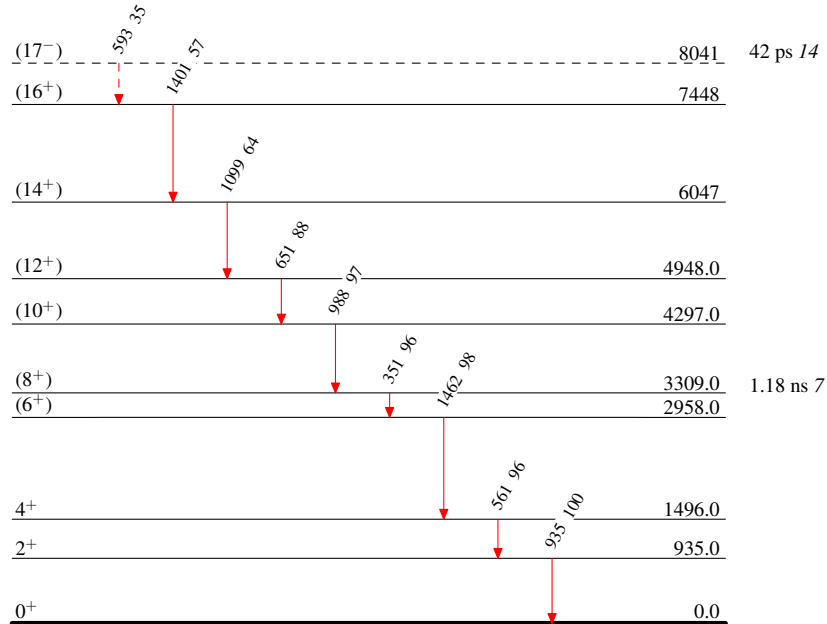
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Legend

Level Scheme

Intensities: Relative I_γ

- $I_\gamma < 2\% \times I_\gamma^{\text{max}}$
- $I_\gamma < 10\% \times I_\gamma^{\text{max}}$
- $I_\gamma > 10\% \times I_\gamma^{\text{max}}$
- - - - - γ Decay (Uncertain)

 ${}^{92}_{40}\text{Zr}_{52}$