^{48}Ca(^{9}Be,3n$\alpha\gamma$) 2000ApZX

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Jun Chen and Balraj Singh	NDS 157, 1 (2019)	15-Apr-2019

2000ApZX: E=50 MeV beam from the 88-inch cyclotron at LBNL. Measured Eγ, Iγ, $\gamma\gamma$, $\gamma\gamma(\theta)$(DCO) using 8π spectrometer. Deduced levels, J, π, γ-ray multipolarities.

^{50}Ti Levels

E(level)	J^{π}[†]
0.0[‡]	0^+
1554.0[‡] *8*	2^+
2675.4[‡] *10*	4^+
3199.2[‡] *11*	6^+
6134.8[‡] *23*	7^+
6539.3[‡] *23*	8^+
6768.6[‡] *24*	9^+
7570.0[‡] *24*	10^+
8789.9[‡] *25*	11^+

[†] As given in 2000ApZX based on DCO values.
[‡] Seq.(A): γ cascade based on g.s.

$\gamma(^{50}Ti)$

E_γ	I_γ	E_i(level)	J_i^π	E_f	J_f^π	Mult.[†]	Comments
229.3 *3*	60.6 *9*	6768.6	9^+	6539.3	8^+	D	DCO=0.70 *4*
404.4 *4*	61.2 *8*	6539.3	8^+	6134.8	7^+	D	DCO=0.60 *4*
523.8 *4*	75 *3*	3199.2	6^+	2675.4	4^+	Q	DCO=1.09 *6*
801.5 *6*	34.7 *9*	7570.0	10^+	6768.6	9^+	D	DCO=0.55 *7*
1121.4 *6*	90 *4*	2675.4	4^+	1554.0	2^+	Q	DCO=1.01 *7*
1219.9 *10*	13.4 *9*	8789.9	11^+	7570.0	10^+	D	DCO=0.52 *12*
1554.0 *8*	100 *6*	1554.0	2^+	0.0	0^+	Q	DCO=0.98 *6*
2935.5 *20*	64 *3*	6134.8	7^+	3199.2	6^+	D	DCO=0.45 *7*

[†] From DCO ratios. Mult=Q for ΔJ=2 and mult=D for ΔJ=1 or 0. Expected values are 1.0 for ΔJ=2, quadrupole and 0.5 for ΔJ=1, dipole when the gating transition is ΔJ=2, quadrupole.

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Level Scheme

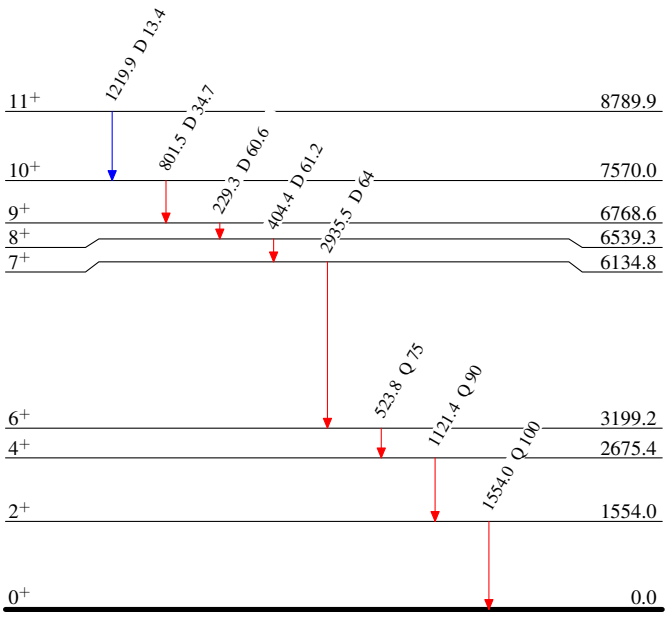
Intensities: Relative I_γ

Legend

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

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

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



$^{50}_{22}Ti_{28}$

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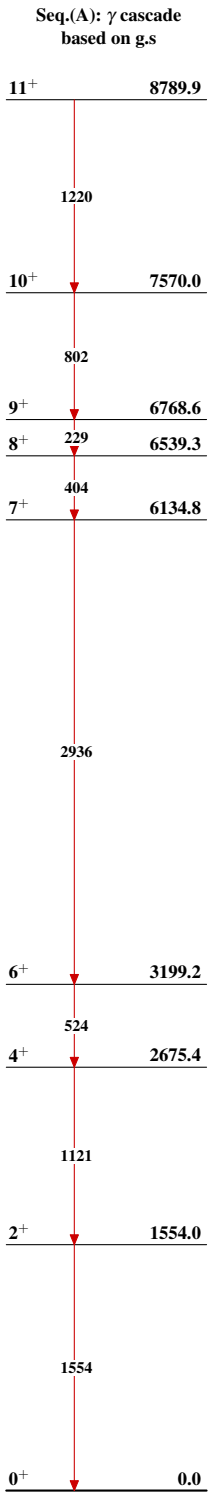

$^{50}_{22}Ti_{28}$