^{45}Sc(μ^-,nγ) 1971Ba10

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Jun Chen and Balraj Singh	NDS 190,1 (2023)	20-Jun-2023

1971Ba10: muons were produced at the muon channel of the CERN synchrocyclotron. Target was ^{45}Sc. γ rays were detected with Ge(Li) detectors. Measured Eγ, Iγ. Deduced levels.

^{44}Ca Levels

E(level)[†]	J$^\pi$[‡]	Comments
0.0	0^+	
1155.9 *5*	2^+	
2280.0 *9*	4^+	
2666 *10*	2^+	J$^\pi$: 1971Ba10 quote 2^-.

[†] From a least-square fit to γ-ray energies.
[‡] From the Adopted Levels.

γ(^{44}Ca)

E$_\gamma$[†]	I$_\gamma$	E$_i$(level)	J$_i^\pi$	E$_f$	J$_f^\pi$	Comments
1124.1 *7*	38 *7*	2280.0	4^+	1155.9	2^+	E$_\gamma$: 1126.076 *10* (for electronic atom).
1155.9 *5*	61 *6*	1155.9	2^+	0.0	0^+	E$_\gamma$: 1157.020 *15* (for electronic atom).
1510 *10*	<5	2666	2^+	1155.9	2^+	

[†] Observed Eγ data in the muonic atom. Eγ data for the electronic atom (as in Adopted Gammas) are given under comments.

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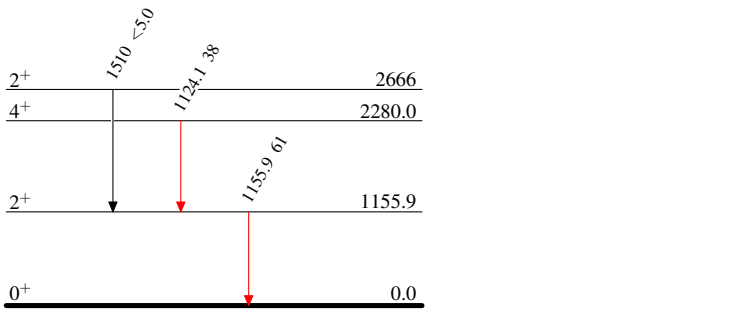
Level Scheme

Intensities: Per 100 muon-captures



$^{44}_{20}Ca_{24}$