^{10}B(^{36}Ar,2pγ) 2011Ta33

History

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

2011Ta33: E=95 MeV beam was provided by ATLAS facility at ANL. Target was a 0.25 mg/cm^2 ^{10}B. Recoils were selected using the Fragment Mass Analyzer (FMA) in conjunction with micro-channel (MCP) and gas ionization chamber (IC) detectors. γ rays were detected with the Gammasphere detector array. Measured Eγ, Iγ, $\gamma\gamma$-coin. Deduced levels, J, π. Comparisons with shell-model calculations.

All data are from 2011Ta33, unless otherwise noted.

^{44}Sc Levels

E(level)	J$^\pi$[†]	T$_{1/2}$	Comments
0	2$^+$		
67	1$^-$		
233	2$^-$		
271	6$^+$	58.61 h *10*	T$_{1/2}$: from the Adopted Levels.
348	4$^+$		
423	3$^-$		
529	3$^-$		
629	4$^-$		
968	7$^+$		
1004	4$^-$		
1050	5$^+$		
1195	5$^-$		
2670	9$^+$		
3565	11$^+$		
4111	10$^+$		

[†] As quoted by 2011Ta33 from 2005La19 in (^{18}O,p3nγ).

γ(^{44}Sc)

E$_\gamma$	E$_i$(level)	J$_i^\pi$	E$_f$	J$_f^\pi$	E$_\gamma$	E$_i$(level)	J$_i^\pi$	E$_f$	J$_f^\pi$	E$_\gamma$	E$_i$(level)	J$_i^\pi$	E$_f$	J$_f^\pi$
166	233	2$^-$	67	1$^-$	356	423	3$^-$	67	1$^-$	702	1050	5$^+$	348	4$^+$
189	423	3$^-$	233	2$^-$	375	1004	4$^-$	629	4$^-$	772	1004	4$^-$	233	2$^-$
206	629	4$^-$	423	3$^-$	395	629	4$^-$	233	2$^-$	772	1195	5$^-$	423	3$^-$
233	233	2$^-$	0	2$^+$	546	4111	10$^+$	3565	11$^+$	895	3565	11$^+$	2670	9$^+$
280	629	4$^-$	348	4$^+$	566	1195	5$^-$	629	4$^-$	1702	2670	9$^+$	968	7$^+$
296	529	3$^-$	233	2$^-$	581	1004	4$^-$	423	3$^-$					
348	348	4$^+$	0	2$^+$	697	968	7$^+$	271	6$^+$					

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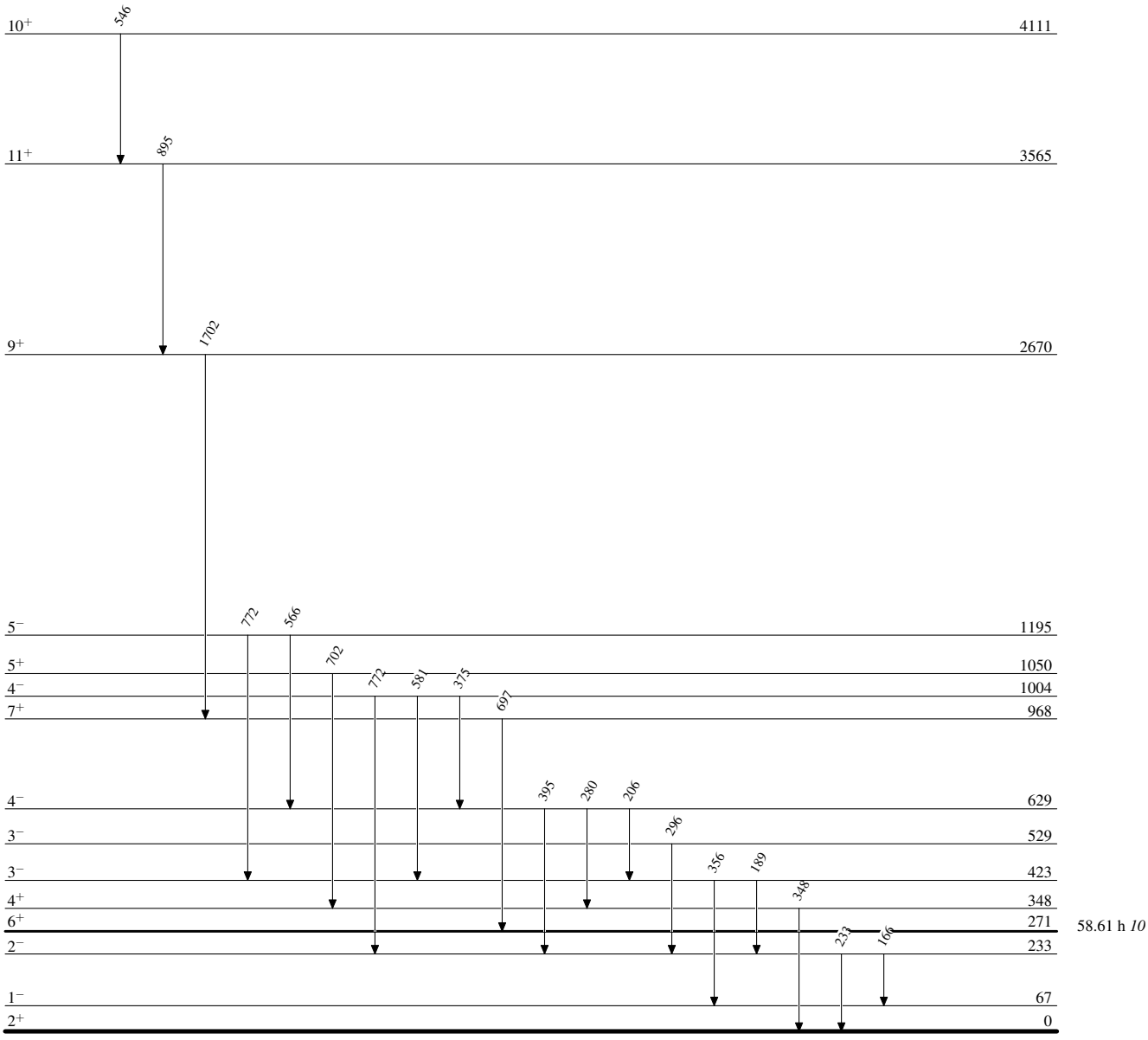
Level Scheme



$^{44}_{21}Sc_{23}$