^{85}Rb(^{3}He,d) 1975Sc19

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Alexandru Negret, Balraj Singh	NDS 124, 1 (2015)	30-Nov-2014

$J^{\pi}(^{85}Rb\ g.s.)=5/2^{-}$.

1975Sc19: E=33.3 MeV. FWHM=35 keV. Measured $\sigma(\theta)$ for θ=2.5°−45° (lab) using a magnetic spectrometer and ΔE-E particle identification. DWBA analysis.

^{86}Sr Levels

E(level)[†]	J^{π}[‡]	L[#]	$(2J_f+1)/(2J_i+1)C^2S$[@]	Comments
0	0^+	3	0.49	C^2S=2.9.
1077	2^+	1+3	0.049,0.09 *8*	C^2S=0.059(L=1),0.12(L=3).
1854	2^+	1	0.16	C^2S=0.20.
2102	0^+	3	0.067	C^2S=0.40.
2230	4^+	1	0.004	C^2S=0.0028.
2482	3^-	0+4	0.0042,0.033	C^2S=0.0036(L=0),0.028(L=4).
2642	2^+	1	0.036	C^2S=0.043.
2673	5^-	4	0.069	C^2S=0.037.
2788	2^+	1	0.060	C^2S=0.072.
2878	(4^+)	1	0.057	C^2S=0.038-0.049 for J=3,4.
2997	3^-	(4)	0.043	E(level): possibly a doublet with L=1+4 or 1+3. C^2S=0.037.
3056		4	0.57	C^2S=0.38 for J=4,5.
3185		1	0.013	C^2S=0.008-0.025 for J=1 to 4.
3291		4	1.11	C^2S=0.44-1.3 for J=2 to 7.
3396 *10*		1	0.57	E(level): from 1975Sc19. C^2S=0.38-1.1 for J=1 to 4.
3500		3	0.41	C^2S=0.22-2.4 for J=0 to 5.
3556		3	0.23	C^2S=0.13-1.4 for J=0 to 5.
3687		3	0.74	C^2S=0.49-0.63 for J=3,4.

[†] Rounded values from Adopted Levels, unless otherwise stated.

[‡] From Adopted Levels.

[#] From DWBA calculations. Spin-dependent effects were found to be small, and no attempt was made to assign spin values.

[@] Based on shell-model considerations, the stripped proton is assumed to be transferred to the following orbitals: L=1 to $p_{1/2}$ or $p_{3/2}$ (C^2S is only weakly dependent on the precise choice), L=3 to $f_{5/2}$, and L=4 to $g_{9/2}$.