^{84}Sr(^{3}He,d) 1975Me17

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Balraj Singh and Jun Chen	NDS 116, 1 (2014)	31-Dec-2013

1975Me17: E=18 MeV, FWHM=23 keV, θ=3.75°−40°. Enriched target. DWBA analysis of $\sigma(\theta)$. Deduced L-values, spectroscopic factors.

^{85}Y Levels

E(level)	L†	(2J+1)C^{2}S.†	E(level)	L†	(2J+1)C^{2}S.†	E(level)	L†	(2J+1)C^{2}S.†
0#	1	1.48	1375 *6*	0	0.030	2519 *6*	2	0.066
20# *4*	4	6.0	1428 *6*	2	0.034	2551 *6*	2	0.10
268 *4*	3	1.80	1607 *6*	2	0.053	2748 *6*	2	0.22
417 *4*	1	0.96	1716 *6*	2	0.040	2840 *6*	(0)	0.040
436 *4*	2	0.20	1776 *6*	4	1.10	2939 *6*	2	0.56
639 *4*	1	0.072	1837 *6*	0	0.036	3041 *6*	0	0.058
803 *4*	2	0.041	1896 *6*	0	0.054	3110 *6*	0	0.096
883 *4*	2	0.015	1992 *6*	1	0.028	3168 *6*	(0)	0.036
936 *4*	1	0.054	2156‡ *6*	0+2	0.012,0.059	3230 *6*	2	0.16
962 *4*	1	0.138	2223‡ *6*	0+2	0.054+0.31	3270 *6*	2	0.22
1212 *6*	1	0.078	2427 *6*	2	0.050	3375 *6*	0	0.088
1278 *6*	2	0.084	2472 *6*	0	0.050			

† From DWBA. For L=1, 2, 3, and 4 transfer stripping to $2p_{1/2}$, $2d_{5/2}$, $1f_{5/2}$ and $1g_{9/2}$, respectively, are assumed.

‡ Unresolved doublet.

From an analysis of $\sigma(\theta)$ at forward angles, it was ascertained that the g.s. is $1/2^-$ rather than $9/2^+$. The energy separation of the two members of this g.s. doublet is 20 keV *3*.