^{84}Sr(α,p)   1977Me16

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	T. D. Johnson and W. D. Kulp(a)	NDS 129, 1 (2015)	27-Jul-2015

E(α)=18 MeV, FWHM=20 keV, θ=7°−142° in 7.5° steps and DWBA analysis of p(θ).

The authors assume that the reaction proceeds by triton cluster transfer with two neutrons coupled to J^{π}=0^{+} and use the same proton configuration as in the (^{3}He,d) work of 1971Ma11 in order to compare the strengths in both reactions. The agreement is good for most of the low-lying levels, except for the 1f$_{5/2}$ transfer to the 801 level, which is more than two times stronger than that found in (^{3}He,d).

^{87}Y Levels

E(level)	J^{π}[†]	L[‡]	S[#]	E(level)	J^{π}[†]	L[‡]	S[#]	E(level)	J^{π}[†]	L[‡]	S[#]
0.0	(1/2^{-})	1	1.15	1321[@] 8				2012 8			
388 8	(9/2^{+})	4	6.23	1403 8				2103 8	(3/2^{-})	(1)[&]	0.26
801 8	(5/2^{-})	3	2.60	1504[@] 8	(3/2^{-})		0.10	2201 8	(9/2^{+})	(4)	0.92
981 8	(3/2^{-})	1	0.72	1618 8	(9/2^{+})	4	1.58	2282 8	(5/2^{-})	3	0.02
1157 8	(5/2^{+})	2	0.24	1757 8							
1203 8				1851 8	(3/2^{-})	1	0.24				

[†] Value assumed for extraction of S.
[‡] The authors take L values from the (^{3}He,d) work of 1971Ma11.
[#] The results were normalized arbitrarily by requiring that the ground-state strength is equal to the ground-state strength in (^{3}He,d).
[@] Weakly excited levels.
[&] Poor fit. The dip expected at 60°−70° is not observed.