

⁸⁴Sr(d,p) 1971Mo02,1970Be24

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

1971Mo02: E=12 MeV, FWHM≈10 keV, θ=5°–90°.

1970Be24: E=20.7 MeV, FWHM=70 keV, θ=16°–100°.

All data are from 1971Mo02 unless otherwise stated. Good agreement exists between L-values and spectroscopic factors for those levels which have been observed by 1970Be24.

⁸⁵Sr Levels

E(level) [†]	L	(2J _f +1)S [#]	Comments
0 [‡]	4	3.06	(2J _f +1)S: 2.09 (1970Be24).
238 [‡]	1	0.40	(2J _f +1)S: 0.54 (1970Be24).
743	1	0.25	
767 [‡]	2	0.70	(2J _f +1)S: 0.86 (1970Be24).
790			
1155	1	0.05	
1355 [‡]	2	1.76	(2J _f +1)S: 1.99 (1970Be24).
1403	0	0.42	
1447			
1490			
1556	2	0.10	
1712			
1793 [‡]	2	0.47	(2J _f +1)S: 0.59 (1970Be24).
1827	2	0.08	
1842	0	0.02	
1928	2	0.10	
1980			
2047	(2)	0.06	
2087			
2123			
2204			
2238	(2)	0.05	
2290			
2329	2	0.34	
2352			
2378	(2)	0.04	
2496	0	0.05	
2501	2	0.11	
2527	2	0.33	
2602	0	0.06	
2628	(2)	0.05	
2696			
2748	0	0.10	
2882	0	0.03	
2952	(2)	0.14	
2996			
3048			
3065			
3105			
3136 [@]	(0)	0.04	
3169			
3301	0	0.10	
3336			
3380	(2)	0.09	

Continued on next page (footnotes at end of table)

$^{84}\text{Sr}(\text{d,p})$ [1971Mo02](#), [1970Be24](#) (continued) ^{85}Sr Levels (continued)

<u>E(level)[†]</u>	<u>L</u>	<u>(2J_f+1)S[#]</u>	<u>E(level)[†]</u>	<u>L</u>	<u>(2J_f+1)S[#]</u>	<u>E(level)[†]</u>
3408			3513			3598
3426			3532	2	0.05	3645
3455	0	0.03	3563	(0)	0.02	3672
3503			3582	0	0.02	

[†] From [1971Mo02](#), uncertainties are not given by the authors. A comparison of energies with those in Adopted Levels gives a deviation of ≤ 4 keV for eleven levels. Therefore, the evaluators have assigned an uncertainty of 5 keV to those levels where energies from this reactions are used in Adopted Levels.

[‡] Level also reported by [1970Be24](#).

[#] From [1971Mo02](#), for set I of the optical-model parameters.

[@] Doublet.