$^{86}\text{Sr(d,p),(pol d,p)}$ 1986Bu14,1986Wi16,1971Mo02

History

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

1986Bu14: (pol d,p), E_d=11 MeV, FWHM=45 keV, θ=20°−105°, report 19 levels.
1986Wi16: E_d=20 MeV, FWHM=4.0 keV-5.5 keV, Q3D spectrometer, energy calibration based on level energies from (n,γ).
1971Mo02: E_d=12 MeV, FWHM ≈ 10 keV, θ=5°−90°, report 34 levels.
1971Bu20: E_d=8 MeV, FWHM=12-30 keV, θ=5°−60°, report 27 levels.
1970Be24: E_d=20.65 MeV, FWHM=40 and 70 keV, report 15 levels.
1977Bu20: review earlier data and quote data from 1971Bu20.

^{87}Sr Levels

E(level)[†]	J^{π}[‡]	L[#]	(2J+1)S[@]	Comments
0	9/2+	4	1.55	
388.52 17	1/2−	1	0.22	
873.35 15	3/2−	1	0.19	
1228.41 15	5/2+	2	0.63	
1254.0 4	5/2−[a]			
1742.0 9	5/2+,7/2+[a]			
1770.46 9	5/2+	2	2.68	
2169.42 11	1/2+	0	0.57	J^{π}: Listed as tentative in Adopted Levels due since γ to 5/2− must be M2.
2236.1 9	9/2+[a]			
2340? 10				E(level): from 1971Bu20 only.
2414.52 15	3/2−[a]			
2532.8 3	7/2+,9/2+[a]			
2676.86 13	3/2+	2	0.33	
2785.12 21				
2803.15 24				
2818.89 18	9/2+	4	0.9	L: from 1986Wi16. (2J+1)S: from 1986Bu14.
2848.8 13				
2904.0 9				
2921.2 4				
2940.68 16	1/2+	0	0.22	J^{π}: From L=0.
3047.2 3				
3065.9 9	(1/2−,3/2)[a]			
3118.50 15				
3125.15 13	1/2+	0	0.23	
3151.66 11	(3/2)+[a]	2	0.27	
3166.38 9	(5/2)+	2	0.41	
3258.91 11	5/2+[a]	2	0.05	E(level): given as 3161 in 1971Mo02, but is misprint (see 1971Ve13).
3277.4 4	5/2+	2	0.04	
3385.32 11	5/2+	2	0.23	
3414.44 25				
3431.36 22	1/2−,3/2,5/2+[a]			
3547.7 6	5/2+	2	0.05	
3591.07 16	(3/2+,5/2+)[a]	(2)	0.02	
3602.62 14	3/2+[a]	(2)	0.50	
3628.4 3	(1/2−,3/2−)[a]			
3668.39 20				
3673.97 14	(3/2+)[a]	(2)	0.12	
3682.6 5	7/2+,9/2+[a]			
3705.7 3				
3731.0 6	3/2[a]			
3739.7 11				
3764.0 3				

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^{86}**Sr(d,p),(pol d,p)**   **1986Bu14,1986Wi16,1971Mo02 (continued)**

^{87}Sr Levels (continued)

E(level)[†]	J^{π}[‡]	L[#]	(2J+1)S[@]	Comments
3775.97 20	3/2^{+}	2	0.14	
3792.28 17				
3871.9 4	1/2^{+}	0	0.15	J^{π}: From L=0.
3880.63 23	7/2^{+},9/2^{+a}			
3919.51 17				
3943.4 3				
3958.61 22	3/2^{+a}	2	0.05	
4013?[&] 10				
4031.5 4	7/2^{+},9/2^{+a}			
4051.1 4				
4057.1 6	1/2,3/2,5/2^{+a}			
4081[&] 10	(3/2^{+},5/2^{+})^{a}	(2)	0.05	E(level): not observed by 1986Wi16 in (d,p), but confirmed in (n,γ).
4114.6 4	(5/2^{-},7/2^{-})			
4182.36 24	1/2^{+}	0	0.03	J^{π}: From L=0.
4196.95 25	3/2^{+}	2	0.14	
4235.46 11	3/2^{+},5/2^{+a}	2	0.23	
4251.6 4	7/2^{+},9/2^{+a}			
4310.19 18				
4336.94 12	1/2^{+},3/2^{a}			
4354.50 24	(5/2^{-},7/2^{-})^{a}			
4379.72 12				
4413.65 24				
4433.4 5				
4442.6 5				
4449.47 25				
4462.6 6				
4485.9 8				
4514.3 3				
4540.8 4				
4564.9 3				
4584.9 4				
4595.6 3				
4605.4 3	1/2,3/2,5/2^{+a}			
4618.5 5				
4631.7 4				
4643.8 4	1/2^{+},3/2^{a}			
4653.2 8				
4676.3 4				
4689.3 7				
4695.8 5				
4708.16 23				
4717.8 4	5/2^{-},7/2^{-a}			
4789.84 17	3/2^{a}			
4799.42 16				
4822.78 25				
4846.46 20	1/2^{-},3/2^{-a}			
4887.22 22				
4905.2 7				
4925.6 4				
4934.24 23				
4943.3 4				
4948.63 24				
4969.0 5				
4975.1 4				
4990.6 3				

^{86}Sr(d,p),(pol d,p)   1986Bu14,1986Wi16,1971Mo02 (continued)

^{87}Sr Levels (continued)

[†] From 1986Wi16, unless indicated otherwise. The assignment to levels observed by 1971Mo02 was taken from 1986Wi16.

[‡] From 1986Bu14; DWBA analysis of vector analyzing power. Assignment is same as that in Adopted Levels, unless otherwise noted.

[#] From 1971Mo02: DWBA analysis of $\sigma(\theta)$, unless otherwise noted.

[@] From 1971Mo02: DWBA analysis of $\sigma(\theta)$, from their Set ii results, unless indicated otherwise; values are in good agreement with 1986Bu14.

[&] From 1971Mo02.

[a] From Adopted Levels.