

$^{148}\text{Sm}(p,t)$ 1997Or01

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	Yu. Khazov, A. Rodionov and G. Shulyak		NDS 136, 163 (2016)	14-Jul-2016

$J^\pi(^{148}\text{Sm})=0^+$.

1997Or01: $^{148}\text{Sm}(p,t)$, $E=26$ MeV; measured $\sigma(\theta)$. ^{146}Sm ; deduced levels. Discussed J^π , tandem, Q3D magnet spectrometer.

Others: 1974Oe03, 1972De47.

 ^{146}Sm Levels

E(level) [†]	$d\sigma/d\Omega$ [#]	L [‡]	R [@]	E(level) [†]	$d\sigma/d\Omega$ [#]	L [‡]	R [@]	E(level) [†]	$d\sigma/d\Omega$ [#]	L [‡]	R [@]
0.0	1639 14	0	0.07	2824 1	10.93 75	2	6.03	3277 1	9.13 72	2	6.47
747 1	14.4 13	2	1.91	2850 1	1.19 21	(4)	1.66	3308 1	4.03 40	2	2.69
1381 1	23.0 17	3+4	2.28	2859 1	15.0 9	2	8.35	3367 1	4.25 58	(4)	2.01
1648 1	7.6 10	2	4.64	2921 1	56.7 18	0	0.10	3388 1	4.88 63	(3)	3.31
1811 1	2.3 5		6.11	2931 1	5.56 56		0.52	3489 1	12.5 8		1.65
2084 2	0.51 17	(5)	2.07	2967 1	2.50 38	(4)	2.27	3582 1	1.72 44	(4)	1.64
2156 1	12.8 14	2	4.31	2976 2	0.96 23		1.58	3593 2	0.62 32	(4)	2.08
2211 1	15.2 14	0	0.18	2991 2	0.85 22	(4)	3.48	3608 3	3.38 55	(2,3)	5.66
2222 1	1.25 27		0.81	3022 1	239.9 37	0	0.06	3618 3	35.5 15	0	0.13
2281 1	1.70 31	4	3.69	3066 1	2.20 41		1.52	3686 3	63.4 20	0	0.04
2331 1	196 49	0	0.04	3089 2	0.23 20		3.00	3696 3	2.71 57		0.63
2401 1	4.03 48	(2)	1.66	3103 2	0.51 25		3.48	3891 3	22.4 12	0	0.14
2440 1	7.2 10	(4)	1.47	3126 1	9.30 77	0	0.10	3901 3	1.13 38		4.46
2512 1	1.83 47	(3)	6.41	3135 1	1.92 40	(3)	3.25	3917 3	3.28 56		0.43
2531 1	8.2 10	(4)	0.98	3176 1	15.8 10	2	7.86	4014 3	1.22 53	(4)	2.31
2543 1	1.95 49	(2)	2.27	3205 1	7.94	2	5.88	4021 3	44.3 17	0	0.06
2600 1	13.2 13	0	0.18	3236 1	2.33 36	(4)	1.38	4031 3	2.97 55	2	5.89
2788 2	0.85 22	5	1.59	3257 1	1.19 25		1.12	4038 3	2.62 70		2.66
2798 1	1.13 25		1.60	3268 2	0.91 23		0.24				

[†] From 1997Or01, $\Delta E=1-2$ keV for states up to 3.5 MeV and $\Delta E=3-5$ keV.

[‡] From 1997Or01 for higher excitation energies.

[#] Value at $\Omega=5^\circ$ in units mb/sr.

[@] $R=(d\sigma/d\Omega)_{17.5^\circ}/(d\sigma/d\Omega)_{5^\circ}$; the ratio R is significant smaller than 1 for $J^\pi=0^+$.