^{50}Cr(^{3}He,d), (^{7}Li,^{6}He) 1981Ki02,1979Pa01,1967Ra14

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Wang Jimin and Huang Xiaolong	NDS 144, 1 (2017)	1-Mar-2016

Other: 1969Cu02.
1981Ki02: (^{7}Li,^{6}He), E=28 MeV.
1979Pa01: (^{3}He,d), E=18 MeV. FWHM=12-15 keV.
1967Ra14: (^{3}He,d), E=12 MeV. FWHM=30 keV.
1969Cu02: (^{3}He,d), E=9.5 MeV.
In these measurements, σ(E(d),θ) was measured and analyzed with DWBA.
All data are from 1979Pa01, except as noted.

^{51}Mn Levels

E(level)	J^{π}‡	L†	C^2S'	Comments
0	$(5/2)^-$	3	0.15	
240 *2*	$(7/2)^-$	3	2.25	
1138[a] *2*				
1488[a] *2*			0.16	L: L=3 (1969Cu02) is not consistent with adopted $J^{\pi}=11/2^-$, which would require L=5.
1823[&] *2*	$(3/2)^-$	1	0.63	E(level): probable doublet consisting of known 1817.0 and 1825.0 levels.
1958 *2*	$(1/2)^-$	1	0.24	
2139 *2*	$(3/2)^-$	1	0.36	
2275 *2*	$1/2^+$	0	0.06	
2416 *2*	$(7/2)^-$	3	0.08	
2841 *2*	$(1/2)^-$	1	0.22	
2913 *2*	$(3/2)^-$	1	0.05	
2984 *2*	$(5/2)^+$	2	0.05	L: L=2 (1967Ra14), L=1 (1969Cu02), L=(3) (1974NaYO).
3048[&] *3*		(1),(3)	0.004,0.16	E(level): probable doublet consisting of known 3049.1 and 3058.1 levels.
3132[a] *3*				
3293 *3*	$(5/2)^-$	3	1.28	
3426[&] *3*		(1),(3)	0.01,0.11	
3556 *3*		1	0.07	
3698 *3*		1[#]	0.06[#]	L,C^2S': 1979Pa01 report L=(1), C^2S'=0.05.
3896 *3*		1	0.09	
4017 *3*		(0),(1)	0.02,0.04	L: L=(0)(1967Ra14) and L=(1) (1979Pa01). $\sigma(\theta)$ of 1967Ra14 nearly consistent with L=1, but $\sigma(\theta)$ of 1979Pa01 is not consistent with L=0. C^2S': 0.02 (1967Ra14), 0.04 (1979Pa01).
4095 *3*		(3)	0.18	
4362 *3*		(1)	0.02	
4449[@] *3*	$(7/2)^-$	3	0.54	
4493 *3*		3	0.13	
4523 *5*		1	0.03	
4601? *5*				
4710? *5*				
4731 *5*		(2)[#]	0.02[#]	
4927 *5*		1,3	0.04	L: L=1 (1967Ra14), L=3 (1974NaYO).
5077[@] *5*	$(1/2)^-$	1[#]	0.23[#]	
5133[@] *5*	$(3/2)^-$	1[#]	0.37[#]	
5183 *5*				5176 with L=(2) for unresolved 5183 and 5192 (1967Ra14).
5192 *5*				5176 with L=(2) for unresolved 5183 and 5192 (1967Ra14).
5230 *5*				
5454 *5*		1[#]	0.19[#]	
5517 *5*		(1)[#]	0.06[#]	
5596 *5*		(1)[#]	0.13[#]	

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^{50}Cr(^{3}He,d), (^{7}Li,^{6}He) 1981Ki02,1979Pa01,1967Ra14 (continued)

^{51}Mn Levels (continued)

E(level)	L[†]	C^2S'	E(level)	E(level)	E(level)
5692 *5*	(1)[#]	0.10[#]	5899 *5*	6047 *5*	6472?[&] *5*
5729 *5*			5944 *5*	6072 *5*	6742?[&] *5*
5787 *5*			5975 *5*	6118 *5*	
5867 *5*			6012 *5*	6299 *5*	

[†] From DWBA analysis of measured $\sigma(\theta)$.
[‡] Based on $\sigma(\theta)$ measurement, DWBA analysis and S.
[#] From 1967Ra14.
[@] Probable isobaric analog (1967Ra14).
[&] Unresolved or poorly resolved doublet.
[a] Weak state, only the excitation energy is measured by 1979Pa01.