^{50}Cr(t,α) E=13 MeV 1968Ba02

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	T. W. Burrows[a]	NDS 109, 1879 (2008)	14-Jul-2008

Measured $\sigma(\theta$=20°−102.5° In 7.5° steps); magnetic spectrograph. FWHM AP20 keV. DWBA.

^{49}V Levels

L(β),S(D) adopted J^π(1140)=5/2$^+$ and J^π(1155)=9/2$^-$.

E(level)	J^π[†]	L[‡]	C^2S[#]	E(level)	J^π[†]	L[‡]	C^2S[#]
0.0	7/2$^-$	3	2.96	4402	(7/2$^-$)	3	0.12
90	5/2$^-$	3	0.21	4511			
153	3/2$^-$	1	0.12	4538			
752	3/2$^+$	2	2.7	4646	(5/2$^-$)	3	0.42
1025		(7)[@]		4680		2	0.13
1148		(3)	(0.1)	4743		2	0.19
1183?				4838			
1531				4871			
1610		(5)[@]		4959	1/2$^+$	0	0.05
1652	1/2$^+$	0	1.54	5018	(7/2$^-$)	3	0.11
1999	1/2$^+$[&]	0[&]	0.12[&]	5072		2	0.15
2189			WEAK	5146			
2241				5239			
2266	(7/2$^-$)[a]	3[a]	0.07[a]	5285	1/2$^+$	0	0.07
2314	3/2$^-$	1	0.02	5355		(2)[@]	(0.21)
2358				5375			
2394		2	0.41	5522	1/2$^+$	0	0.09
2425?				5554			
2681				5590			
2736				5631		(2)[@]	(0.16)
2812[b]		2	0.12	5890			
3132				5931		(2)[@]	(0.14)
3248	1/2$^+$	0	0.13	5979			
3345				6058		(2)[@]	(0.27)
3388				6170			
3465				6218			
3699		2	0.46	6286			
3763	(7/2$^-$)	3	0.09	6309			
3929				6353			
3976				6392			
4005				6430			
4042				6467			
4090				6521			
4152				6563		(2)[@]	(0.22)
4280		2	0.55				

[†] From angular momentum transfer and shell-model arguments.
[‡] From comparison of $\sigma(\theta)$ to DWBA for both (^{3}He,d) and (t,α).
[#] Normalized to Σ $C^2S(s_{1/2})$=2.0.
[@] Uncertain. J^π(1022)=11/2$^-$ from adopted implies L=5. J^π(1603)=7/2$^+$ from adopted implies L=4.
[&] 1974Ta05 noted that L=2 appeared to fit $\sigma(\theta)$ As well As L=0. Note that adopted J^π=3/2$^{(+)}$.

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^{50}Cr(t,α) E=13 MeV 1968Ba02 (continued)

^{49}V Levels (continued)

[a] ADOPTED $J^{\pi}=3/2^{-}$.
[b] 2812 and 2821 states In (t,α) and (^{3}He,d) coincided but are assumed to Be different states based on $\sigma(\theta)$.