^{54}Cr(d,p)   **1965Bo20,1972Ma66,1966Ma42**

	Type	Author	History Citation	Literature Cutoff Date
	Full Evaluation	Huo Junde	NDS 109, 787 (2008)	30-Apr-2007

1965Bo20: E=10 MeV, FWHM=10 keV; magnetic spectrograph; measured σ(E(p),θ).
1966Ma42: E=10 MeV, enriched target (88.2%); multigap spectrograph; measured Q(β^-) values.
1970Ro04: E=8 MeV, enriched target (94%); silicon surface-barrier detectors; measured σ(E(p),θ); DWBA analysis;
1972Ma66: E=8, 10 MeV, enriched target (97.98%); multigap spectrograph; measured $\sigma(\theta)$, DWBA analysis;
Others: 1964Bj01, 1964Bo08, 1965Si08, 1967Li16, 1968De04, 1968Gr18, 1970Br27, and 1972Os05.

^{55}Cr Levels

L(E),S(E) From 1965Bo20.
L(F),S(F) From 1965Bo20 and 1970Ro04.

E(level)[†]	J$^{\pi}$[&]	L[b]	S[d]	Comments
0.0	3/2$^-$	1	2.09	
241 *10*	1/2$^-$	1	0.32	
517 *10*	5/2^{-}[‡]	3[c]	1.39[e]	
564 *10*	3/2$^-$	1	0.42	
879 *10*	5/2^{-}[‡]	3[c]	0.81[e]	J$^{\pi}$: 1972Ma66 value: J=7/2$^-$.
1213 *10*	(7/2)$^{-}$[‡]	3[c]	0.26[e]	
1470 *10*	1/2$^-$	1	0.83	
2008 *10*	(5/2)$^{+}$[‡]	2[c]	1.11[e]	
2078 *10*	(9/2)$^{+}$[‡]	4[c]	6.3[e]	
2260 *10*	1/2^{+}[‡]	0[c]	0.16[e]	
2320 *10*	3/2^{-}[‡]	1[‡]	0.02[‡]	
2355[‡] *10*				
2545 *10*	(5/2$^-$)[‡]	(3)[c]	0.35[e]	
2596 *10*	(5/2)$^{-}$[‡]	3[c]	0.43[e]	
2679 *10*	(1/2)$^{-}$[a]	1	0.1	
2710?[#] *10*	3/2^{-}[‡]	1[‡]	0.07[‡]	1972Ma66 indicate that some difficulty was experienced in resolving the 2710 level from the nearby states and as a result the data are considered accurate to only 20%. Evaluator regards this level as tentative.
2874[#] *10*	3/2$^+$,5/2^{+}[‡]	2[‡]	0.01[‡]	
2886 *10*	(1/2,3/2)$^-$	1	0.40	J$^{\pi}$: 1970Ro04 give (1/2)$^-$; 1972Ma66 give (3/2)$^-$.
3009[‡] *15*				
3017 *10*	(1/2,3/2)$^-$	1	0.04	J$^{\pi}$: 1970Ro04 give (3/2)$^-$; 1972Ma66 give (1/2)$^-$.
3114[#] *10*				
3145 *10*	5/2^{-}[‡]	3[c]	0.7[e]	
3196[‡] *15*				
3200 *10*	(1/2)$^{-}$[‡]	1[‡]	0.02[‡]	
3294 *10*				
3351 *10*	(1/2)$^{-}$[‡]	1[‡]	0.04[‡]	
3519 *10*	(1/2$^-$)[‡]	(1)[‡]	0.02[‡]	
3574[#] *10*				
3631 *10*				
3696 *10*	(1/2$^-$)	(1)	0.02	
3800[#] *10*				
3810[‡] *10*				

Continued on next page (footnotes at end of table)

^{54}Cr(d,p)   **1965Bo20,1972Ma66,1966Ma42 (continued)**

^{55}Cr Levels (continued)

E(level)[†]	J$^\pi$[&]	L[b]	S[d]	Comments
3828 *10*				
3852 *10*	(3/2$^+$,5/2$^+$)[‡]	(2)[‡]	0.06[‡]	
3902[#] *10*				
3938 *10*	3/2$^+$,5/2$^+$[‡]	2[c]	0.03[e]	
4001[#] *10*				
4038 *10*	1/2$^+$[‡]	0[‡]	0.02[‡]	
4059[‡] *15*	(1/2$^-$)[‡]	(1)[‡]	0.06[‡]	
4109[@] *10*				
4142 *10*	(3/2$^+$,5/2$^+$)[‡]	(2)[c]	0.24[e]	L,S: evaluator regards assignment from 1972Ma66 as tentative, 1965Bo20 assign L=3,S'=0.47.
4181[#] *10*	(1/2)$^-$[‡]	1[‡]	0.05[‡]	
4276[#] *10*				
4308[@] *10*				
4382 *10*	1/2$^+$[‡]	0[c]	0.23[e]	
4418 *10*	3/2$^+$,5/2$^+$[‡]	2[c]		S: 1965Bo20 give S'=0.67; 1972Ma66 give S'=0.04.
4466 *10*	1/2$^-$,3/2$^-$	1	0.05	
4517[#] *10*				
4545[#] *10*				
4571[#] *10*				
4607[@] *10*				
4631[#] *10*				
4646[#] *10*				
4663 *10*	3/2$^+$,5/2$^+$	2	0.14	
4734[#] *10*				
4739 *10*	1/2$^+$[‡]	0[c]	0.08[e]	S: 1965Bo20 give S'=0.13; 1972Ma66 give S'=0.03.
4767 *10*		(2,3)[c]		L,S: 1965Bo20 give L=2,S'=0.11; 1972Ma66 give L=(3), S'=0.25.
4854 *10*	3/2$^+$,5/2$^+$[‡]	2[c]	0.12[e]	
4869 *10*		(1,2)[c]		L,S: 1965Bo20 give L=2,S'=0.3; 1972Ma66 give L=1,S'=0.08.
4900 *10*				
4950[@] *10*				
4962 *10*	(3/2$^+$)	(2)	0.19	
5016 *10*				
5049[@] *10*				
5070 *10*		(3)	0.28	
5093[@] *10*				
5118[@] *10*				
5154[@] *10*				
5157 *10*				
5199 *10*				
5245[@] *10*				
5264[@] *10*				
5295 *10*				
5327[@] *10*				
5352 *10*				
5433[@] *10*				
5455[@] *10*				
5489[@] *10*				
5515 *10*				

<center>^{54}**Cr(d,p)**   **1965Bo20,1972Ma66,1966Ma42 (continued)**</center>

<center>^{55}Cr Levels (continued)</center>

E(level)[†]	E(level)[†]	E(level)[†]	E(level)[†]
5575 *10*	5806[@] *10*	5980[@] *10*	6306 *10*
5615 *10*	5820 *10*	6000 *10*	6556 *10*
5668 *10*	5858 *10*	6068 *10*	6583 *10*
5719 *10*	5885 *10*	6136 *10*	6644 *10*
5750 *10*	5956[@] *10*	6164 *10*	

[†] From 1965Bo20, except as noted.
[‡] From 1972Ma66.
[#] From 1966Ma42 and 1972Ma66.
[@] From 1966Ma42.
[&] J$^\pi$ from 1970Ro04 and 1972Ma66, based on J dependence of $\sigma(\theta)$, unless noted otherwise.
[a] From 1970Ro04.
[b] From 1965Bo20, 1970Ro04, and 1972Ma66, except as noted.
[c] From 1965Bo20 and 1972Ma66.
[d] S′; average of values from 1965Bo20, 1970Ro04, and 1972Ma66, except as noted.
[e] Average of values from 1965Bo20 and 1972Ma66.