

<sup>53</sup>Cr(<sup>3</sup>He,d) 1971Ga25,1969Ly06

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	Yang Dong, Huo Junde		NDS 121, 1 (2014)	20-Jun-2014

J<sup>π</sup>(<sup>53</sup>Cr)=3/2<sup>-</sup>.

1971Ga25: E=18 MeV. Measured σ(ED,θ), DWBA analyses, surface-barrier Si E/ΔE telescope, energy resolution:≈60 keV.

1969Ly06: E=10 MeV. Measured σ(ED,θ), Q; DWBA analyses; nuclear emulsions, energy resolution 25 keV. Q=2080 I2.

All data are from 1969Ly06, except as noted.

<sup>54</sup>Mn Levels

E(level)	L	S <sup>†</sup>	Comments
0	3	0.30	
65 15	3	0.21	
160 15	3	1.34	
363 15	3	0.78	
404 15	3	0.31	
809 <sup>‡</sup> 25			
1004 15	1	0.05	
1377 15			
1458 15	1	0.05	
1506 15			
1546 15	(3)	0.09	
1634 15	1	0.05	
1784 15	1	0.04	
1857 15	(1)	0.01	
1919 15	(1)	0.02	
2111 15	1	0.12	
2133 15			
2268 <sup>‡</sup> 15	1	0.080 <sup>‡</sup>	
2354 15			
2495 15	1	0.10	
2556 15	1	0.72	
2669 15	1	0.08	
2712 15	0		C <sup>2</sup> S': 0.02 for 2s, 0.01 for 3s.
2765 15			
2871 15	1	0.11	
3012 15	1	0.05	
3116 15	0		C <sup>2</sup> S': 0.01 for 2s, 0.003 for 3s.
3192 15	1	0.21	
3332 15	1	0.04	
3419 <sup>‡</sup> 25	1 <sup>‡</sup>	0.125 <sup>‡</sup>	
3523 15	1	0.16	
3607 15	1	0.11	
3668 15	1	0.19	
3730 15	1	0.04	
3755 15	1+3	0.04+0.34	
3807 15			
3932 15	1+3	0.03+0.15	
3975 15	1	0.06	
4030 15	3	0.40	
4153 15			
4189 15	1	0.16	
4256 15	(1)	0.01	
4294 15	(1)	0.01	
4335 15	(1)	0.01	
4368 15	1	0.04	

Continued on next page (footnotes at end of table)

$^{53}\text{Cr}(\text{}^3\text{He,d})$  1971Ga25,1969Ly06 (continued) $^{54}\text{Mn}$  Levels (continued)

<u>E(level)</u>	<u>L</u>	<u>S<sup>†</sup></u>	<u>Comments</u>
4416 15	1	0.07	
4533 15	1	0.10	
4599 15			
4703 15			
4741 15	1	0.10	
4815 15	1	0.05	
4851 15	1	0.05	
4897 15	1	0.03	
4993 15			
5032 15			
5062 15			
5095 15			L=1, C <sup>2</sup> S'=0.12 for 4993+5032+5062+5095.
5131 15	(2)	0.03	
5194 15	1	0.06	
5293 15	1	0.06	
5405 15			
5498 15	(1)	0.07	
5550 15			

<sup>†</sup> S=C<sup>2</sup>S'.

<sup>‡</sup> From 1971Ga25.