

$^{53}\text{Cr}(^3\text{He},\alpha)$  1978Fo34,1969Da02

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	Yang Dong, Huo Junde		NDS 128, 185 (2015)	10-Jul-2015

Target  $J^\pi=3/2^-$ .

**1978Fo34**: E=25 MeV FWHM $\approx$ 20-25 keV, measured  $\sigma(E,\theta)$ , silicon position-sensitive detectors, 700  $\mu\text{m}$  or 1000  $\mu\text{m}$  thick, placed in the focal plane of a split-pole spectrometer, DWBA, coupled reaction channel analyses.

**1969Da02**: E=18 MeV, FWHM $\approx$ 60 keV,  $\sigma(E,\theta)$ , Photographic emulsion planes placed in focal plane of a Browne-Buechner broad-range magnetic spectrograph at reaction angle from 5° to 35°, DWBA analysis.

All data are from **1969Da02**, except as noted.

Other: **1985Po17**.

 $^{52}\text{Cr}$  Levels

E(level)	L	C <sup>2</sup> S	Comments
0.0	1		
1430 20	1+3	0.12+0.09	
2380 20	(3)	0.11	
2780 20	(3)	0.085	
3418 <sup>†</sup> 20	3 <sup>†</sup>	1.39 <sup>†</sup>	
3474 <sup>†</sup> 20	3 <sup>†</sup>	1.08 <sup>†</sup>	
3774 <sup>†</sup> 20	3 <sup>†</sup>	0.31 <sup>†</sup>	
4017 <sup>†</sup> 20	3 <sup>†</sup>	1.03 <sup>†</sup>	
4605 <sup>†</sup> 20	3 <sup>†</sup>	0.19 <sup>†</sup>	
4830 20	(3)	0.12	
5400 20	(1)	0.09	
5560 20	(1)	0.25	
5670 20	(1+3)	0.075+0.054	
5710 <sup>†</sup> 20	3 <sup>†</sup>	0.70 <sup>†</sup>	
6180 <sup>†</sup> 20	3 <sup>†</sup>	0.48 <sup>†</sup>	
6490 20	0	0.41	
6700 20	2	0.38	
6790 20	(1+3)	0.10+0.09	
11290 20	(3)	1.8	Broad peak interpreted by <b>1969Da02</b> as analog of state in $^{52}\text{V}$ .
13580 20	0	0.57 <sup>†</sup>	Broad peak interpreted by <b>1969Da02</b> as analog of state in $^{52}\text{V}$ . E(level): from weighted average of values from <b>1978Fo34</b> and <b>1969Da02</b> .

<sup>†</sup> From **1978Fo34**.