

<sup>52</sup>Cr(p,α) E=35 MeV 1978Sm05

<u>Type</u>	<u>Author</u>	<u>History Citation</u>	<u>Literature Cutoff Date</u>
Full Evaluation	T. W. Burrows <sup>a</sup>	NDS 109, 1879 (2008)	14-Jul-2008

Measured  $\sigma(\theta)$ ; magnetic spectrograph, delay-line counter and scintillator or emulsion. FWHM=20 keV (scint), 10 keV (emulsion).  
Studied reaction mechanism.

<sup>49</sup>V Levels

<u>E(level)</u>	<u>J<sup>π</sup></u>
0.0	
91 3	
153 3	
748 3	
1021 3	
1141 3	
1157 <sup>†</sup> 10	
1513 3	
1602 3	
1646 3	
1664 <sup>†</sup> 10	
1995 3	
2181 3	
2235 3	
2265 3	
2308 3	
2354 3	
2386 3	
2406 3	
2673 3	
2728 3	
2796 <sup>†</sup> 10	
2820 <sup>†</sup> 10	
3133 6	
3241 6	
3330 6	
3346 6	
3391 6	
3499 6	
3525 6	
3612 6	(≥11/2 <sup>-</sup> ) <sup>‡</sup>
3639 6	
3673 6	
3694 6	
3745 6	(≥9/2) <sup>‡</sup>
3838 6	
3882 6	
3934 6	
3965 6	
4004 6	
4064 6	
4149 6	
4268 <sup>#</sup> 6	
4326 6	
4375 6	
4400 6	

Continued on next page (footnotes at end of table)

${}^{52}\text{Cr}(p,\alpha)$  E=35 MeV 1978Sm05 (continued) ${}^{49}\text{V}$  Levels (continued)

E(level)	$J^\pi$	Comments
4436	6	
4470	6	
4501	6	
4538	6	
4588	6	
4628 <sup>#</sup>	6	
4662	6	
4755	6	
4797	$(\geq 11/2)^\ddagger$	
4830	6	
4863	6	
4885	6	
4949	6	
4988	6	
5010	6	
5134	6	
5204	6	
5292	6	
5347	6	
5387	6	
5411	6	
6446	25 $7/2^-$ @	T=5/2
8945	25 $1/2^+$ @	T=5/2
9087	25 $3/2^+$ @	T=5/2

<sup>†</sup> From 1966Br06 (E=11, 12 MeV;  $\theta=12.5^\circ, 35^\circ, 50^\circ, 72.5^\circ, 135^\circ$ ). Energies may be  $\approx 5$  keV high. No other discrepancies between 1978Sm05 and 1966Br06 below 2.82 MeV.

<sup>‡</sup> Based on large back-angle yields.

<sup>#</sup> Doublet.

@  $J^\pi$  and T from agreement in expected energies for IAR's of the  ${}^{49}\text{Ti}$  g.s.,  $7/2^-$ , and 2505,  $1/2^+$ , and 2663,  $3/2^+$ , states and simple seniority estimates.