

$^{51}\text{V}(\text{p,p}')$ 1970Pr08,1969Pe02,1958Ma46

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	Wang Jimin and Huang Xiaolong		NDS 144, 1 (2017)	1-Mar-2016

Measured $\sigma(\text{E}; \text{E}', \theta)$.

1958Ma46: E=6.51 MeV, FWHM $\approx$ 13 keV estimated by evaluator from spectrum in authors' reference 1.

1969Pe02: E=17.5 MeV, FWHM=20 keV.

1970Pr08: E=40 MeV, FWHM $\approx$ 40 keV.

For discussion of proton and neutron radii, see 1972Lo17.

For discussion of giant resonances, see 1987Na06, 1985Mu06, 1972Le31 and 1982Dj04.

For discussion of optical model parameters, see 1986Mc12 and 1972Lo17.

For discussion of proton spectra from quasielastic scattering, see 1980Ch05.

 ^{51}V Levels

E(level) [†]	L [‡]	$\beta\text{R}^\#$	Comments
0			
320 4	2	0.36	
930 4	2	0.22	
1609 4	2	0.39	
1813 8	2	0.30	
2409 8	2	0.19	
2545 8	(3)		
2675 8			
2699 8	4	0.21	
2790 8			
3082 8		0.026@	L: L=2+4 (1969Pe02), with $\beta_2 \approx \beta_4$, discussed in text. L=(2) in table 6.
3215 8			
3262 8	(3)	0.039@	L: L=(3) for 3262+3279 (1969Pe02) is not consistent with $J^\pi=(5/2)^-$ in Adopted Levels.
3279 8			L: L=(3) for 3262+3279 (1969Pe02).
3376 8	2	0.22	E(level): L=2 reported by 1969Pe02 for E=3380 (triplet).
3382 8			
3392 8			
3451 8	2	0.22	
3515 8	2	0.20	
3562 8			
3575 8			
3613 8			
3630 8	2	0.070@	
3664 8			
3678 8			
3743 8			E(level): probable doublet.
3779 8	3	0.34	L: L=(4) in 1969Pe02.
			E(level): probable doublet.
3797 8	2	0.052@	
3874 8			
3900 8	3	0.062@	
3917 8	2	0.22	
3939 8	3	0.090@	
4002 8			
4024 8			
4052 8	(2)	0.046@	
4122 8	2	0.076@	
4340			
4510 [#]	3 [#]	0.22	

Continued on next page (footnotes at end of table)

$^{51}\text{V}(\text{p,p}')$ [1970Pr08](#), [1969Pe02](#), [1958Ma46](#) (continued) ^{51}V Levels (continued)

$E(\text{level})^\dagger$	$L^\ddagger$	$\beta\text{R}^\#$	$E(\text{level})^\dagger$	$L^\ddagger$	$\beta\text{R}^\#$
4670	(2)	0.039 [@]	5080	4	
4790	2	0.055 [@]	5170		
4920	(4)		5310	(2)	0.048 [@]
			5350	2	0.059 [@]

[†] From [1958Ma46](#) ($E \leq 4122$) and [1969Pe02](#) ($E \geq 4340$), except as noted.

[‡] From DWBA analysis of measured $\sigma(\theta)$. Values from [1970Pr08](#) ($E \leq 4122$) and [1969Pe02](#) ($E \geq 4340$), except as noted.

[#] From [1970Pr08](#), except as noted.

[@] β from [1969Pe02](#).