

$^{143}\text{Nd}(p,p')$  1989Tr03,1983Tr16

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	E. Browne, J. K. Tuli		NDS 113, 715 (2012)	31-May-2011

E=25 MeV.

Measured:  $\sigma(E,\theta)$ . FWHM $\approx$ 6-8 keV (1989Tr03). $^{143}\text{Nd}$  Levels

E(level)	$J^\pi$	$L^\ddagger$	$S^\dagger$	Comments
0.0				
742 1		2	10.5 24	
1228 1		3	15.2 31	
1306 1				
1407 1		2	7.7 10	
1431 1		2	14.4 7	
1556 1		2+3		E(level), $J^\pi$ : doublet with J=3/2 <sup>+</sup> and 5/2 <sup>-</sup> (from ( $\alpha$ ,n $\gamma$ ) work).
1608 1		3	2.6 5	
1739 1		2	7.2 5	
1775 1		3	1.0 4	
1800 1	3/2 <sup>+</sup> #	3	5.9 4	
1852 1		2+4		E(level), $J^\pi$ : doublet with J=7/2 <sup>-</sup> and 3/2 <sup>-</sup> (from ( $\alpha$ ,n $\gamma$ ) work).
1910 1		4	13.5 9	
1988 1		(4)		
1997 1	5/2 <sup>+</sup> #	3	6.1 1	
2011 1		3	7.2 5	
2017 1		(4)		
2035 1				
2063 1		(4)		
2076 1		4	24 3	
2091 1		3	10.5 9	
2135 1				
2174 1		(3)	0.5 1	
2222 1		(4)	8.1 16	
2242 1	11/2 <sup>+</sup> #	3	12.0 2	
2283 1				
2294 1				
2318 1				
2458 2				
2482 2				
2491 2				
2526 2				
2557 2		3	3.7 3	
2580 2				
2628 2				
2804 2		3	3.3 8	
2884 2				
2970 2				
3103 2				
3112 2				

† Average  $\sigma$  ratio  $R=(2L+1)(2J+1)\sigma(J,\theta)/\sigma(^{142}\text{Nd } J,\theta)$ .‡ From  $\sigma(\theta)$ , and comparison with  $\sigma(^{142}\text{Nd } 3^-, \theta)$ .

# From L and R.