

$^{15}\text{N}(\text{p,t})$  1968F103

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	J. H. Kelley, C. G. Sheu and J. E. Purcell		NDS 198,1 (2024)	1-Aug-2024

1960ChZZ:  $^{15}\text{N}(\text{p,p}2\text{n})$  E=0.4-6.2 GeV; measured activation  $\sigma$ .

1966Ce02:  $^{15}\text{N}(\text{p,t})$  E=43.7 MeV; measured  $\sigma(\theta)$  for  $\theta=10^\circ$  to  $90^\circ$  at the 88 inch. Observed  $^{13}\text{N}^*(0, 3.51, 7.73$  and  $15.07$  MeV).  
Deduced  $E_x=15065$  keV 37; compared IAS states.

1968F103:  $^{15}\text{N}(\text{p,t})$  E=43.7 MeV; measured  $\sigma(\theta)$  for  $\theta=10^\circ$  to  $90^\circ$ . Deduced level energies for  $E_x \leq 16$  MeV, L, J. Deduced integrated  $\sigma$ .

1970Ha23:  $^{15}\text{N}(\text{pol. p,t})$  E=44 MeV; measured  $\sigma(\theta)$ ,  $A(\theta)$  for  $\theta=10^\circ$  to  $80^\circ$ . Deduced L for  $^{13}\text{N}^*(3.51, 7.38$  MeV).

1971Ka04:  $^{15}\text{N}(\text{p,t})$ ; analyzed angular distributions of L=0&2 transfer reactions.

1974Ma12:  $^{15}\text{N}(\text{p,t})$  E=43.8 MeV; measured  $\sigma(E_t, \theta)$ ,  $A(\theta)$ . for  $\theta=10^\circ$  to  $60^\circ$ . Analyzed distributions for  $^{13}\text{N}^*(0, 3.51, 7.39, 15.07$  MeV). Deduced level energies, L.

1974Pi05:  $^{15}\text{N}(\text{p,t})$  E=20-45 MeV; measured  $\sigma(E_t, \theta)$  for  $\theta=12^\circ$  to  $126^\circ$ . Deduced OM parameters. Deduced  $^{13}\text{N}^*(0, 3.51, 7.38$  MeV) levels, L, J,  $\pi$ .

1985Sa35:  $^{14}\text{N}(\text{d,t})$ ,  $^{15}\text{N}(\text{p,d})$ ; measured thick target yields.

 $^{13}\text{N}$  Levels

E(level) <sup>†</sup>	J <sup><math>\pi</math></sup>	L <sup>†</sup>	Comments
0	1/2 <sup>-</sup>	0	
2360 30	1/2 <sup>+</sup>		
3.51×10 <sup>3</sup>	3/2 <sup>-</sup>	2	
6380 30	5/2 <sup>+</sup>		
7380 20	5/2 <sup>-</sup>	2	
8930 50	1/2 <sup>-</sup>	0	
10780 60	1/2 <sup>-</sup>	0	
11880 40	3/2 <sup>-</sup>	2	
15070 20	3/2 <sup>-</sup>	2	T=3/2 E(level): See also $E_x=15065$ keV 37 (1966Ce02).

<sup>†</sup> From DWBA analysis of (p, $^3\text{He}$ ) and (p,t) mirror partners and comparison of related differential cross sections (1968F108).