

Table 16.8 from (1971AJ02): Levels of ^{16}N from $^{15}\text{N}(\text{d}, \text{p})^{16}\text{N}$ and $^{18}\text{O}(\text{d}, \alpha)^{16}\text{N}$

E_x (MeV \pm keV)				J^π ^c
(1957WA01, 1963GI11) ^a	(1966HE10) ^a	(1966HE10) ^{b,f}	(1970BO08) ^b	
0	0	0		2^-
0.1201 ± 0.5 ^d	0.125 ± 10	0.119 ± 15		0^-
0.2962 ± 1.0 ^d	0.299 ± 10	0.301 ± 15		3^-
0.3973 ± 1.0 ^d	0.398 ± 10	0.400 ± 15		1^-
	3.365 ± 10	3.358 ± 15		(1^+)
(3.53 ± 30)	3.523 ± 10	3.524 ± 15	g	
3.98 ± 20	3.964 ± 10	3.964 ± 15		$(2, 3)^+$
	4.325 ± 10	4.324 ± 15		(1^+)
		4.383 ± 15		
	4.715 ± 10			
4.80 ± 50 ^e	4.780 ± 10	4.787 ± 15	g	
	(4.90 ± 10)			
(5.01 ± 50)				
	5.032 ± 10	5.065 ± 15		
	5.128 ± 10			
		5.139 ± 15		
	5.150 ± 10			
5.25 ± 50 ^e	5.231 ± 10	5.240 ± 15		
	5.310 ± 10			
	5.523 ± 10	5.528 ± 15	g	
	5.739 ± 10	5.740 ± 15	g	
			6.01 ± 15 ^k	
	6.170 ± 10	6.168 ± 15	h	
	(6.28 ± 10)			
	6.376 ± 10		6.37 ± 15 ^k	
	6.431 ± 10			
	6.514 ± 10	6.512 ± 15	h	
	6.609 ± 10	6.620 ± 15	h	
	(6.79 ± 10)			
	6.847 ± 10	6.852 ± 15	h	

Table 16.8 from (1971AJ02): Levels of $^{15}\text{N}(\text{d}, \text{p})^{16}\text{N}$ and $^{18}\text{O}(\text{d}, \alpha)^{16}\text{N}$ (continued)

E_x (MeV \pm keV)				J^π ^c
(1957WA01, 1963GI11) ^a	(1966HE10) ^a	(1966HE10) ^{b,f}	(1970BO08) ^b	
	7.034 \pm 10		7.01 \pm 15 ^k	
	7.135 \pm 10	7.141 \pm 15	h	
	7.250 \pm 10	7.247 \pm 15	h	
	7.577 \pm 10	7.596 \pm 15	h	
	7.638 \pm 10		7.64 \pm 15 ^k	
	7.676 \pm 10	7.683 \pm 15		
	7.840 \pm 10		7.88 \pm 15 ^k	
			8.06 \pm 15 ^k	
			8.18 \pm 15 ^k	
		8.286 \pm 15	h	
		8.374 \pm 15	h	
			8.49 \pm 30 ⁱ	
			8.819 \pm 15 ^j	
			9.035 \pm 15	
			(9.16 \pm 30)	
			(9.34 \pm 30)	
			9.459 \pm 15	
			(9.66 \pm 40)	
			9.794 \pm 15 ^j	
			9.90 \pm 30	
			10.055 \pm 15 ^j	
			(10.17 \pm 30)	
			(10.26 \pm 30)	

^a $^{15}\text{N}(\text{d}, \text{p})^{16}\text{N}$.

^b $^{18}\text{O}(\text{d}, \alpha)^{16}\text{N}$.

^c J^π assignment from angular distribution analyses and gamma decay (1956ZI1A, 1957WA01, 1970BO08).

^d From γ -decay studies (1963GI11). (1957FR56, 1957WI1B) found $E_x = 120 \pm 1, 294 \pm 5$ and 392 ± 3 keV.

^e $\Gamma_{\text{c.m.}} = 230 \pm 40$ and 290 ± 50 keV, respectively (1957WA01).

^f See also (1970BO08).

^g Angular distribution reported in $^{18}\text{O}(\text{d}, \alpha)^{16}\text{N}$ at $E_{\text{d}} = 10.0 - 11.2$ MeV but L not determined (1970BO08).

^h Alpha group seen but E_{x} not determined.

ⁱ Γ for this level and the ones listed below $\leq 40 - 50$ keV (1970BO08).

^j These levels appear to be correlated with thresholds for neutron emission to excited states of ^{15}N (1970BO08, 1970BO09).

^k T.I. Bonner, private communication.