

Table 16.3 from (1986AJ04): Energy Levels of ^{16}N

E_x (MeV \pm keV)	$J^\pi; T$	τ or $\Gamma_{\text{c.m.}}$ (keV)	Decay	Reactions
0	$2^-; 1$	$\tau_{1/2} = 7.13 \pm 0.02$ sec	β^-	1, 2, 4, 5, 7, 9, 10, 12, 15, 16, 17, 18, 19, 21, 22
0.12042 ± 0.12	0^-	$\tau_m = 7.58 \pm 0.09$ μsec	γ, β^-	1, 2, 4, 5, 7, 9, 12, 13, 14, 15, 16, 17, 18, 21, 22
0.29822 ± 0.08	3^-	131.7 ± 1.9 psec	γ	2, 4, 5, 7, 8, 9, 12, 15, 16, 17, 18, 19, 21, 22
0.39727 ± 0.10	1^-	$ g = 0.532 \pm 0.020$ $\tau_m = 5.63 \pm 0.05$ psec	γ	2, 4, 5, 7, 9, 12, 14, 15, 16, 17, 18, 21, 22
3.3528 ± 2.6	1^+	$g = -1.83 \pm 0.13$ $\Gamma = 15 \pm 5$	n	4, 5, 7, 9, 11, 12, 13, 18, 19, 21
3.5227 ± 2.6	2^+	3	n	4, 5, 7, 9, 11, 12, 18, 19, 21
3.9627 ± 2.6	3^+	≤ 2	n	4, 5, 7, 8, 9, 11, 12, 18, 19, 21
4.3204 ± 2.7	1^+	20 ± 5	n	4, 7, 9, 11, 12, 13
4.3914 ± 2.7	1^-	82 ± 20	n	4, 5, 7, 9, 11, 12
4.76 ± 50	1^-	250 ± 50	n	9, 11, 12
4.7828 ± 2.7	2^+	59 ± 8	n	4, 5, 7, 9, 11, 12
5.0537 ± 2.7	2^-	19 ± 6	n	4, 7, 9, 11, 12
5.129 ± 7	$\geq 2^a$	$\leq 7 \pm 4$	n	4, 5, 7, 9, 11, 12, 19
5.150 ± 7	$(2, 3)^- a$	$\leq 7 \pm 4$	n	4, 5, 7, 9, 11, 12, 19
5.2301 ± 2.6	3^+	≤ 4	n	4, 7, 9, 11, 12, 21
5.25 ± 70	2^-	320 ± 80	n	9, 12
5.318 ± 3	1^+	(260)	n	4, 11
5.5216 ± 2.5	3^+	$\leq 7 \pm 4$	n	4, 5, 7, 9, 11, 12, 18, 19, 21
5.7317 ± 2.5	(5^+)	$\leq 7 \pm 4$	n	4, 5, 7, 8, 9, 11, 12, 18, 19, 21
6.003 ± 3	1^-	270 ± 30	n	4, 9, 11, 21
6.1707 ± 2.4	$(4^-)^a$	$\leq 7 \pm 4$	n	4, 5, 7, 9, 12, 16, 18, 19, 21

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E_x (MeV \pm keV)	$J^\pi; T$	τ or $\Gamma_{\text{c.m.}}$ (keV)	Decay	Reactions
6.3739 \pm 2.8	(3 ⁻)	30 \pm 6	n	4, 5, 9, 11, 12, 19, 21
6.426 \pm 7		300 \pm 30		9, 12
6.5054 \pm 2.8	1 ⁺	34 \pm 6	(n)	4, 9, 11, 12, 21
6.6085 \pm 2.8	(4)	\leq 7 \pm 4		4, 5, 9, 12, 21
6.845 \pm 4		\leq 7 \pm 4		5, 7, 9, 12, 21
(6.84)	\geq 2	$>$ 140	n	11
7.02 \pm 20	1 ⁺	22 \pm 5	n	9, 11, 12, 21
7.134 \pm 7		\leq 7 \pm 4		7, 9, 12, 21
7.250 \pm 7	\geq 2	17 \pm 5	n	5, 9, 11, 12, 21
7.572 \pm 4	\geq 3 ^b	\leq 7 \pm 4	n	5, 7, 8, 9, 11, 12, 21
7.637 \pm 4	(3, 4, 5) ^{+ b}	\leq 7 \pm 4		5, 7, 8, 9, 12, 21
7.674 \pm 4	(b)	\leq 7 \pm 4	n	5, 7, 9, 11, 12, 19, 21
7.877 \pm 9	\geq 4	100 \pm 15	n	5, 9, 11, 12, 16, 21
8.048 \pm 9		85 \pm 15	n	9, 11, 21
8.199 \pm 5	(3, 2) ⁺	28 \pm 8		7, 9, 21
8.282 \pm 8		24 \pm 8		9, 21
8.365 \pm 8	\geq 1	18 \pm 8	n	5, 9, 11, 21
8.49 \pm 30	\geq 1	\leq 50	n	11, 21
8.72	\geq 1	40	n	11
8.819 \pm 15		\leq 50	n	5, 11, 21
9.035 \pm 15		\leq 50		21
9.16 \pm 30	\geq 2	100	n	11, 21
9.34 \pm 30		\leq 50	n	11, 21
9.459 \pm 15	\geq 2	100	n	5, 11, 19, 21
9.760 \pm 10	$T = 1$	15 \pm 8		5, 7, 21
9.813 \pm 10	$T = 1$			7
9.928 \pm 7	0 ⁺ ; $T = 2$	$<$ 12		7, 20
10.055 \pm 15	\geq 3	30	n	5, 11, 21
10.37 \pm 40	\geq 2	165	n	5, 11
10.71	\geq 2	120	n	11
11.16 \pm 40				5

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E_x (MeV \pm keV)	$J^\pi; T$	τ or $\Gamma_{\text{c.m.}}$ (keV)	Decay	Reactions
11.49	≥ 3		n	11
11.61	≥ 3	220	n, d	6, 11
11.701 \pm 7	$1^-, 2^+; T = 2$	< 12		7
11.75 \pm 40		< 50		5
(11.92)		390	n, d	6
(12.09)			n	11
12.39 \pm 60		290	n, p, d	5, 6
12.57 \pm 60		180	n, p, d	5, 6
12.88		155	n, p, d	6, 11
(12.97)		175	n, d	6
13.11 \pm 60			n, (d)	5, 6, 11
13.83			n	11
14.36 \pm 50	$(3)^+$	180	d	5, 6

^a See also [Table 16.4](#).

^b See also [Table 16.5](#).