Table 13.18 from (1981AJ01): Energy levels of ^{13}N

E_x (MeV ± keV)	$J^\pi; T$	Γ_{cm} (keV)	Decay	Reactions
g.s.	$\frac{1}{2}^-; \frac{1}{2}$	$\tau_{1/2} = 9.965 \pm 0.004$ min	β^+	1, 2, 8, 10, 11, 12, 13, 19, 20, 21, 22, 24, 25, 26, 27, 28, 29, 30, 31, 32, 34, 35, 36, 37, 38, 39, 40, 42, 43, 44, 45, 46, 47, 48, 49, 51
2.3648 ± 1.1	$\frac{1}{2}^+$	$\Gamma_{cm} = 33.7 \pm 0.9$	γ, p	8, 11, 13, 19, 20, 27, 30, 31, 37, 39, 40, 46
3.511 ± 2	$\frac{3}{2}^-$	62 ± 4	γ, p	2, 8, 10, 11, 13, 19, 20, 22, 25, 30, 31, 32, 34, 37, 38, 39, 44, 46
3.547 ± 4	$\frac{5}{2}^+$	47 ± 7	p	2, 8, 10, 11, 14, 19, 20, 22, 25, 27, 30, 31, 32, 37, 39, 44
6.364 ± 9	$\frac{5}{2}^+$	11	p	9, 11, 14, 20, 31, 39, 44
6.886 ± 8	$\frac{3}{2}^+$	115 ± 5	p	9, 11, 14, 20, 39
7.155 ± 5	$\frac{7}{2}^+$	9 ± 0.5	p	9, 11, 14, 20, 31, 39
7.376 ± 9	$\frac{5}{2}^-$	75 ± 5	p	9, 10, 11, 14, 20, 31, 34, 37, 38, 39, 44
7.9	$\frac{3}{2}^+$	≈ 1500	p	14, 20, 39
8.918 ± 11	$\frac{1}{2}^-$	230	p	11, 14, 31, 34, 37, 38, 39, 44
9.00	$(\frac{9}{2}^+)$	280 ± 30		9, 38
9.476 ± 8	$\frac{3}{2}^-$	30	p	9, 11, 14, 31, 34, 38
10.25 ± 150	$(\frac{1}{2}^+)$	≈ 280	γ, p	13
10.36	$\frac{5}{2}^-$	30	p	9, 11, 14, 20, 34
10.36	$\frac{7}{2}^-$	76	p	9, 14, 20
10.833 ± 9	$(\frac{1}{2}^-)$			9, 11, 31, 44
11.530 ± 12	$\frac{5}{2}^+$	430 ± 35	p	9, 11, 14
11.70 ± 30	$\frac{5}{2}^-$	115 ± 30	p	14
11.74 ± 40	$\frac{3}{2}^+$	240 ± 30	γ, p	13, 14
11.74 ± 50	$\frac{3}{2}^-$	530 ± 80	p	14
11.878 ± 12	$(\frac{3}{2}^-)$	380 ± 50	p	10, 11, 14, 31, 37, 38, 39, 44
12.13 ± 50	$\frac{7}{2}^-$	250 ± 30	p	14, 20, 46
12.558 ± 23		> 400		11
12.937 ± 24		> 400		11
13.5 ± 200	$\frac{3}{2}^+$	≈ 6500	γ, p	13, 14
14.05 ± 20	$\frac{3}{2}^+; \frac{1}{2}$	165 ± 20	γ, p, α	13, 14, 17
15.0645 ± 1.0 [a]	$\frac{3}{2}^-; \frac{3}{2}$	0.86 ± 0.12	γ, p, α	11, 13, 14, 17, 31, 44

Table 13.18 from (1981AJ01): Energy levels of ^{13}N (continued)

E_x (MeV ± keV)	$J^\pi; T$	Γ_{cm} (keV)	Decay	Reactions
15.3 ± 200	$(\frac{3}{2}^+)$	350 ± 150	γ, p	13
15.99 ± 30	$\frac{7}{2}^+; \frac{1}{2}$	135 ± 90	p, α	14, 17, 31
16.0		≈ 500	p	14
17.5			γ, p	13, 14
18.15 ± 30	$\frac{3}{2}^+; \frac{1}{2}$	320 ± 80	p	14
18.17 ± 20	$\frac{1}{2}^-; \frac{1}{2}$	225 ± 50	p, α	14, 17
18.406 ± 5	$\frac{3}{2}^+; \frac{3}{2}$	66 ± 8	p, α	11, 14, 17
18.961 ± 10	$\frac{3}{2}^-$ or $\frac{7}{2}^+; \frac{3}{2}$	23 ± 5	p, α	11, 14, 17
19.83	$\frac{5}{2}^-; \frac{1}{2}$	1000	p, α	14, 17
19.88	$\frac{7}{2}^+; \frac{1}{2}$	750	p	14
20.2	$\frac{5}{2}^-$	1000	p	14
20.9 ± 300	$\frac{1}{2}^+$	1200	γ, p	13, 14
21.4	$\frac{5}{2}^-$	750	p	14
21.7	$\frac{3}{2}^+$		p	14
22.4 ± 500	$\frac{1}{2}^+$		p	14
23			γ, p	13
23.3		400	p, ^{3}He	4
23.83 ± 50		350 ± 50	p, ^{3}He	4, 13
24.4		700	p, ^{3}He	4, 13, 14
(24.6)		120	p, ^{3}He	4
25.6 ± 100	$(\frac{3}{2})^-$	240 ± 80	p, ^{3}He	4, 14
25.9		1000	(n), p, d, ^{3}He, α	3, 4, 7, 14
26.84			p	14
28			(γ), p, ^{3}He, (α)	2, 4, 7
(31)			p	14
32		≈ 2000	γ, d, ^{3}He, α	2, 5, 7, 13

[a] See also Table 13.7.