Table 17.7 from (1982AJ01): Energy levels of ^{17}O

E_x in ^{17}O (MeV ± keV)	J^π; T	τ_m or $\Gamma_{c.m.}$ (keV)	Decay	Reactions
0	$\frac{5}{2}^+$; $\frac{1}{2}$		stable	1, 2, 5, 6, 7, 8, 9, 12, 13, 15, 16, 18, 19, 20, 21, 22, 23, 24, 29, 30, 31, 32, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73
0.87081 ± 0.12	$\frac{1}{2}^+$	$\tau_m = 258.6 \pm 2.6$ psec	γ	1, 2, 5, 6, 7, 12, 13, 15, 16, 18, 19, 20, 21, 22, 29, 30, 31, 32, 38, 39, 42, 43, 44, 46, 47, 48, 50, 52, 54, 56, 57, 61, 62, 63, 68, 69, 70, 71, 72, 73
3.0552 ± 0.3	$\frac{1}{2}^-$	$\tau_m = 120^{+80}_{-60}$ fsec	γ	5, 6, 7, 12, 13, 18, 21, 22, 29, 31, 32, 38, 39, 42, 48, 50, 52, 61, 62, 70, 71
3.841 ± 3	$\frac{5}{2}^-$	$\tau_m \leq 25$ fsec	γ	5, 6, 7, 12, 13, 14, 18, 21, 22, 29, 30, 39, 42, 50, 61, 62, 70, 71
4.552 ± 2	$\frac{3}{2}^-$	$\Gamma = 40 \pm 5$	γ, n	5, 7, 12, 13, 21, 22, 29, 30, 33, 39, 42, 48, 49, 50, 61, 62, 71
5.085 ± 2	$\frac{3}{2}^+$	96 ± 5	γ, n	2, 6, 7, 12, 13, 21, 22, 29, 33, 39, 48, 49, 50, 61, 62

Table 17.7 from (1982AJ01): Energy levels of ^{17}O (continued)

E_x in ^{17}O (MeV $\pm$ keV)	$J^\pi; T$	τ_m or $\Gamma_{c.m.}$ (keV)	Decay	Reactions
5.218	$(\frac{9}{2}^-)$	< 0.1	γ, n	6, 7, 12, 13, 14, 21, 22, 29, 30, 33, 39, 50, 61, 71
5.378 ± 2	$\frac{3}{2}^-$	28 ± 7	γ, n	7, 21, 22, 29, 33, 39, 42, 48, 49, 50, 61, 62, 71
5.697 ± 2	$\frac{7}{2}^-$	3.4 ± 0.3	γ, n	2, 6, 12, 13, 21, 22, 29, 30, 33, 39, 49, 50, 62
5.733 ± 2		< 1	n	2, 5, 6, 12, 13, 21, 22, 33, 39, 71
5.868 ± 2	$\frac{3}{2}^+$	6.6 ± 0.7	n	6, 7, 12, 13, 21, 22, 29, 33, 39, 71
5.939 ± 4	$\frac{1}{2}^-$	32 ± 3	γ, n	5, 6, 12, 13, 21, 22, 29, 33, 39, 48, 50, 62, 71
6.356 ± 8	$\frac{1}{2}^+$	124 ± 12	γ, n	5, 7, 21, 29, 33, 50
6.862 ± 2	$(\frac{1}{2}^-)$	< 1	γ, n	5, 6, 7, 12, 13, 21, 22, 29, 33, 39, 50, 62, 71
6.972 ± 2	$(\frac{5}{2}^+)$	< 1	γ, n	6, 7, 12, 13, 21, 22, 29, 33, 50, 71
7.1657 ± 0.8	$\frac{5}{2}^-$	1.38 ± 0.05	n, α	5, 6, 7, 10, 12, 13, 21, 29, 33, 37
7.202 ± 10	$\frac{3}{2}^+$	280 ± 30	n, α	12, 13, 21, 33, 37
7.3792 ± 1.0	$\frac{5}{2}^+$	0.64 ± 0.23	(γ), n, α	5, 6, 7, 10, 12, 13, 29, 30, 33, 37, 50, 62, 71
7.3822 ± 1.0	$\frac{5}{2}^-$	0.96 ± 0.20	γ, n, α	5, 7, 10, 12, 13, 21, 30, 33, 49, 50, 62, 71
7.559 ± 20	$\frac{3}{2}^-$	500 ± 50	n, α	33, 37, 39
7.576 ± 2	$\frac{7}{2}^-$	< 0.1	γ, n, α	5, 6, 10, 12, 13, 21, 29, 33, 50

Table 17.7 from (1982AJ01): Energy levels of ^{17}O (continued)

E_x in ^{17}O (MeV ± keV)	J^π; T	τ_m or $\Gamma_{c.m.}$ (keV)	Decay	Reactions
7.6882 ± 0.9	$\frac{7}{2}^-$	14.4 ± 0.3	γ, n, α	5, 6, 10, 12, 13, 29, 33, 37, 49
7.757 ± 9	$\frac{11}{2}^-$		γ	29, 30, 50
7.956 ± 6	$\frac{1}{2}^+$	90 ± 9	n, α	10, 29, 33, 37
7.99 ± 50	$\frac{1}{2}^-$	270 ± 30	n, α	33, 37
8.070 ± 10	$\frac{3}{2}^+$	85 ± 9	n, α	10, 29, 33, 37
8.200 ± 7	$\frac{3}{2}^-$	60	γ, n, α	10, 29, 33, 37, 49, 62
8.3424 ± 0.9	$\frac{1}{2}^+$	11.4 ± 0.5	n, α	10, 29, 33, 37, 50
8.4023 ± 0.8	$\frac{5}{2}^+$	6.17 ± 0.13	n, α	6, 10, 12, 13, 29, 33, 37, 50
8.4660 ± 0.8	$\frac{7}{2}^+$	2.13 ± 0.11	n, α	5, 6, 10, 12, 13, 29, 33, 37, 50, 62
8.5007 ± 0.8	$\frac{5}{2}^-$	6.89 ± 0.22	γ, n, α	6, 10, 12, 13, 29, 33, 37, 49, 50
8.6870 ± 1.0	$\frac{3}{2}^-$	55.3 ± 0.6	γ, n, α	10, 29, 33, 37, 49, 62
8.897 ± 8	$\frac{3}{2}^+$	101 ± 3	n, α	6, 10, 12, 13, 29, 30, 33, 37
8.9672 ± 1.7	$\frac{7}{2}^-$	26 ± 2	γ, n, α	6, 10, 12, 13, 29, 33, 37, 49
9.147 ± 4	$\frac{1}{2}^-$	4 ± 3	n, α	6, 10, 12, 13, 62
9.15 ± 20	$\frac{9}{2}^-$			29, 30
9.18	$\frac{7}{2}^-$	3	α	10, 12, 13
9.1939 ± 0.8	$\frac{5}{2}^+$	3.53 ± 0.13	n, α	10, 12, 13, 33
9.42	$\frac{3}{2}^-$	120	n	33
9.492 ± 4	$\frac{5}{2}^-$	15 ± 1	n, α	5, 10, 13, 29, 33, 62
9.7119 ± 0.9	$\frac{7}{2}^+$	23.1 ± 0.3	n, α	10, 13, 29, 33
9.7833 ± 0.9	$\frac{3}{2}^+$	11.7 ± 0.3	n, α	10, 13, 33
9.8589 ± 0.9	$(\frac{5}{2}^-)$	4.01 ± 0.23	n, α	10, 13, 29, 33
9.8765 ± 1.3	$(\frac{1}{2}^-)$	16.7 ± 1.7	n, α	10, 13, 29, 33

Table 17.7 from (1982AJ01): Energy levels of ^{17}O (continued)

E_x in ^{17}O (MeV $\pm$ keV)	J^π; T	τ_m or $\Gamma_{c.m.}$ (keV)	Decay	Reactions
9.976 ± 20	$\frac{5}{2}^+$	≈ 80	n, α	10
10.045 ± 20		≈ 100	n, α	10
10.1678 ± 1.0	$\frac{7}{2}^-$	49.1 ± 0.8	n, α	10, 33
10.336 ± 15	$\frac{5}{2}^+$, $\frac{7}{2}^-$	150	n, α	10, 29
10.423 ± 3		14 ± 3	n, α	10
10.49	$\frac{5}{2}^+$, $\frac{7}{2}^-$	75 ± 30	n, α	10
10.5591 ± 1.0	$(\frac{7}{2}^-)$	42.5 ± 1.1	n, α	10, 14, 29, 33, 34
10.777 ± 3	$\frac{1}{2}^+$, $\frac{7}{2}^-$	74 ± 3	n, α	10, 13, 29, 34
10.9129 ± 2.8	$(\frac{5}{2}^+)$	41.7 ± 1.4	n, α	10, 29, 33, 34
11.036 ± 3	$T = \frac{1}{2}$	31 ± 3	n, α	10, 29
11.0787 ± 0.9 [a]	$\frac{1}{2}^-$; $\frac{3}{2}$	2.4 ± 0.3	n, α	10, 29, 33, 62, 63
11.238		80 ± 3	n, α	5, 10
11.51	$\geq \frac{3}{2}$	190	n	33, 34
11.622		65 ± 2	n, α	10
11.750 ± 10		40 ± 25	γ, n, α	10, 50
11.815 ± 15		12 ± 3	n, α	10
12.005 ± 15	$\geq \frac{3}{2}$	270	n, α	10, 33, 34, 50
12.11 ± 20		150 ± 50	n, α	10, 14, 34
12.274 ± 15		100 ± 30	n, α	10
12.38 ± 20			n, α	10, 33
12.420 ± 15			n, α	10
12.4660 ± 1.0	$\frac{3}{2}^-$; $\frac{3}{2}$	6.9 ± 1.1	n, α	10, 33, 34, 62, 63
12.595 ± 15		75 ± 30	n, α	10
12.669 ± 15		≈ 5	n, α	10, 33, 34
12.81 ± 25			n, α	10
12.93 ± 20		≥ 150	n, α	10
12.944 ± 5	$\frac{1}{2}^+$; $\frac{3}{2}$	6 ± 2	n, α	10, 33, 34, 62, 63
12.9982 ± 1.0	$\frac{5}{2}^-$; $\frac{3}{2}$	2.5 ± 1.0	n, α	10, 33, 63
13.076 ± 15		16 ± 4	n, α	10
13.484 ± 15		≈ 120	n, α	10

Table 17.7 from (1982AJ01): Energy levels of ^{17}O (continued)

E_x in ^{17}O (MeV $\pm$ keV)	J^π; T	τ_m or $\Gamma_{c.m.}$ (keV)	Decay	Reactions
13.58 ± 20	$(\frac{11}{2}^-, \frac{13}{2}^-)$			12, 13
13.609 ± 15		250 ± 100	n, α	10
13.6353 ± 2.5	$(\frac{5}{2})^+; \frac{3}{2}$	9 ± 5	n, α	33, 62, 63
(13.67)		400	n	33
14.15 ± 100	$(\frac{9}{2}^+, \frac{11}{2}^+)$	≈ 100		12
14.2303 ± 1.7	$(\frac{7}{2}^-); \frac{3}{2}$	20.5 ± 1.6	n, α	33, 63
14.286 ± 3	$T = \frac{3}{2}$	7.5 ± 4	n, α	33, 63
14.451 ± 3		40 ± 6	n, α	33
14.76 ± 100	$(\geq \frac{3}{2})$	340	γ, n	33, 50
14.791 ± 3	$(\frac{1}{2}^-, \frac{3}{2})$	36 ± 13	n, α	33
15.00		180	n, d, α	28, 33
15.1 ± 100	$(\frac{9}{2}^+, \frac{11}{2}^+)$	≈ 500		12
15.199 ± 3	$(\frac{3}{2}; \frac{3}{2})$	52 ± 14	γ, n, d, α	28, 33, 50
15.368 ± 3	$(\frac{5}{2}^+; \frac{3}{2})$	40 ± 6	n, d, α	27, 33
(15.6)		≈ 300	p, d, α	26, 27, 28
15.95 ± 150	$(\frac{9}{2}^+, \frac{11}{2}^+)$	≈ 700		12
16.243 ± 4	$(\frac{9}{2}^+; \frac{3}{2})$	21 ± 10	n, p, d, α	26, 33
16.58 ± 10	$(\frac{1}{2}, \frac{3}{2})^-; \frac{3}{2}$			62
16.6 ± 150	$(\frac{11}{2}^-, \frac{13}{2}^-)$			12
17.1 ± 150	$(\frac{11}{2}^-, \frac{13}{2}^-)$			12
17.436 ± 11	$(T = \frac{3}{2})$	66 ± 20	n, α	33
18.110 ± 4	$\frac{3}{2}^-; \frac{3}{2}$	46 ± 12	n, α	33, 62
19.6 ± 150	$(\frac{13}{2}^+, \frac{15}{2}^+)$	≈ 250		12
20.2 ± 150	$(\frac{13}{2}^+, \frac{15}{2}^+)$	≈ 250		12
21.2	$(\frac{13}{2}^+, \frac{15}{2}^+)$			12
21.7 ± 100	$\frac{5}{2}^+$	≈ 750	γ, ^{3}He, α	16, 17
22.1 ± 100	$\frac{7}{2}^-$	≈ 750	γ, n, ^{3}He, α	12, 16, 17
22.5 ± 200	$\frac{3}{2}^{(-)}$	≈ 1000	γ, ^{3}He	16
23		≈ 6000	γ, n	49, 50
23.0	$\frac{1}{2}^+$	≈ 400	γ, ^{3}He	16, 17

Table 17.7 from (1982AJ01): Energy levels of ^{17}O (continued)

E_x in ^{17}O (MeV $\pm$ keV)	J^π; T	τ_m or $\Gamma_{c.m.}$ (keV)	Decay	Reactions
23.5			γ, ^{3}He	16
24.4			γ, ^{3}He	16

[a] See also Table 17.11, and see Table 17.6 in (1977AJ02).