

Table 19.2 from (1995TI07): Energy Levels of ^{19}O ^a

E_x (MeV \pm keV)	$J^\pi; T$	τ or $\Gamma_{\text{c.m.}}$ ^b	Decay	Reactions
0	$\frac{5}{2}^+; \frac{3}{2}$	$[\tau_{1/2} = 26.91 \pm 0.08 \text{ s}]$	β^-	1, 2, 3, 4, 5, 7, 8, 9, 10
0.0960 ± 0.5	$\frac{3}{2}^+$	$\tau_m = 2.00 \pm 0.07 \text{ ns}$ [$g = -0.48 \pm 0.06$]	γ	3, 4, 7, 8, 9, 10
1.4717 ± 0.4	$\frac{1}{2}^+$	$\tau_m = 1.27 \pm 0.17 \text{ ps}$	γ	3, 4, 7, 8
2.3715 ± 1.0	$\frac{9}{2}^+$	$\tau_m > 3.5 \text{ ps}$	γ	3, 4, 7
2.7790 ± 0.9	$\frac{7}{2}^+$	$\tau_m = 93 \pm 19 \text{ fs}$	γ	3, 4, 7, 8
3.0674 ± 1.6	$(\frac{3}{2}^+)^d$	$\tau_m \geq 1 \text{ ps}$	γ	3, 4, 7, 8
3.1535 ± 1.7	$\frac{5}{2}^+$	$(\tau_m \geq 1 \text{ ps})$	γ	3, 4, 7, 8
3.2316 ± 2.3	$(\frac{1}{2}, \frac{3}{2}^-)^d$			3, 4, 7, 8
3.9449 ± 1.4 ^c	$\frac{3}{2}^-$		γ	3, 4, 7
4.1093 ± 1.9	$\frac{3}{2}^+$	$\Gamma < 15 \text{ keV}$		3, 4, 7
4.3281 ± 2.4	$\frac{3}{2}, \frac{5}{2}$	$\Gamma < 15 \text{ keV}$		3, 4, 7
4.4025 ± 2.7	$\frac{3}{2} \rightarrow \frac{7}{2}$	$\Gamma < 15 \text{ keV}$		3, 4, 7
4.5820 ± 4.6	$\frac{3}{2}^-$	$\Gamma = 52 \pm 3 \text{ keV}$	n	3, 4, 5, 7
4.7026 ± 2.7	$\frac{5}{2}^+$	$\Gamma < 15 \text{ keV}$		3, 4, 7, 8
4.9683 ± 5.5	$\frac{5}{2}, \frac{7}{2}$			3
5.0070 ± 4.5	$\frac{3}{2}, \frac{5}{2}$	$\Gamma < 15 \text{ keV}$		3, 4, 7
5.0820 ± 5.4	$\frac{1}{2}^-$	$\Gamma = 49 \pm 5 \text{ keV}$	n	3, 5
5.1484 ± 3.2	$\geq \frac{5}{2}^+$	$\Gamma = 3.4 \pm 1.0 \text{ keV}$	n	3, 4, 5, 7
5.3840 ± 2.8	$(\frac{9}{2} \rightarrow \frac{13}{2})$			3
5.5035 ± 3.1 ^c		$\Gamma < 15 \text{ keV}$		3, 4, 7
5.54	$\frac{3}{2}^+$	$\Gamma \approx 490 \text{ keV}$	n	5
5.7046 ± 4.3 ^c	$\frac{7}{2}^-$	$\Gamma = 7.8 \pm 1.4 \text{ keV}$	n	3, 4, 5, 7, 8
6.1196 ± 3.2 ^c	$\frac{3}{2}^+$	$\Gamma \approx 110 \text{ keV}$	n	3, 5
6.1916 ± 5.5				3
6.2693 ± 2.6	$\frac{7}{2}^-$	$\Gamma = 19.2 \pm 2.4 \text{ keV}$	n	3, 4, 5, 7, 8
6.4058 ± 3.1 ^c				3
6.4662 ± 4.8	$(\frac{7}{2} \rightarrow \frac{11}{2})$		(n)	3, 5, 7
6.583 ± 6 ^c				3, 7
6.903 ± 8				3, 7
6.988 ± 9				3, 7

Table 19.2 from (1995TI07): Energy Levels of ^{19}O ^a (continued)

E_x (MeV \pm keV)	$J^\pi; T$	τ or $\Gamma_{\text{c.m.}}$ ^b	Decay	Reactions
7.118 \pm 10				3, 7
7.242 \pm 8				3, 7
7.508 \pm 10				3
8.048 \pm 20				3
8.132 \pm 20				3
8.247 \pm 20				3
8.450 \pm 20				3
8.561 \pm 20				3
8.591 \pm 20				3
8.916 \pm 20				3
8.923 \pm 20				3
9.022 \pm 20				3
9.064 \pm 20				3
9.253 \pm 20				3
9.324 \pm 20				3
9.43				3
9.56				3
9.6	$\frac{7}{2}^-$		n	3, 5
9.9	$\frac{7}{2}^-$		n	3, 5
9.93				3
9.98				3
10.21	$\frac{7}{2}^-$		n	5
10.66	$\frac{7}{2}^-$		n	5
11.25 \pm 50		$\Gamma = 240$ keV	n, α	6
11.58 \pm 50		$\Gamma = 330$ keV	n, α	6

^a See also Tables 19.3 and 19.7.

^b See also reaction 1 and Table 19.2 in (1978AJ03).

^c See footnotes to Table 19.4.

^d (1987AJ02) gave $J^\pi = \frac{3}{2}^+$ for these levels. Assignments have been revised based on arguments presented in (1988WA17).