

Table 19.18 from (1987AJ02):
 Energy levels of ^{19}F from $^{18}\text{O}(\text{d}, \text{n})^{19}\text{F}$ and $^{18}\text{O}(\text{}^3\text{He}, \text{d})^{19}\text{F}$ ^a

E_x ^b (MeV \pm keV)	l ^b	$C^2S(2J_f + 1)$ ^b	$J\pi$ ^b
0	0	0.42 ^a	$\frac{1}{2}^+$
0.112 ± 3	1	0.224	$\frac{1}{2}^-$
0.199 ± 3	2	2.45 ^a	$\frac{5}{2}^+$
1.347 ± 5			
1.460 ± 5	1	0.098	$\frac{3}{2}^-$
1.5544 ± 0.6 ^c	2	1.01	$\frac{3}{2}^+$
2.784 ± 5	4	0.027	$\frac{9}{2}^+$
3.912 ± 5			
3.999 ± 1 ^c	(3)	(0.019)	$(\frac{7}{2}^-)$
4.036 ± 10			
4.3761 ± 0.8 ^c	(4)	(0.048)	$(\frac{7}{2}^+)$
4.5557 ± 0.5 ^c	2	0.31	^a
4.684 ± 1 ^c			
5.113 ± 5 ^a	(2, 3)		$\frac{5}{2}^-, \frac{7}{2}^-$ ^a
5.34 ± 5	(2, 3)	0.0065	$\frac{5}{2}^+$
5.428 ± 8	(2, 3)	(0.042)	$(\frac{3}{2}^+)$
5.492 ± 5 ^d			
5.54 ± 5	3	0.14	$\frac{7}{2}^-$
5.625 ± 4			
5.943 ± 5	0	0.014	$\frac{1}{2}^+$
6.095 ± 5	1	0.12	$\frac{1}{2}^-$
6.167 ± 5			
6.255 ± 8	(0)	0.19 ^a	$\frac{1}{2}^+$ ^a
6.503 ± 5	2	0.133	$\frac{3}{2}^+$
6.595 ± 10			
6.792 ± 5	1	0.29 ^a	$\frac{3}{2}^-$
6.93 ± 5	(2, 3)		$(\frac{5}{2}^+, \frac{7}{2}^-)$
7.112 ± 8	2	0.087	$\frac{5}{2}^+$
7.26 ± 5			
7.364 ± 5	0	0.091	$\frac{1}{2}^+$

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E_x ^b (MeV \pm keV)	l ^b	$C^2S(2J_f + 1)$ ^b	$J\pi$ ^b
7.540 \pm 3	2	0.665	$\frac{5}{2}^+$; $T = \frac{3}{2}$
7.665 \pm 5	(2)	0.035 ^a	$(\frac{3}{2}^+)$
7.702 \pm 5	(0, 1)	(0.052)	$(\frac{3}{2}^-)$
8.0140 \pm 1.0 ^e	2	0.26	$\frac{5}{2}^+$
8.086 \pm 5	(2, 3)	0.097	$(\frac{5}{2}^+)$
8.135 \pm 5	(0, 1)	0.156	$\frac{1}{2}^+$ ^a
8.198 \pm 5	(2, 3)	0.035	$(\frac{5}{2}^+)$
8.255 \pm 5	(2)	0.035	$(\frac{5}{2}^+)$
8.31 \pm 5 ^e	2		$\frac{5}{2}^+$
8.592 \pm 10	(2, 3)		
8.795 \pm 15	0	(0.13)	$\frac{1}{2}^+$; $T = \frac{3}{2}$
9.113 \pm 10			
9.18 \pm 15			
9.596 \pm 10			
9.682 \pm 15			
10.275 \pm 15			
10.33 \pm 15			
10.525 \pm 15			

^a See also [Table 19.18 in \(1978AJ03\)](#). Column 3 should refer to footnote ^c.

^b $^{18}\text{O}(\text{}^3\text{He}, \text{d})$: $E(^3\text{He}) = 16$ MeV, except where footnote is shown.

^c $^{18}\text{O}(\text{d}, \text{n}\gamma)$.

^d Many of the states with $E_x \geq 4.5$ MeV are unresolved: compare with [Table 19.6](#).

^e $^{18}\text{O}(\text{}^3\text{He}, \text{d})$: $E(^3\text{He}) = 26.4$ MeV ([1986CH29](#)) (and A.E. Champagne, private communication). $\theta_p^2 = 1.3 \times 10^{-2}$ and 7.4 ± 10^{-4} , respectively for $^{19}\text{F}^*(8.01, 8.31)$.