

Table 20.7 from (1983AJ01):
States in ^{20}F for $^{18}\text{O}(^3\text{He}, \text{p})^{19}\text{F}$ ^a

E_x (keV)		L ^b	$J\pi$ ^c
(1970RO06)	(1974CR04)		
0	0	2	2_1^+
657.2 ± 1.3	656	2 + 4	3_1^+
823.5 ± 1.5	822.6 ± 1.9	4	4_1^+
982.9 ± 1.3	983.3 ± 5.3	g	1^-
1058.1 ± 1.4	1057.5 ± 2.4	0 + 2	1_1^+
1309.1 ± 1.4	1310.2 ± 3.1	g	2^-
1824.4 ± 1.6 ^d	1824.1 ± 3.6	4	5_1^+
1843.0 ± 1.7 ^d			(2^-)
1971.9 ± 1.6	1978.0 ± 2.8	g	(3^-)
2044.0 ± 1.6	2044.9 ± 2.2	2	2_2^+
2195.5 ± 2.0	2194.7 ± 2.8		(3^+)
2868.2 ± 2.3	2863.6 ± 3.9	g	
2967.1 ± 2.0	2961.4 ± 3.5		see ^b
	3167.2 ± 3.8	(0 + 2) ^a	(1^+)
3487.8 ± 2.2	3485.9 ± 2.3	0 + 2	1_2^+
	3.53	g	(0^+)
3586.3 ± 2.2	3583.1 ± 2.7		see ^b
3681.0 ± 2.5	3669.4 ± 4.9		see ^b
3761.0 ± 3.1 ^e	3760 ± 10	g	
3966.9 ± 2.8		0 + 2 ^a	1^+
4083.7 ± 2.9			
6519 ± 3 ^f			0^+ ; $T = 2$ ^f

^a For a complete listing of references see [reaction 13](#) and [Table 20.8 in \(1978AJ03\)](#).

^b $E(^3\text{He}) = 18$ MeV (1974CR04): predominant L -values.

^c From L -values, γ -ray polarization data and branching ratio and lifetime measurements: see also [Tables 20.4](#) and [20.5](#).

^d $E_x = 1824.4 \pm 2.1$ and 1843.0 ± 2.2 keV (1967QU01).

^e $E_x = 3765 \pm 6$ keV, based on $E_x = 657 \pm 1$ keV (1973PR01).

^f Decays principally (> 90%) to $^{20}\text{F}^*(1.06)$: the γ -rays are isotopic [$\Gamma_\gamma = 3.6 \pm 0.6$ eV, based on the analog decay in ^{20}Ne]. $^{20}\text{F}^*(6.52)$ is the 0^+ , $T = 2$ analog of the ground states of ^{20}O and ^{20}Mg (1976MI01, 1977BA50).

^g Weakly populated.