

Table 19.22 from (1983AJ01):
States of ^{19}F and ^{19}Ne from $^{20}\text{Ne}(t, \alpha)$ and $^{20}\text{Ne}(^3\text{He}, \alpha)$

E_x in ^{19}F (MeV \pm keV) ^a	l_p ^b	J^π	C^2S ^{b,c}		E_x in ^{19}Ne (MeV)
			(t, α)	($^3\text{He}, \alpha$)	
0	0	$\frac{1}{2}^+$	0.12	0.20	0
0.11	1	$\frac{1}{2}^-$	1.7	1.8	0.28
0.20	2	$\frac{5}{2}^+$	1.6	0.95	0.24
1.46	1	$\frac{3}{2}^-$	0.30	0.21	1.62
1.55	2	$\frac{3}{2}^+$	0.31 ^d	0.70	1.54
2.794 ± 15					
3.917 ± 15		$\frac{3}{2}^+$	≤ 0.04	≤ 0.1	4.03
4.00					
4.032 ± 15					
4.385 ± 15					
$4.55 + 4.56$	1	$\frac{3}{2}^-$	0.69	0.57	4.55
$4.65 + 4.68$					
5.102 ± 15					
5.343 ± 15					
5.481 ± 15					
5.539 ± 15					
5.628 ± 15					
5.937 ± 20					
6.092 ± 15	1	$\frac{3}{2}^-$	1.0	1.4	6.01
6.169 ± 30					
6.247 ± 25					
6.501 ± 25					
6.79	1	$\frac{3}{2}^-$	0.96	1.5	6.74

^a For references see [Table 19.23 in \(1978AJ03\)](#). E_x for which errors are not shown are nominal.

^b ([1974GA28](#)): $E_t = 20$ MeV.

^c Calculated using finite range and non-local corrections. The ($^3\text{He}, \alpha$) results are from ([1970GA18](#)). The absolute DWBA normalization factors were 4.6 for (t, α) and 10.2 for ($^3\text{He}, \alpha$).

^d Poor DWBA fit.