

Table 19.23 from (1978AJ03):
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)		l_p ^a	J^π	C^2S ^{a,b}		E_x in ^{19}Ne (MeV)
(1961SI03)	(1974GA28) ^a			(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 ^c	0.70	1.54
2.794 ± 15	2.78					
3.917 ± 15	3.91		$\frac{3}{2}^+$	≤ 0.04	≤ 0.1	4.03
	4.00					
4.032 ± 15	4.03					
4.385 ± 15	4.38					
4.563 ± 15	4.55 + 4.56	1	$\frac{3}{2}^-$	0.69	0.57	4.55
(4.690 ± 40)	4.65 + 4.68					
5.102 ± 15	5.11					
5.343 ± 15						
5.481 ± 15						
5.539 ± 15						
5.628 ± 15						
5.937 ± 20						
6.092 ± 15	6.09	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 (1974GA28): $E_t = 20$ MeV. E_x are nominal.

^b 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 ($^3\text{He}, \alpha$).

^c Poor DWBA fit.