

Table 20.28 from (1983AJ01):  
Resonances for ground-state  $\alpha$ -particles ( $\alpha_0$ ) in  $^{19}\text{F}(p, \alpha_0)$  <sup>a</sup>

$E_p$ (keV)	$\Gamma_{\text{lab}}$ (keV)	$\theta_\alpha^2$ (%) <sup>a</sup>	$J^\pi$	$^{20}\text{Ne}^*$ (MeV)
400	100		$1^-$	13.225
400	100		$0^+$	13.225
$650 \pm 20$ <sup>b</sup>	200		$1^-$	$13.462$ <sup>h</sup>
710	35	0.6	$(1^-)$	13.519
733	66	1.0	$2^+$	13.541
$777 \pm 2$ <sup>b</sup>	$9 \pm 1$	0.02	$2^+$	13.583
$842 \pm 2$ <sup>b</sup>	$18 \pm 1$	$0.16$ <sup>c</sup>	$(2^+)$ <sup>d</sup>	13.644
$\approx 860$	120	2.1	$1^-$	13.66
$\approx 930$	$\approx 180$	2.9	$0^+$	13.73
$\approx 1080$	$\approx 200$	3.4	$1^-$	13.87
1115	50	0.55	$2^+$	13.904
1160	$\approx 70$	1.1	$0^+$	13.946
1235	$\approx 70$	1.2	$1^-$	14.017
$\approx 1250$	$\approx 150$	2.7	$2^+$	14.03
$1350 \pm 3$ <sup>b</sup>	$36 \pm 1$		$2^+$	14.127
$1652 \pm 5$ <sup>b</sup>	$90 \pm 5$			14.413
$1713 \pm 6$ <sup>b,e</sup>	$72 \pm 2$		$0^+$	14.471
$1842 \pm 7$ <sup>b,e</sup>	$122 \pm 5$		$1^-$	14.594
$1901 \pm 10$ <sup>b</sup>				14.650
2110 <sup>f</sup>	75		$(2^+, 4^+)$	14.85
2310 <sup>f</sup>	90		$(2^+)$	15.04
2550	300		$(1^-)$	15.27
2590 <sup>f</sup>	300		$(0^+)$	15.30
2680	80			15.39
2730	60			15.44
2820	160			15.52
2940				(15.64)
3120	170			(15.81)
3340	105			16.02
3680	(100)			16.34

Table 20.28 from (1983AJ01):  
Resonances for ground-state  $\alpha$ -particles ( $\alpha_0$ ) in  $^{19}\text{F}(\text{p}, \alpha_0)$  <sup>a</sup> (continued)

$E_p$ (keV)	$\Gamma_{\text{lab}}$ (keV)	$\theta_{\alpha}^2$ (%) <sup>a</sup>	$J^{\pi}$	$^{20}\text{Ne}^*$ (MeV)
3860				16.51
3980	135			16.62
4130	100			16.77
4360	100			16.98
4460	95			17.08
4690	65			17.30
4900	90			17.50
4990	40			17.58
$5879 \pm 7$	$10 \pm 3$	<sup>g</sup>	$2^+; T = 2$	18.427

<sup>a</sup> For earlier references and additional comments see [Table 20.31 in \(1978AJ03\)](#).

<sup>b</sup> [\(1980DI03\)](#).

<sup>c</sup>  $\Gamma_{\alpha_0} \approx 0.06$  keV.

<sup>d</sup>  $J = 0$  from  $^{19}\text{F}(\text{p}, \text{p})$ ; possibly  $T = 0$ .

<sup>e</sup> See also [\(1978DE1D\)](#).

<sup>f</sup> See also [\(1980CU09\)](#).

<sup>g</sup>  $\Gamma_{\alpha_0} \approx 0.3$  keV.

<sup>h</sup> [\(1981OH04\)](#) find a weak resonance corresponding to the parity forbidden  $J^{\pi} = 1^+$ ;  $T = 1$  state  $^{20}\text{Ne}^*(13.48)$ : see text.