

Table 19.9 from (1978AJ03):  
Levels of  $^{19}\text{F}$  from  $^{15}\text{N}(\alpha, \alpha_0)^{15}\text{N}$  <sup>a</sup>

$E_\alpha$ (MeV $\pm$ keV)	$\Gamma_{\text{lab}}$ (keV)	$J^\pi$	$E_x$ (MeV)
$1.878 \pm 10$	4	$\frac{3}{2}^+$	5.496
$2.614 \pm 10$	1.5	$\frac{5}{2}^+$	6.077
$2.635 \pm 10$	5	$\frac{5}{2}^-$	6.094
$2.833 \pm 10$	10	$\frac{1}{2}^+$	6.250
$2.883 \pm 10$	3	$\frac{5}{2}^+$	6.289
$2.944 \pm 10$	3	$\frac{7}{2}^+$	6.338
$3.060 \pm 10$ <sup>b</sup>	360	$\frac{1}{2}^-$	$6.429 \pm 0.008$
$3.194 \pm 10$	5	$\frac{1}{2}^+$	6.535
$3.229 \pm 10$	2	$\frac{5}{2}^+$	6.563
$3.525 \pm 10$	3	$\frac{3}{2}^-$	6.796
$3.587 \pm 10$	1.5	$(\frac{5}{2}, \frac{3}{2})^+$	6.845
$3.648 \pm 10$	35	$\frac{5}{2}^-$	6.893
$3.705 \pm 10$	3	$(\frac{9}{2}, \frac{7}{2})^-$	6.938
$3.770 \pm 10$ <sup>b</sup>	64	$\frac{1}{2}^-$	$6.989 \pm 0.008$
$3.930 \pm 10$ <sup>b</sup>	40	$\frac{7}{2}^+$	$7.116 \pm 0.008$
4.127 <sup>c</sup>	$\lesssim 8$		7.271
4.23	$\lesssim 82$	$\frac{7}{2}^+$	7.35
4.49	$\lesssim 110$	$\frac{7}{2}^+$	7.56
4.53	$\lesssim 50$	$\frac{5}{2}^+$	7.59
4.710	$\lesssim 40$	$\frac{1}{2}^-$	7.731
4.780	$\lesssim 8$		7.787
4.93	$\lesssim 260$		7.90
(5.005)	( $\lesssim 8$ )		(7.964)
(5.018)	( $\lesssim 5$ )		(7.974)
5.116	$\lesssim 8$		8.052
5.203	$\lesssim 8$		8.120
5.232	$\lesssim 6$		8.143
5.25	$\lesssim 65$		8.16
5.284	$\lesssim 10$		8.184
5.481	$\lesssim 10$		9.340

<sup>a</sup> (1959SM02, 1961SM02, 1972MO42).

<sup>b</sup> See also (1977DI08).

<sup>c</sup> I am indebted to Prof. C. Rolfs for his comments on the resonances above 4 MeV.