

Table 19.13 from (1972AJ02): Resonances in  $^{18}\text{O}(p, n)^{18}\text{F}$  <sup>a</sup>

| $E_p$<br>(MeV $\pm$ keV)     | $\Gamma_{\text{lab}}$<br>(keV) | Res. <sup>b</sup> in<br>yield of                    | $J^\pi$             | $E_x$ in $^{19}\text{F}$<br>(MeV) | Refs.                          |
|------------------------------|--------------------------------|---|---------------------|-----------------------------------|--------------------------------|
| 2.643 $\pm$ 1.0              | 6.5 $\pm$ 0.5                  | n   | $(\frac{3}{2})$     | 10.496                            | (1967PR04, 1969BE57)           |
| 2.691 $\pm$ 1.0              | 2.6 $\pm$ 0.2                  | n   |                     | 10.541                            | (1967PR04, 1969BE57)           |
| 2.717 $\pm$ 1.0              | 5.5 $\pm$ 0.5                  | n   |                     | 10.566                            | (1967PR04, 1969BE57)           |
| 2.767 $\pm$ 1.5              | 5.0 $\pm$ 0.5                  | n   | $\frac{5}{2}^{(+)}$ | 10.613                            | (1967PR04, 1969BE57)           |
| 3.025 $\pm$ 2.0              | 26.0 $\pm$ 1.5                 | n   | $\frac{3}{2}$       | 10.857                            | (1956MA18, 1969BE57)           |
| 3.145 $\pm$ 3.0              | $\approx$ 12                   | n   |                     | 10.971                            | (1969BE57)                     |
| 3.163 $\pm$ 3.0              | $\approx$ 11                   | n   |                     | 10.988                            | (1969BE57)                     |
| 3.248 $\pm$ 3.0 <sup>c</sup> | 33.0 $\pm$ 5.0                 | n   | $\frac{3}{2}$       | 11.069                            | (1956MA18, 1969BE57)           |
| 3.386 $\pm$ 2                | 45 $\pm$ 2                     | n   | $(\frac{1}{2})$     | 11.199                            | (1956MA18)                     |
| 3.495 $\pm$ 4                |                                | n   |                     | 11.302                            | (1956MA18)                     |
| 3.63 $\pm$ 10 <sup>e</sup>   | 85 $\pm$ 20                    | n, n <sub>1</sub>                                   |                     | 11.43                             | (1956MA18, 1964BA16, 1969DI07) |
| 3.71                         |                                | n, n <sub>1</sub>                                   |                     | (11.51)                           | (1964BA16, 1969DI07)           |
| 3.77 $\pm$ 10                | < 50                           | n, n <sub>2</sub>                                   |                     | 11.56 <sup>d</sup>                | (1964MA12, 1968BE34, 1969DI07) |
| 3.83                         |                                | n <sub>1</sub>                                      |                     | (11.62)                           | (1964BA16, 1969DI07)           |
| 3.86 $\pm$ 10                | 40                             | n, n <sub>1</sub>                                   |                     | 11.65                             | (1964BA16, 1969DI07)           |
| 4.00                         |                                | n <sub>1</sub> , n <sub>3</sub>                     |                     | (11.78)                           | (1969DI07)                     |
| 4.06 $\pm$ 10                | < 50                           | n, n <sub>1</sub>                                   |                     | 11.84                             | (1964BA16, 1969DI07)           |
| 4.11                         |                                | n <sub>1</sub>                                      |                     | (11.88)                           | (1969DI07)                     |
| 4.16 $\pm$ 10                | 90                             | n, n <sub>1</sub>                                   |                     | 11.93                             | (1964BA16, 1969DI07)           |
| 4.33                         |                                | n <sub>1</sub> , n <sub>3</sub>                     |                     | (12.09)                           | (1969DI07)                     |
| 4.37 $\pm$ 10                | 100                            | n, n <sub>1</sub> , n <sub>2</sub>                  |                     | 12.13                             | (1964BA16, 1969DI07)           |
| 4.47                         | 50                             | n, n <sub>1</sub> , n <sub>2</sub> , n <sub>3</sub> |                     | 12.23                             | (1964BA16, 1969DI07)           |
| 4.58 $\pm$ 10                |                                | n <sub>1</sub>                                      |                     | (12.33)                           | (1969DI07)                     |
| 4.70                         |                                | n <sub>3</sub>                                      |                     | (12.44)                           | (1969DI07)                     |
| 4.83                         |                                | n <sub>1</sub> , n <sub>2</sub> , n <sub>3</sub>    |                     | (12.57)                           | (1969DI07)                     |
| 4.90                         |                                | n <sub>2</sub>                                      |                     | (12.63)                           | (1969DI07)                     |
| 5.05 $\pm$ 10                | 200                            | n, n <sub>1</sub>                                   |                     | 12.77                             | (1964BA16, 1969DI07)           |
| 5.10                         |                                | n <sub>1</sub> , n <sub>2</sub>                     |                     | (12.82)                           | (1969DI07)                     |
| 5.20                         |                                | n <sub>2</sub> , n <sub>3</sub>                     |                     | (12.92)                           | (1969DI07)                     |
| 5.35                         |                                | n, n <sub>1</sub> , n <sub>2</sub> , n <sub>3</sub> |                     | 13.06                             | (1964BA16, 1969DI07)           |

Table 19.13 from (1972AJ02): Resonances in  $^{18}\text{O}(p, n)^{18}\text{F}$  <sup>a</sup> (continued)

| $E_p$<br>(MeV $\pm$ keV) | $\Gamma_{\text{lab}}$<br>(keV) | Res. <sup>b</sup> in<br>yield of   | $J^\pi$ | $E_x$ in $^{19}\text{F}$<br>(MeV) | Refs.                |
|--------------------------|--------------------------------|------------------------------------|---------|-----------------------------------|----------------------|
| 5.47 $\pm$ 15            | 70                             | n, n <sub>1</sub>                  |         | 13.17                             | (1964BA16, 1969DI07) |
| 5.62 $\pm$ 15            | 20                             | n, n <sub>1</sub>                  |         | 13.31                             | (1964BA16, 1969DI07) |
| 5.63                     |                                | n <sub>1</sub>                     |         | (13.32)                           | (1969DI07)           |
| 5.76                     |                                | n <sub>1</sub> , n <sub>3</sub>    |         | (13.45)                           | (1969DI07)           |
| 6.06 $\pm$ 15            | 100                            | n, n <sub>1</sub> , n <sub>2</sub> |         | 13.73                             | (1964BA16, 1969DI07) |
| 6.60 $\pm$ 15            | 350                            | n                                  |         | 14.24                             | (1964BA16)           |
| (6.70 $\pm$ 15)          |                                | n                                  |         | (14.34)                           | (1964BA16)           |
| 7.17 $\pm$ 20            | 300                            | n                                  |         | 14.78                             | (1964BA16)           |
| 7.40 $\pm$ 20            |                                | n                                  |         | 15.00                             | (1964BA16)           |
| (7.8)                    |                                | n                                  |         | (15.4)                            | (1964BA16)           |
| (7.98)                   |                                | n                                  |         | (15.55)                           | (1964BA16)           |
| 8.19 $\pm$ 25            | 160                            | n                                  |         | 15.75                             | (1964BA16)           |
| 8.74 $\pm$ 25            | 200                            | n                                  |         | 16.27                             | (1964BA16)           |
| 9.30 $\pm$ 30            |                                | n                                  |         | 16.80                             | (1964BA16)           |

<sup>a</sup> See also (1959AJ76).

<sup>b</sup> n means in the total yield.

<sup>c</sup> See also (1956MA18).

<sup>d</sup>  $T = \frac{3}{2}$ : see (1968BE34).

<sup>e</sup> Errors here and below are estimated from published data of (1964BA16) by H.B. Willard, private communication.