

Table 16.28 from (1993TI07): States in ^{16}O from $^{17}\text{O}(\text{d}, \text{t})$ and $^{17}\text{O}(\text{}^3\text{He}, \alpha)$

| E_x^a (MeV \pm keV) | $J^\pi; T$ | l^a | j^a | C^2S^a | $(d\sigma/d\Omega)_{\text{max}}^a$ $\mu\text{b}/\text{sr}$ | l^c | S^c |
|-------------------------|--------------|-------|---------------|---------------------|--|----------------|------------------------------------|
| 0.000 | $0^+; 0$ | 2 | $\frac{1}{2}$ | 1.034 ± 0.084 | 1736 ± 21.9 | 2 | 0.88 |
| 6.045 ± 8 | $0^+; 0$ | 2 | $\frac{3}{2}$ | 0.016 ± 0.004 | 17.9 ± 2.2 | 2 | 0.009 |
| 6.131 ± 3 | $3^-; 0$ | 1 | $\frac{1}{2}$ | 0.578 ± 0.137 | 527 ± 21.9 | 1 ^d | 0.37 |
| 6.913 ± 4 | $2^+; 0$ | (2) | $\frac{3}{2}$ | 0.373 ± 0.081 | | | |
| 6.913 ± 4 | $2^+; 0$ | (2) | $\frac{5}{2}$ | (0.030 ± 0.004) | 78.9 ± 11.9 | (2 + 0) | 0.022 |
| 7.115 ± 3 | $1^-; 0$ | 1 | $\frac{3}{2}$ | 0.055 ± 0.006 | 39.2 ± 3.2 | (3 + 1) | 0.007 |
| 8.870 ± 3 | $2^-; 0$ | 1 | $\frac{1}{2}$ | 0.335 ± 0.086 | 289 ± 24.0 | 1 ^d | 0.26 |
| 8.870 ± 3 | $2^-; 0$ | 1 | $\frac{3}{2}$ | 0.137 ± 0.048 | | | |
| 9.841 ± 6 | $2^+; 0$ | 2 | $\frac{1}{2}$ | 0.007 ± 0.003 | 12.9 ± 2.7 | 2 | 0.025 |
| 10.354 ± 3 | $4^+; 0$ | (2) | $\frac{3}{2}$ | (0.016 ± 0.004) | 19.9 ± 3.5 | 2 | 0.025 |
| 10.955 ± 9 | $0^-; 0$ | | | | 6.7 ± 3.4 | (3 + 1) | 0.008 |
| 11.08 ^b | $3^+; 0$ | | | | | 2 | 0.044 or 0.086 |
| 11.095 ± 6 | $4^+; 0$ | | | | 26.1 ± 5.3 | | |
| 11.525 ± 9 | $2^+; 0$ | | | | 20.0 ± 18.5 | | |
| 12.528 ± 6 | $2^-; 0$ | 1 | $\frac{1}{2}$ | 0.234 ± 0.046 | 53.5 ± 22.3 | | |
| 12.528 ± 6 | $2^-; 0$ | 1 | $\frac{3}{2}$ | 0.036 ± 0.015 | | | |
| 12.782 ± 23 | $0^-; 1$ | | | | 29.8 ± 5.0 | | |
| 12.971 ± 3 | $2^-; 1$ | 1 | $\frac{1}{2}$ | 0.396 ± 0.101 | 356 ± 22.2 | 1 ^d | 0.38 |
| 13.09 ^b | $1^-; 1$ | | | | | 1 | 0.1 |
| 13.148 ± 14 | $3^-; 0$ | 1 | $\frac{1}{2}$ | 0.058 ± 0.019 | 62.1 ± 17.0 | | |
| 13.148 ± 14 | $3^-; 0$ | 1 | $\frac{3}{2}$ | 0.019 ± 0.012 | | | |
| 13.256 ± 3 | $3^-; 1^b$ | 1 | $\frac{1}{2}$ | 0.562 ± 0.106 | 335 ± 21.9 | 1 ^d | 0.34 |
| 13.857 ± 30 | $4^+; 0$ | (2) | $\frac{3}{2}$ | (0.015 ± 0.003) | 10.3 ± 4.6 | | |
| 13.979 ± 17 | 2^- | 1 | $\frac{1}{2}$ | 0.016 ± 0.004 | 11.9 ± 4.7 | | |
| 14.313 ± 18 | $4^{(-)}$ | | | | 24.1 ± 9.2 | | |
| 14.409 ± 11 | 5^+ | | | | 7.8 ± 6.2 | | |
| 15.195 ± 32 | $2^-; 0$ | 1 | $\frac{1}{2}$ | 0.106 ± 0.030 | 38.4 ± 16.8 | d | |
| 15.414 ± 6 | $3^-; 0$ | 1 | $\frac{3}{2}$ | 0.242 ± 0.038 | 76.3 ± 16.7 | d | |
| 16.808 ± 11 | $3^+; 1$ | (2) | $\frac{3}{2}$ | (0.015 ± 0.005) | 72 ± 4.3 | | |
| 17.776 ± 11 | $4^-; 0$ | 1 | $\frac{1}{2}$ | 0.089 ± 0.045 | 48.3 ± 13.2 | d | $(\Gamma < 50 \text{ keV})^b$ |
| 18.027 ± 7 | $3^{(-)}; 1$ | 1 | $\frac{1}{2}$ | 0.102 ± 0.023 | 76.1 ± 20.8 | | |
| 18.483 ± 17 | $1^-; 1$ | 1 | $\frac{1}{2}$ | 0.129 ± 0.028 | 94.6 ± 26.0 | d | |
| 18.978 ± 7 | $4^-; 1$ | 1 | $\frac{1}{2}$ | 0.706 ± 0.065 | 502 ± 11.2 | d | |
| 19.210 ± 14 | $3^-; 1$ | 1 | $\frac{1}{2}$ | 0.338 ± 0.036 | 227 ± 9.9 | d | $\Gamma = 68 \pm 10 \text{ keV}^b$ |
| 19.806 ± 11 | $4^-; 0$ | 1 | $\frac{1}{2}$ | 0.423 ± 0.116 | 281 ± 127 | d | $\Gamma = 36 \pm 5 \text{ keV}^b$ |
| 19.806 ± 11 | $4^-; 0$ | 1 | $\frac{3}{2}$ | 0.015 ± 0.018 | | | |
| 20.481 ± 8 | $2^-; 1$ | 1 | $\frac{1}{2}$ | 0.144 ± 0.029 | 65.3 ± 10.0 | d | |
| 20.922 ± 30 | $1^-; 1$ | 1 | $\frac{1}{2}$ | 0.032 ± 0.009 | 15.6 ± 5.6 | | |
| 22.857 ± 60 | $1^-; 1$ | 1 | $\frac{3}{2}$ | 0.109 ± 0.023 | 50.0 ± 12.4 | | |

^a $^{17}\text{O}(\text{d}, \text{t})$; $E_d = 89 \text{ MeV}$ (1990SA27).^b See Table 16.20 (1986AJ04).^c $^{17}\text{O}(\text{}^3\text{He}, \alpha)$; $E(^3\text{He}) = 11 \text{ MeV}$ (1971BO02).^d $^{17}\text{O}(\text{}^3\text{He}, \alpha)$; $E(^3\text{He}) = 33 \text{ MeV}$ (1982KA12).