Table 19.3 from (1987AJ02): States in ^{19}O from ^{13}C(^{7}Li, p) [a]

E_x (MeV ± keV)	J [b]	E_x (MeV ± keV)
0	$\frac{5}{2}$	6.4662 ± 4.8 [i]
0.0944 ± 1.1	$\frac{3}{2}$	6.5827 ± 6.0 [j]
1.4716 ± 1.8	$\frac{1}{2}$	6.903 ± 8
2.3711 ± 1.9	$\frac{9}{2}$	6.988 ± 9
2.7776 ± 1.9	$\frac{7}{2}$	7.118 ± 10
3.0674 ± 1.6	$\frac{3}{2}$	7.242 ± 8
3.1536 ± 2.8	$\frac{5}{2}$	7.508 ± 10
3.2316 ± 2.3	$\frac{3}{2}$	8.048 ± 20
3.9449 ± 1.4 [c]		8.132 ± 20
4.1093 ± 1.9	$\frac{3}{2}$	8.247 ± 20
4.3281 ± 2.4	$\frac{3}{2}, \frac{5}{2}$	8.450 ± 20
4.4025 ± 2.7	$\frac{3}{2}, \frac{5}{2}, \frac{7}{2}$	8.561 ± 20
4.5820 ± 4.6	$\frac{3}{2}$	8.591 ± 20
4.7026 ± 2.7 [d]		8.916 ± 20
4.9683 ± 5.5	$\frac{5}{2}, \frac{7}{2}$	8.923 ± 20
5.0070 ± 4.5	$\frac{3}{2}, \frac{5}{2}$	9.022 ± 20
5.0820 ± 5.4	$\frac{1}{2}$	9.064 ± 20
5.1484 ± 3.2	$\frac{5}{2}$	9.253 ± 20
5.3840 ± 2.8	$\frac{9}{2}, \frac{11}{2}, \frac{13}{2}$ [e]	9.324 ± 20
5.5035 ± 3.1 [f]		9.43
5.7046 ± 4.3 [g]		9.56
6.1196 ± 3.2 [h]		9.77
6.1916 ± 5.5	$\frac{1}{2}$	9.88
6.2693 ± 2.6	$\frac{7}{2}$	9.93
6.4058 ± 3.1 [h]		9.98

[a] (1977FO10); $E(^7\text{Li}) = 16.0$ MeV. Angular distributions have been reported to all states with $E_x < 6.8$ MeV. See also (1978AJ03).

[b] Derived from total cross section and $2J + 1$ analysis.

[c] Corresponds to unresolved states. Assuming one of these to be a $\frac{3}{2}^-$ state (see Table 19.4), the other should have $J = \frac{7}{2} \to \frac{13}{2}$.

[d] May correspond to unresolved states.

[e] If this group corresponds to a single state.

[f] Narrow unresolved states: see discussion in (1977FO10).

[g] Cross section is too large for the known state at this energy with $J^\pi = \frac{3}{2}^+$. If this group corresponds to a doublet, the other member should have $J = \frac{1}{2} \to \frac{5}{2}$.

[h] Sharp group; if due to a single state $J = \frac{11}{2} \to \frac{17}{2}$.

[i] $J = (\frac{7}{2}, \frac{9}{2}, \frac{11}{2})$.

[j] The total cross section to this state is very high implying unresolved states: if there are two states one must have $J > \frac{13}{2}$.