Table 16.15 from (1986AJ04): States of ^{16}O from ^{13}C(^{6}Li, t)^{16}O

E_x [a] (MeV ± keV)	$\Gamma_{c.m.}$ (keV) [c]	Comments [d]
0 [b]		
6.13 [b]		
7.0 [u,b]		
8.87 [b,c]		c.n.
9.84 [b,c]		c.n.
10.36 [b,c]		c.n.
11.10 [u,b,c]		4^+ probably dominates; m.s.
11.52 [c]		
12.05 [c]		consistent with $L = 1 \rightarrow 0^+$
12.53 [c]		consistent with $L = 2 \rightarrow 2^-$
12.97 [c]		consistent with $L = 2 \rightarrow 2^-$
13.10 [u,c]		$L = 2$, but which state is involved?
14.3 [c]		$L = 4 \rightarrow 4^{(-)}$
14.40 [c]		anomalous shape
14.82 [c]		$L = 5$; probably $J^\pi = 6^+$
15.79 [c]		consistent with $L = 3 \rightarrow 3^+$
16.812 ± 15 [c]	28 ± 7	consistent with $L = 3 \rightarrow 3^+$
17.764 ± 15 [c,e]	45 ± 7	$L = 4$ or $L = 5$
18.032 ± 15 [u,c,f]	40 ± 7	$L = 3$; both states are probably populated
18.640 ± 15 [c]	22 ± 7	$L = 4$ or 5; probably 5^+
18.976 ± 15 [c]	25 ± 7	probably 4^-
19.814 ± 15 [c]	23 ± 7	
20.5 [u]		very strongly excited

u = unresolved.

c.n. = formation appears to be by a compound nuclear process.

m.s. = multistep process.

[a] E_x without uncertainties are from Table 16.10.

[b] Angular distributions have been reported at $E(^6\text{Li}) = 25$ MeV to the first seven groups shown here (1982AB02) and at 28 MeV (1980CU03): see also (1982AJ01).

[c] Angular distribution at $E(^6\text{Li}) = 34$ MeV (1983KE06).

[d] For abbreviations see above. When an L is shown, stripping patterns are evident (1983KE06).

[e] There is some evidence for a state at $E_x = 17.90$ MeV (1983KE06).

[f] There is some evidence for a state at $E_x = 18.46$ MeV with $\Gamma \approx 60$ keV (1983KE06).