Table 10.17 from (2004TI06): ^{10}Be levels from ^{13}C(t, ^{6}Li)^{10}Be (1989SI02)

E_x (MeV)	J^π	L	S
0	0^+	1	0.16
3.36	2^+	3 [a]	3.1
5.96	4^+ [b]	3 [a]	4.1

[a] (1975KU01) suggest $L = 1$ should be dominant.

[b] Levels at $E_x = 5.96$ MeV are known to have $J^\pi = 2^+$ and 1^-. See Table 10.5.