Table 13.11 from (1991AJ01): Levels of ^{13}C from ^{12}C(d, p)^{13}C [a]

^{13}C (MeV ± keV)	$\Gamma_{\rm c.m.}$ (keV)	$l_{\rm n}$	J^π	S [b]
0		1	$\frac{1}{2}^-$	0.77
3.089443 ± 0.020 [c]		0	$\frac{1}{2}^+$	0.65
3.684482 ± 0.023 [c]		1	$\frac{3}{2}^-$	0.14
3.853783 ± 0.022 [c]		2	$\frac{5}{2}^+$	0.58
6.86		2	$\frac{5}{2}^+$	0.017
7.470 ± 20				
7.533 ± 20				0.009
7.641 ± 20	70 ± 15			0.11
8.4 ± 300	1100 ± 300	2	$\frac{3}{2}^+$	
8.86		1	$\frac{1}{2}^-$	[e]
9.500 ± 20		(1)	$(\frac{3}{2}^-)$ [f]	
9.897 ± 20		1	$\frac{3}{2}^-$	[e]
10.755 ± 5	56 ± 2			0.026
10.818 ± 5	24 ± 3			
10.997 ± 8	82 ± 15			
11.080 ± 5	< 8			
11.748 ± 10	107 ± 14			
11.851 ± 5	68 ± 4			
11.97 ± 40 [d]	≈ 260			
12.108 ± 5	81 ± 8			

[a] For references and additional information see Tables 13.14 in (1981AJ01) and 13.11 in (1986AJ01).

[b] DWBA fit at $E_{\rm d} = 30$ MeV (1986OH01). For earlier results see (1981AJ01, 1986AJ01).

[c] (1980WA24): E_γ for the $3.85 \rightarrow 3.68$ transition is 169.300 ± 0.004 keV. Using $E_{\rm x} = 3684.507 \pm 0.019$ keV [see reaction 22] and this value for E_γ, $E_{\rm x}$ for the higher state is 3853.807 ± 0.019 keV, which we adopt. I am indebted to Dr. E.K. Warburton for his comments. See also Table 13.5 and the "General" section. (1990PI05) report $E_{\rm x} = 3089.42 \pm 0.07$, 3684.50 ± 0.06, 3853.67 ± 0.20 and 6864.07 ± 0.46 keV from measurements of proton groups in a spectrograph.

[d] May correspond to unresolved states.

[e] Not observed (1986OH01).

[f] Known to be $\frac{9}{2}^+$.