

Table 15.1 from (1976AJ04): Energy levels of  $^{15}\text{C}$ 

$E_x$ (MeV $\pm$ keV)	$J^\pi; T$	$\tau$ or $\Gamma_{\text{c.m.}}$ (keV)	Decay	Reactions
g.s. 0.7400 $\pm$ 1.5	$\frac{1}{2}^+; \frac{3}{2}$ $\frac{5}{2}^+; \frac{3}{2}$	$\tau_{1/2} = 2.449 \pm 0.004$ sec $\tau_m = 3.76 \pm 0.10$ nsec $g = -0.77 \pm 0.06$	$\beta^-$ $\gamma$	1, 2, 3, 6, 7 3, 6
3.105 $\pm$ 5	$\frac{1}{2}^-; \frac{3}{2}$	$\Gamma_{\text{c.m.}} \leq 40$		3, 6
4.221 $\pm$ 3 (4.55 $\pm$ 30)	$(\frac{7}{2}^+, \frac{5}{2}^-)$	$< 14$		3, 6 3
5.833 $\pm$ 20	$\leq \frac{3}{2}$			3
5.858 $\pm$ 20	$\leq \frac{3}{2}$			3
6.370 $\pm$ 15	$(\frac{5}{2}, \frac{7}{2}^+, \frac{9}{2}^+)$	$< 20$		3, 6
6.429 $\pm$ 7	$(\frac{3}{2} \rightarrow \frac{7}{2})$	$\approx 50$		3, 6
6.461 $\pm$ 20	$(\frac{9}{2}^-, \frac{11}{2})$	$< 14$		3, 6
6.540 $\pm$ 5	<sup>a</sup>	$< 14$		3, 6
6.639 $\pm$ 15	$(\frac{3}{2})$	$20 \pm 10$		3
6.845 $\pm$ 5	$(\frac{13}{2}, \frac{11}{2})^+$	$< 14$		3, 6
6.884 $\pm$ 5	$(\frac{9}{2})^a$	$< 20$		3, 6
7.098 $\pm$ 6	$(\frac{3}{2})$	$< 15$		3, 6
7.352 $\pm$ 6	$(\frac{9}{2}, \frac{11}{2})$	$20 \pm 10$		3, 6
7.414 $\pm$ 20				3
7.75 $\pm$ 30 <sup>b</sup>				3, 6
8.01 $\pm$ 30				3
8.11 $\pm$ 10 <sup>b</sup>				3, 6
8.47 $\pm$ 15	$(\frac{9}{2} \rightarrow \frac{13}{2})$	$40 \pm 15$		3, 6
8.559 $\pm$ 15	$(\frac{7}{2} \rightarrow \frac{13}{2})$	$40 \pm 15$		3
9.00 $\pm$ 30 (9.73 $\pm$ 30)				3 3
9.789 $\pm$ 20	$(\frac{9}{2} \rightarrow \frac{15}{2})$	$20 \pm 15$		3
10.248 $\pm$ 20	$(\frac{5}{2} \rightarrow \frac{9}{2})$	$20 \pm 15$		3
11.015 $\pm$ 25				3
11.123 $\pm$ 20 (11.68 $\pm$ 30)	$(\frac{11}{2} \rightarrow \frac{19}{2})$	$30 \pm 20$		3 3
11.825 $\pm$ 20	$\geq \frac{13}{2}$	$70 \pm 30$		3

<sup>a</sup> See Table 15.3.

<sup>b</sup> Broad or unresolved states.