

Table 13.5 from (1991AJ01):  
Summary of results: total radiation widths of low-lying levels of  $^{13}\text{C}$ - $^{13}\text{N}$  <sup>a</sup>

$J_i^\pi \rightarrow J_f^\pi$	$^{13}\text{C}^*$ (MeV)	$\Gamma_\gamma$ (eV)	$^{13}\text{N}^*$ (MeV)	$\Gamma_\gamma$ (eV)
$\frac{1}{2}^+ \rightarrow \frac{1}{2}^-$	3.09 <sup>b</sup>	$0.43 \pm 0.04$	2.37	$0.50 \pm 0.04$ <sup>g</sup>
$\frac{3}{2}^- \rightarrow \frac{1}{2}^-$	3.68 <sup>c</sup>	$0.41 \pm 0.04$	3.51 <sup>f</sup>	0.70
$\frac{5}{2}^+ \rightarrow \frac{1}{2}^-$	3.85 <sup>d</sup>	$(5.32 \pm 0.09) \times 10^{-5}$ <sup>e</sup>	3.55	$< 2 \times 10^{-3}$

<sup>a</sup> See also Tables 13.12 and 13.17. For references see Table 13.6 in (1981AJ01).

<sup>b</sup>  $E_x = 3089.443 \pm 0.020$  keV,  $E_\gamma = 3089.049 \pm 0.020$  keV\* (1980WA24: here, and in footnote <sup>d</sup>, measured values are starred (\*); the others are derived.)

<sup>c</sup> Branching ratio for cascade via  $^{13}\text{C}^*(3.09)$  is  $(0.75 \pm 0.04)\%$  (1980WA24),  $(0.74 \pm 0.05)\%$  (1982MU14).  $E_x = 3684.482 \pm 0.023$  keV,  $E_\gamma = 3683.921 \pm 0.023$  keV.  $\delta(E2/M1) = -0.094 \pm 0.009$ .  $E_\gamma$  for the transition to  $^{13}\text{C}^*(3.09)$  is  $595.013 \pm 0.011$  keV (1980WA24).

<sup>d</sup> Branching ratios for cascades via  $^{13}\text{C}^*(3.68, 3.09)$  are  $(36.3 \pm 0.6)\%$  and  $(1.20 \pm 0.04)\%$ , respectively (1980WA24).  $E_x = 3853.783 \pm 0.022$  keV,  $E_\gamma = 3853.170 \pm 0.022$  keV;  $E_\gamma$  for the transition to  $^{13}\text{C}^*(3.09, 3.68)$  are  $764.316 \pm 0.010$  keV\* and  $169.300 \pm 0.004$  keV\* (1980WA24) [ $169.356 \pm 0.020$  keV\* (1984SC09)].

<sup>e</sup> The ground-state branching ratio is  $(62.5 \pm 0.6)\%$  (1980WA24) and  $\delta(E3/M2) = +0.12 \pm 0.03$  (1966PO11).

<sup>f</sup> Branching ratio for cascade via  $^{13}\text{N}^*(2.37)$  is  $(8 \pm 1)\%$  (1974RO29). See also footnote <sup>g</sup> in Table 13.17.

<sup>g</sup> See the discussion in (1985BA75).