
The total synthesis of flavone-4-$^{13}$C, having a 92.7% $^{13}$C enrichment, allowed to measure two- and three-bond carbon-carbon coupling constants which range from 1.4 to 3.5 Hz, and to measure two-, three and four-bond carbon-hydrogen coupling constants which range from 0.3 to 3.8 Hz. A mixture of unlabelled flavone with its 4-$^{13}$C labelled analogue further allowed to measure one-bond induced isotope shifts of -15.5 and -16.2 ppb for C-3 and C-4a, respectively, and a three bond induced isotope shift of +3.7 ppb for C-1'.

![Flavone](image-url)