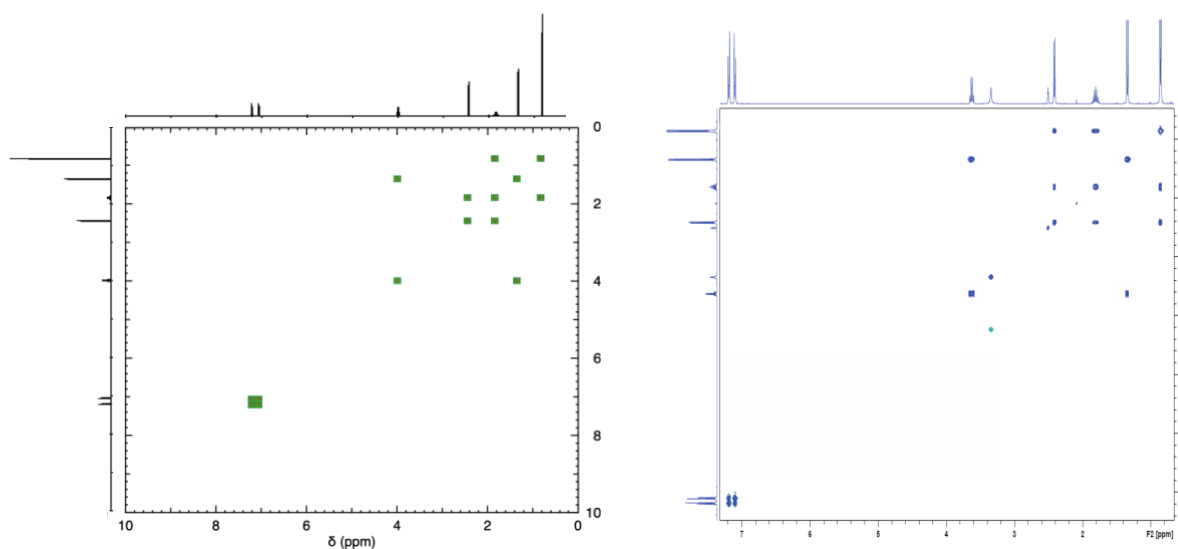


Jigsaw 4A

2D NMR: COSY and TOCSY

1. Explain the difference between the TOCSY and COSY experiments.

2. Of the two spectra below, which spectrum corresponds to which experiment? How do you know?



3. [From past exam] Draw the schematic ¹H-¹H COSY and TOCSY spectra of the following molecule, using qualitative estimates for the expected chemical shifts. You do not need to draw the splittings due to ³J_{HH} couplings.

