

## Jigsaw 4C

### 2D NMR: INADEQUATE

- [From past exam] Below is a  $^{13}\text{C}$ - $^{13}\text{C}$  INADEQUATE spectrum of the molecule shown. The INADEQUATE experiment correlates the shifts of directly bonded  $^{13}\text{C}$ , such that the chemical shift on the y-axis corresponds to the sum of the two chemical shifts of the two correlated carbons. Peaks indicated with a (\*) are artifacts and should not be considered in the analysis. Assign the unlabeled  $^{13}\text{C}$  peaks using the INADEQUATE spectrum.

