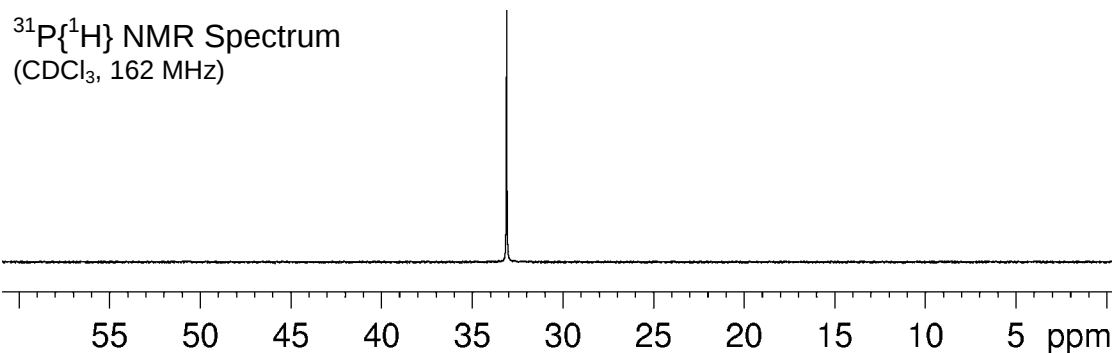
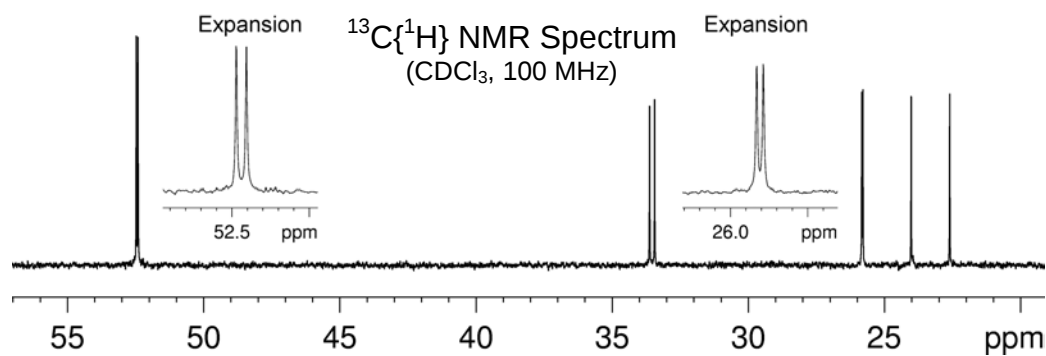
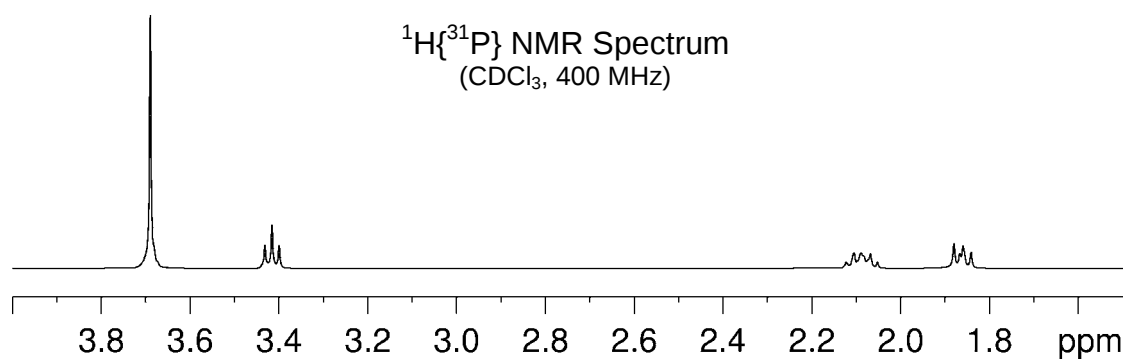
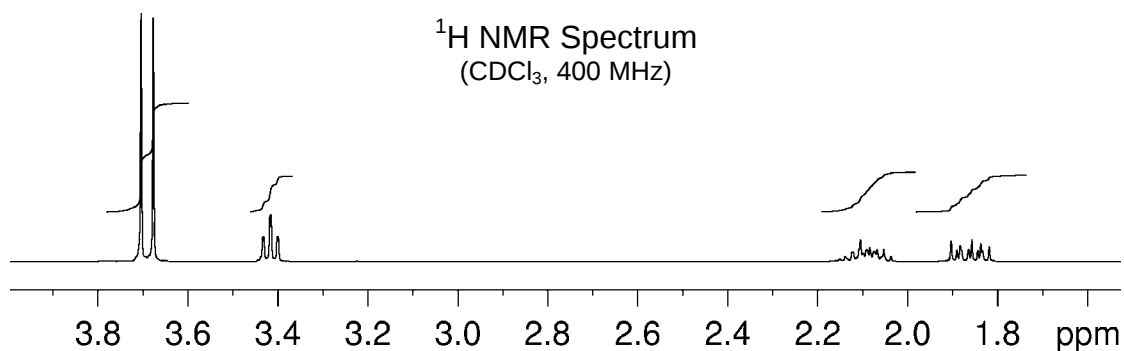


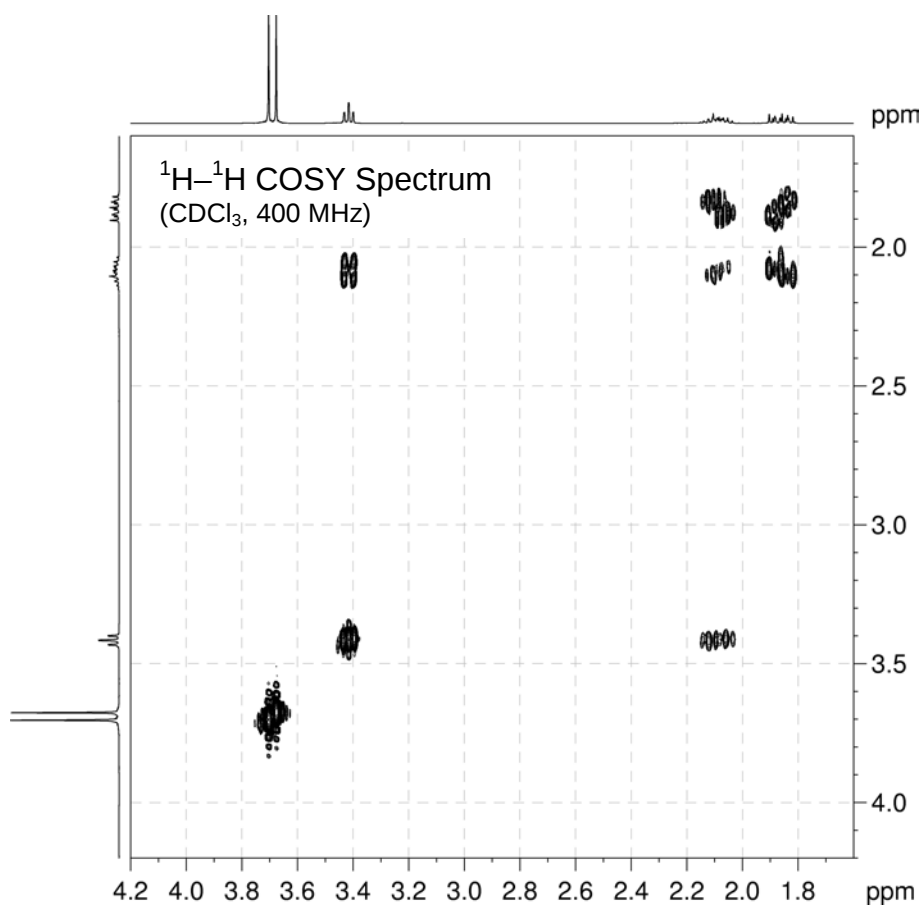
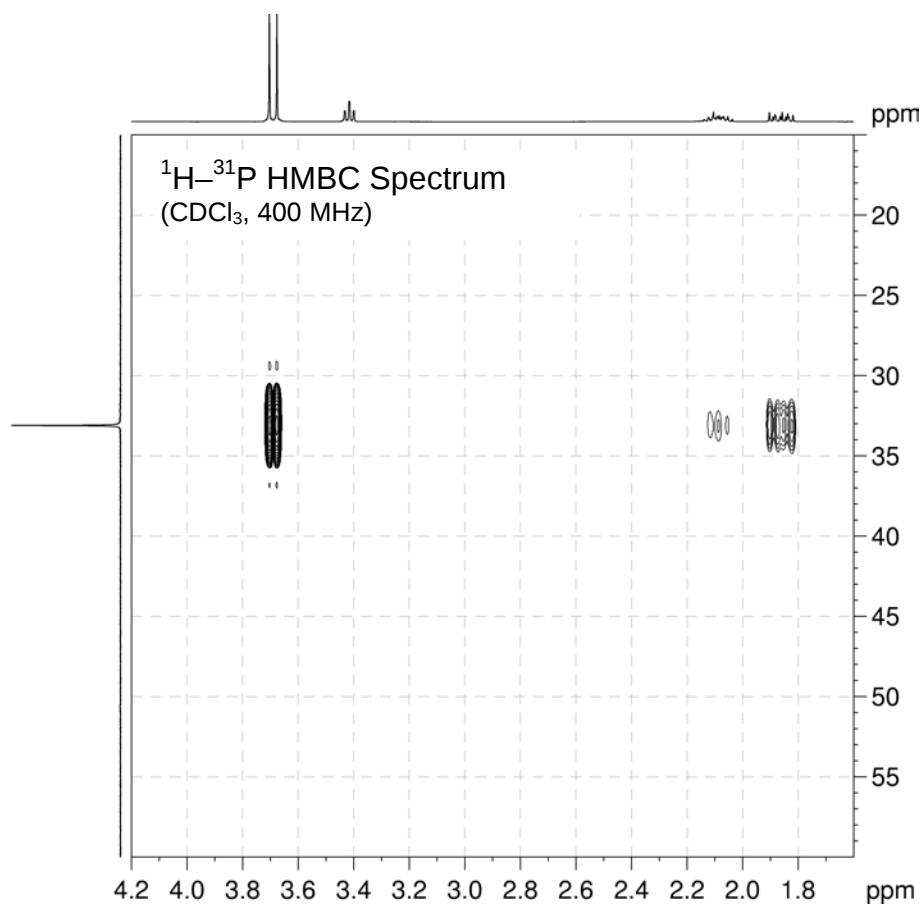
## Problem 46

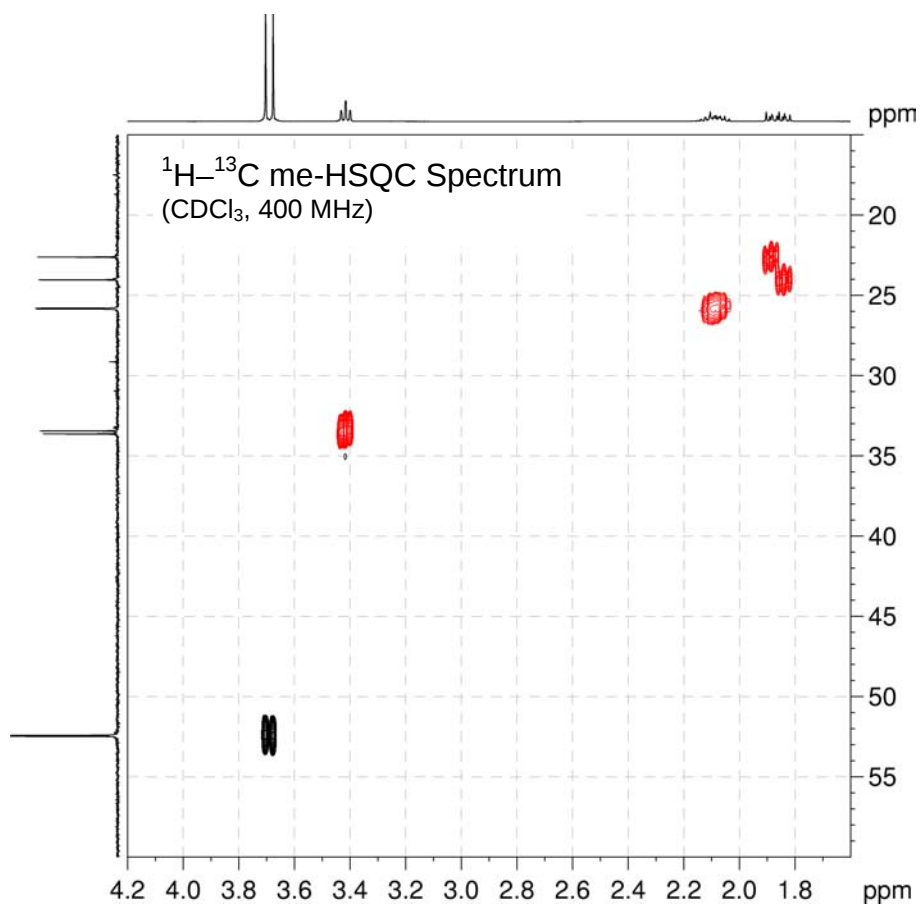
Identify the following compound. Draw a labelled structure, and use the  $^1\text{H}$ - $^{13}\text{C}$  me-HSQC,  $^1\text{H}$ - $^1\text{H}$  COSY and  $^1\text{H}$ - $^{31}\text{P}$  HMBC spectra to assign each of the  $^1\text{H}$  and  $^{13}\text{C}$  resonances to the appropriate carbons and hydrogens in the structure.

Molecular Formula:  $\text{C}_5\text{H}_{12}\text{BrO}_3\text{P}$

IR: 3464, 2955, 1232, 1031  $\text{cm}^{-1}$







**Structure:**

Proton	Chemical Shift (ppm)	Carbon	Chemical Shift (ppm)