

**In-Class Exercise:
¹³C NMR Spectroscopy**

The ¹³C NMR spectrum (125 MHz, ¹H-decoupled, in acetone-*d*₆) on the next page corresponds to a molecule with molecular formula C₉H₁₀O₃.

- a. What is the structure of the molecule?
- b. Even though this spectrum was taken in acetone-*d*₆, with lots of ¹³C in it, there are no solvent peaks in the NMR spectrum. Why not?
- c. If there were solvent peaks in the NMR, what splitting pattern would you expect for the -¹³CD₃ groups in acetone-*d*₆?

