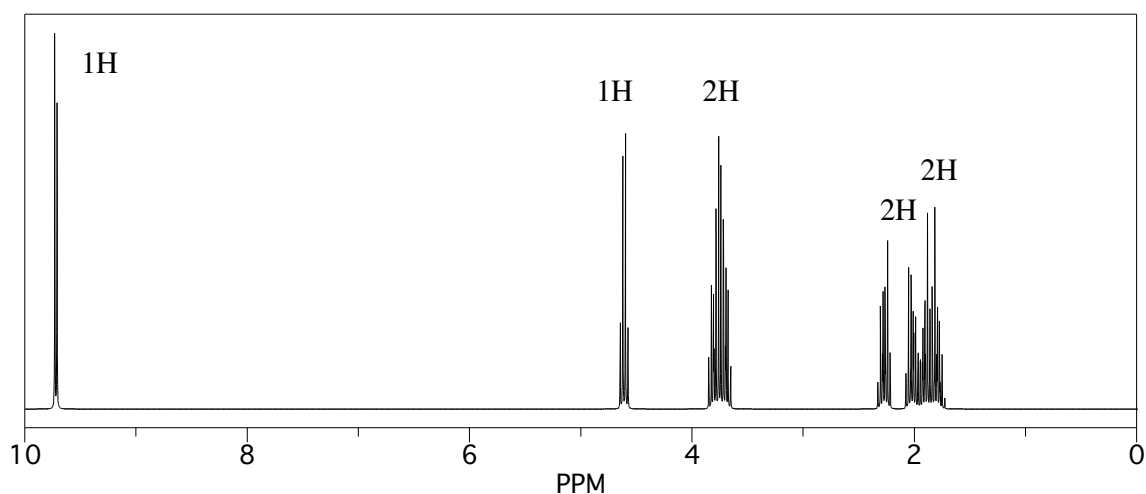


Problem NMR11.3.

A compound was shown via high-resolution mass spectrometry to have the probable formula $C_5H_8O_2$.

- What is the degree of unsaturation in this compound?
- IR spectroscopy gave the following data: 2950 (m), 2825 (m), 2716 (m), 1724 (s), 1505 (m), 1056 (w) cm^{-1} . Provide a data table with possible assignments for these peaks.
- 1H NMR spectroscopy provided the following spectrum. Provide a data table with partial structures for each peak.



- Suggest a likely structure for this compound.