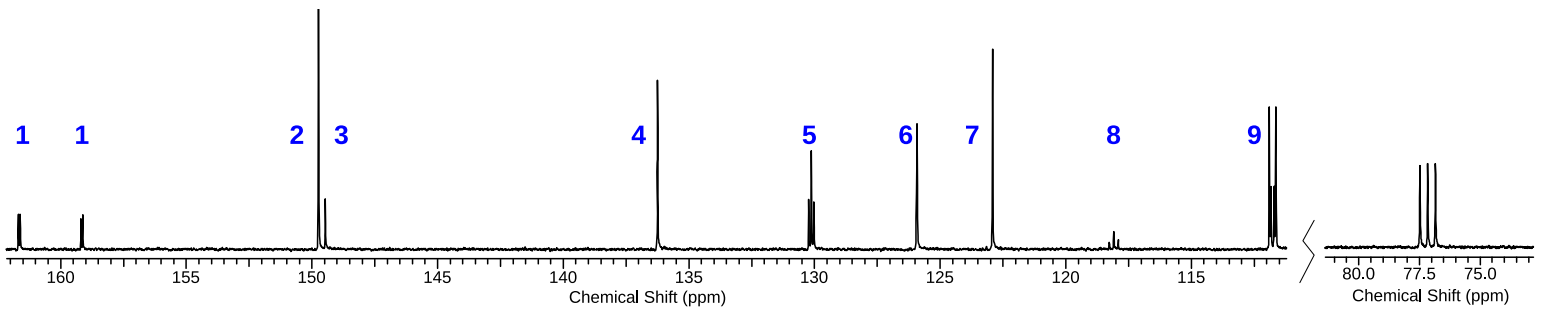
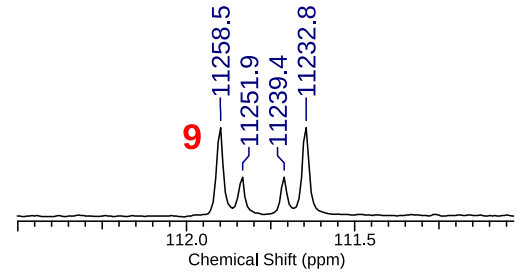
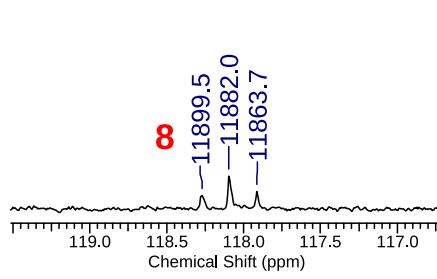
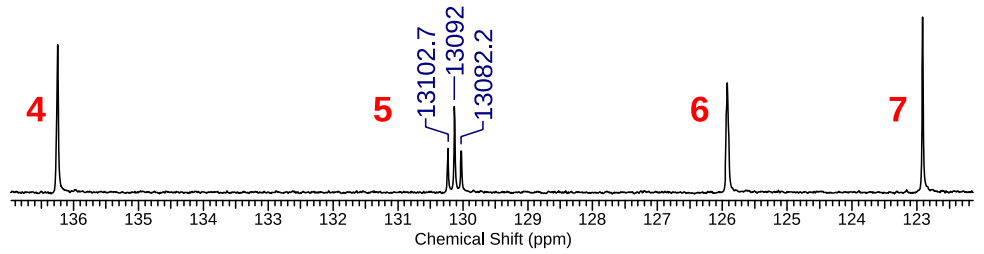
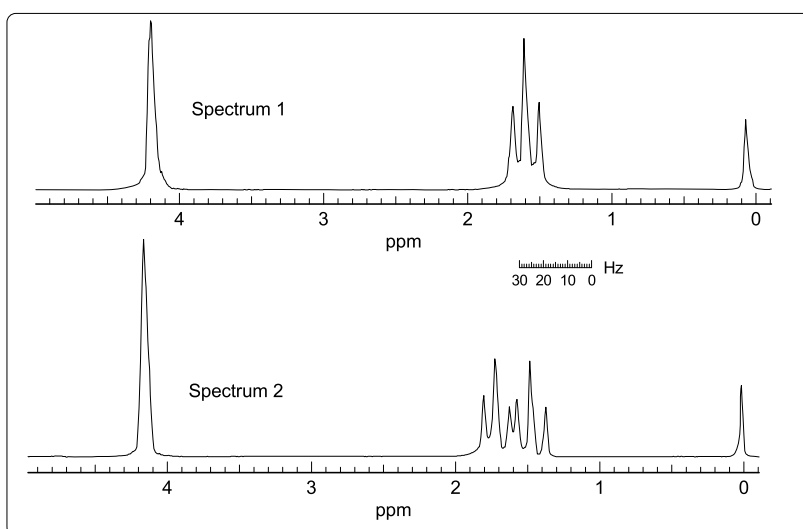


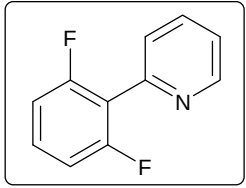
100 MHz, CDCl₃



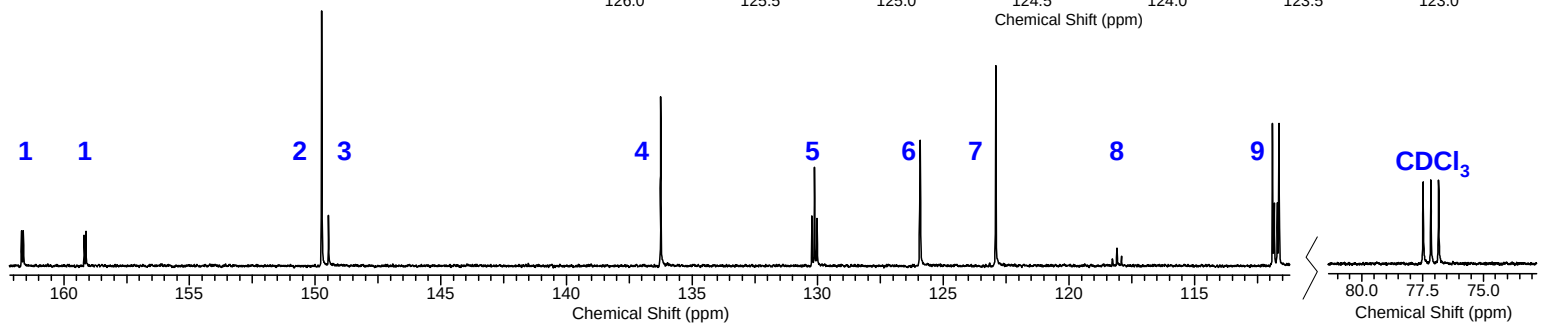
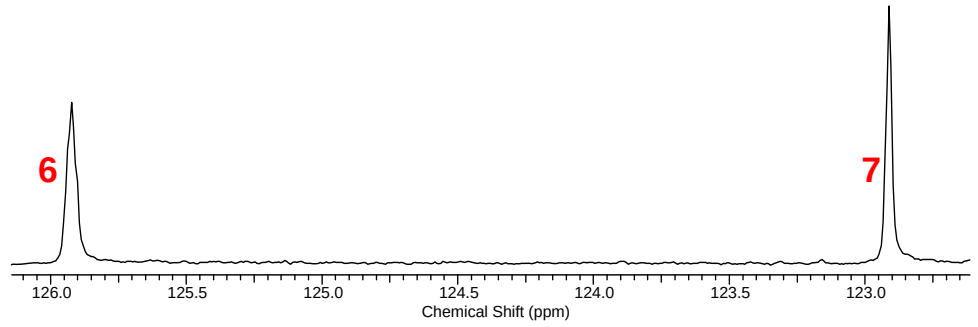
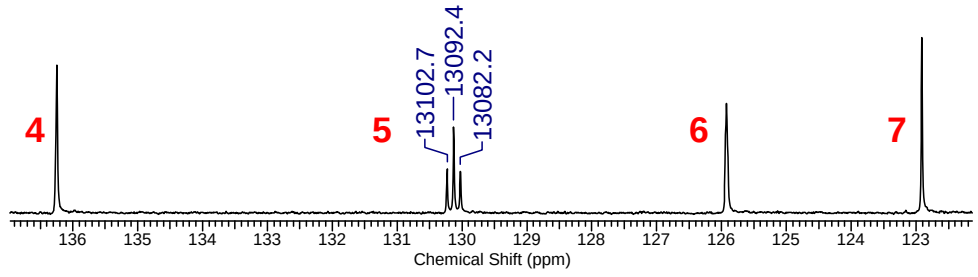
Problem R-11S ($C_{16}H_{22}Fe_2O_2P_2$). Below are the 60 MHz 1H NMR spectra of two stereoisomers (E and Z) of the iron Cp complexes shown (*J. Am. Chem. Soc.* **1963**, 85, 3120).



- (a) Which isomer corresponds to Spectrum 1 _____, and which to Spectrum 2 _____? Explain
- (b) Explain the appearance of the multiplet at δ 1.6 (i.e. why does it look like this).
- (c) Would you expect the spectrum to look significantly different at 300 MHz (instead of the 60 MHz of the spectra shown)?



100 MHz, CDCl₃



final answer

