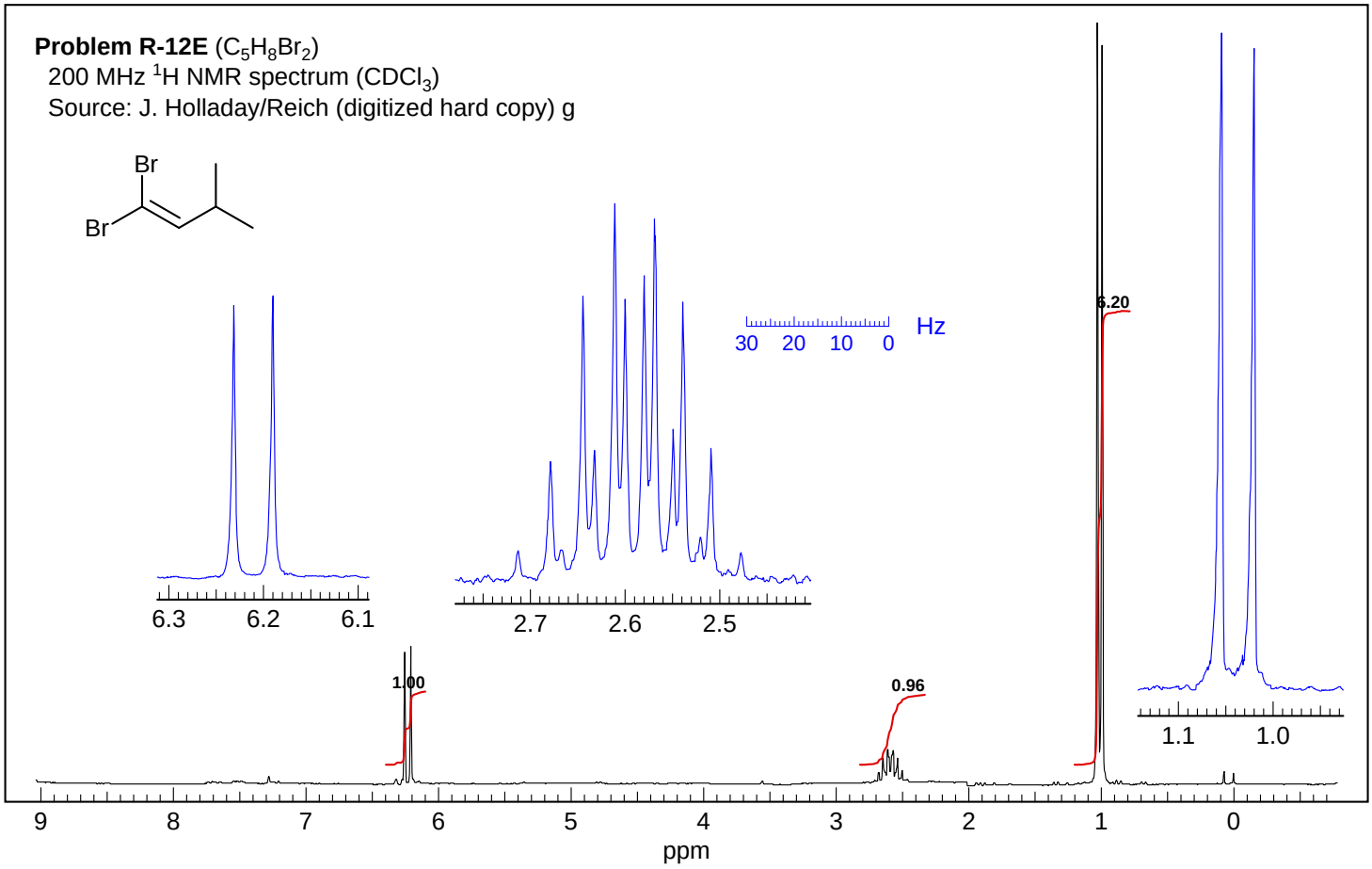
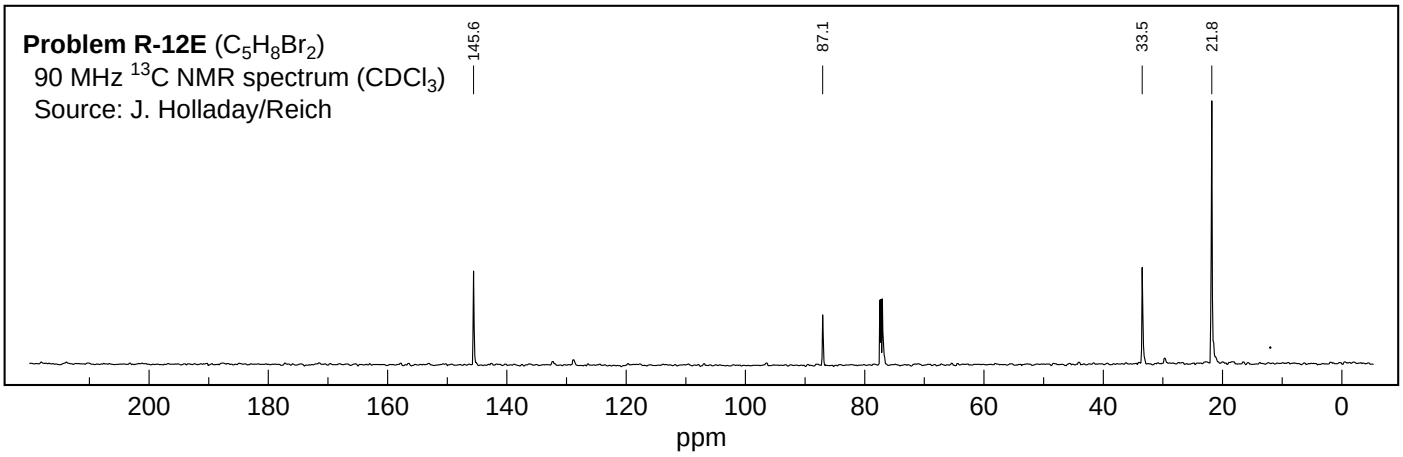
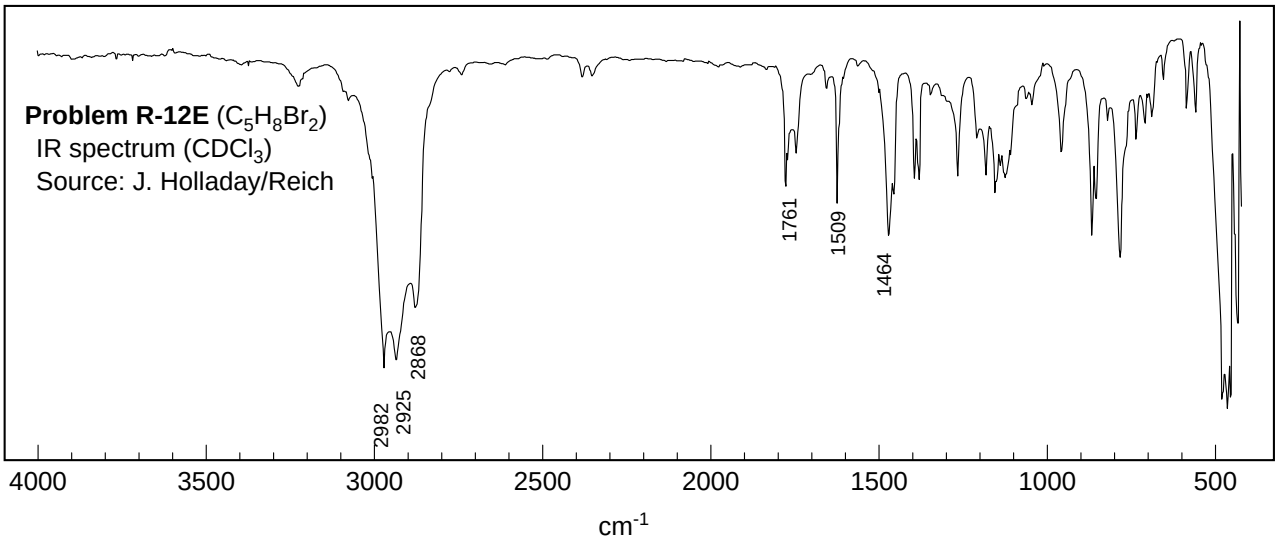


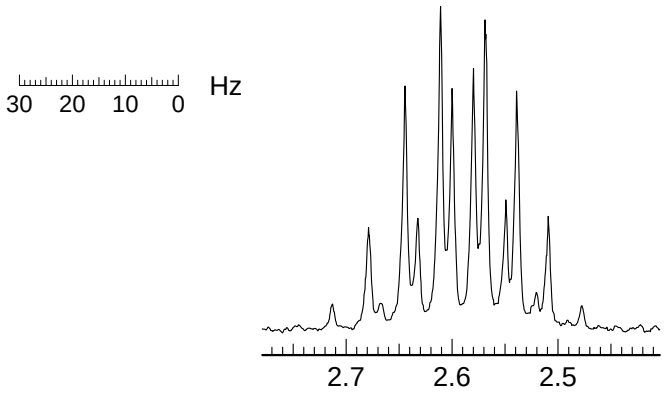




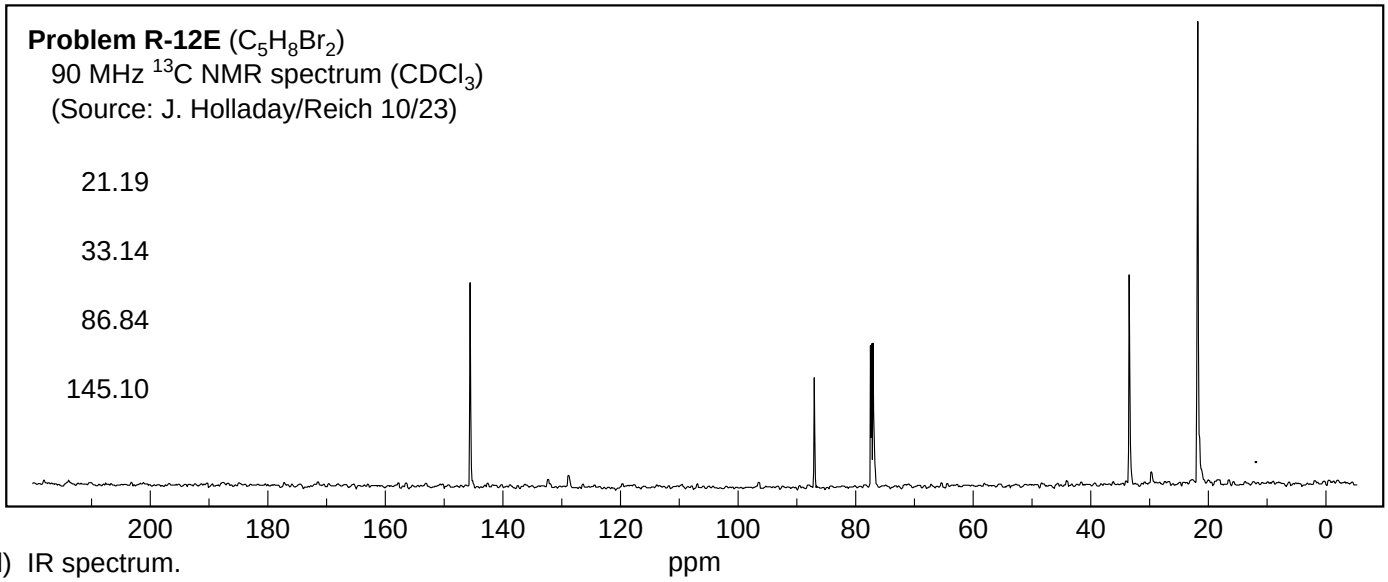
PLT ex-1-2012-13-gq.plt

Problem R-12E ($C_5H_8Br_2$). Determine the structure (or part structure) of **R-12E** from the ^{1}H NMR, ^{13}C NMR and IR spectra provided.

(a) DBE__. (b) Analyze the ^{1}H NMR signals, in particular the multiplet at δ 2.6. Report δ, multiplicities and *J* values. Show the structure of **R-12E**.

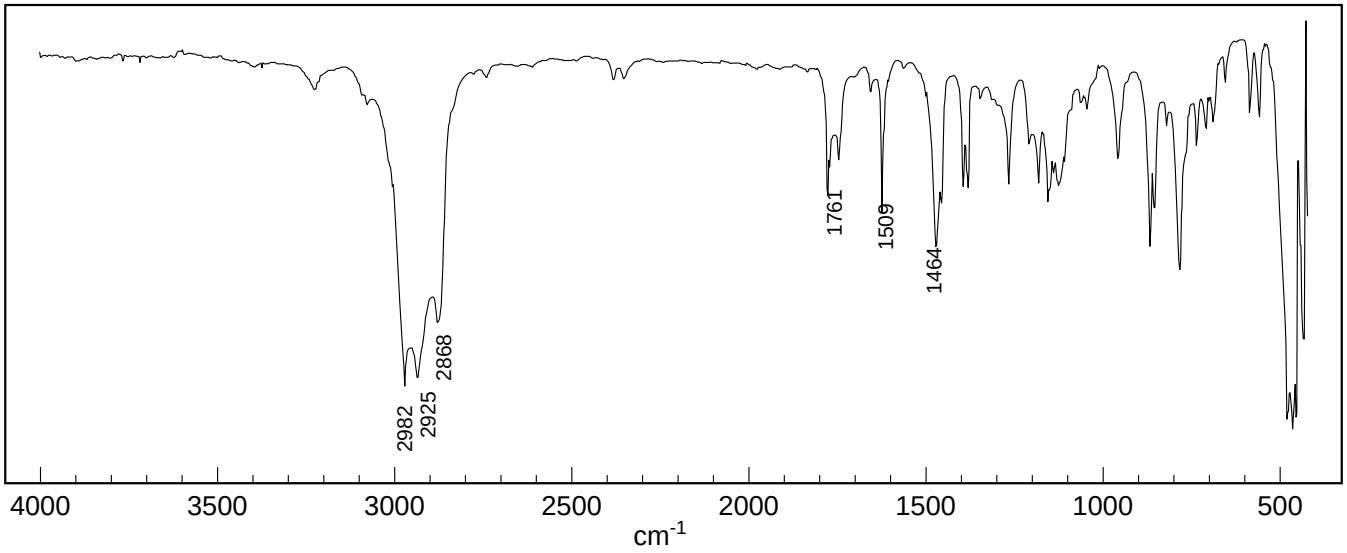


(c) Assign the ^{13}C NMR signals (write them on a structure). Explain the signal at δ 86.8 ppm.



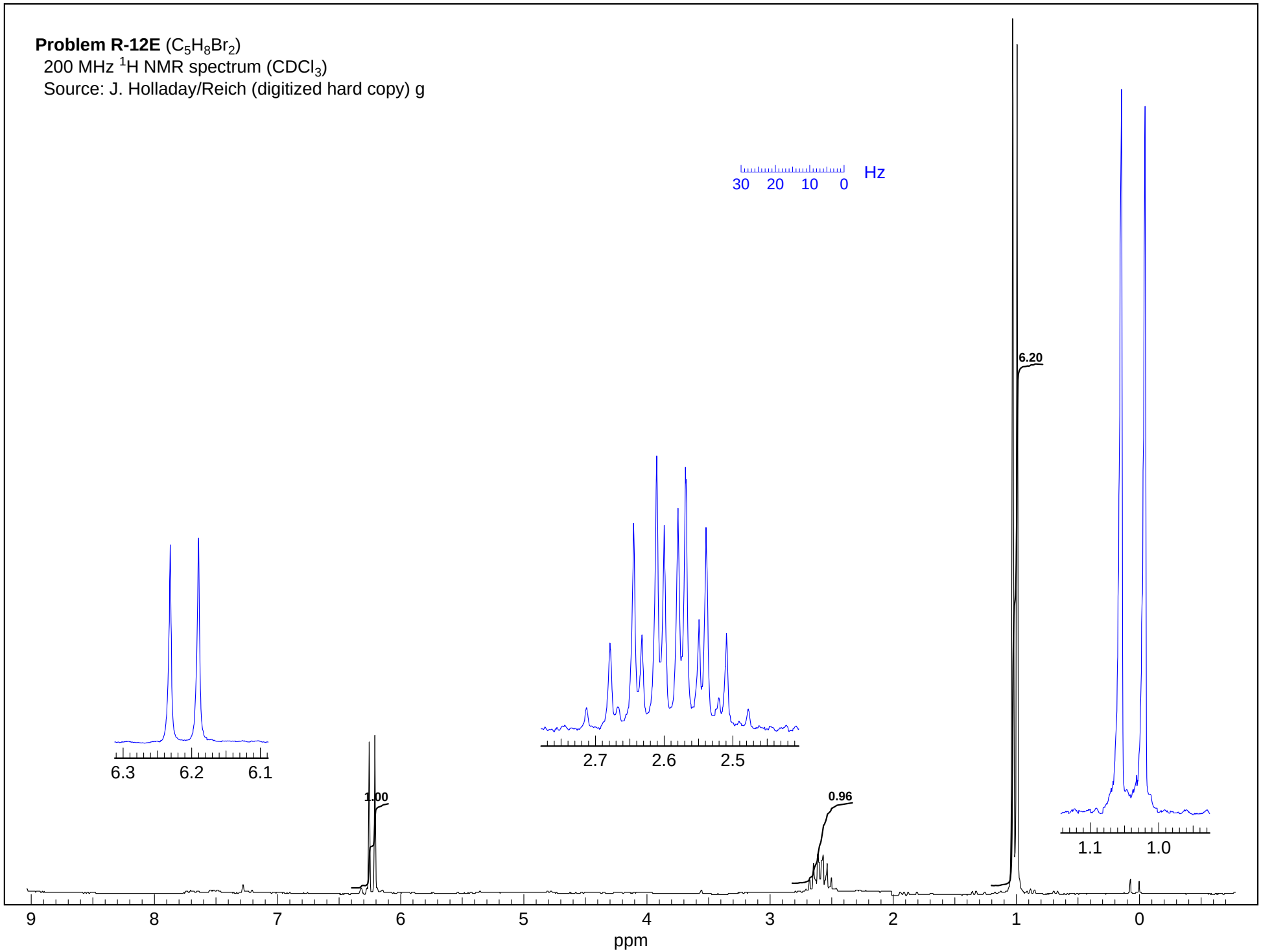
(d) IR spectrum.

Problem R-12E ($C_5H_8Br_2$)
IR spectrum ($CDCl_3$)
(Source: J. Holladay/Reich 10/23)



PLT ex-1-2012-13-gq.plt

Problem R-12E ($C_5H_8Br_2$)
200 MHz ^{1}H NMR spectrum ($CDCl_3$)
Source: J. Holladay/Reich (digitized hard copy) g



PLT ex-1-2012-13-gq.plt

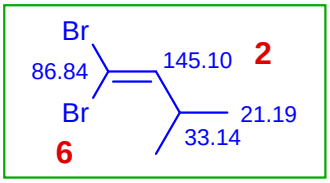
Problem R-12E ($C_5H_8Br_2$). Determine the structure (or part structure) of **R-12E** from the ^{1}H NMR, ^{13}C NMR and IR spectra provided.

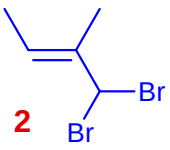
2 (a) DBE **1**. (b) Analyze the ^{1}H NMR signals, in particular the multiplet at δ 2.6. Report δ, multiplicities and *J* values. Show the structure of **R-12E**.

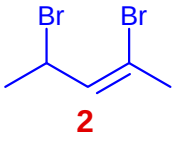
5 δ 2.6, 1H, d septets, J = 8.5, 7 Hz

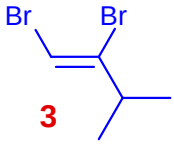
δ 6.2, 1H, d, J = 8.5 Hz

δ 1.0, 6H, d, J = 7 Hz

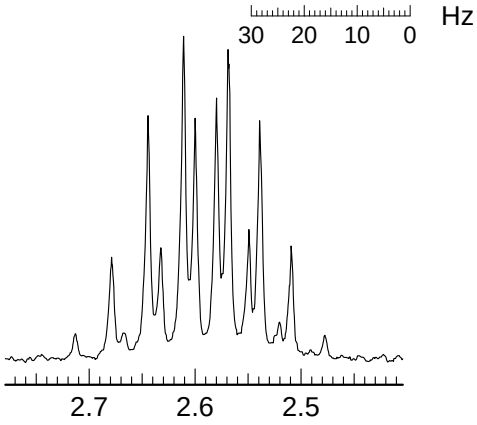




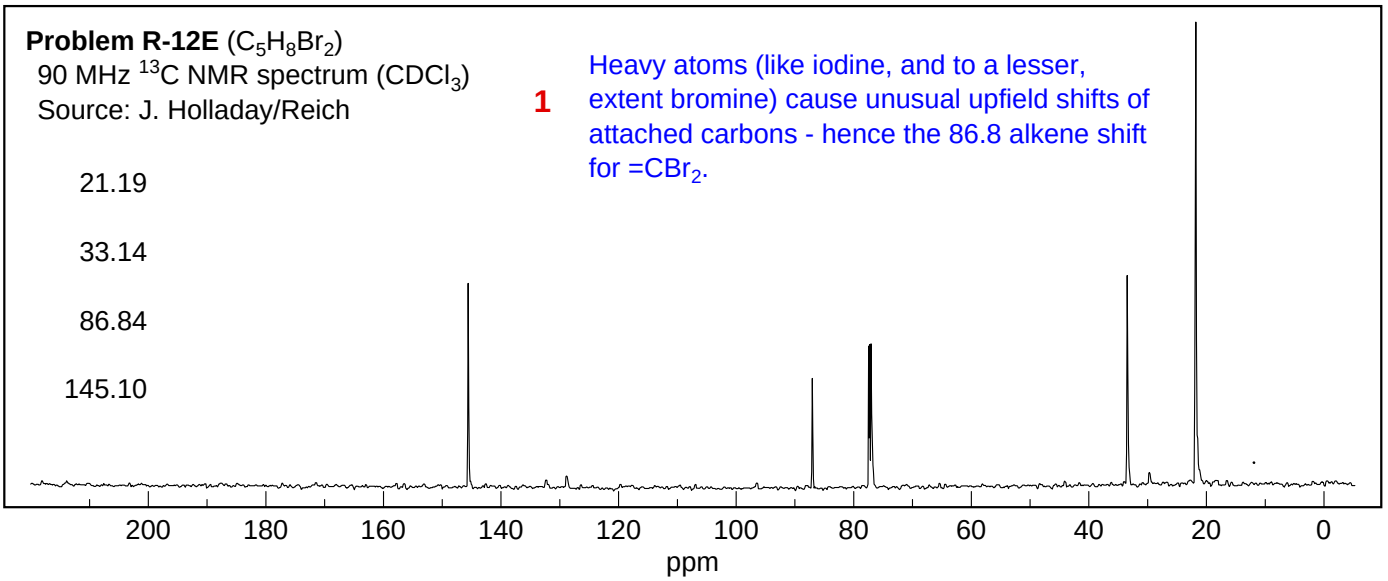




4 other structures, none fit the data



(c) Assign the ^{13}C NMR signals (write them on a structure). Explain the signal at δ 86.8 ppm.

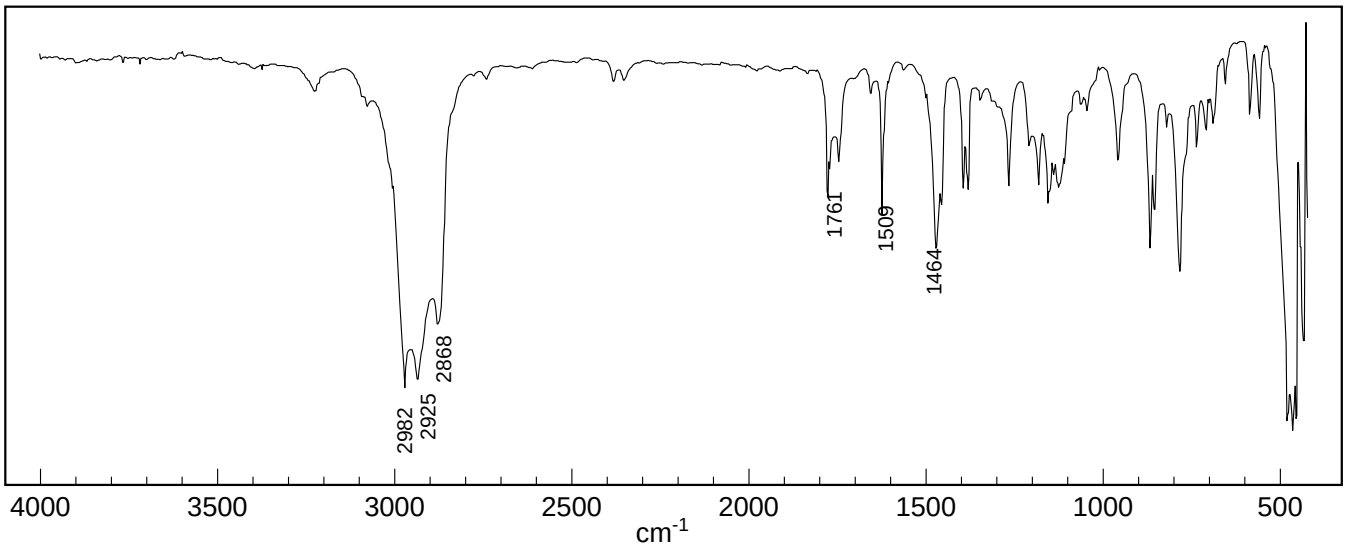


(d) IR spectrum.

Problem R-12E ($C_5H_8Br_2$)

IR spectrum ($CDCl_3$)

Source: J. Holladay/Reich



PLT ex-1-2012-13-gq.plt