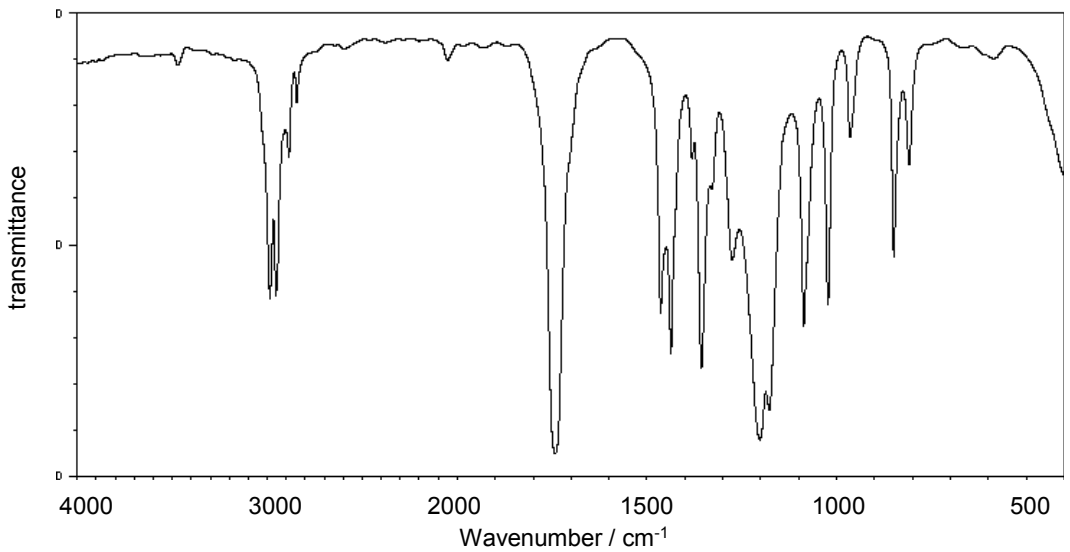
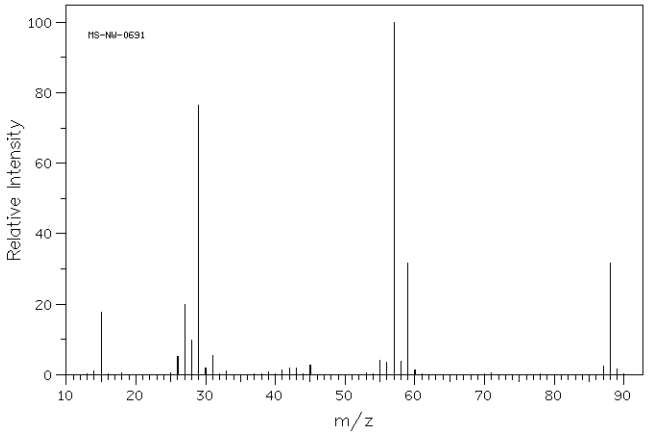
Example #1

Elemental Analysis: C, 54.51; H, 9.09

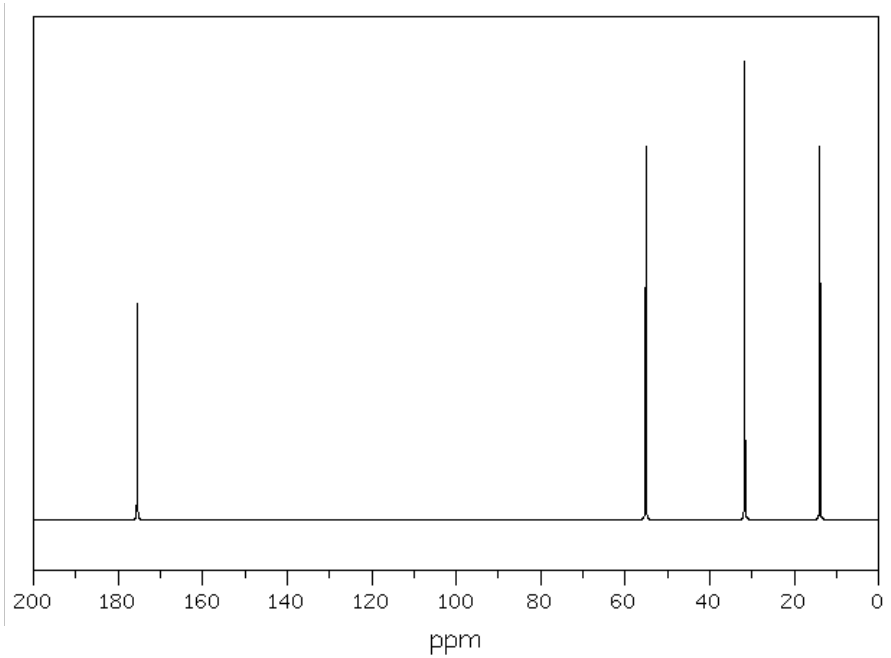
IR



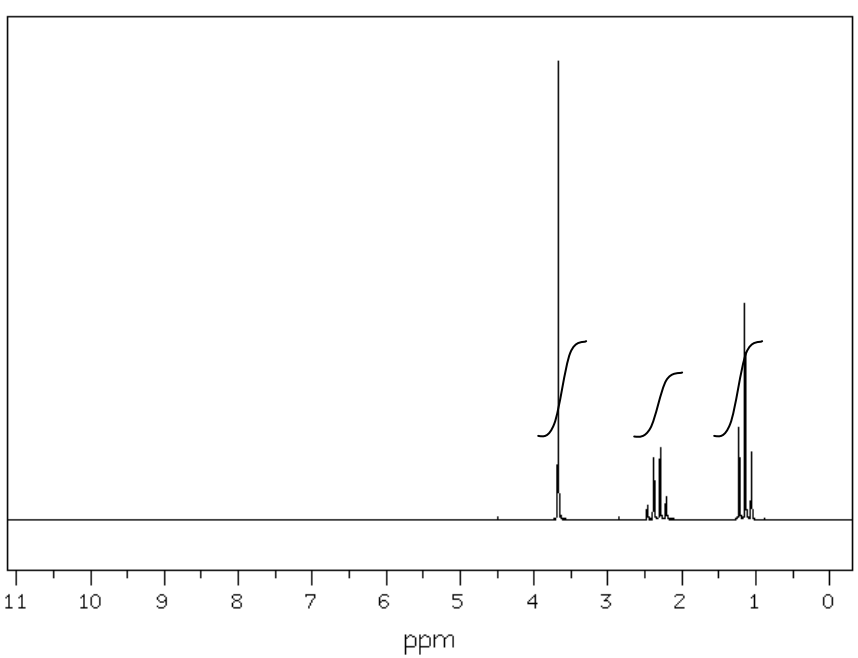
Mass Spec



^{13}C NMR



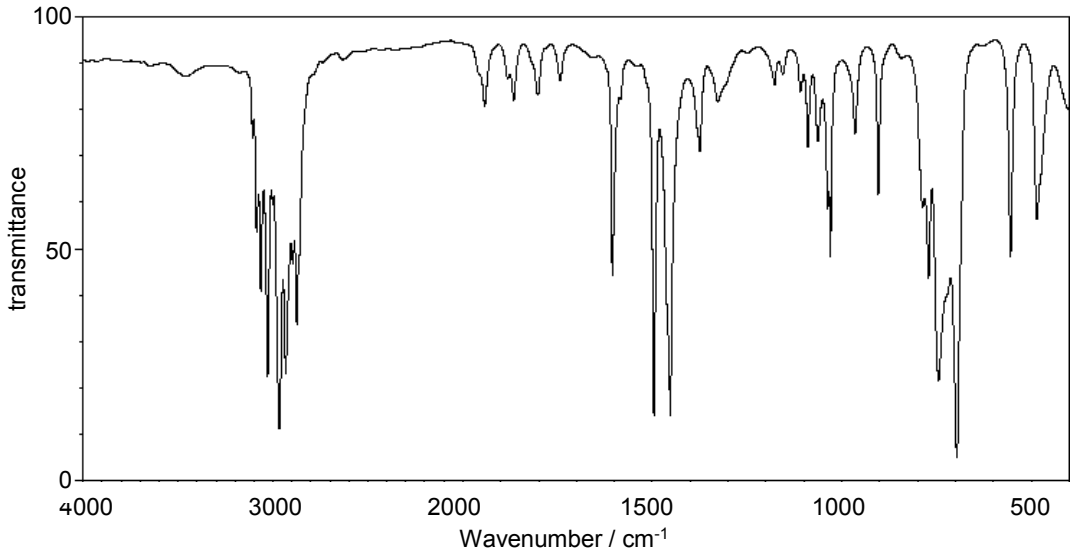
^{1}H NMR



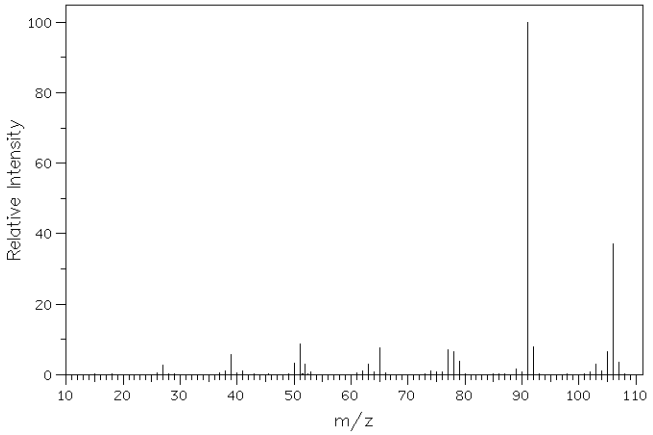
Example #2

Elemental Analysis: C, 90.38; H, 9.47

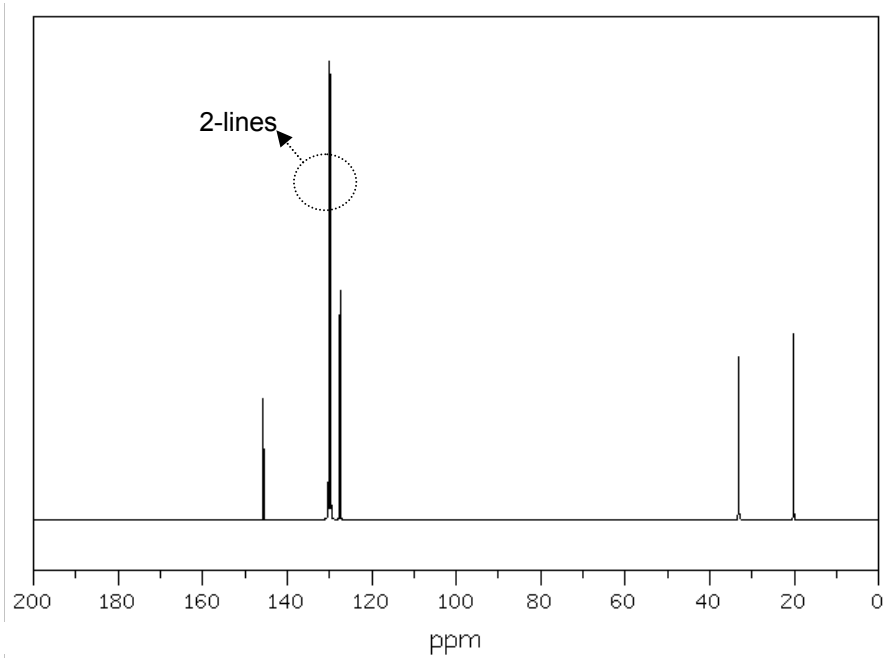
IR



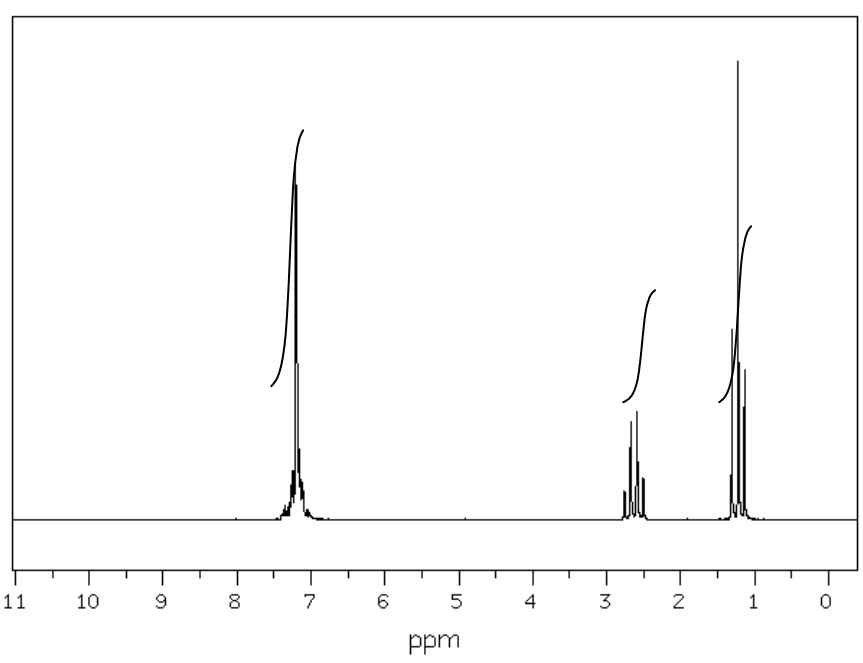
Mass Spec



^{13}C NMR



^{1}H NMR

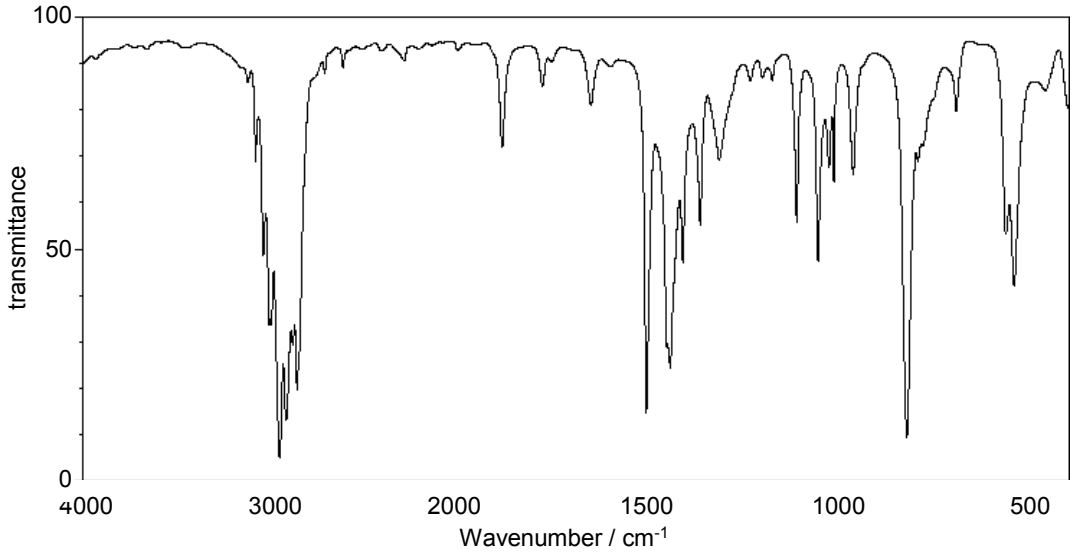


Example #3

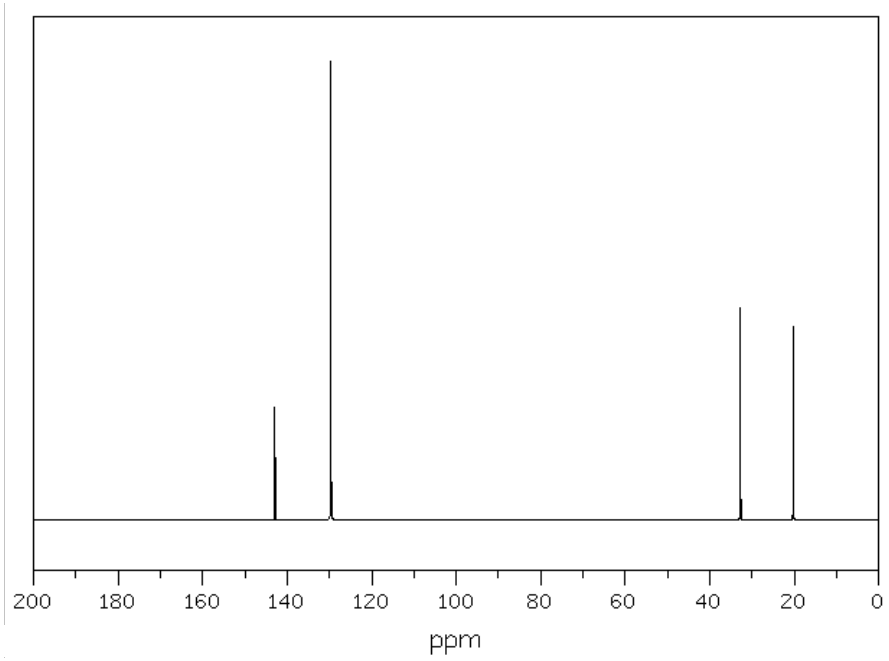
Empirical Formula: C_5H_7

Mass Spec: M^+ *m/e*= 134

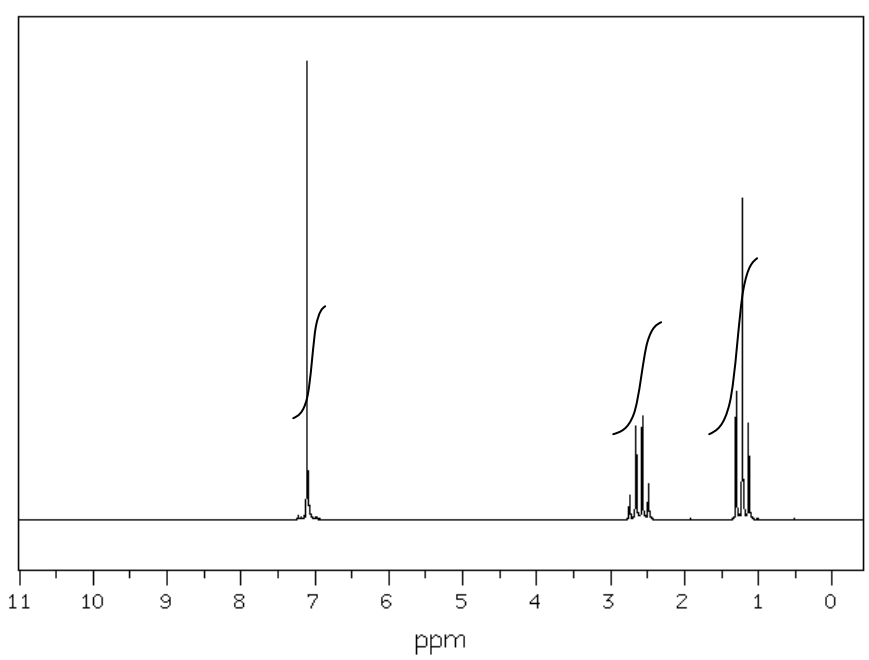
IR



^{13}C NMR



^{1}H NMR

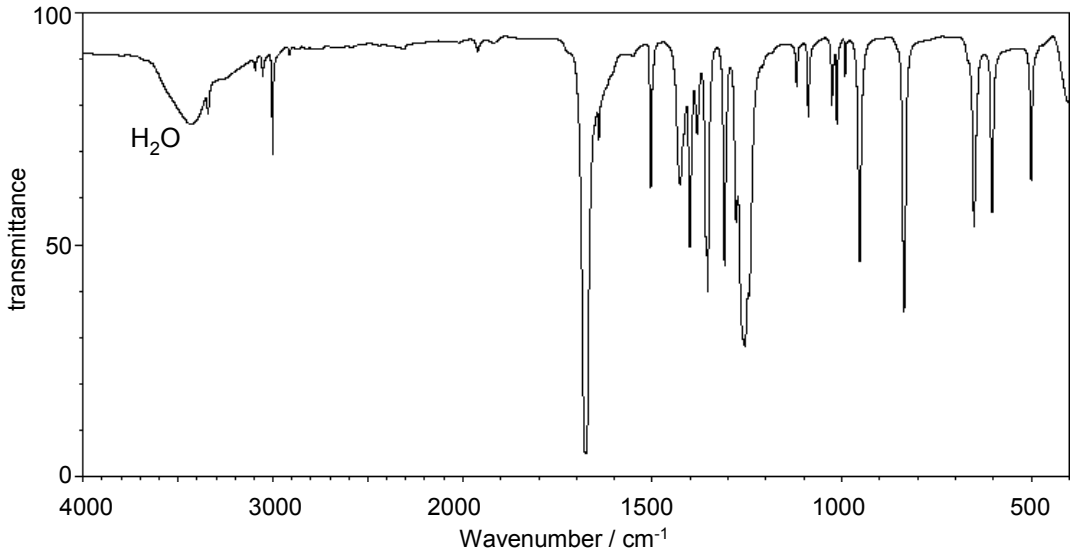


Example #4

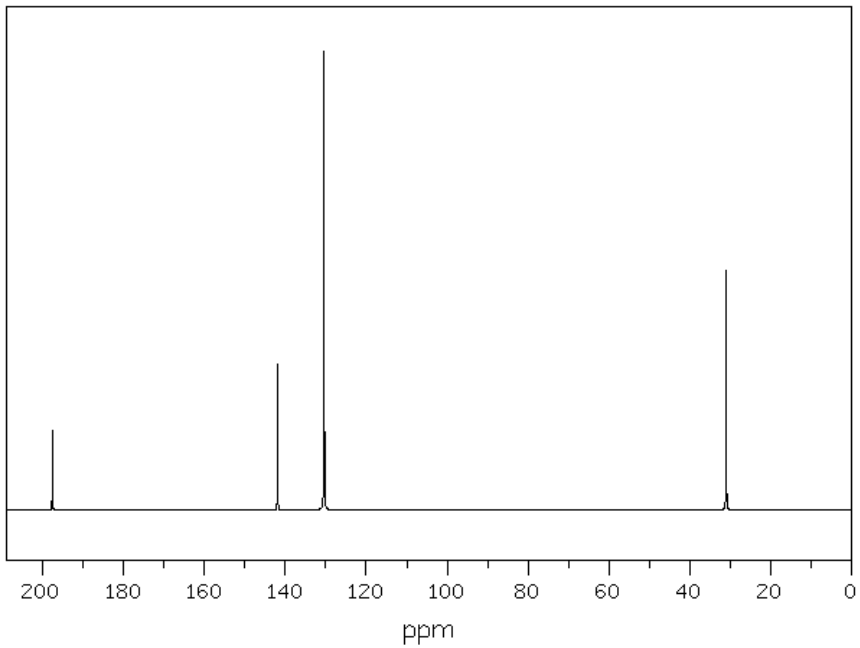
Empirical Formula: C_5H_5O

Mass Spec: M^+ *m/e*= 162

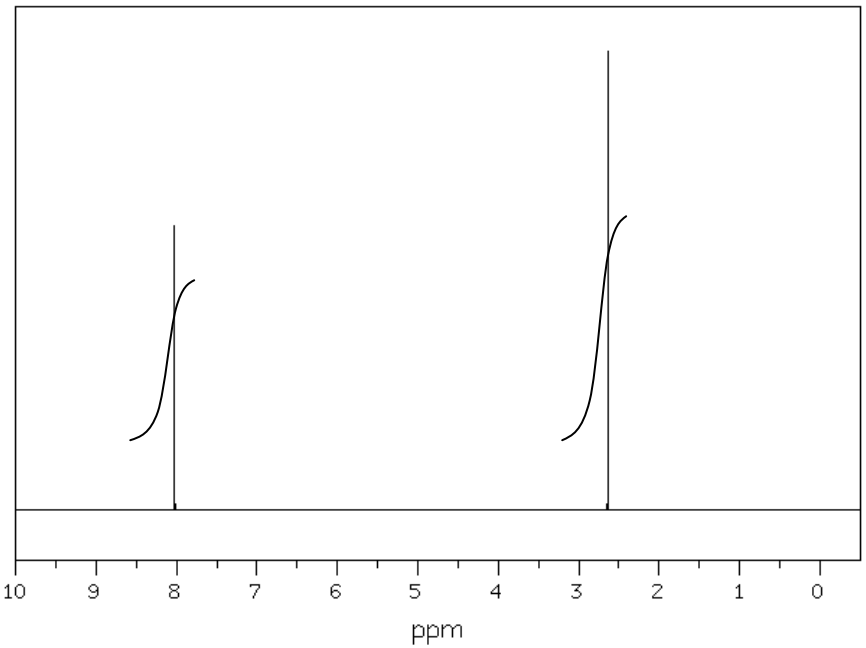
IR



^{13}C NMR



^{1}H NMR

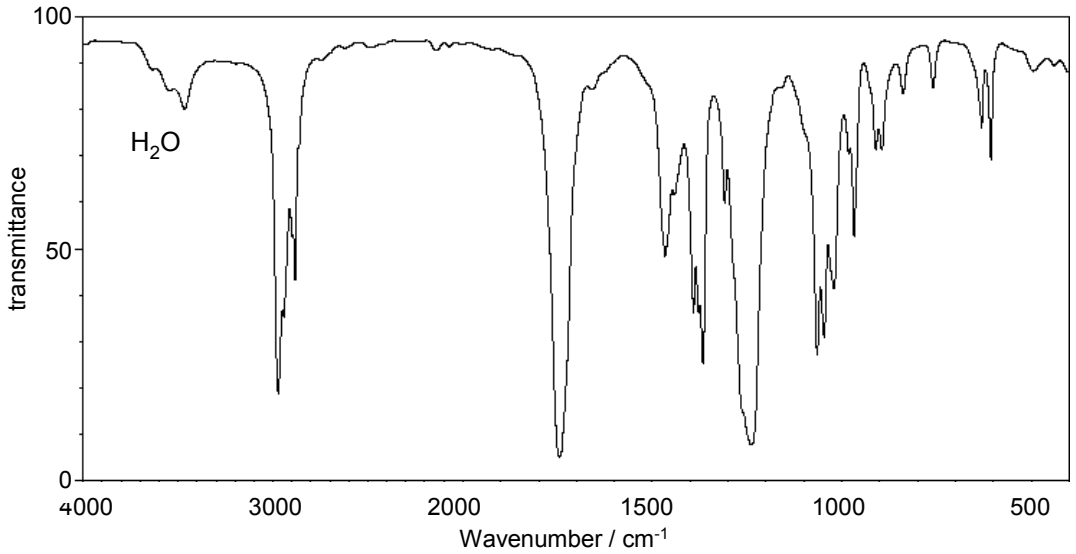


Example #5

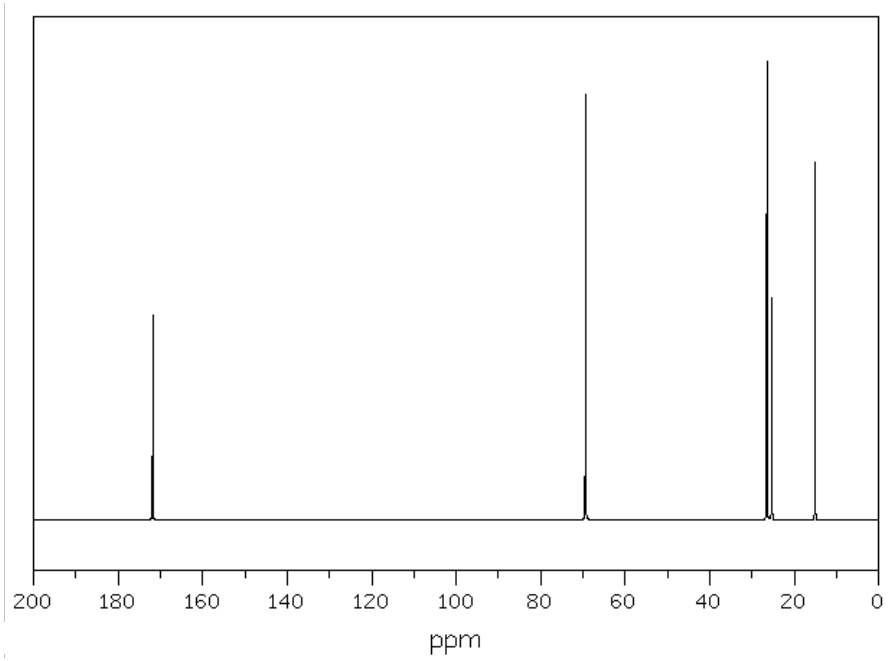
Empirical Formula: $C_5H_{10}O_2$

Mass Spec: M^+ *m/e*= 102

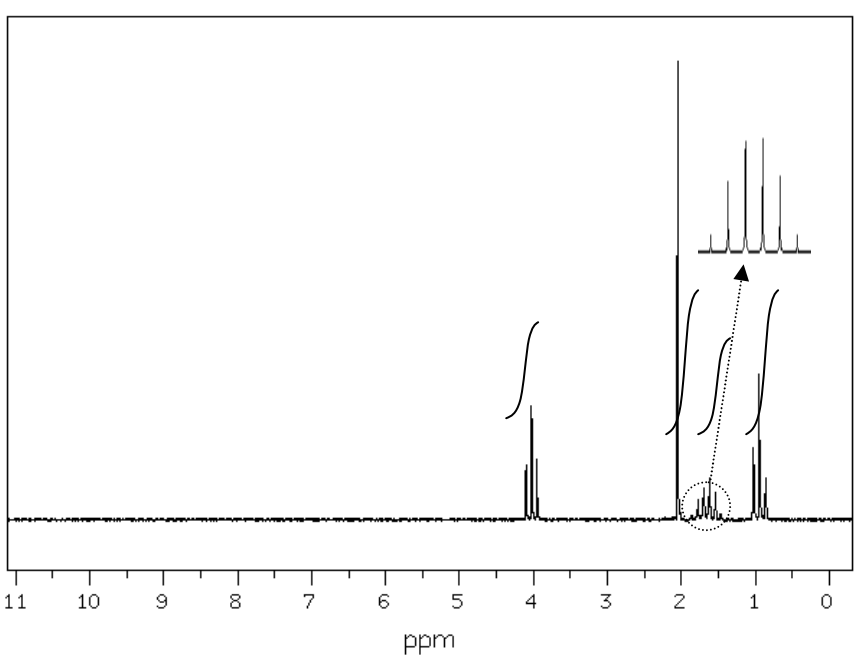
IR



^{13}C NMR



^{1}H NMR

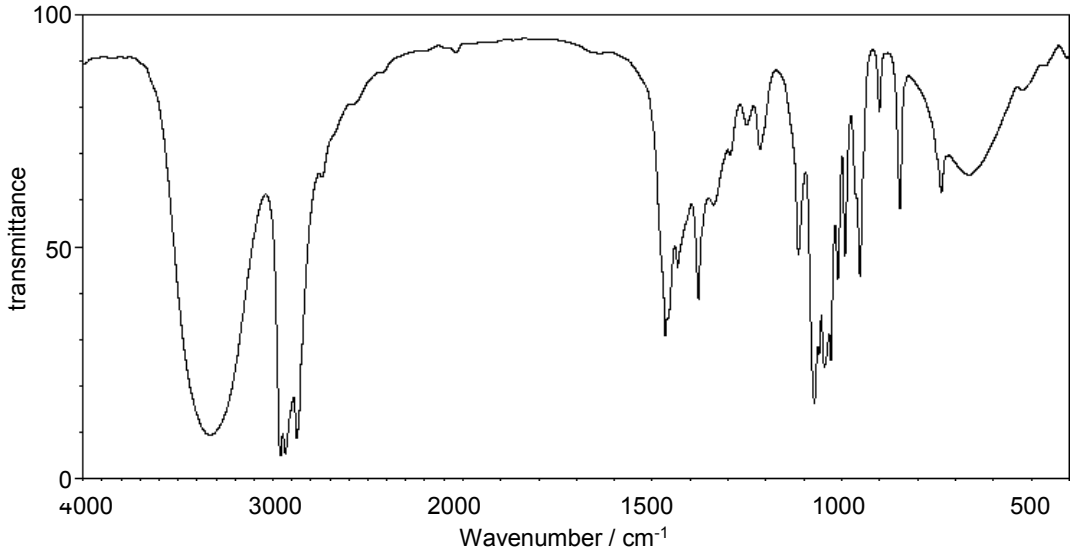


Example #6

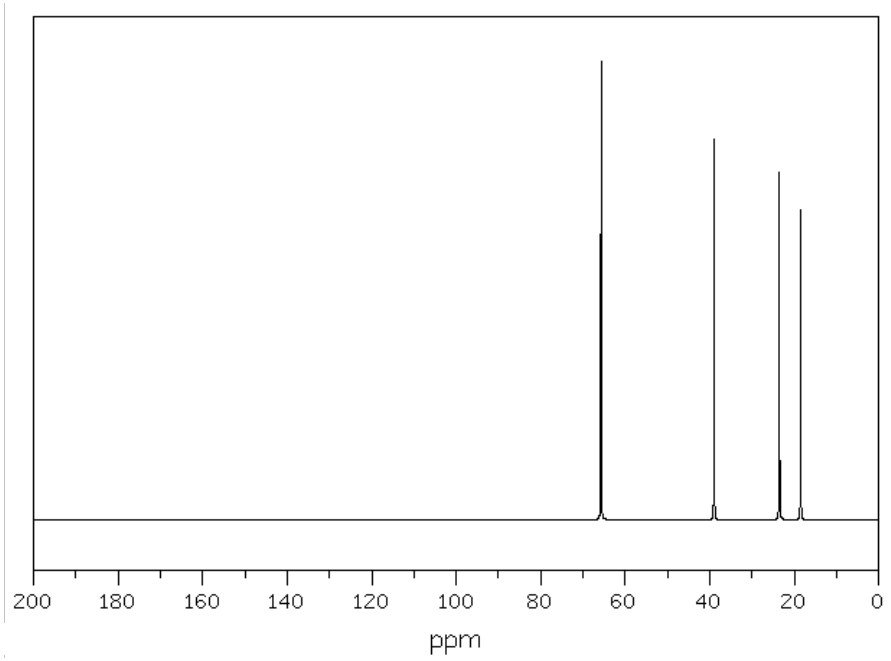
Empirical Formula: $C_4H_{10}O$

Mass Spec: M^+ *m/e*= 74

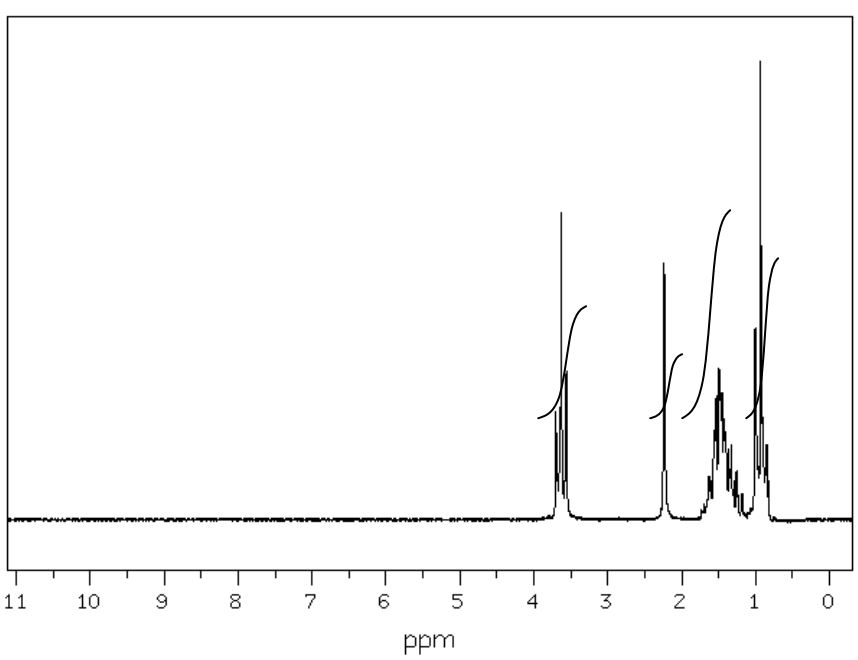
IR



^{13}C NMR



^{1}H NMR

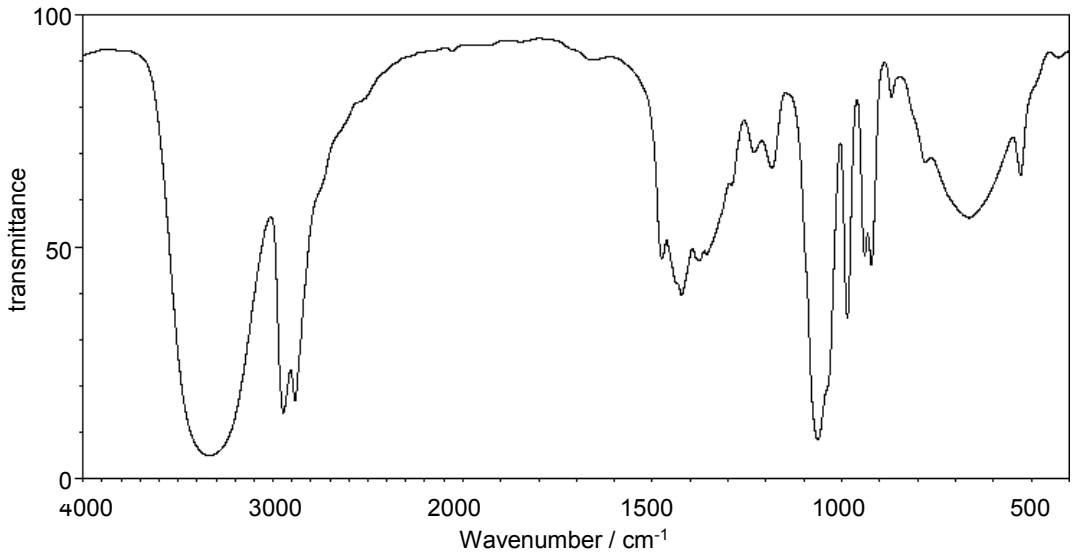


Example #7

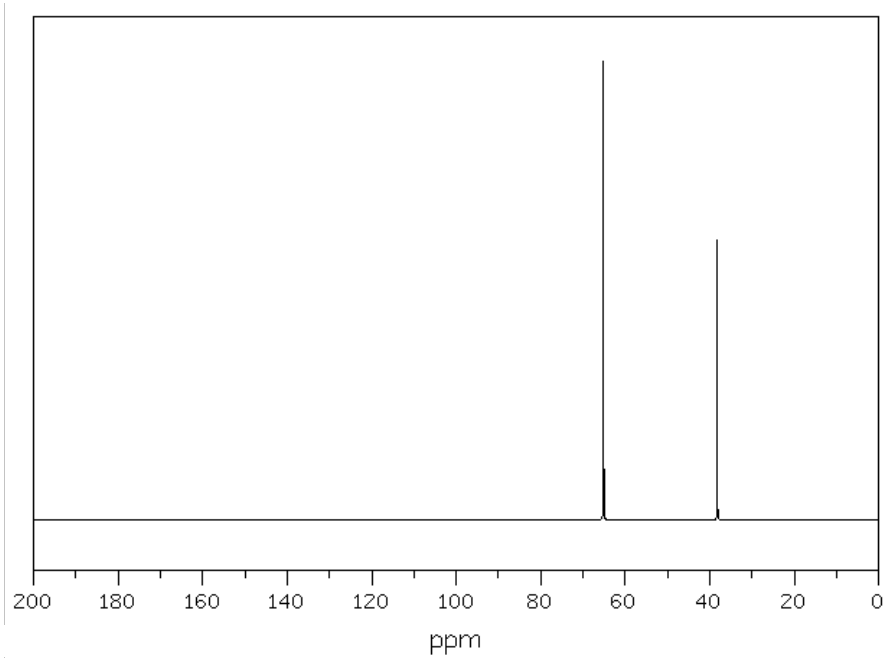
Empirical Formula: $C_3H_8O_2$

Mass Spec: M^+ *m/e*= 76

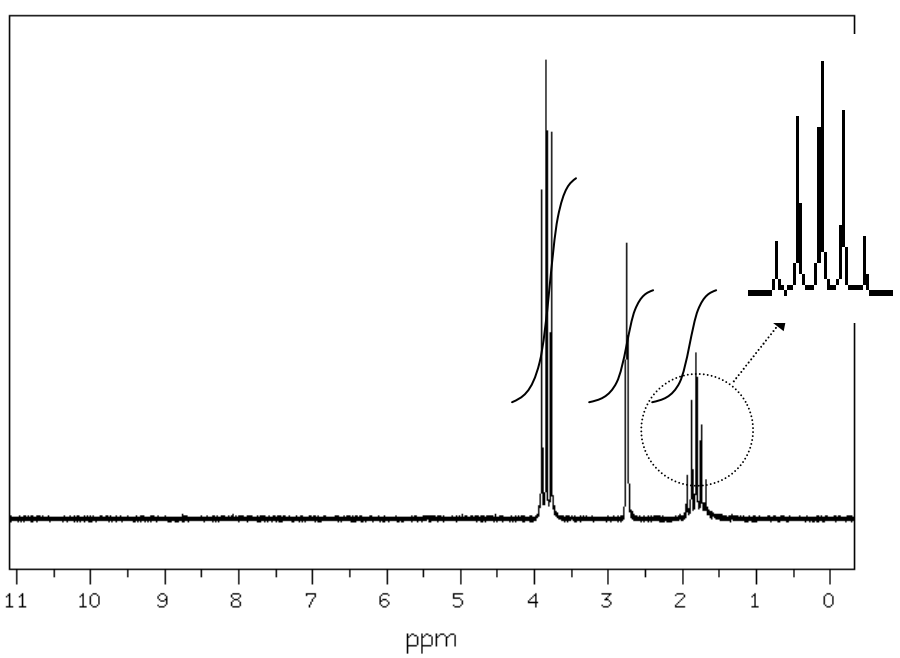
IR



^{13}C NMR



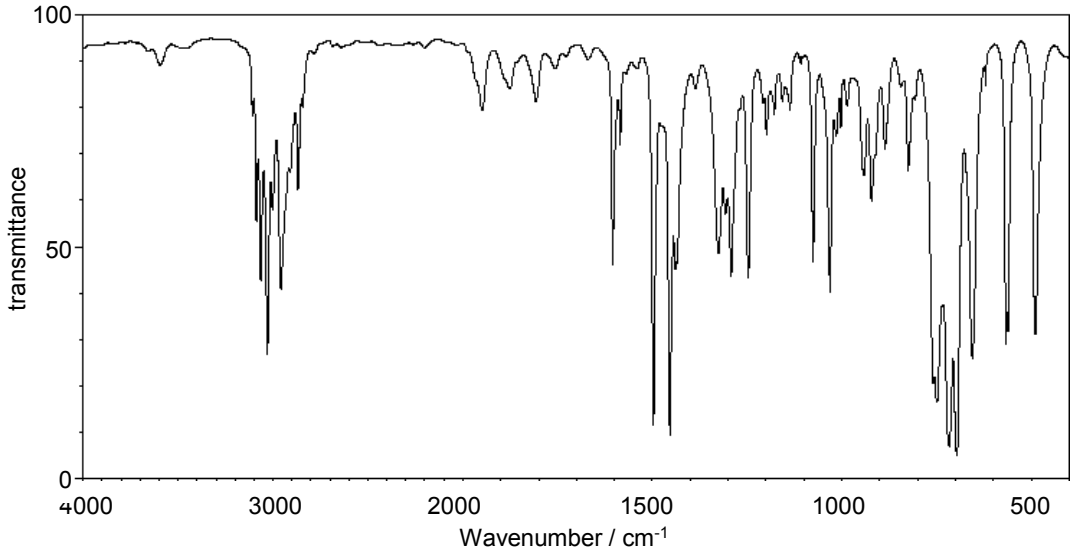
^{1}H NMR



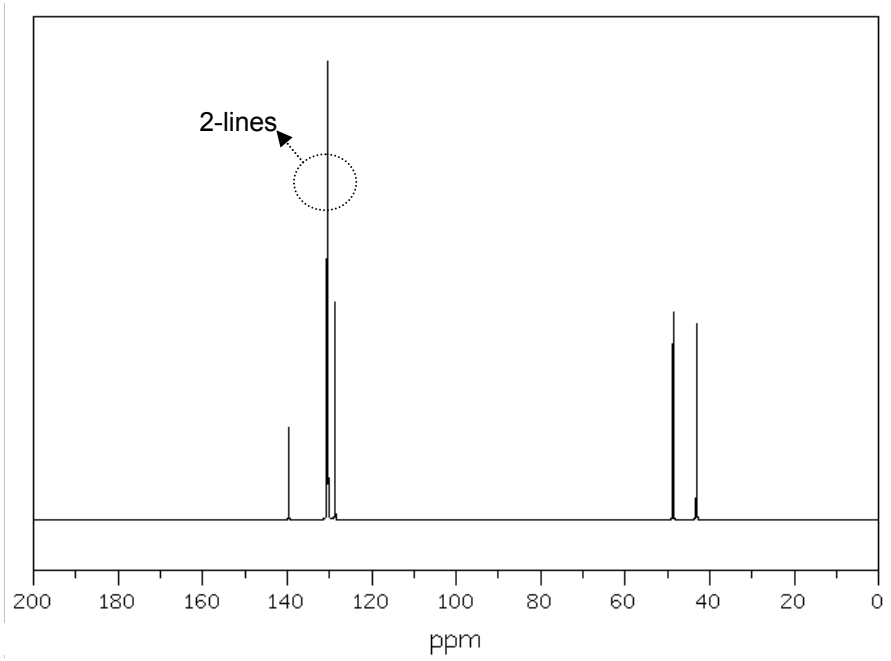
Empirical Formula: C_8H_9Cl

Mass Spec: M^+ *m/e*= 140 and 142 (3:1 ratio)

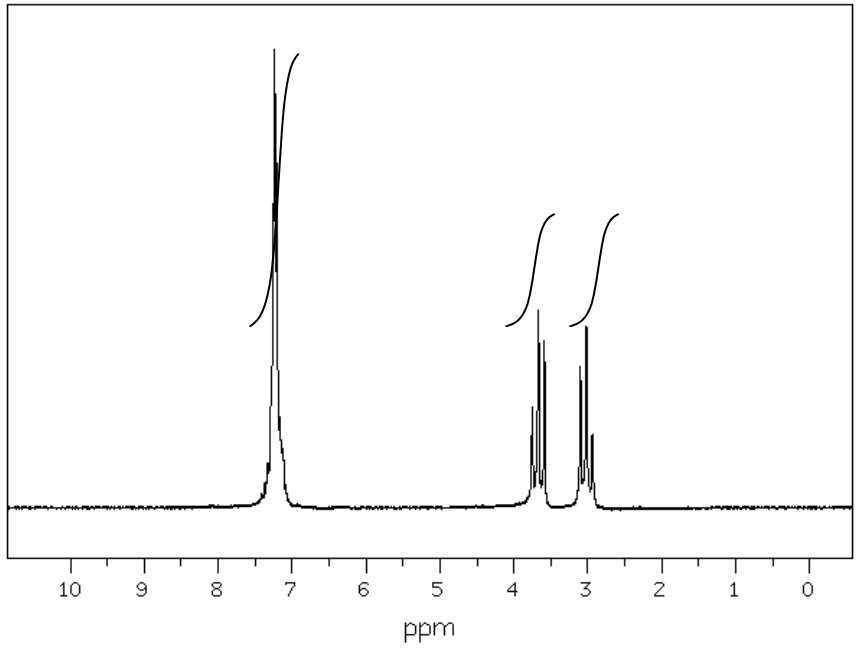
IR



^{13}C NMR



^{1}H NMR

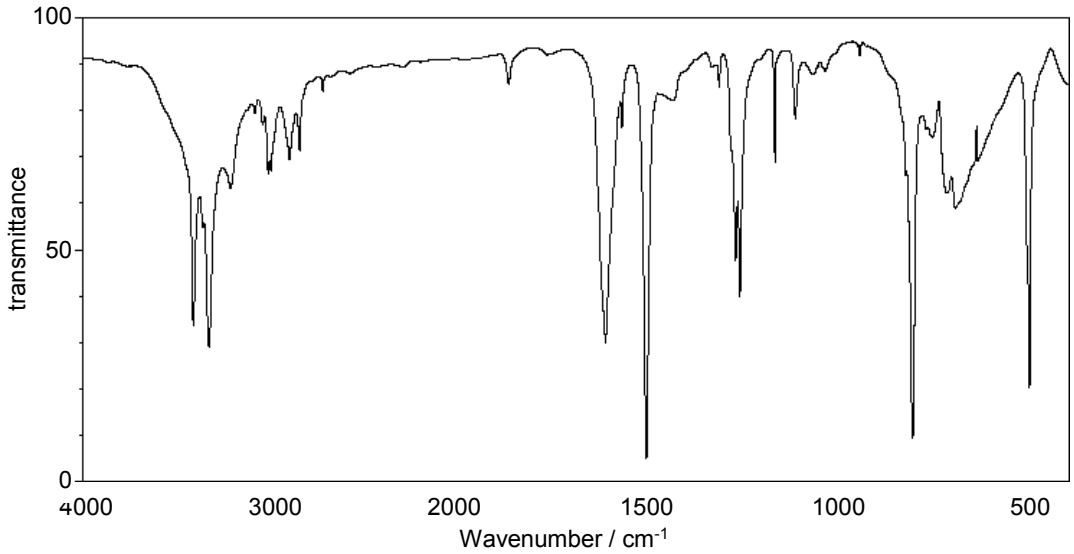


Example #9

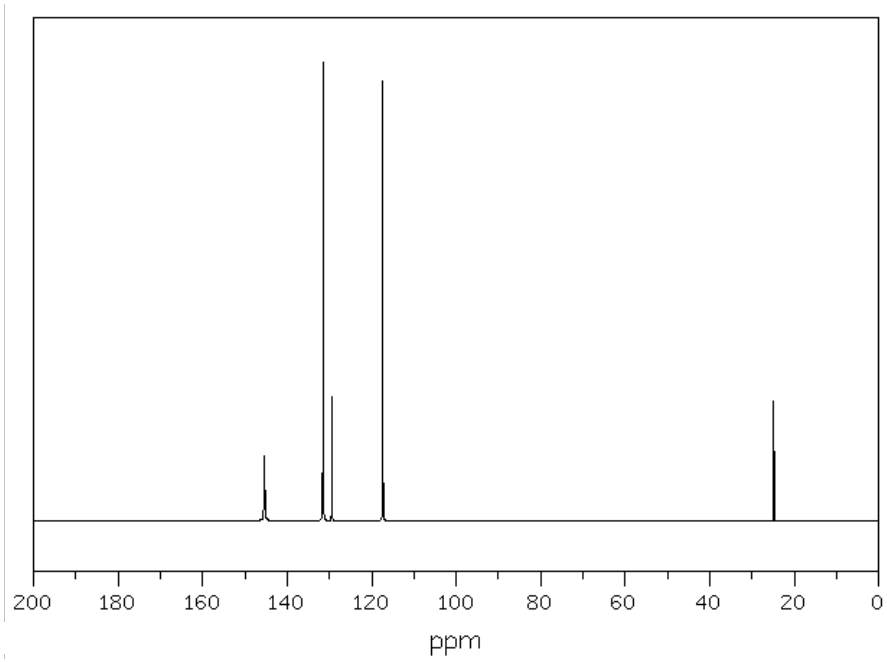
Empirical Formula: C_7H_9N

Mass Spec: M^+ *m/e*= 107

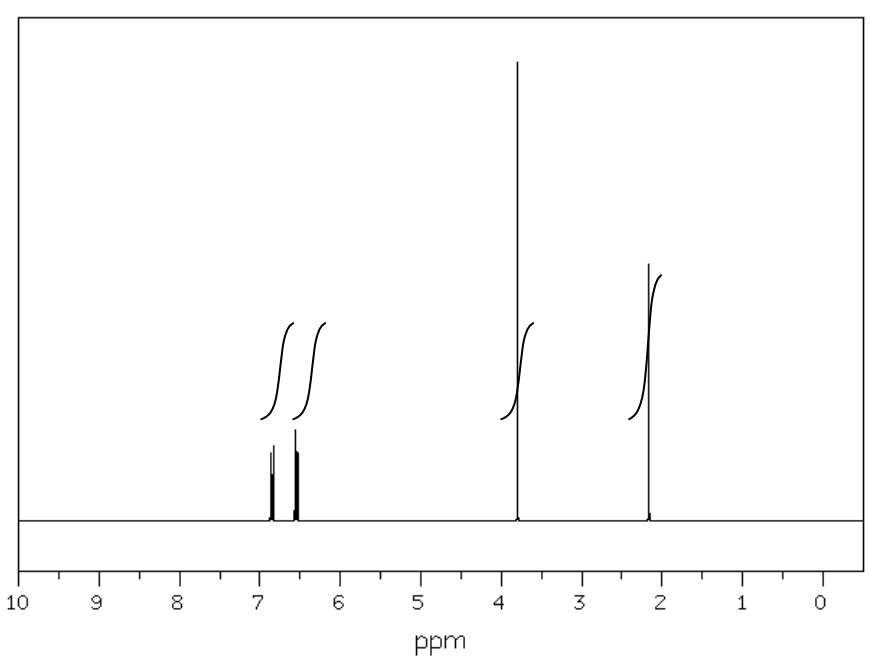
IR



^{13}C NMR



^{1}H NMR

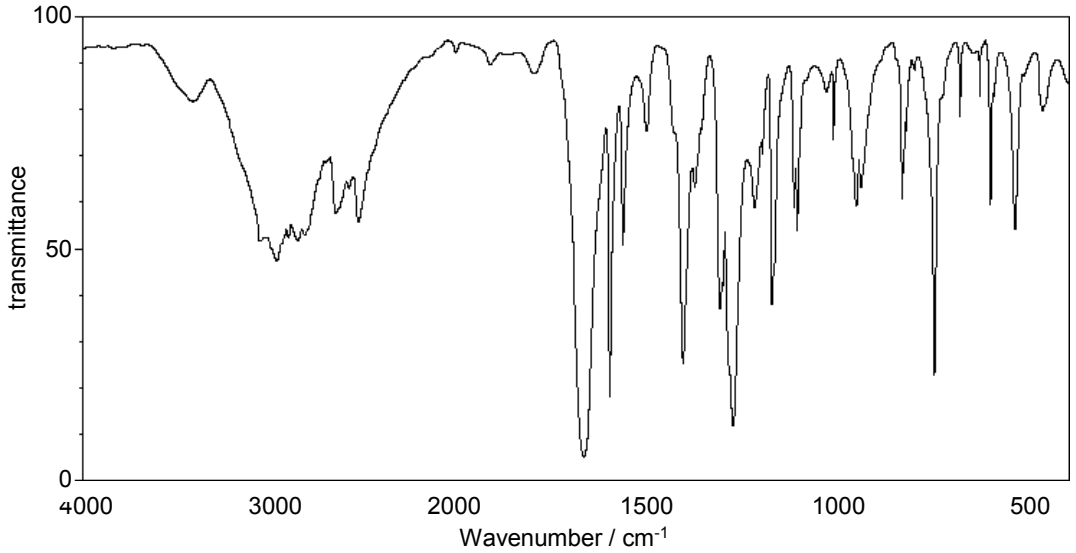


Example #10

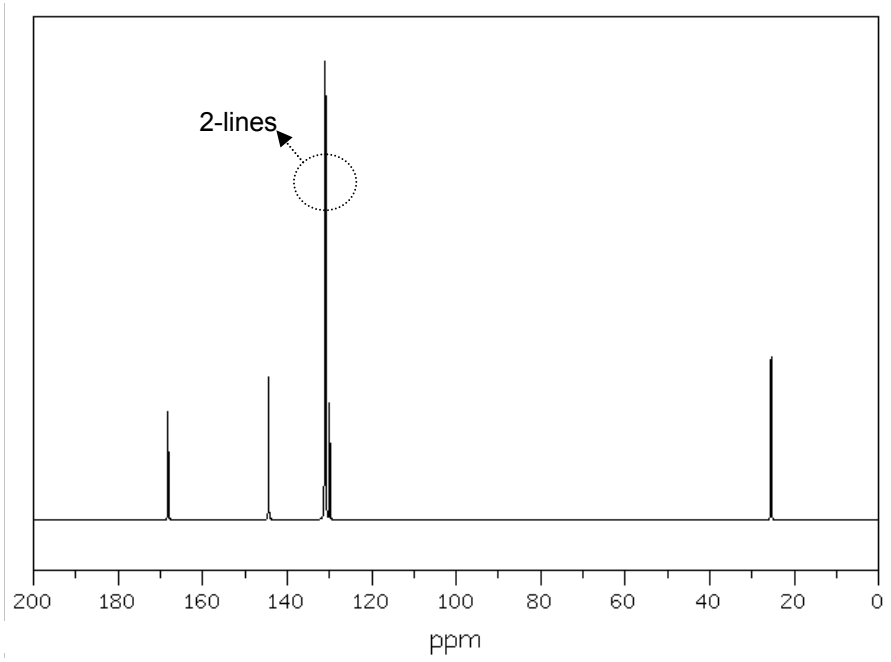
Empirical Formula: C_4H_4O

Mass Spec: M^+ *m/e*= 136

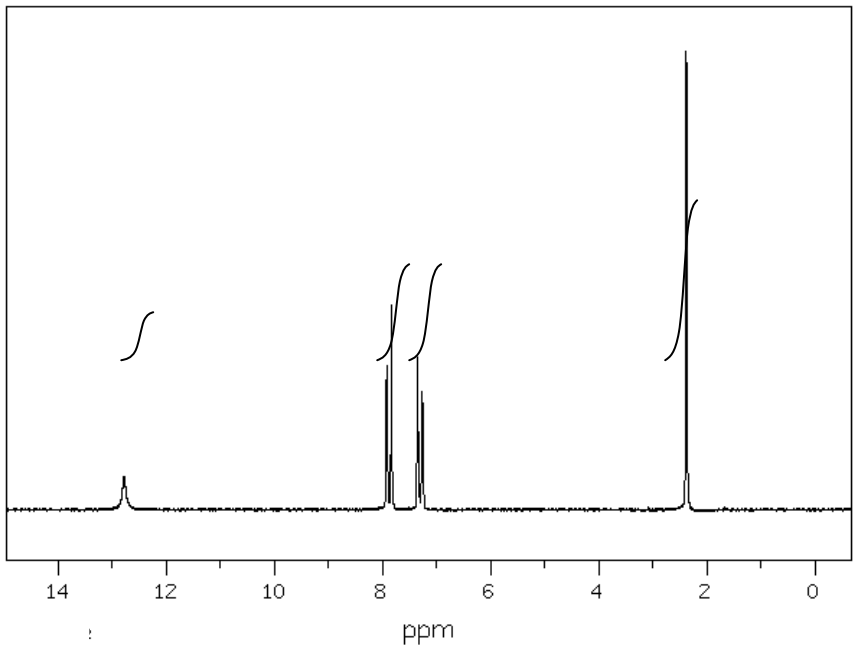
IR



^{13}C NMR



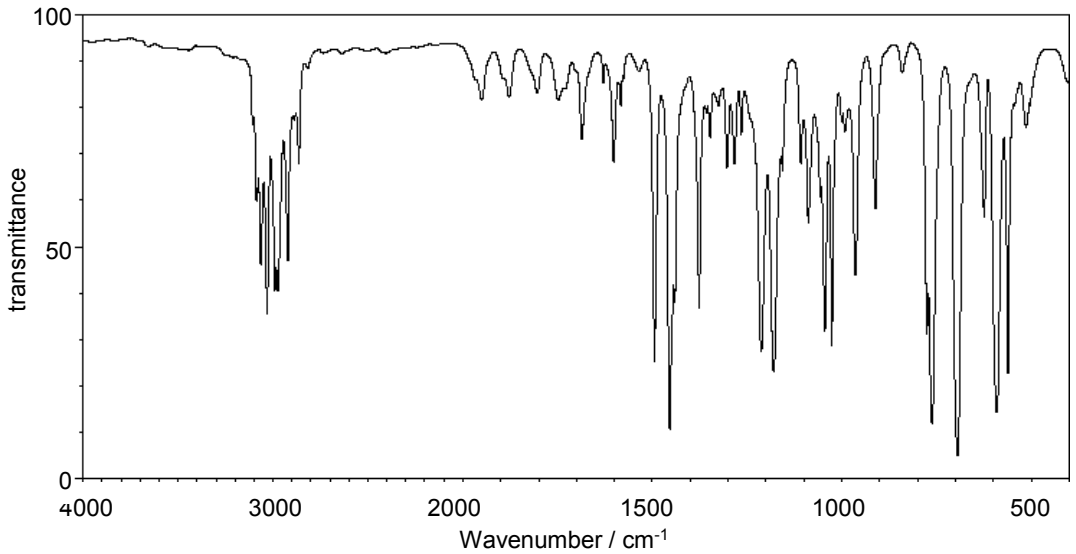
^{1}H NMR



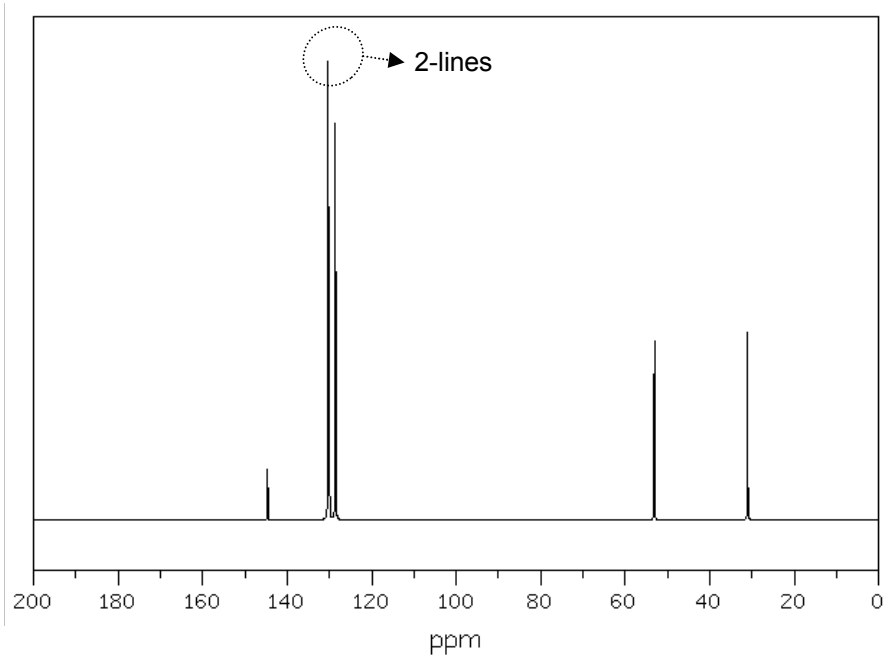
Empirical Formula: C_8H_9Br

Mass Spec: M^+ *m/e*= 184 and 186 (1:1 ratio)

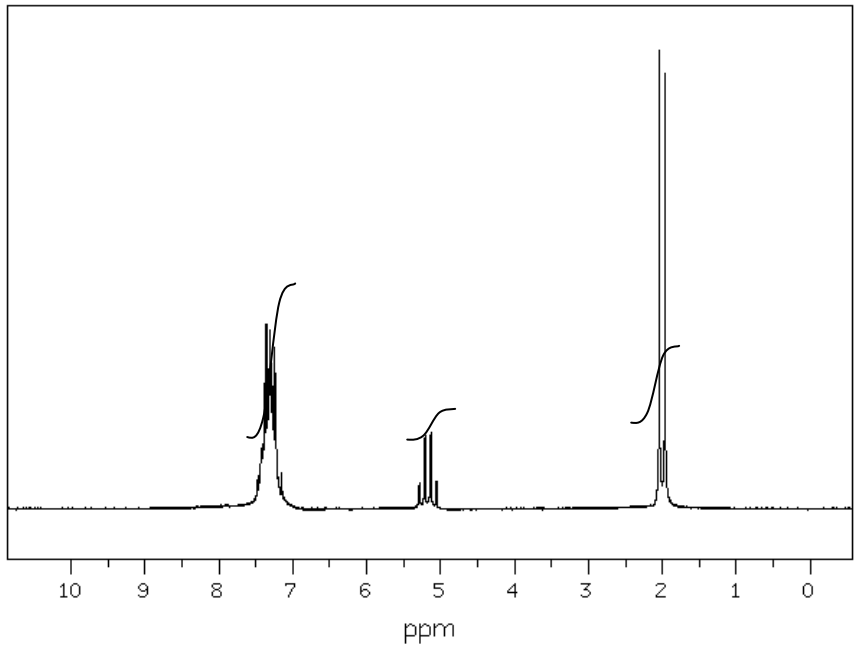
IR



^{13}C NMR



^{1}H NMR

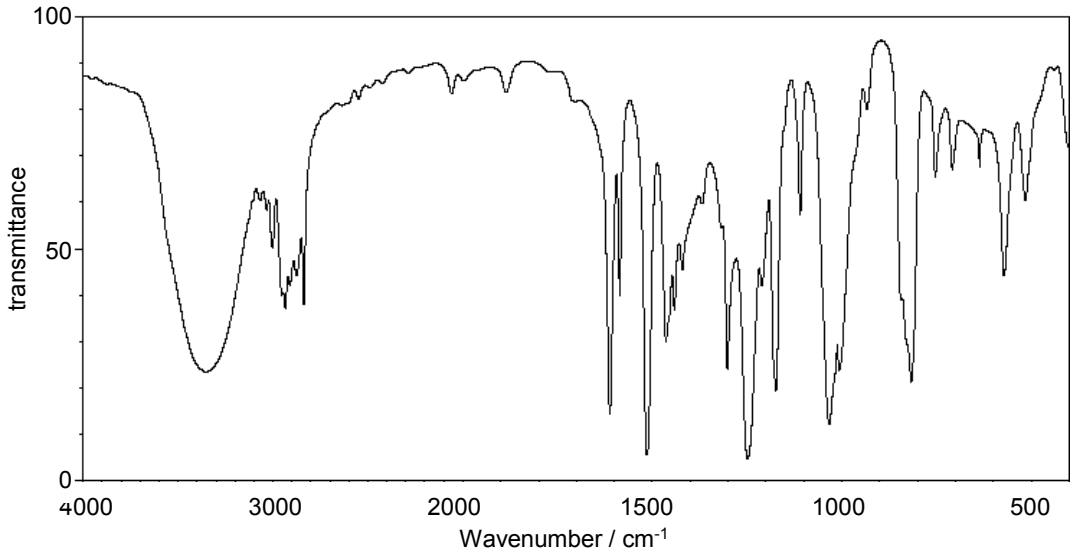


Example #12

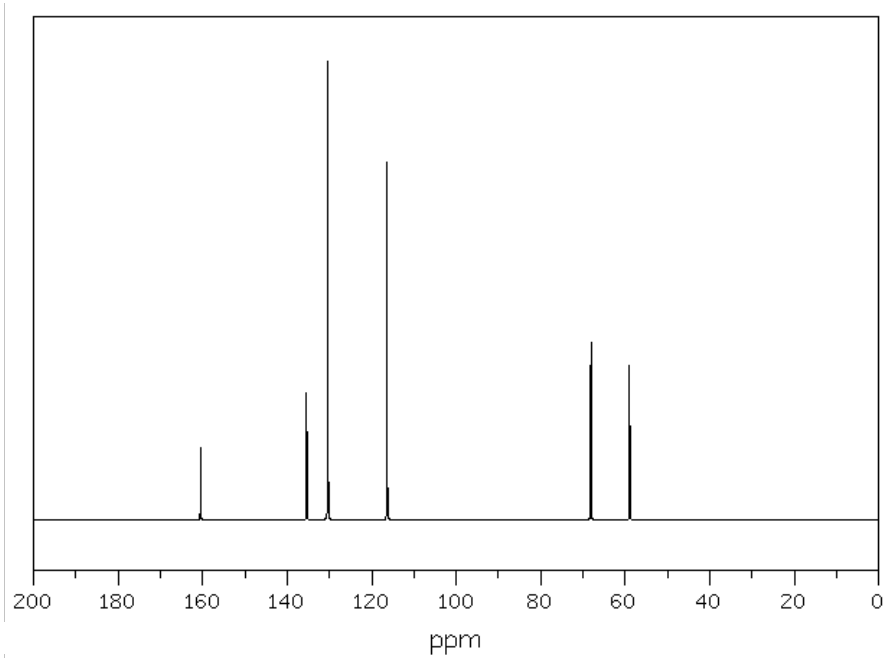
Empirical Formula: C_4H_5O

Mass Spec: M^+ *m/e*= 138

IR



^{13}C NMR



^{1}H NMR