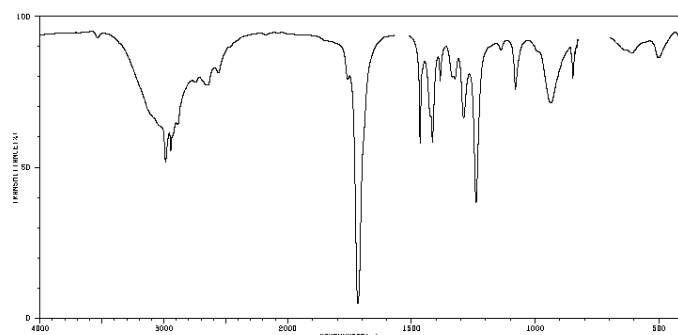
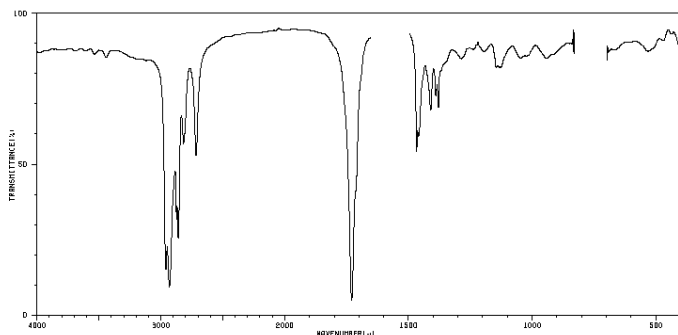
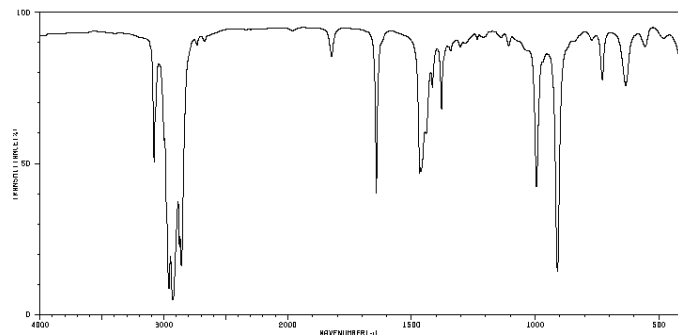
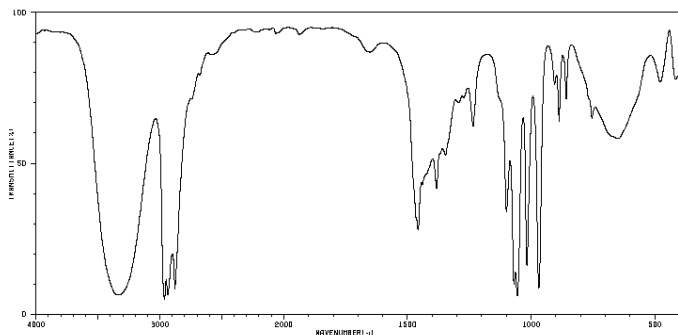
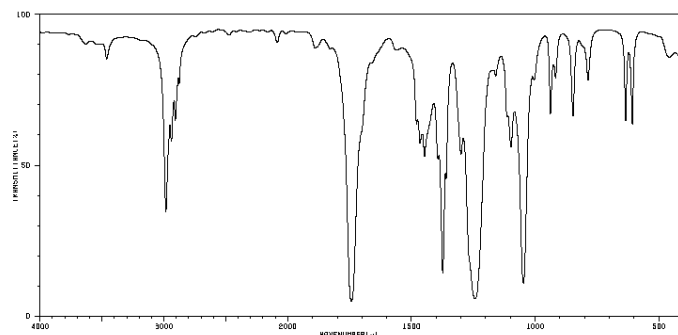
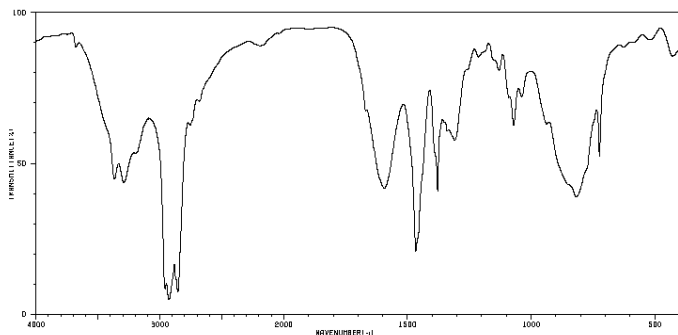
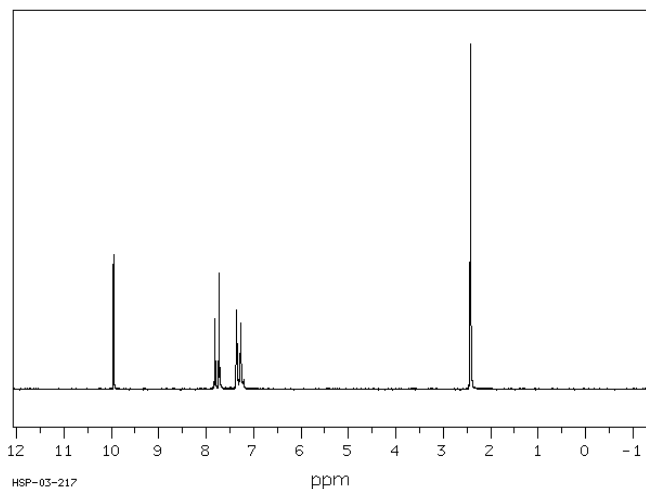


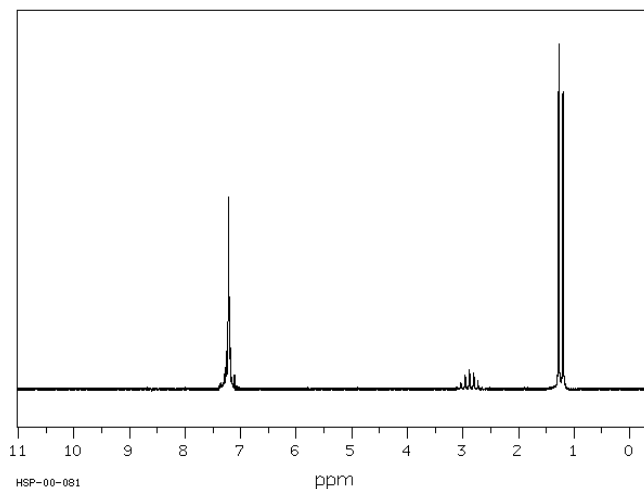
IR-Identify the following IR spectra by functional group. Only one functional group is present per spectrum. Possible functional groups: alkene, alkyne, nitrile, ketone, aldehyde, acid, ester, anhydride, alcohol, amine
You must label the major peaks used to make the determination.



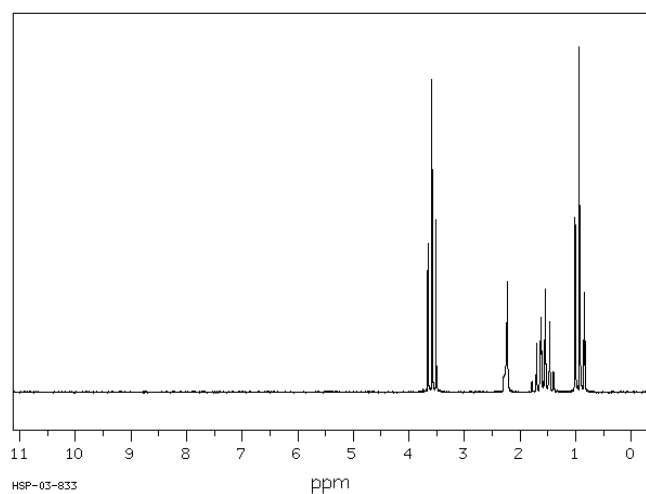
NMR-Determine the structure of the following compounds from their ^1H NMR spectra. Show structural assignments to peaks used to make the identification. Additional info is provided with clues to functional groups, etc. present. Attach work showing structures tried that do not fit.



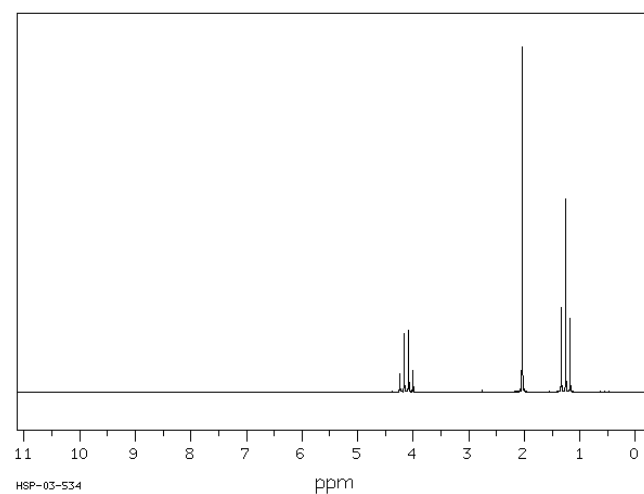
$\text{C}_8\text{H}_8\text{O}$ Aromatic peaks are a symmetrical pair of doublets, with an area corresponding to 4Hs.



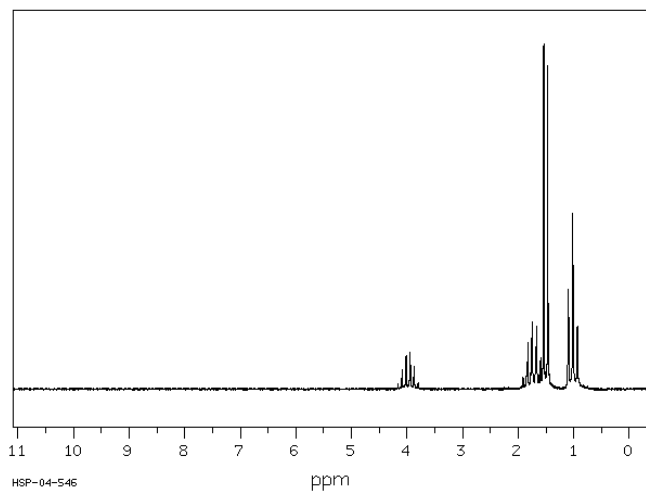
C_9H_{12} Aromatic peak area corresponds to 5Hs.



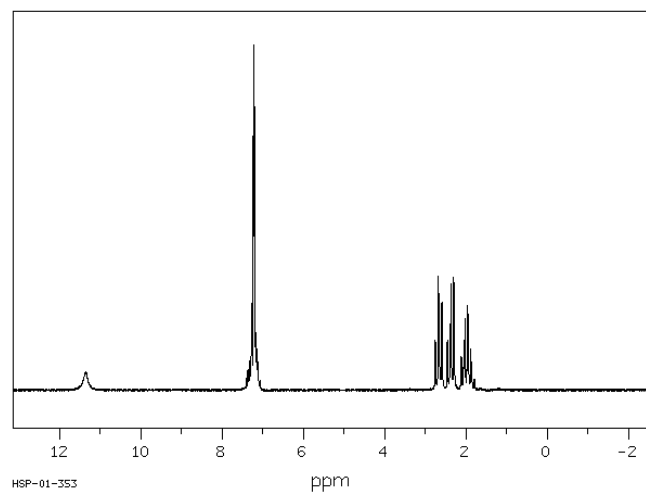
$\text{C}_3\text{H}_8\text{O}$ IR shows broad, strong absorption at $3300\text{-}3400\text{ cm}^{-1}$. Peak splittings shown are t, s, m, t



$\text{C}_4\text{H}_8\text{O}_2$ IR shows strong peaks at 1740 and 1240 cm^{-1}



C₄H₉Cl Splittings are sextet, quartet, d, t



C₁₀H₁₂O₂ Aromatic peak corresponds to 5Hs.
 Multiplets are t, pentet, t