Supporting information

MOF-Zn-NHC as an efficient *N*-heterocyclic carbene catalyst for aerobic oxidation of aldehydes to their corresponding carboxylic acids *via* a cooperative geminal anomeric based oxidation

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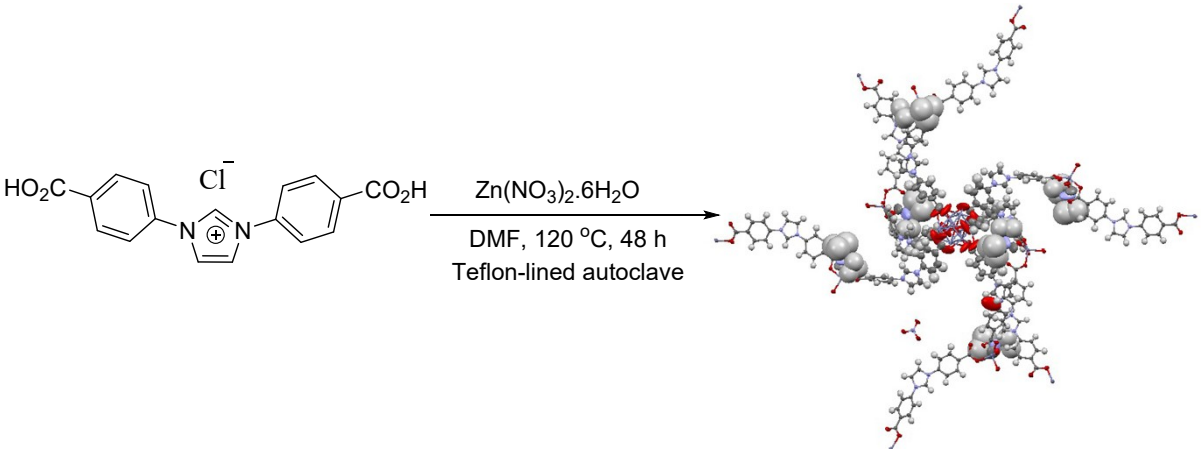


Scheme S1: Preparation of MOF-Zn-NHC as *N*-Heterocyclic carbene

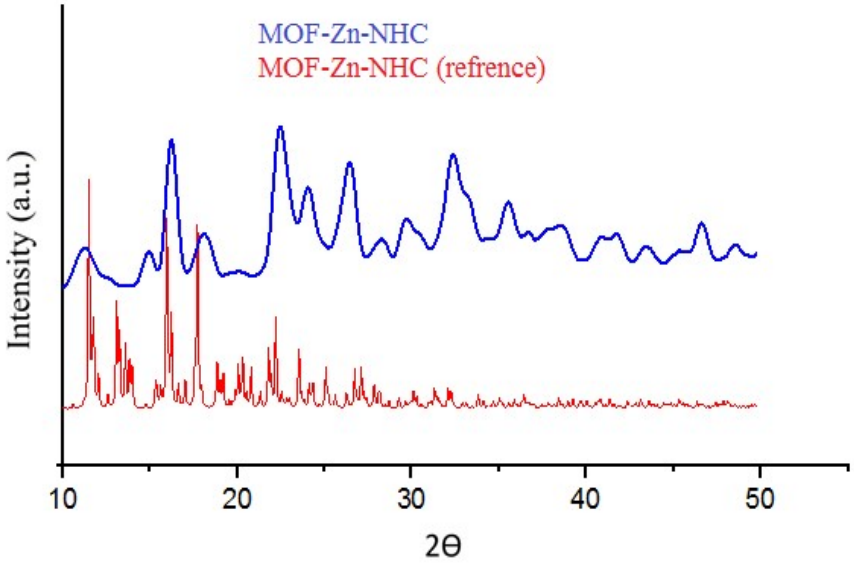
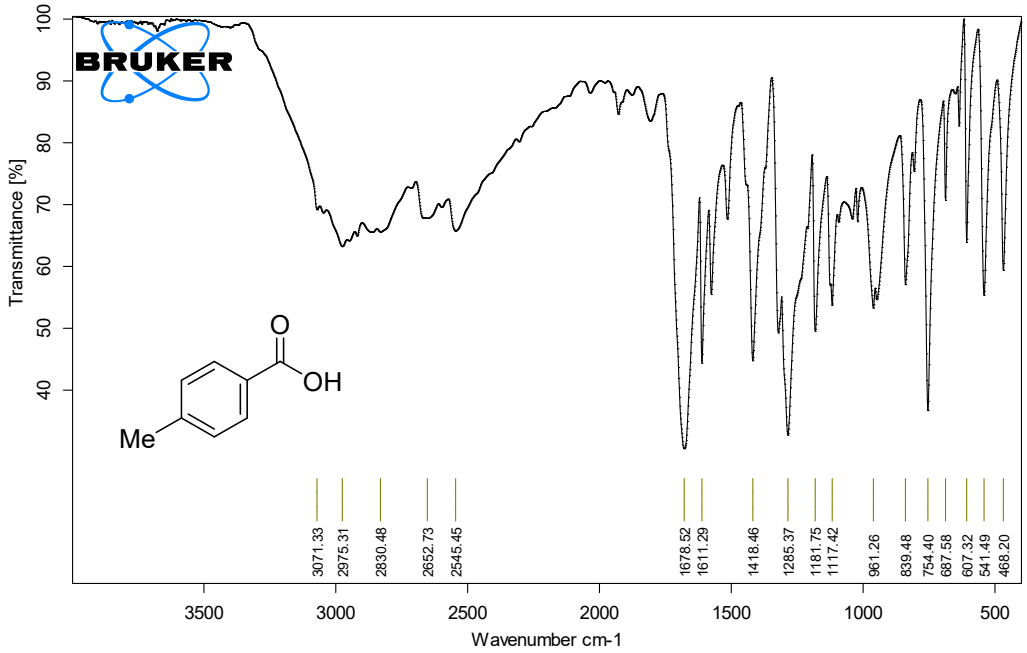
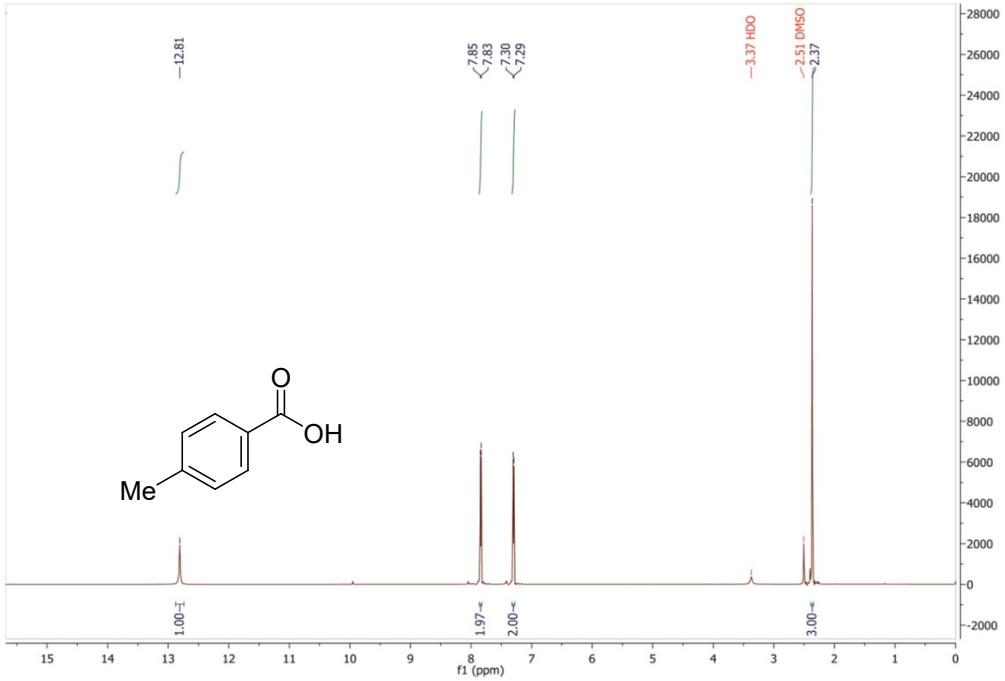


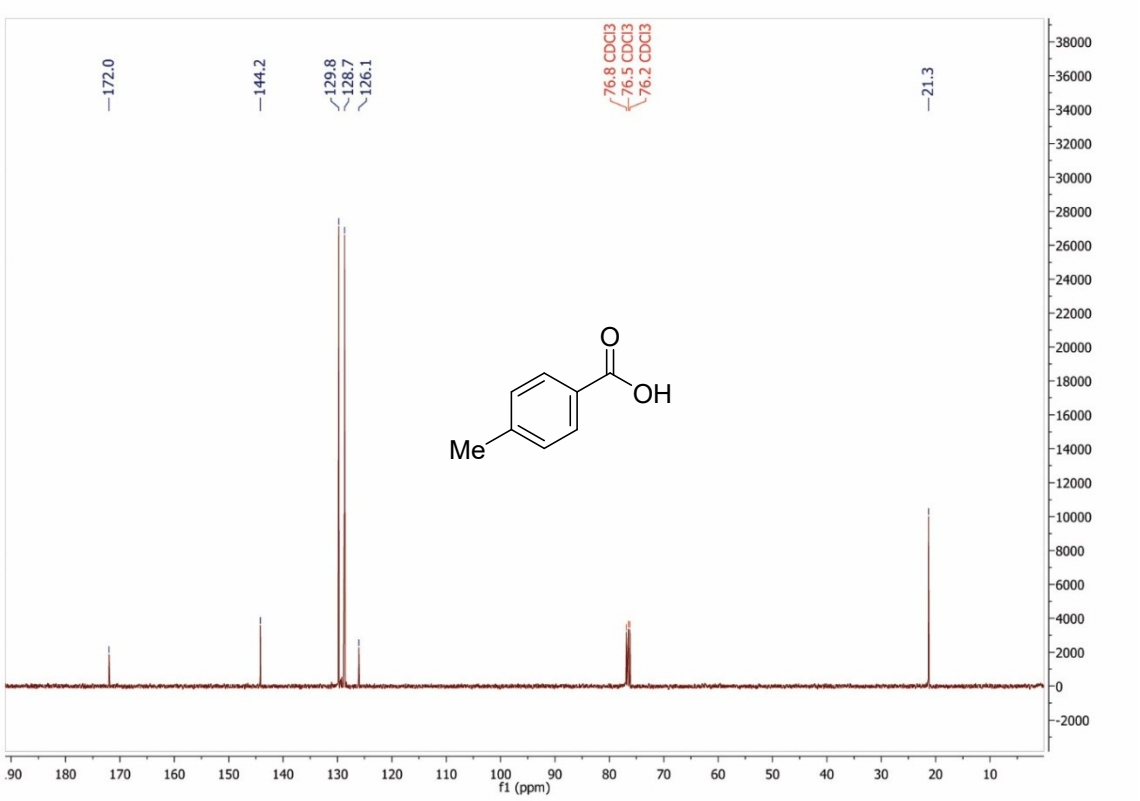
Figure S1: XRD diagram for the MOF-Zn-NHC (Blue line) in compare with MOF-Zn-NHC (Red line)



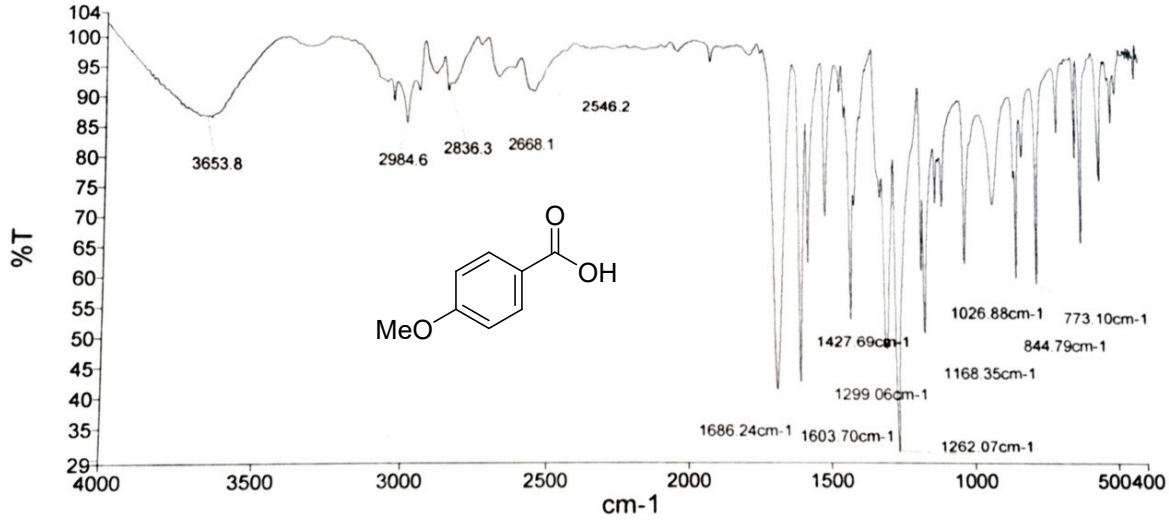
FT-IR spectrum of 4-methylbenzoic acid



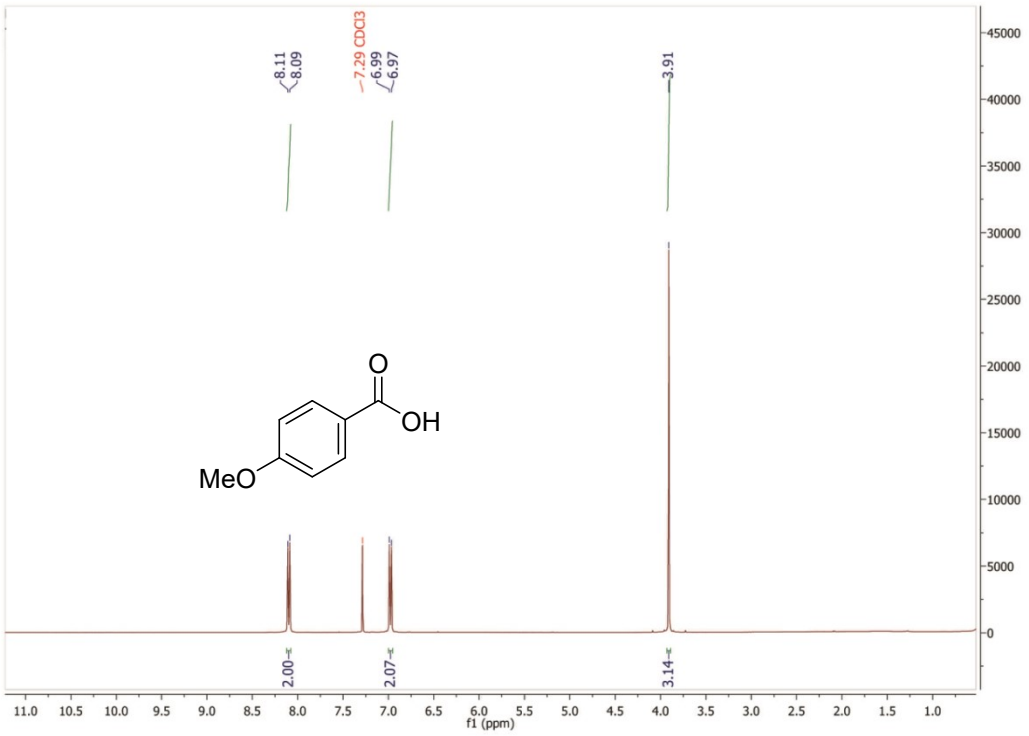
^{1}H NMR spectrum of 4-methylbenzoic acid



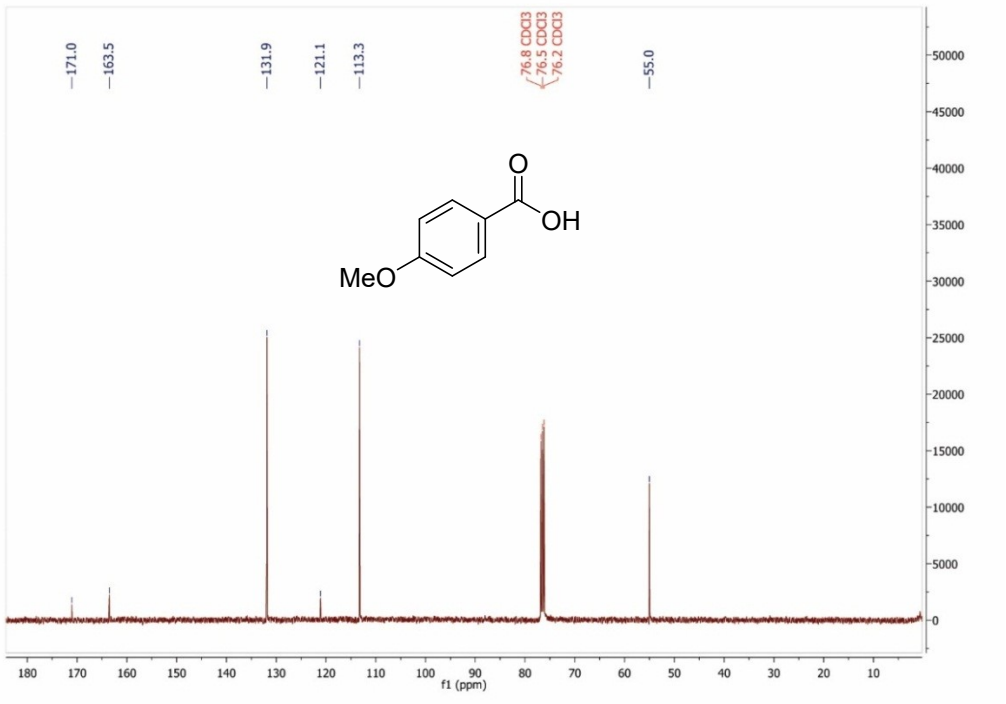
^{13}C NMR spectrum of 4-methylbenzoic acid



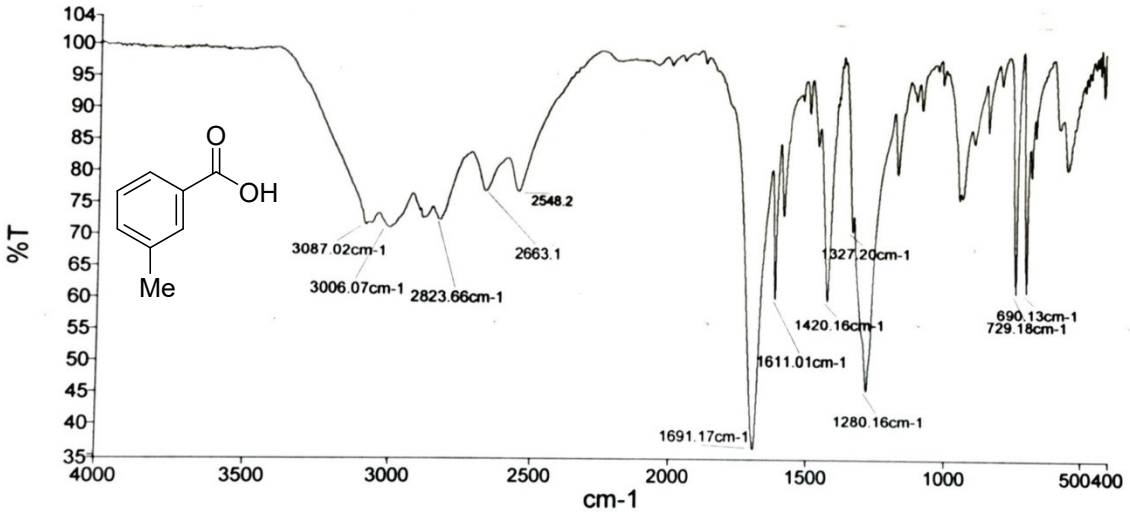
FT-IR spectrum of 4-methoxybenzoic acid



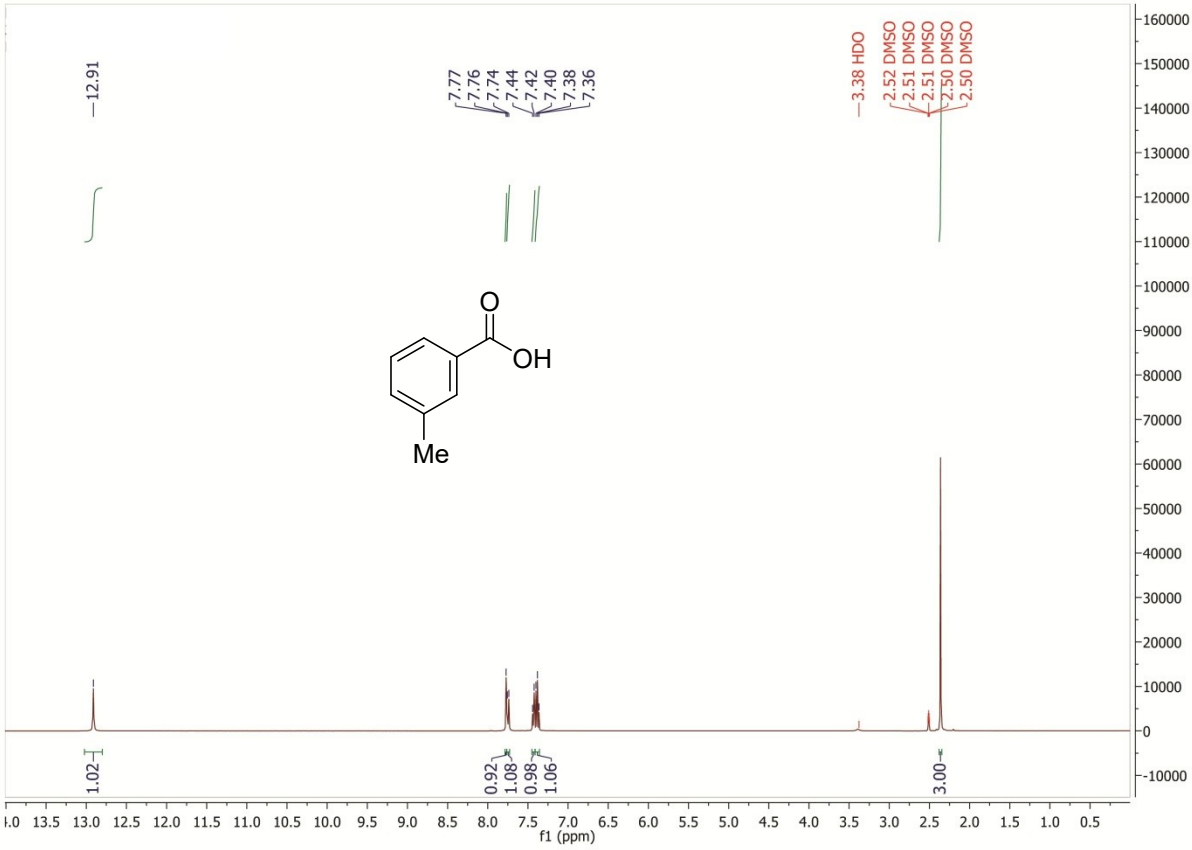
^{1}H NMR spectrum of 4-methoxybenzoic acid



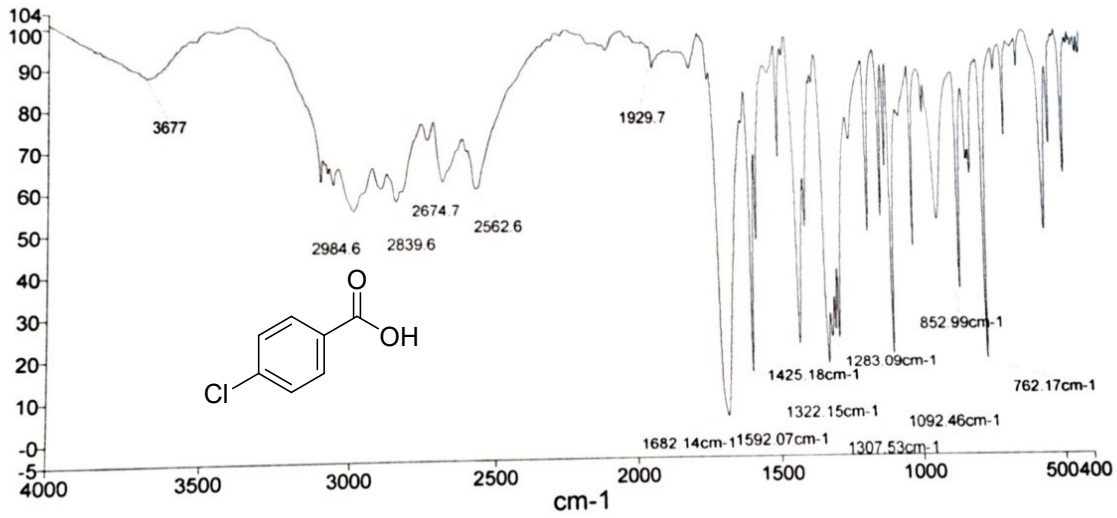
^{13}C NMR spectrum of 4-methoxybenzoic acid



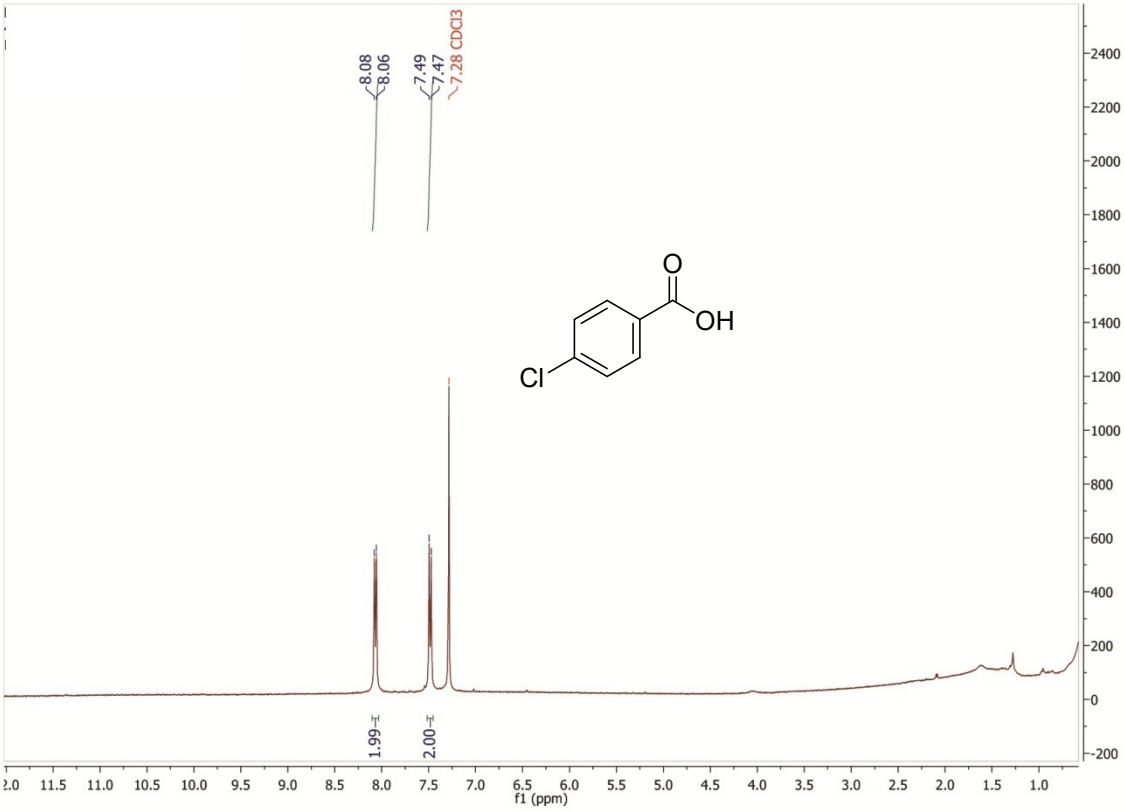
FT-IR spectrum of 3-methylbenzoic acid



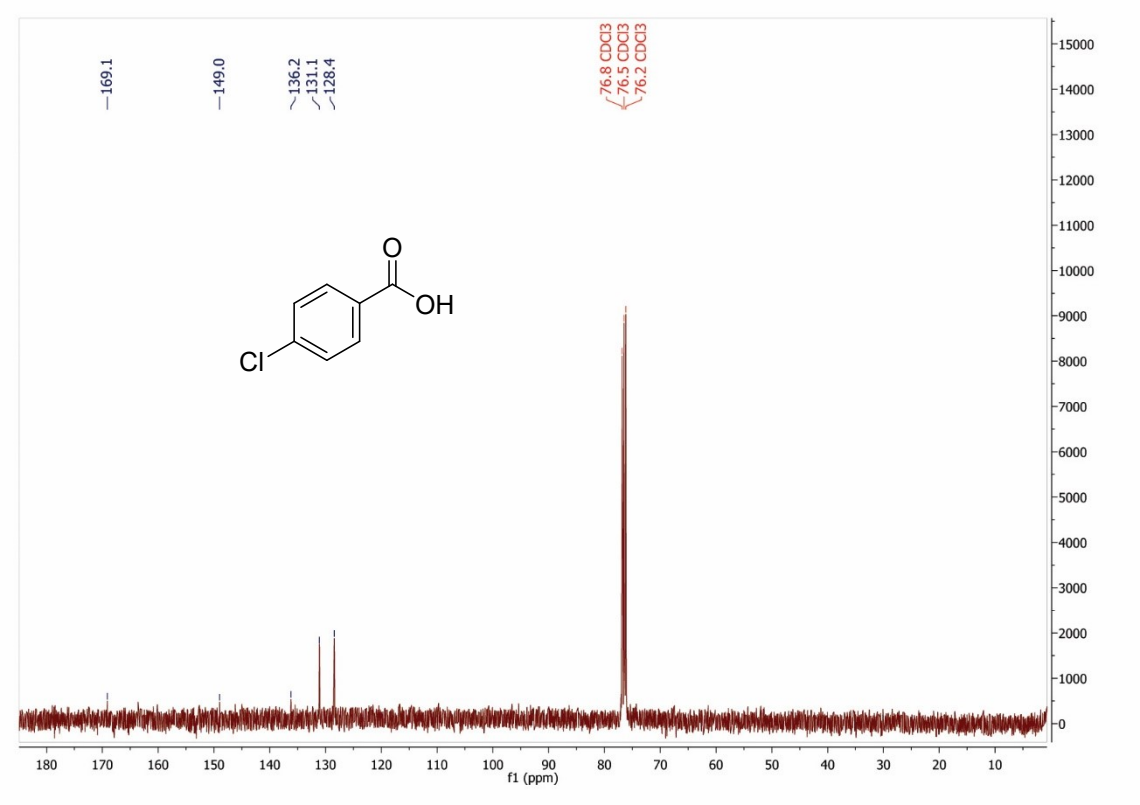
^{1}H NMR spectrum of 3-methylbenzoic acid



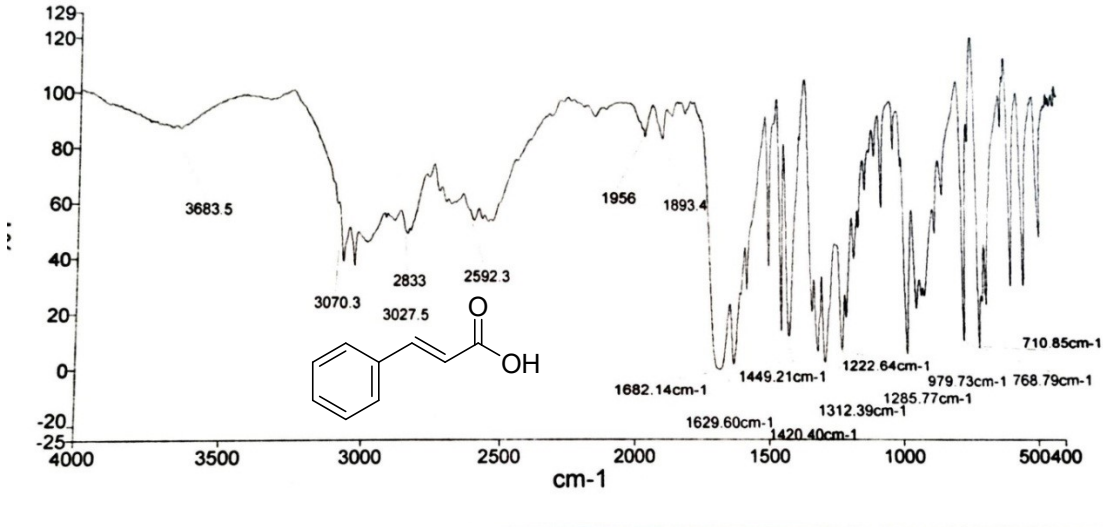
FT-IR spectrum of 4-chlorobenzoic acid



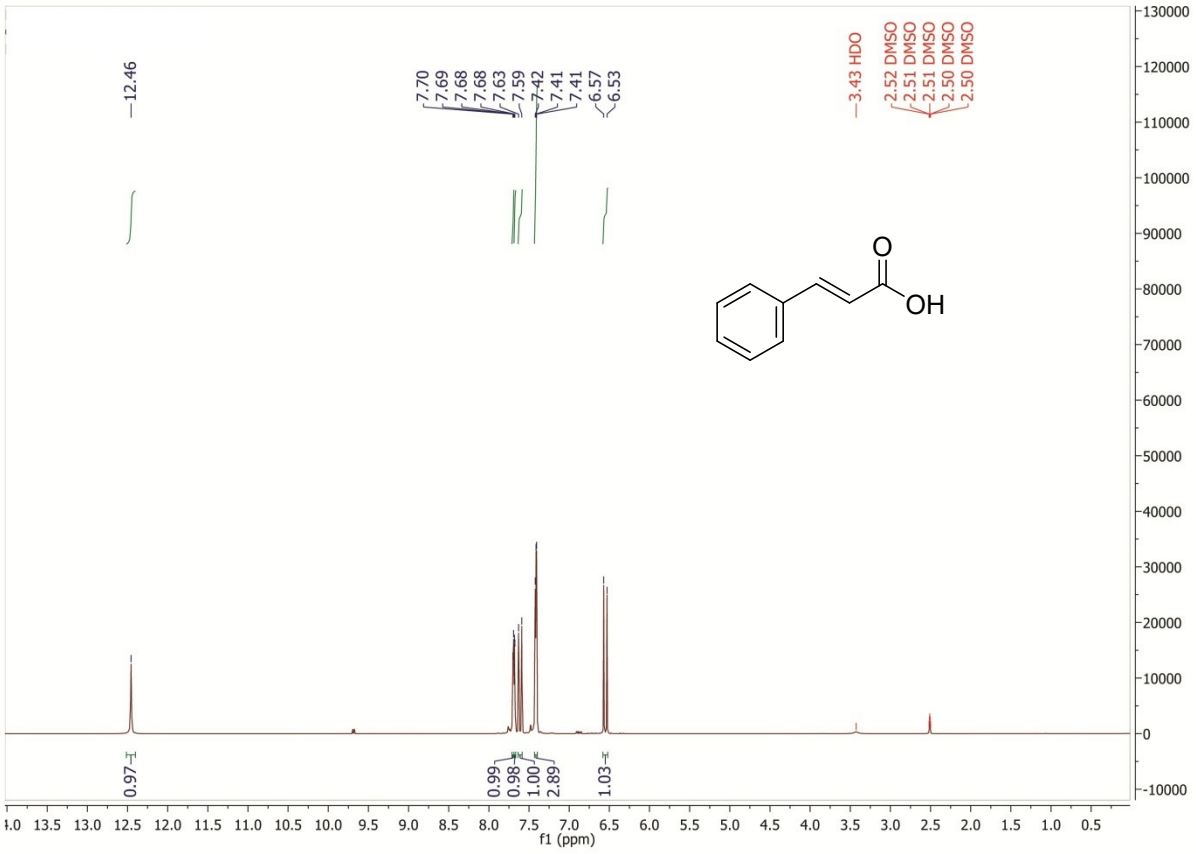
^{1}H NMR spectrum of 4-chlorobenzoic acid



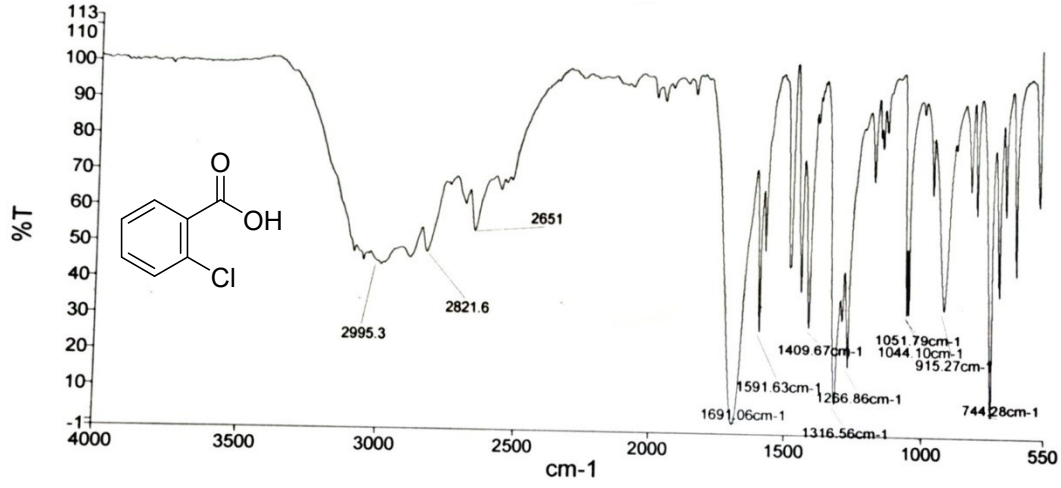
^{13}C NMR spectrum of 4-chlorobenzoic acid



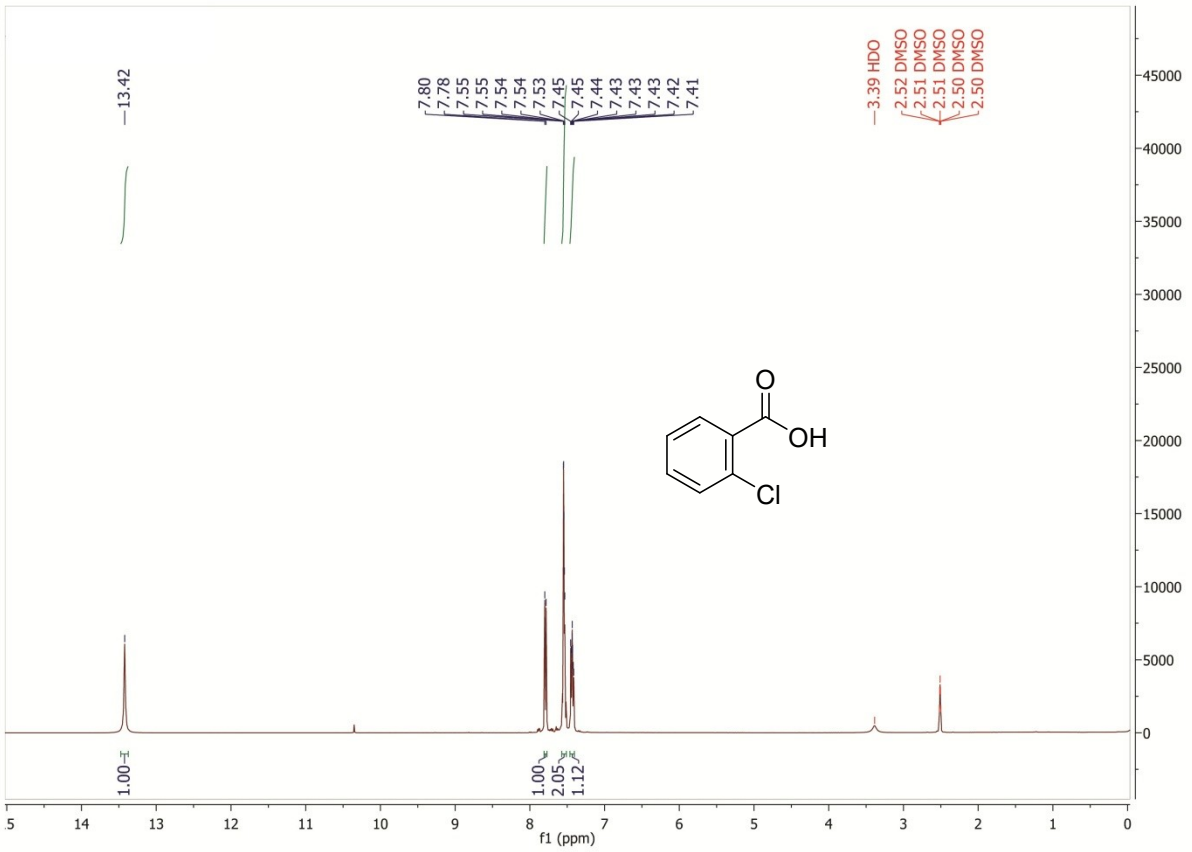
FT-IR spectrum of cinnamic acid



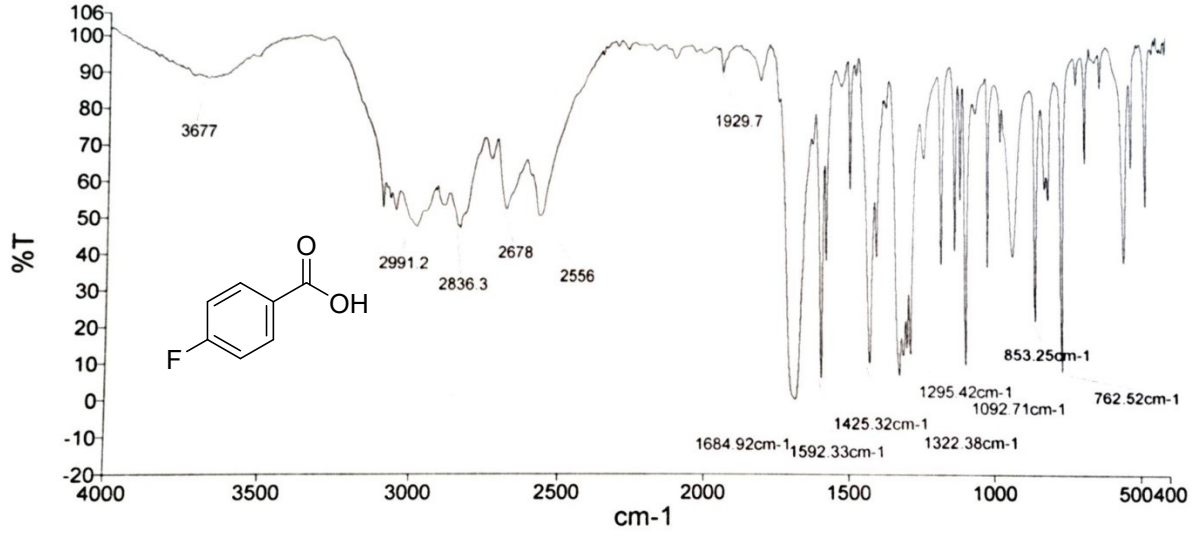
^{1}H NMR spectrum of cinnamic acid



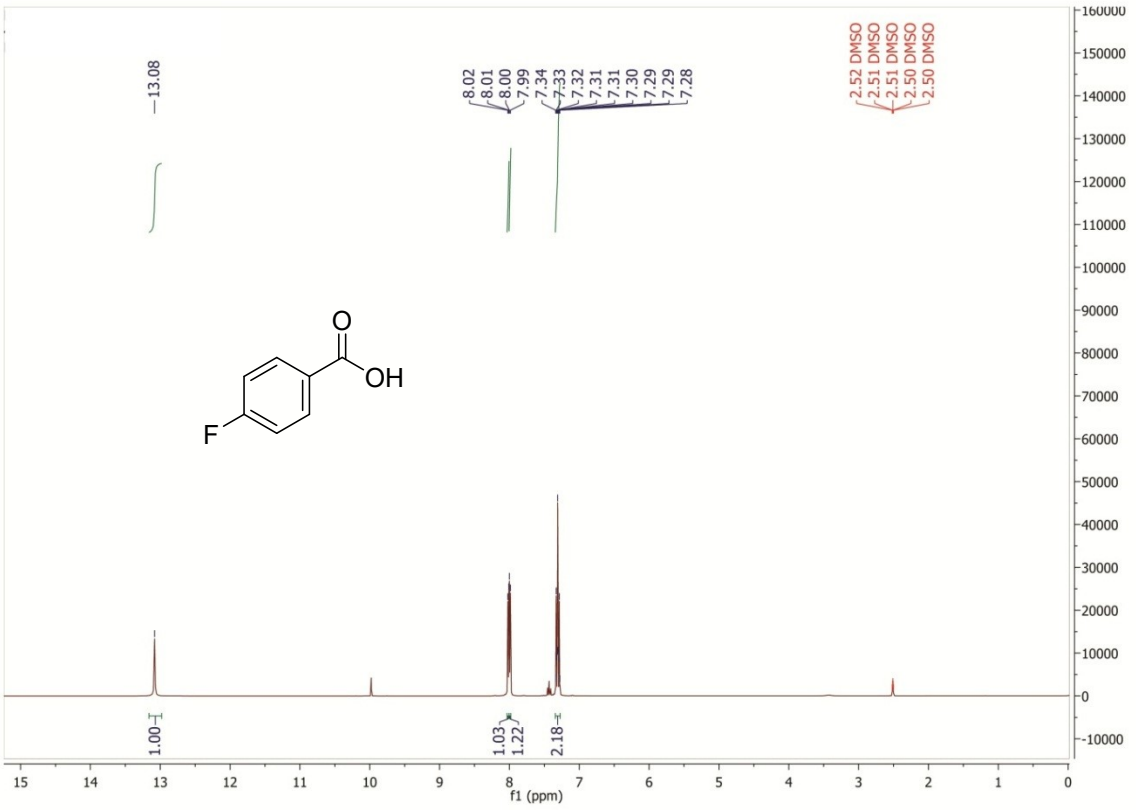
FT-IR spectrum of 2-chlorobenzoic acid



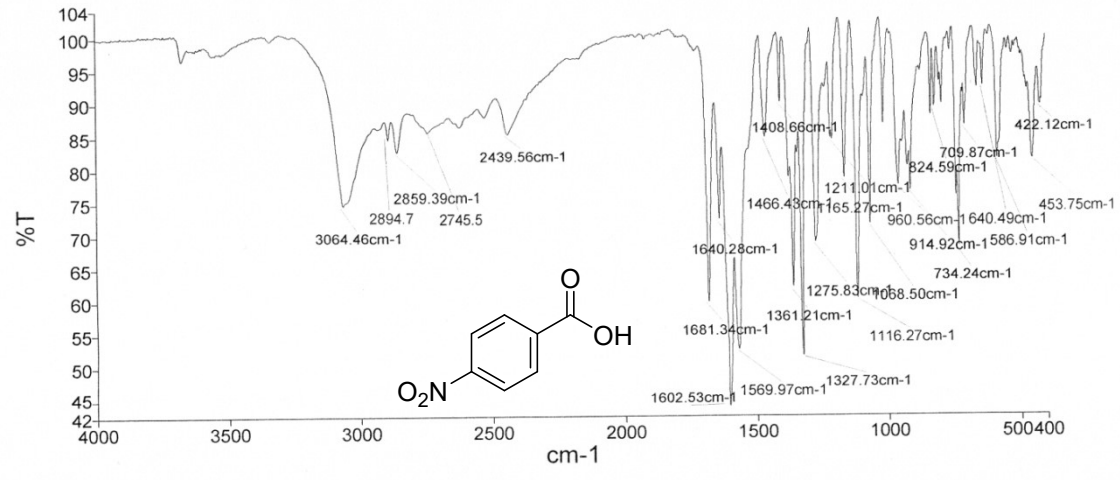
^{1}H NMR spectrum of 2-chlorobenzoic acid



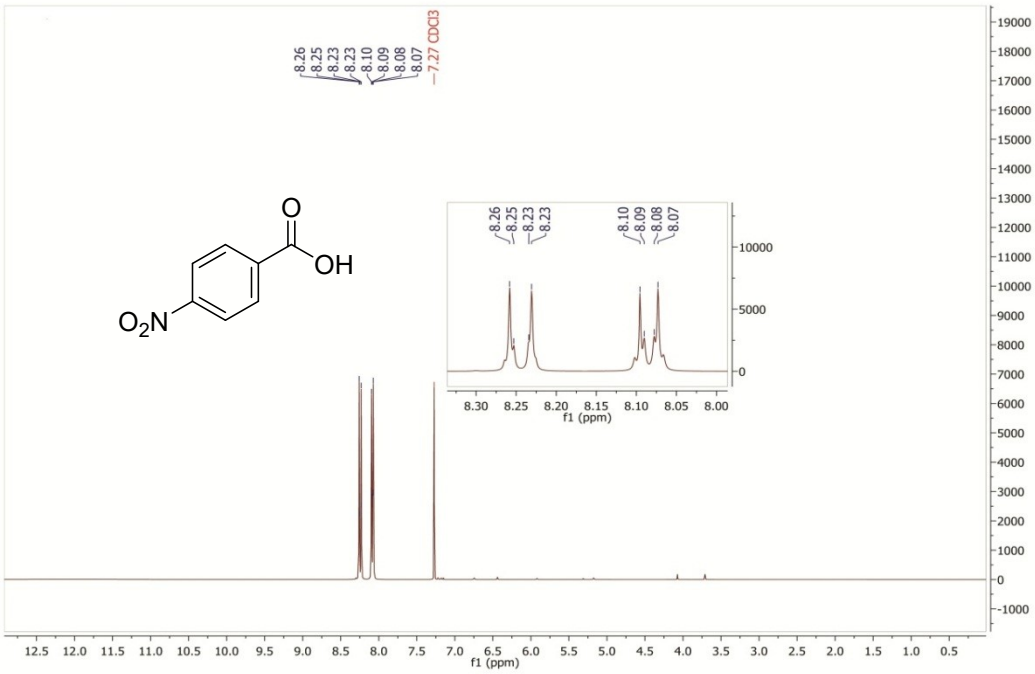
FT-IR spectrum of 4-fluorobenzoic acid



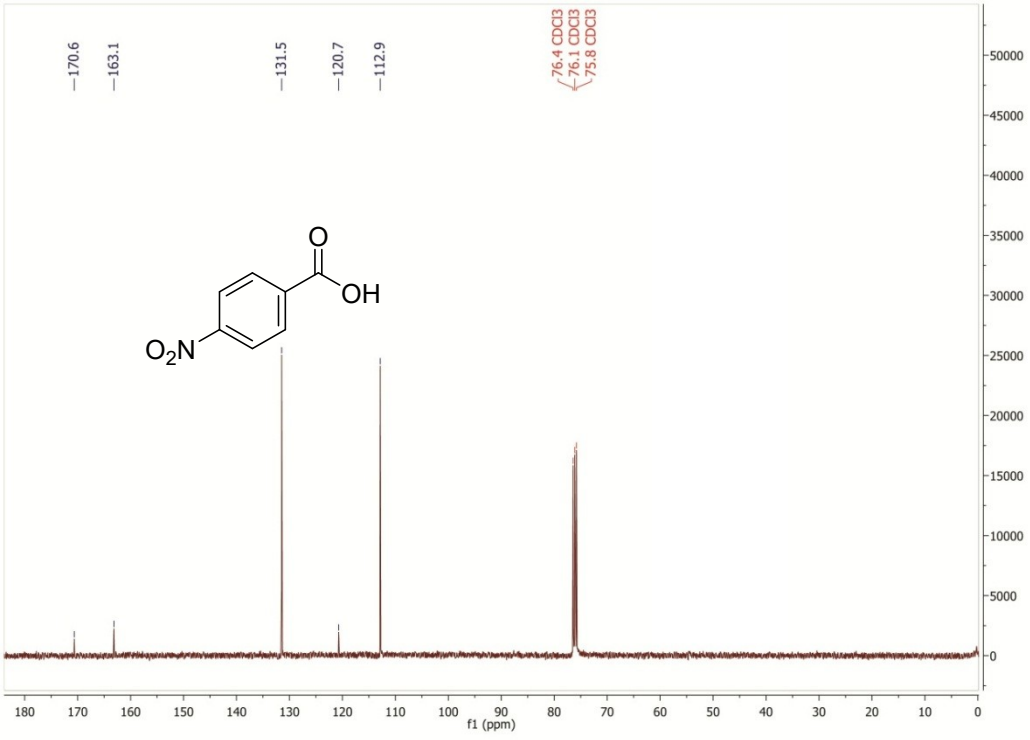
^{1}H NMR spectrum of 4-fluorobenzoic acid



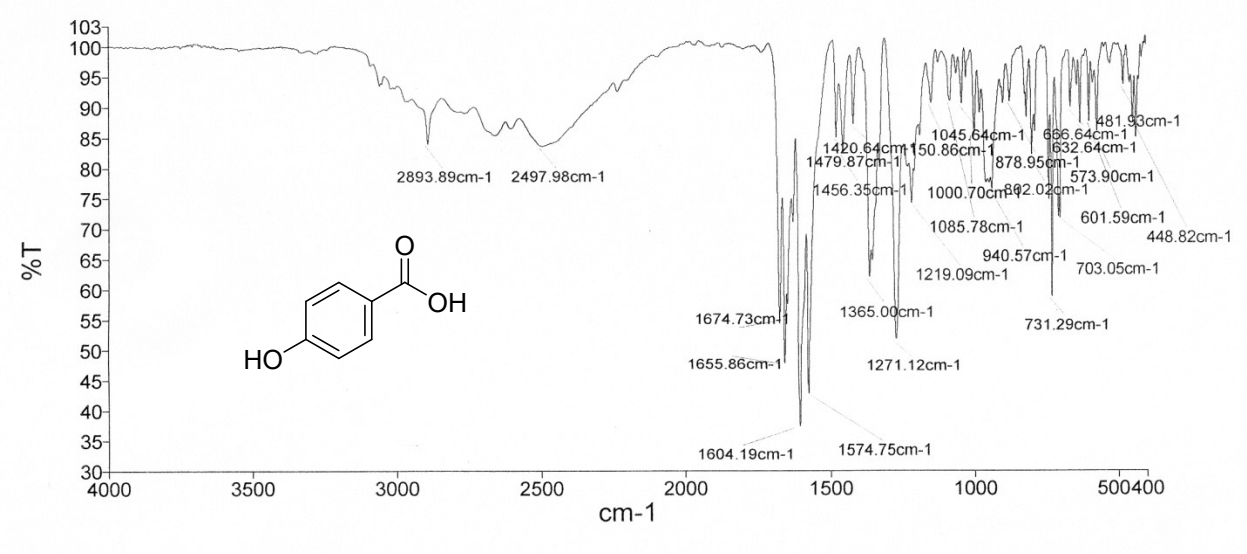
^{1}H NMR spectrum of 4-nitrobenzoic acid



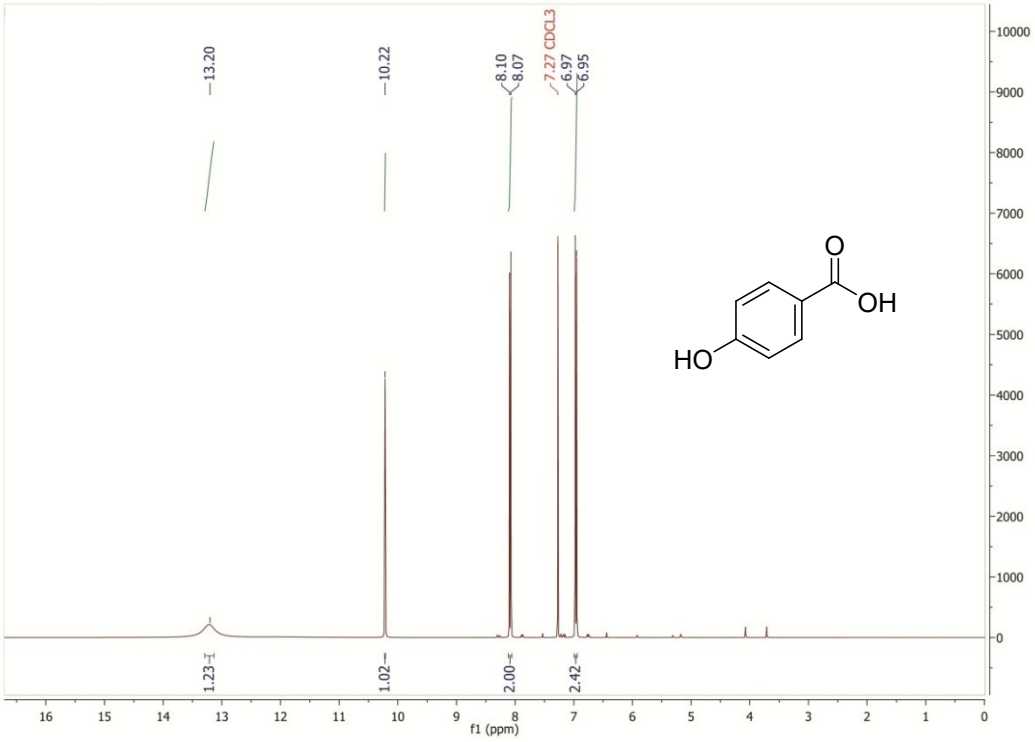
^{1}H NMR spectrum of 4-nitrobenzoic acid



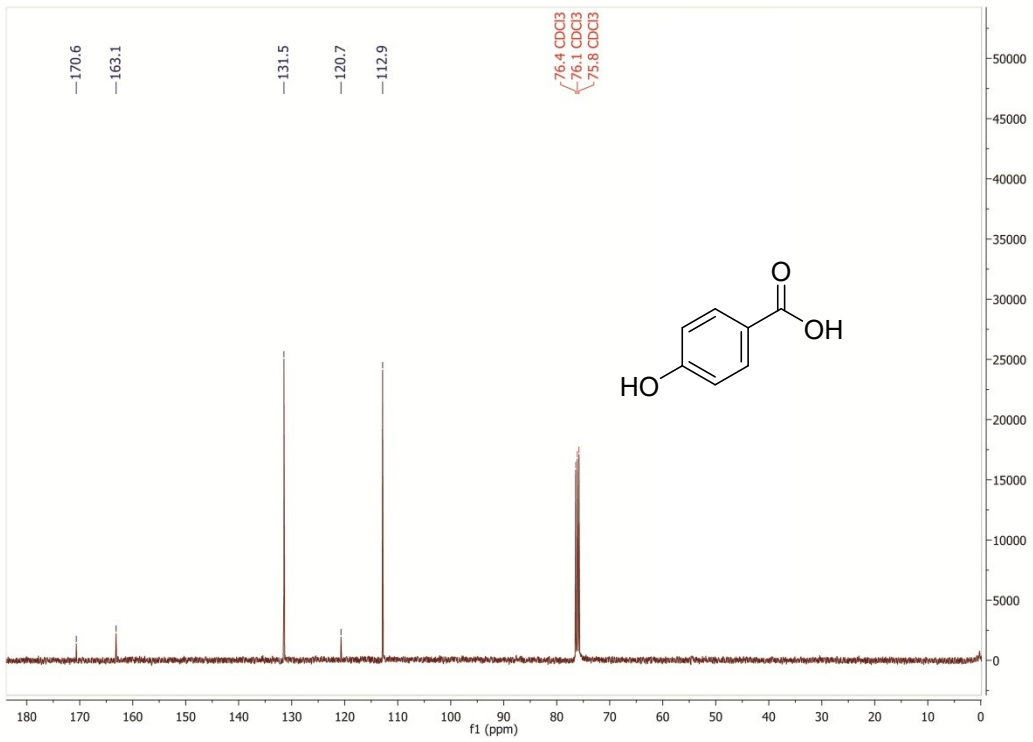
^{13}C NMR spectrum of 4-nitrobenzoic acid



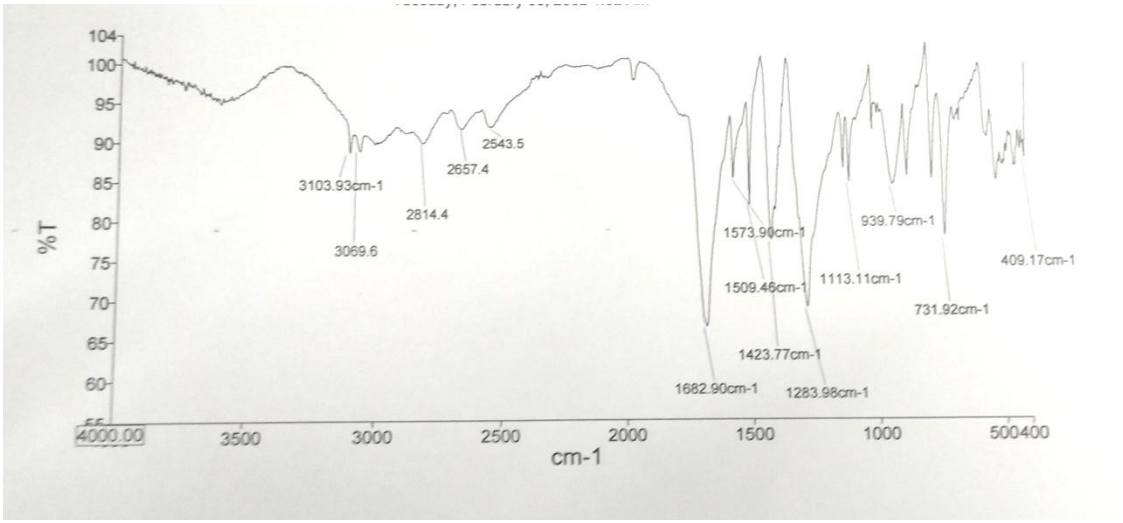
FT-IR spectrum of 4-hydroxybenzoic acid



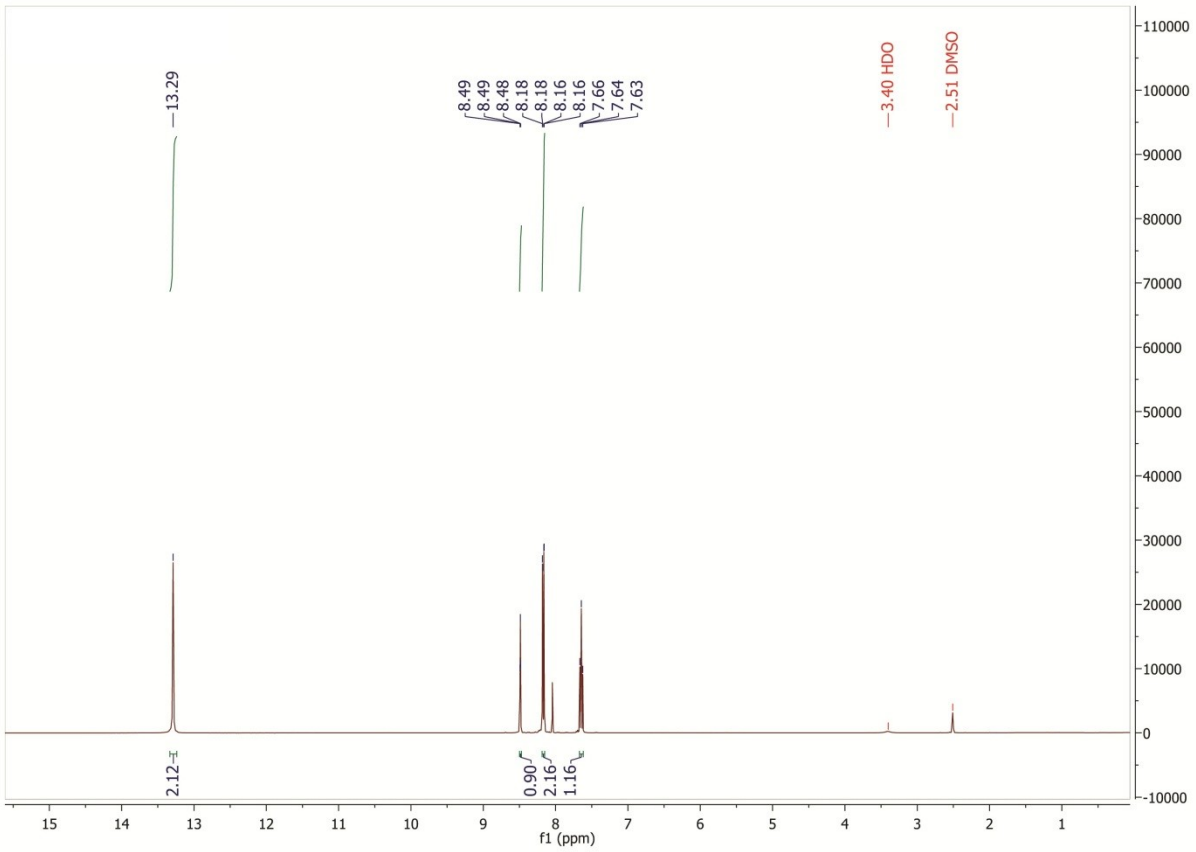
^{1}H NMR spectrum of 4-hydroxybenzoic acid



^{13}C NMR spectrum of 4-hydroxybenzoic acid



FT-IR spectrum of Isophthalic acid



^{1}H NMR spectrum of Isophthalic acid