

Supporting Information

Cobalt carbonyl as an effective CO source in one-pot synthesis of esters from aryl halides

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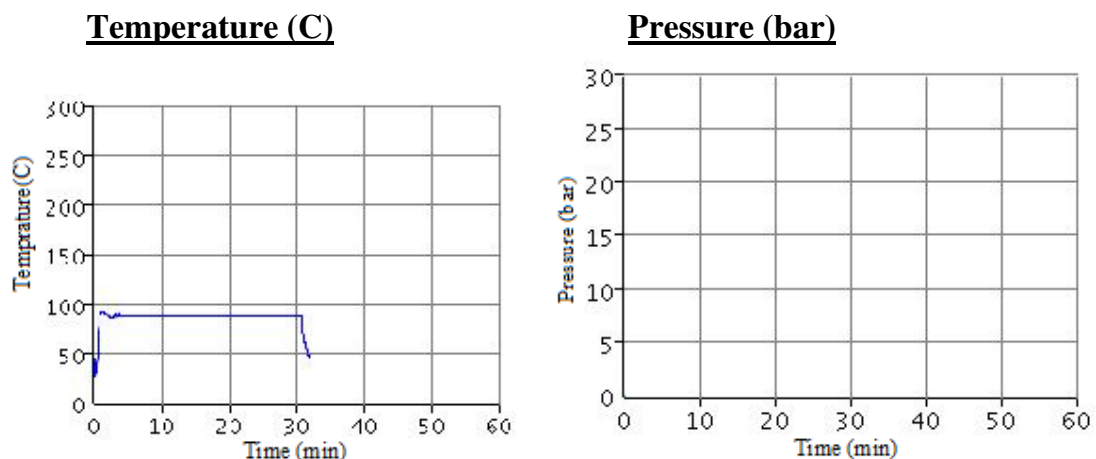
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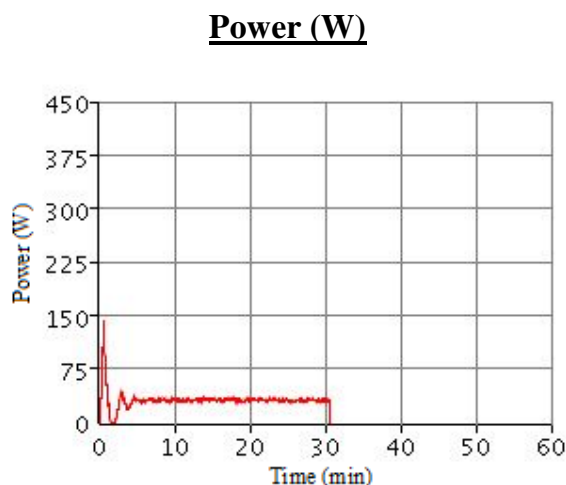
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1 Microwave irradiation parameters (Fig. S1)

All the reactions were executed with a Biotage Initiator. Biotage high precision microwave vials and magnetic pellets are used for the reactions. The temperature, pressure and power profile during a carbonylation reaction at irradiated 90 °C for 30 min as explained in any of the methods discussed above is as given below:



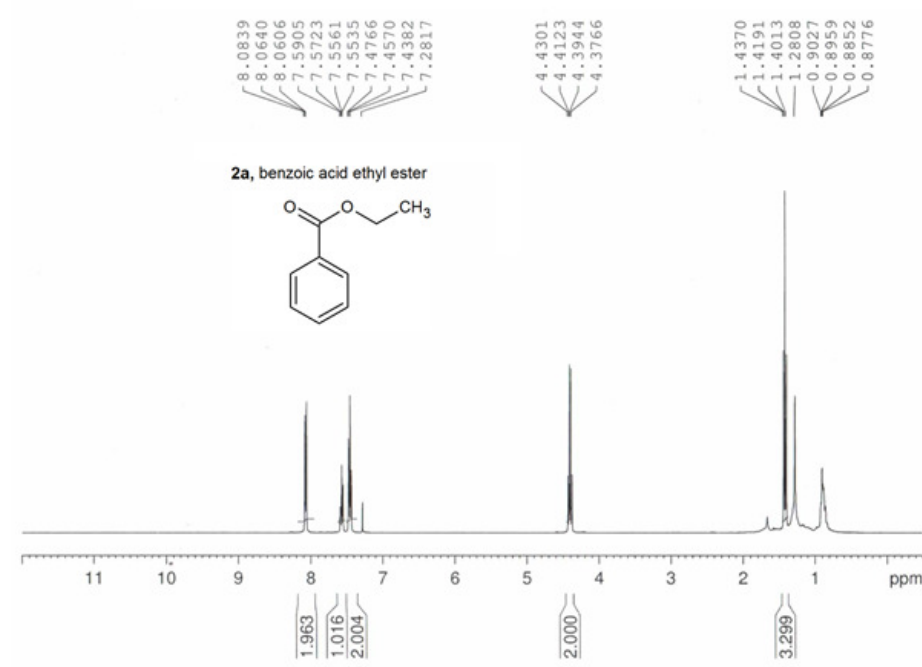
(No measurable pressure developed during the reaction)

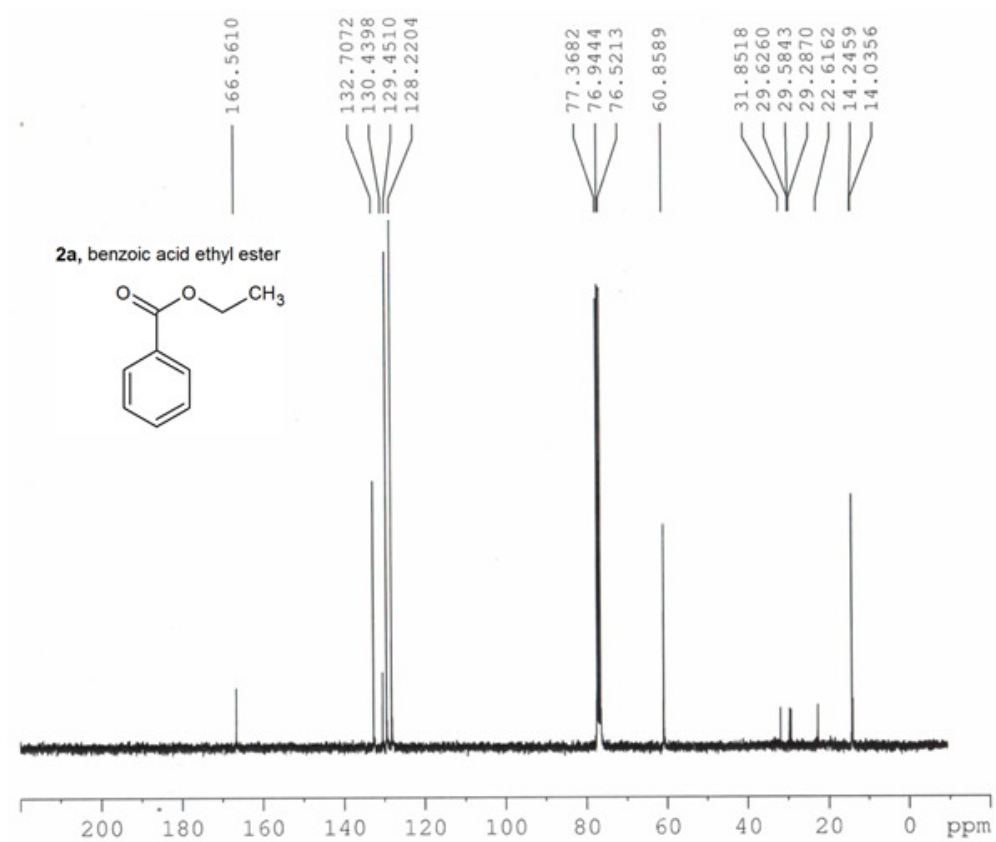


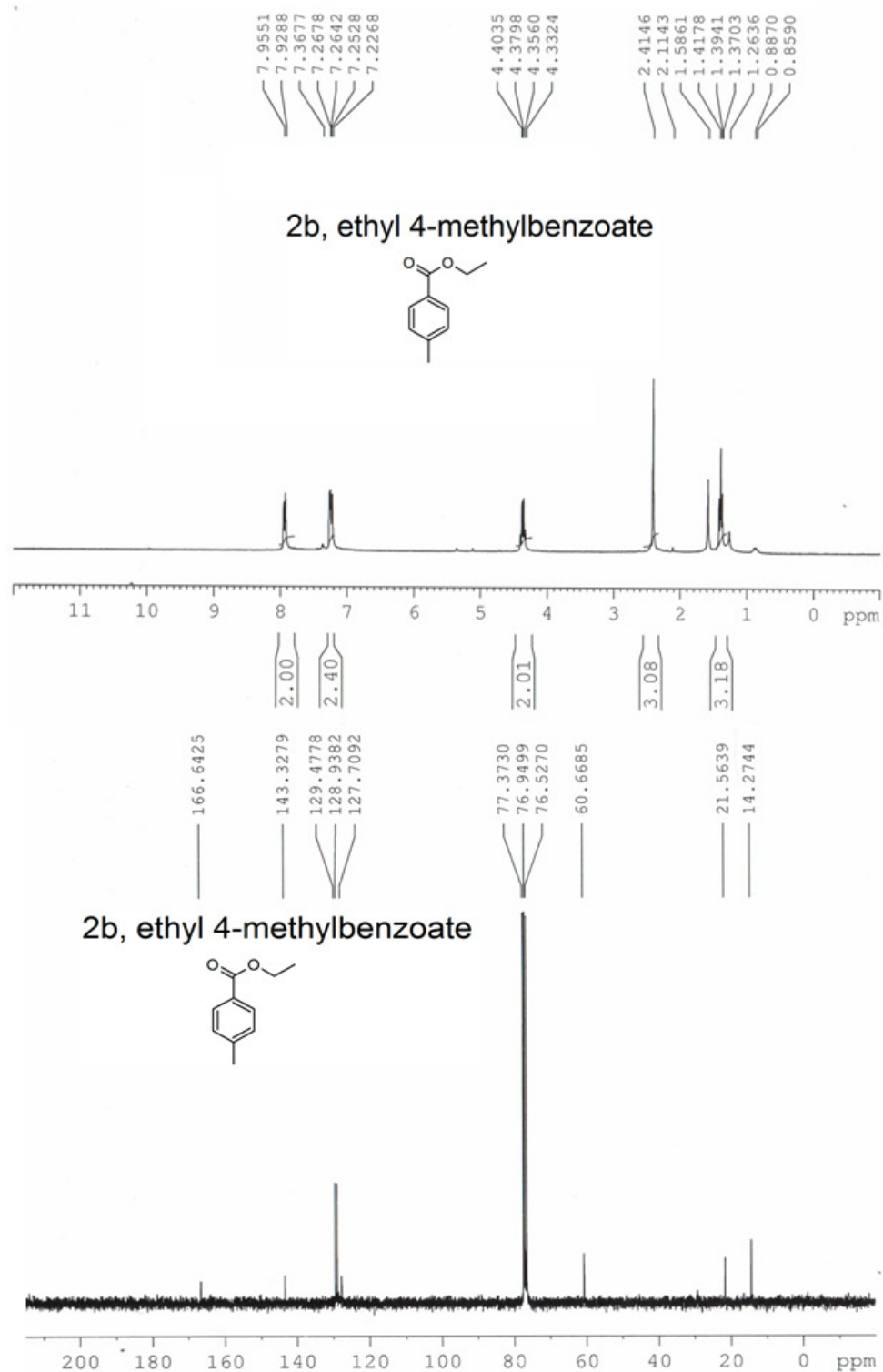
2 Safety parameters

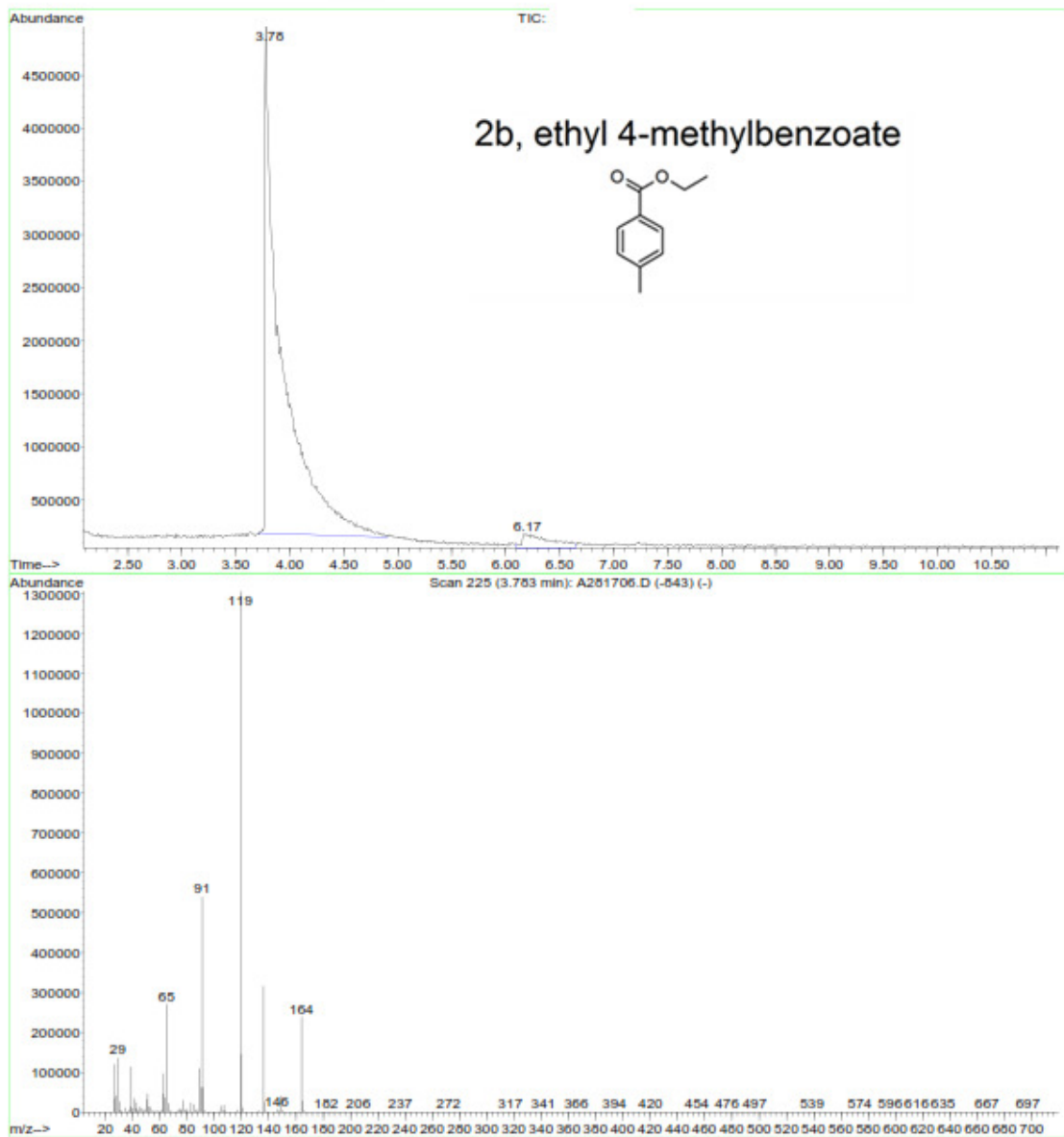
Carbon monoxide gas is highly toxic and should be handled by trained professionals in well ventilated fume hood with appropriate ventilation. In all the reactions, $\text{Co}_2(\text{CO})_8$ was handled carefully in Fume hoods and by using appropriate personal protective clothing and equipment.

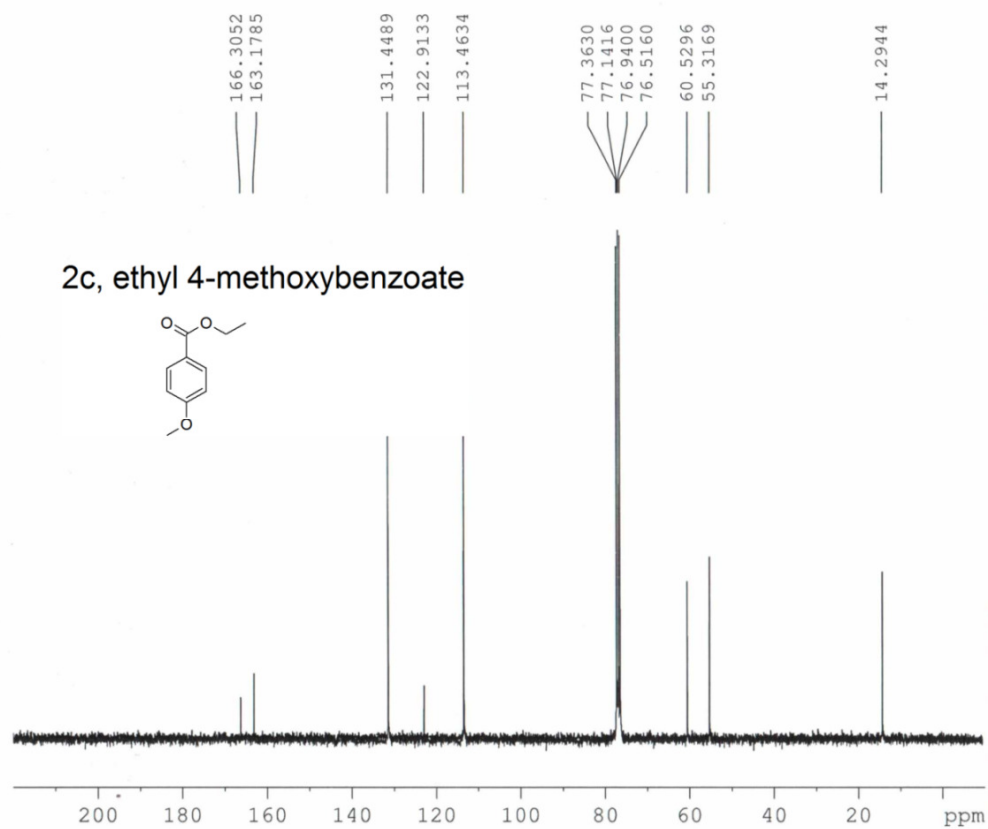
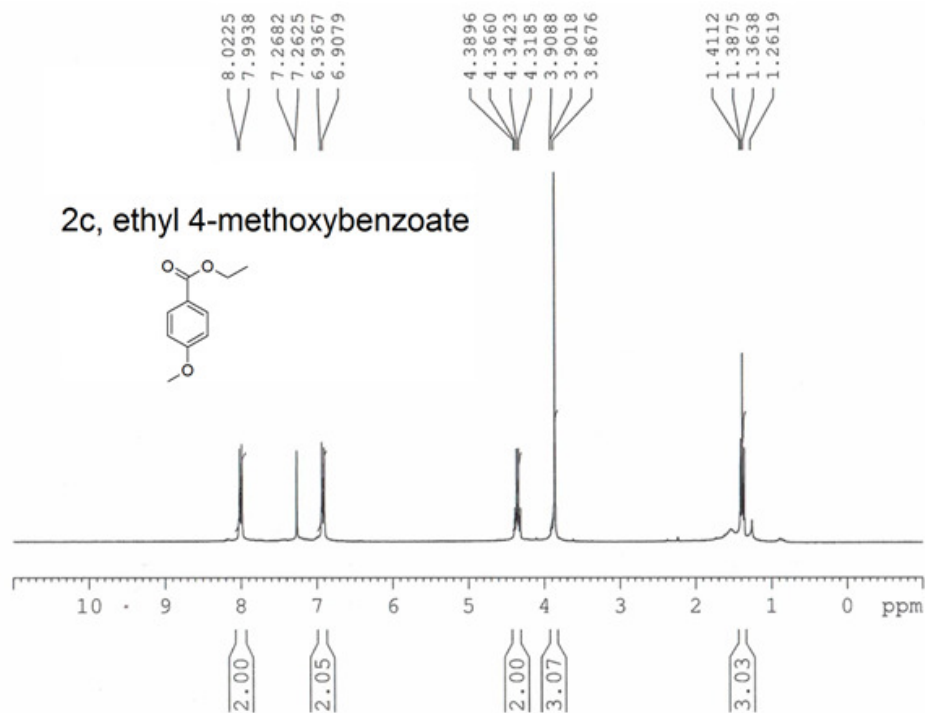
Spectral Data (^1H & ^{13}C & GC-MS) of all products



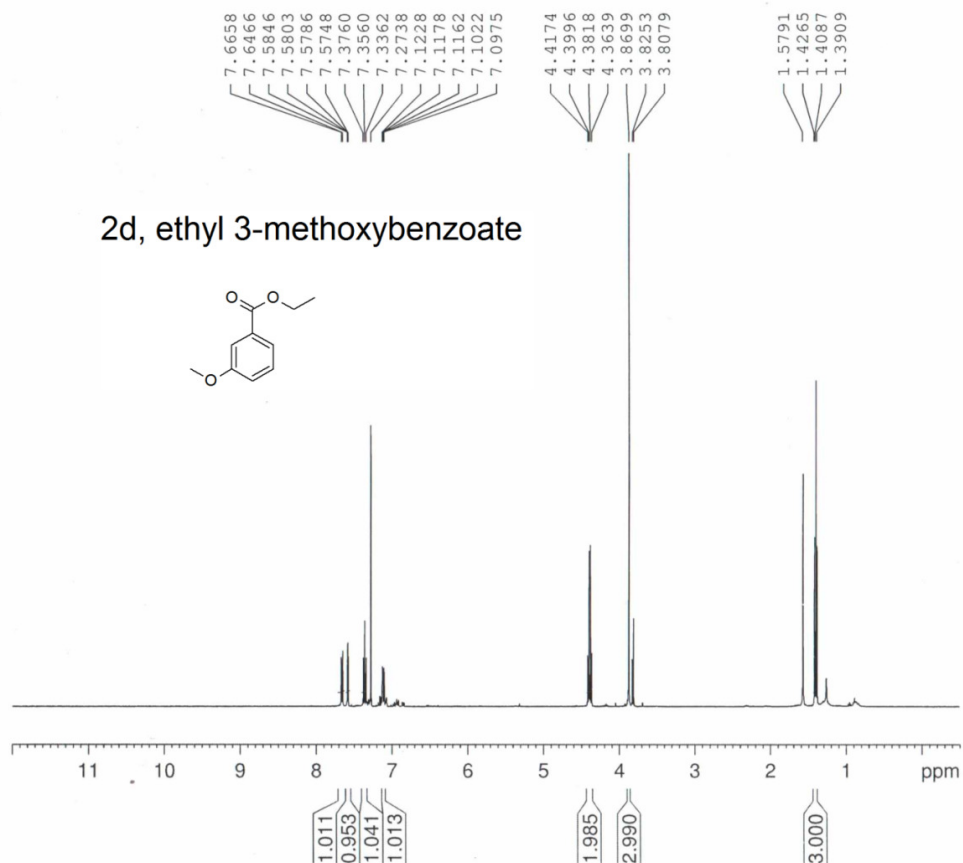
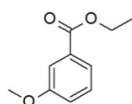




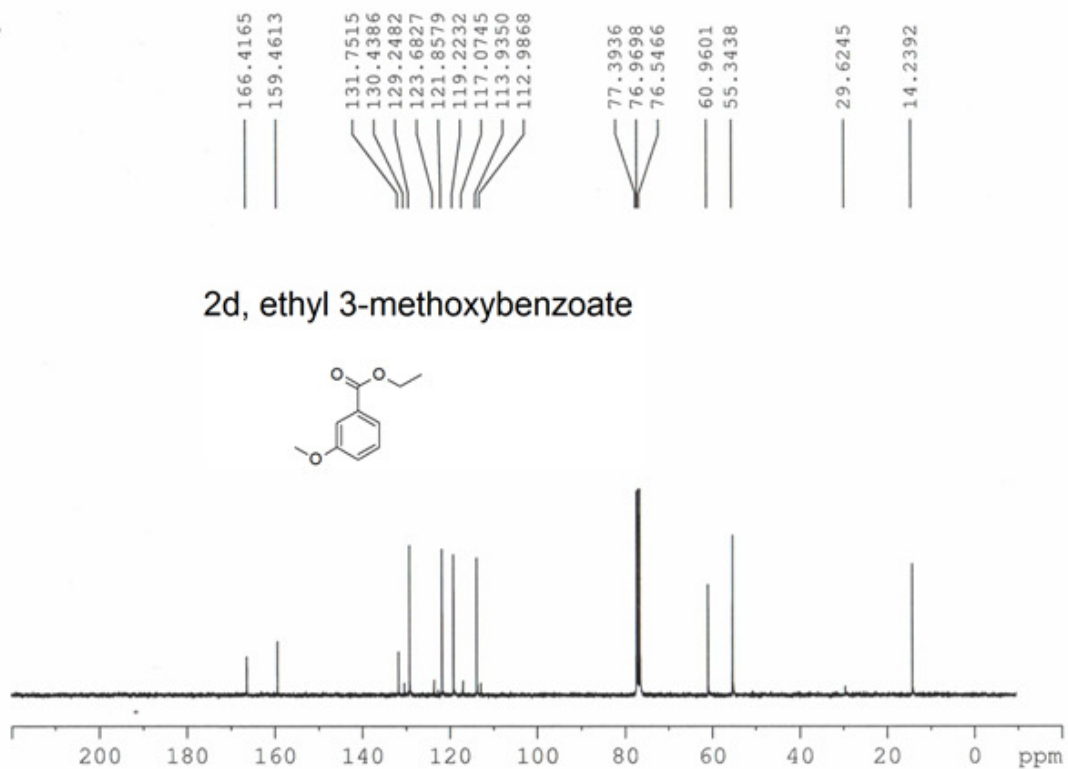
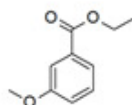


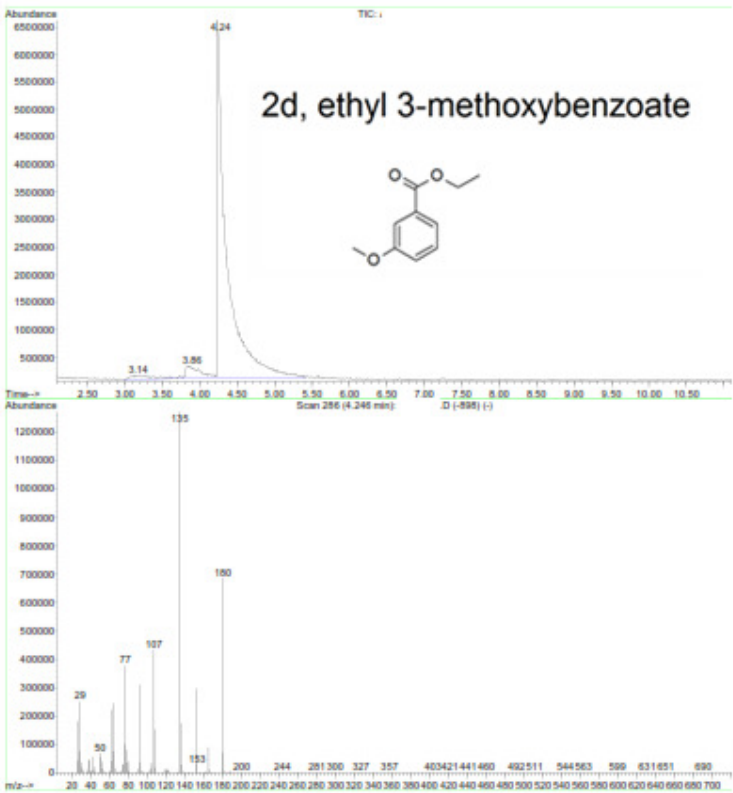


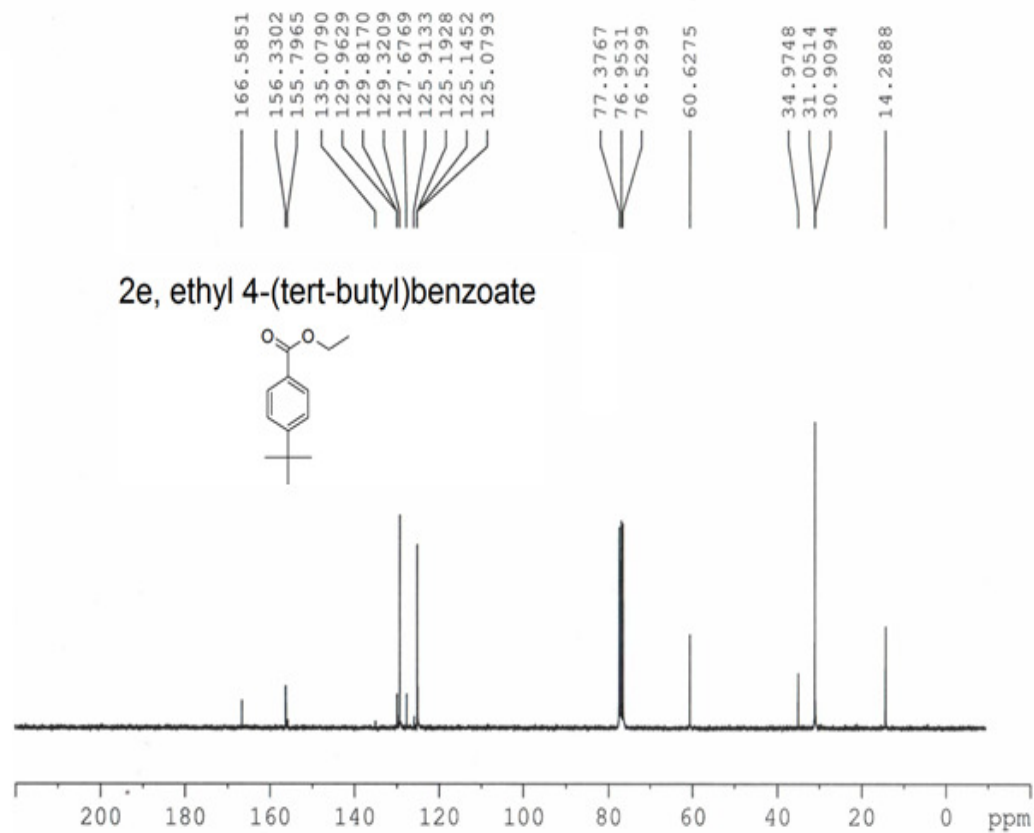
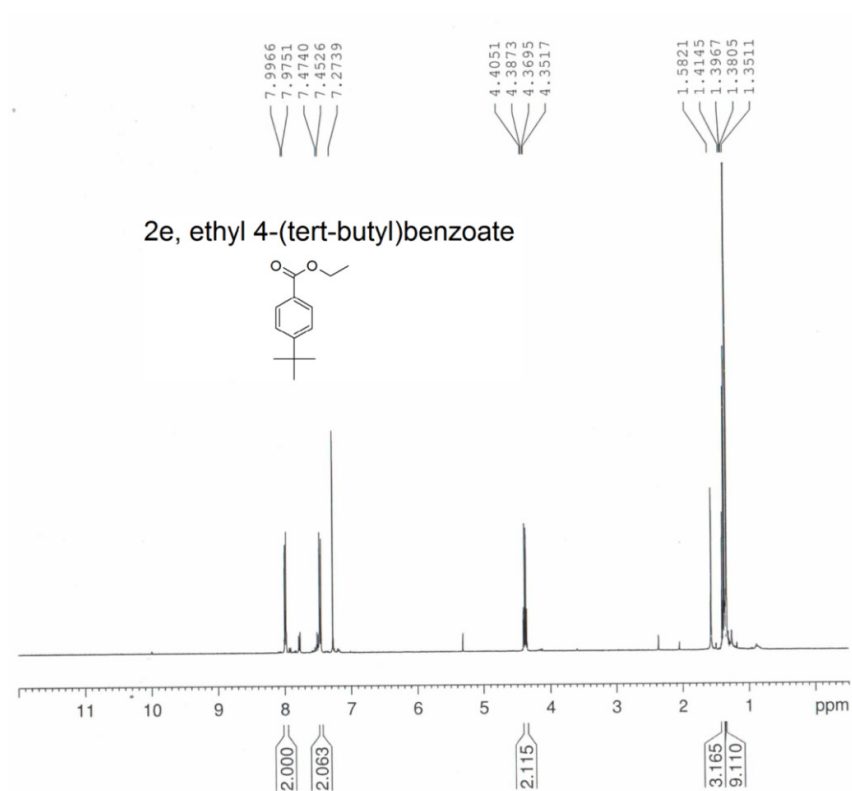
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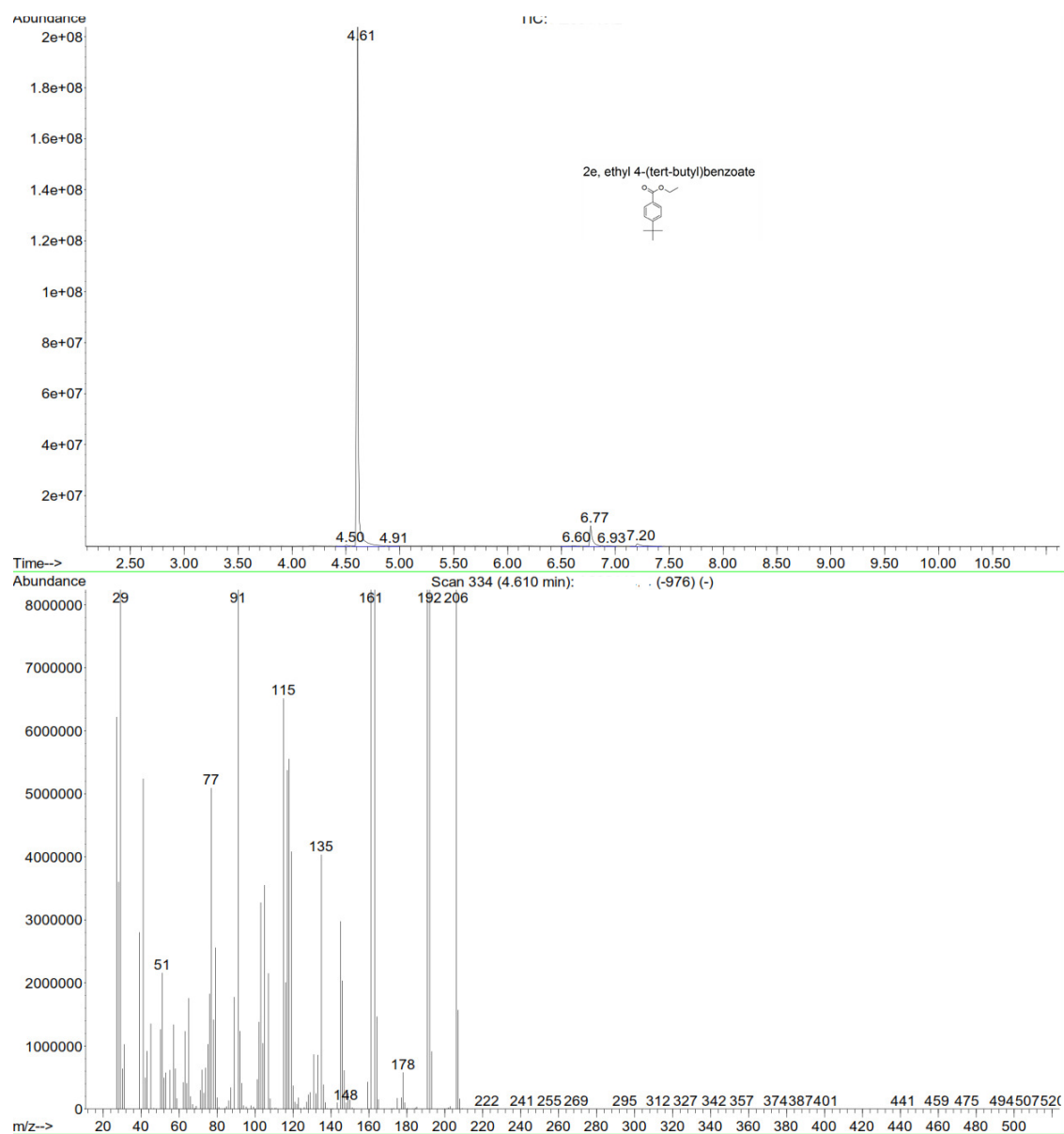


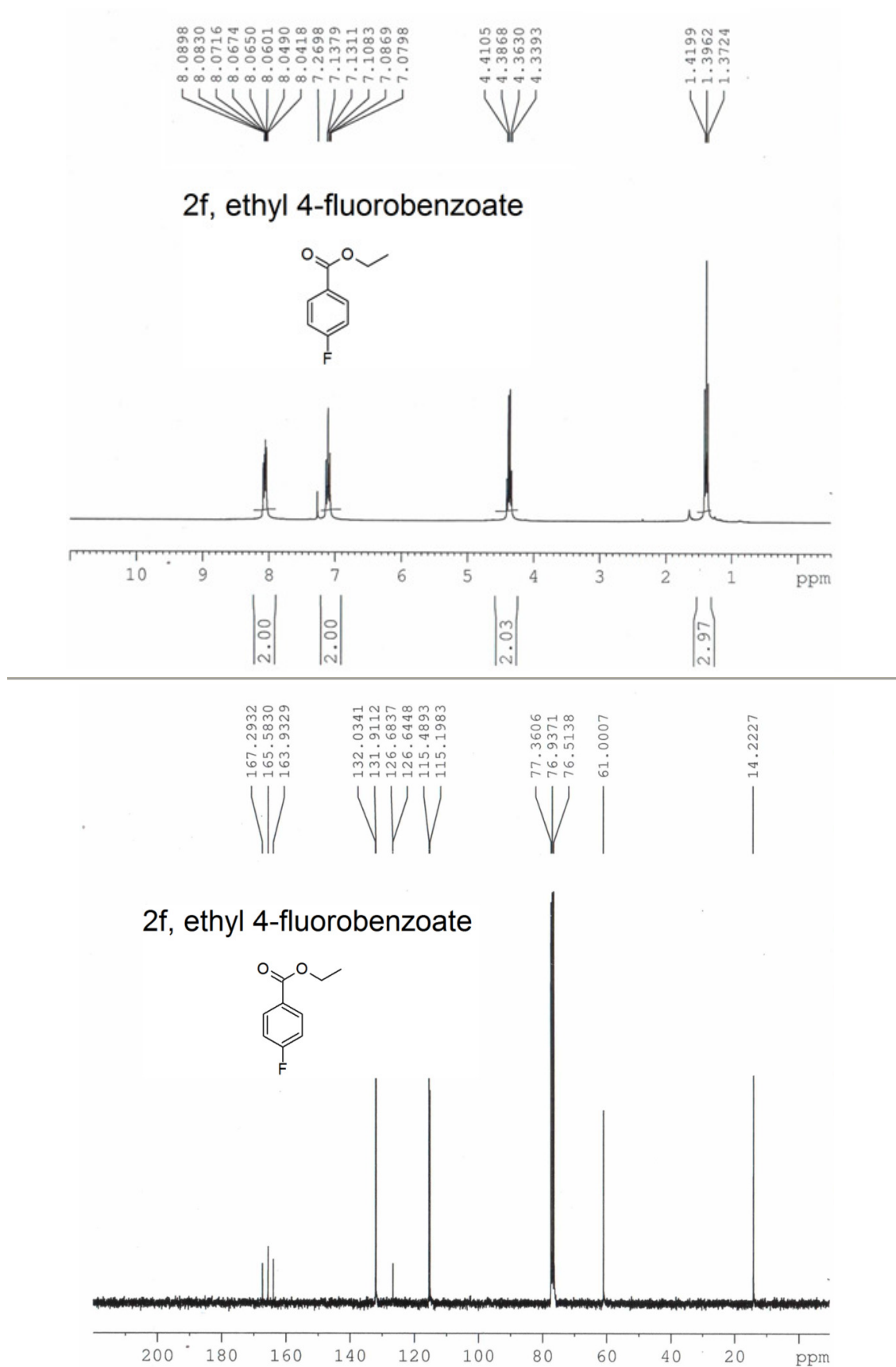
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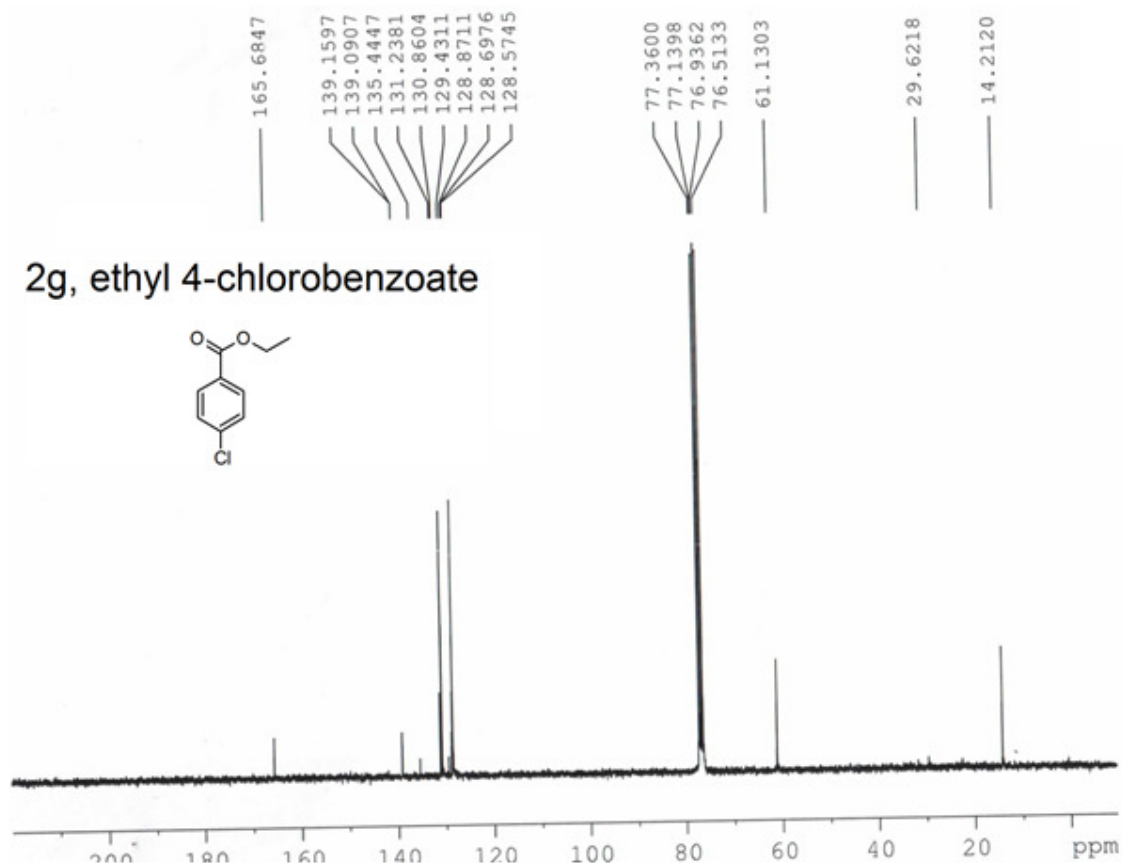
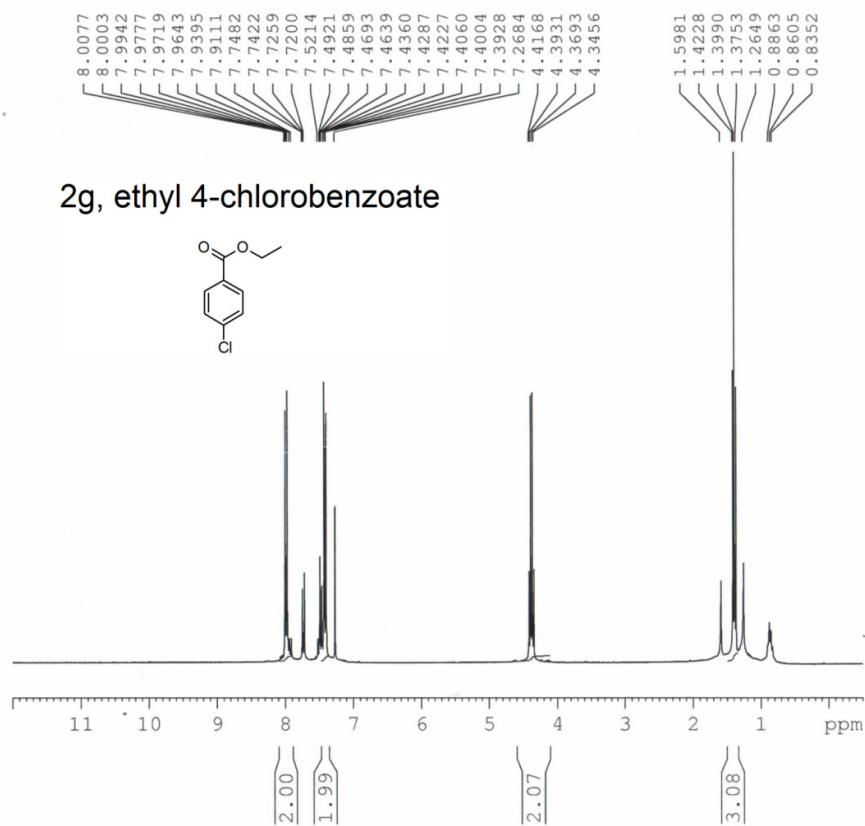


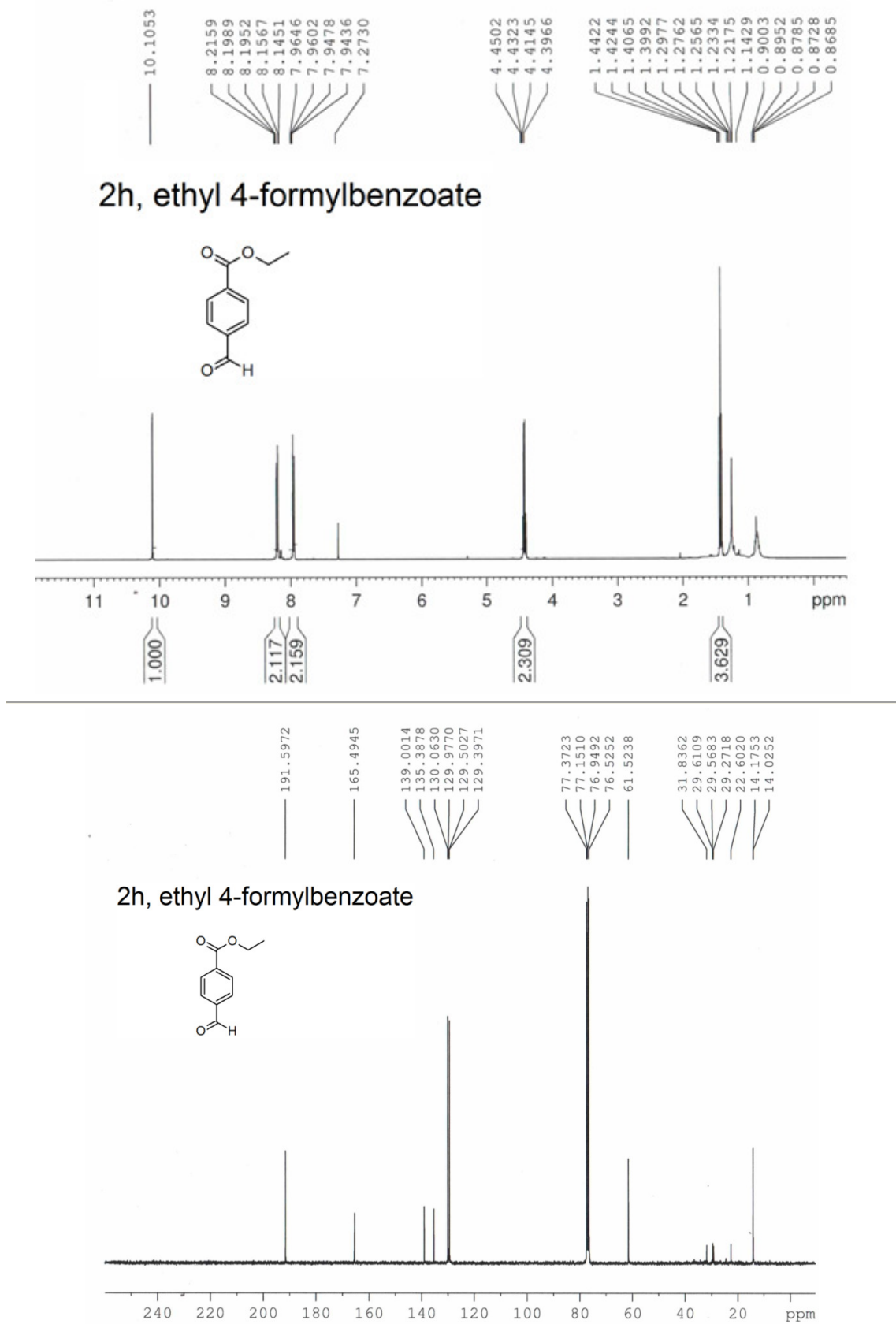


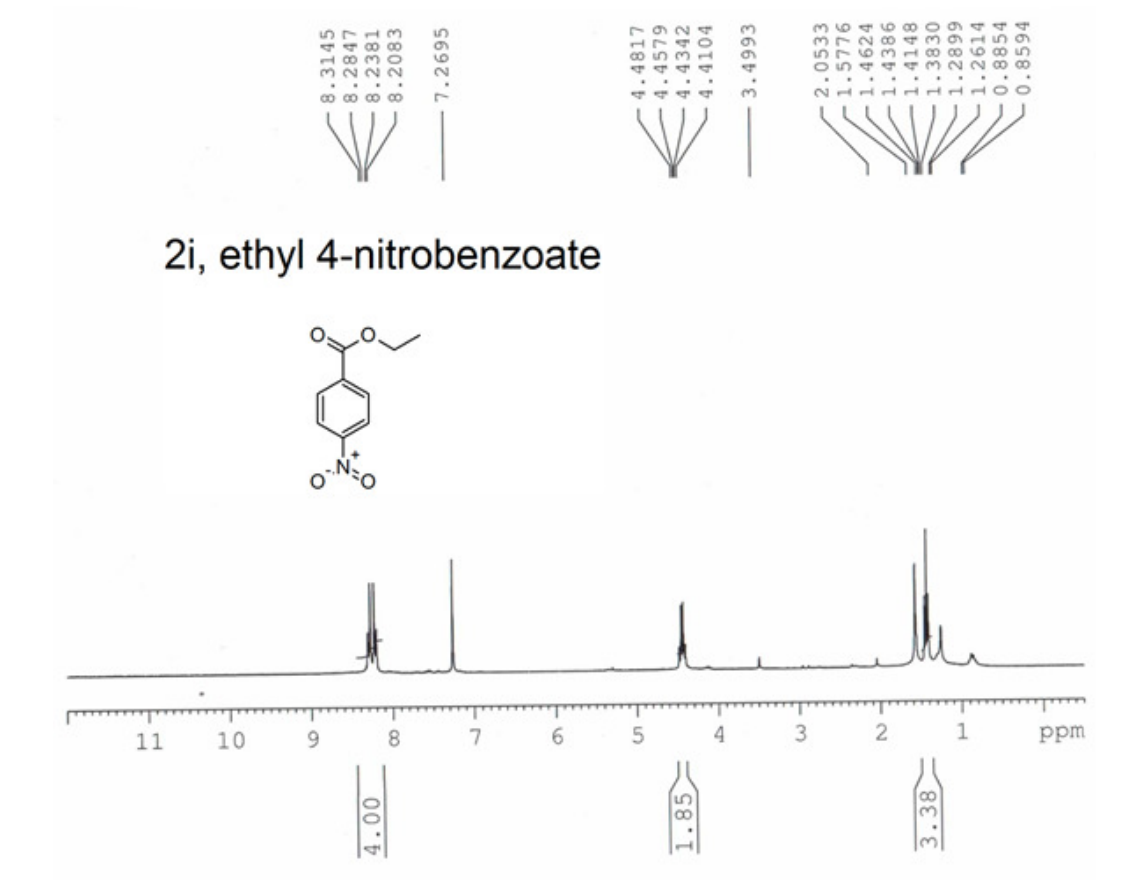




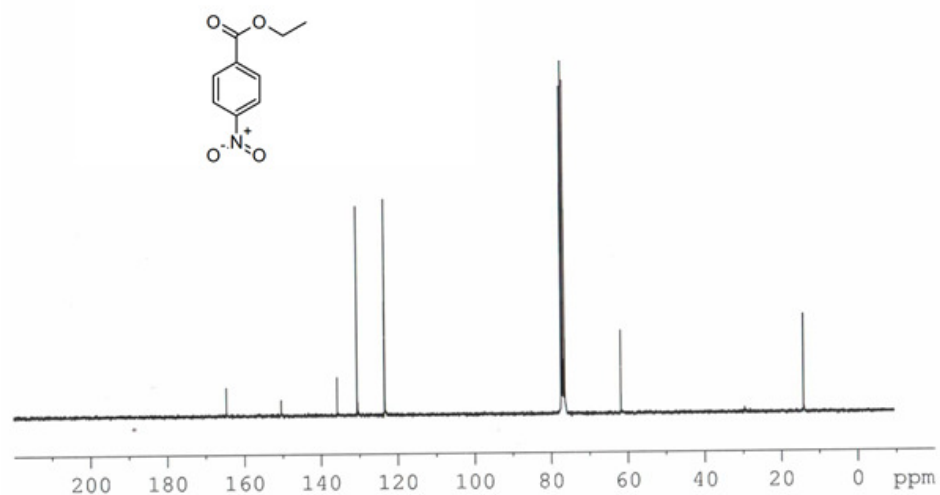


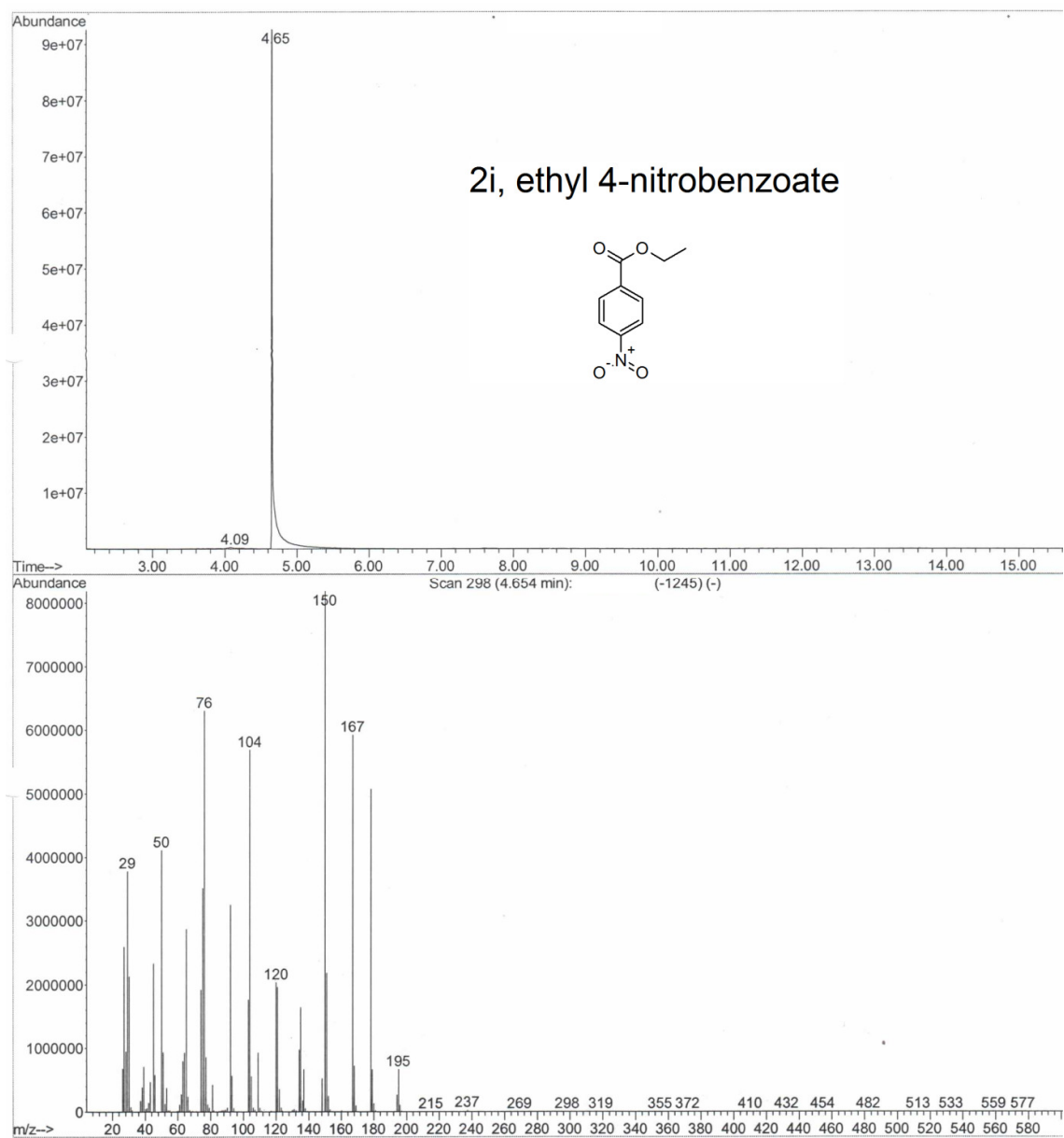


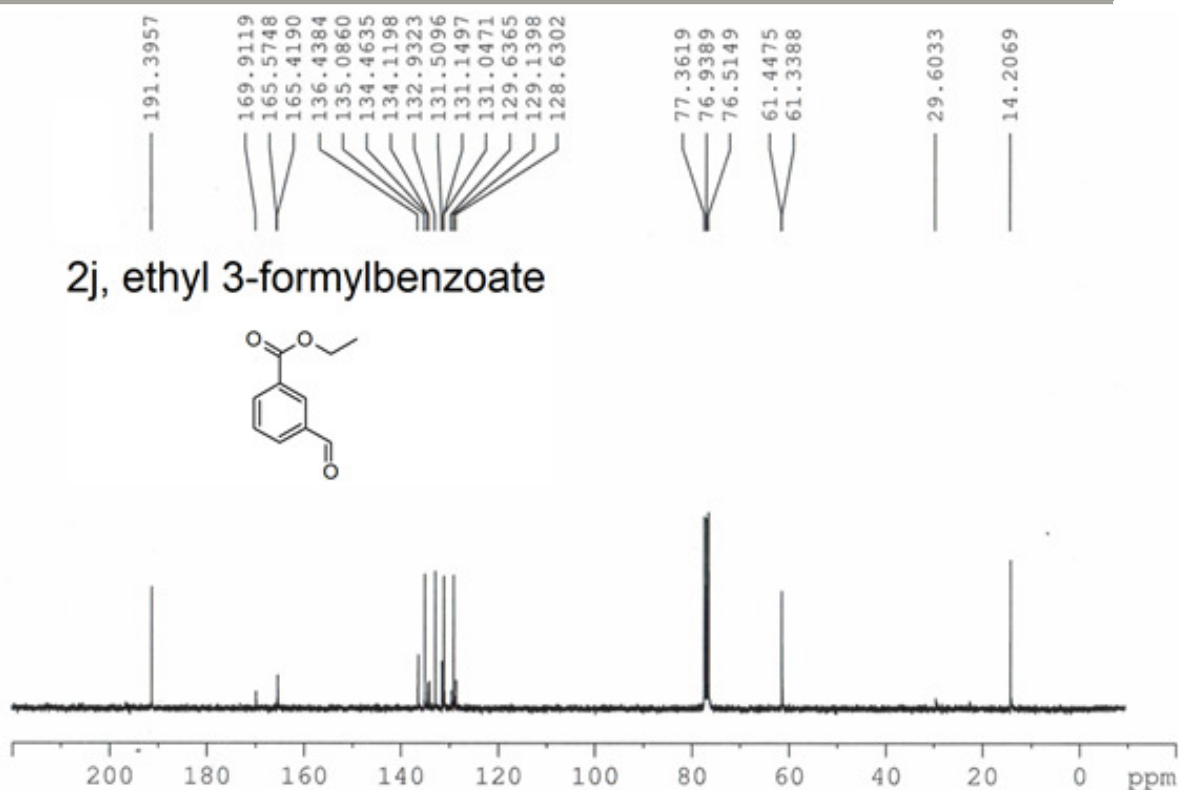
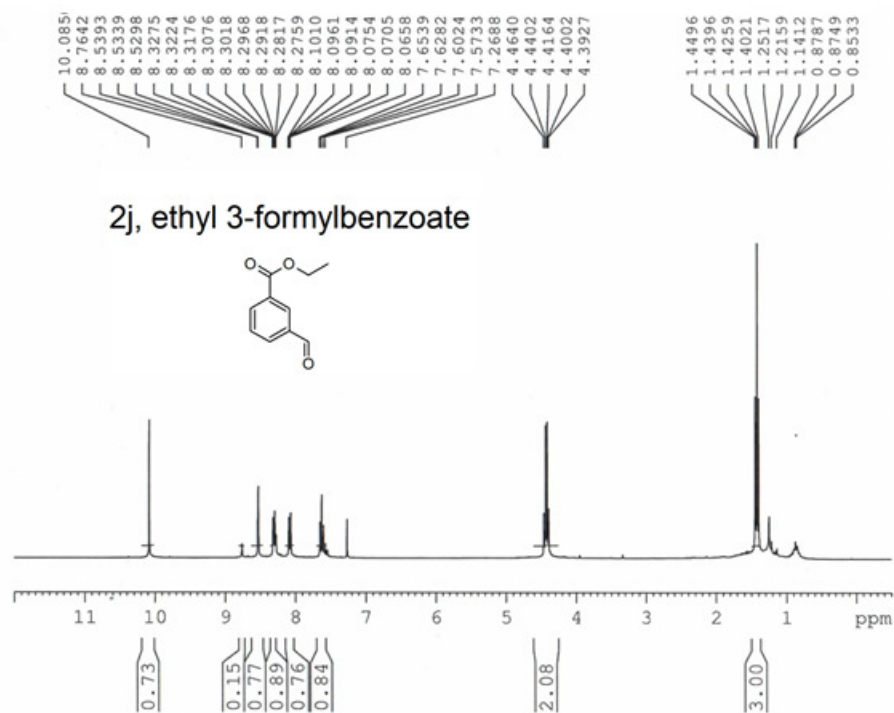


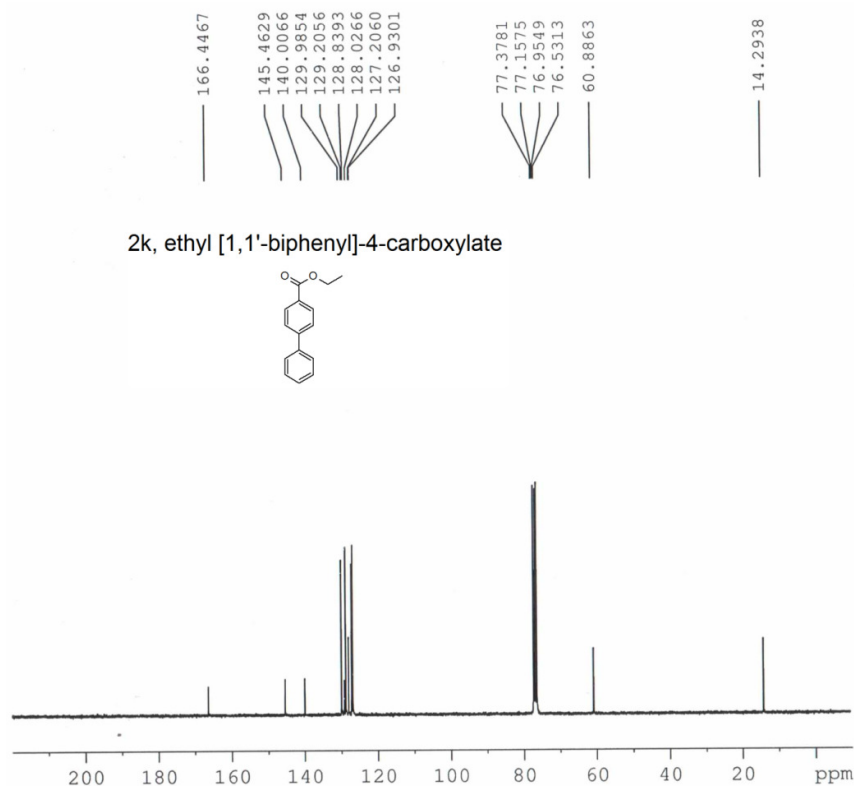
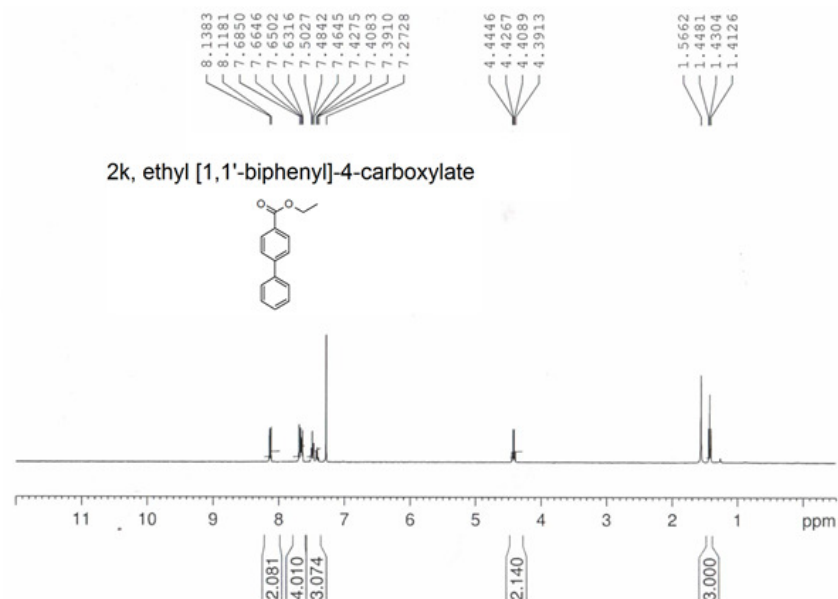


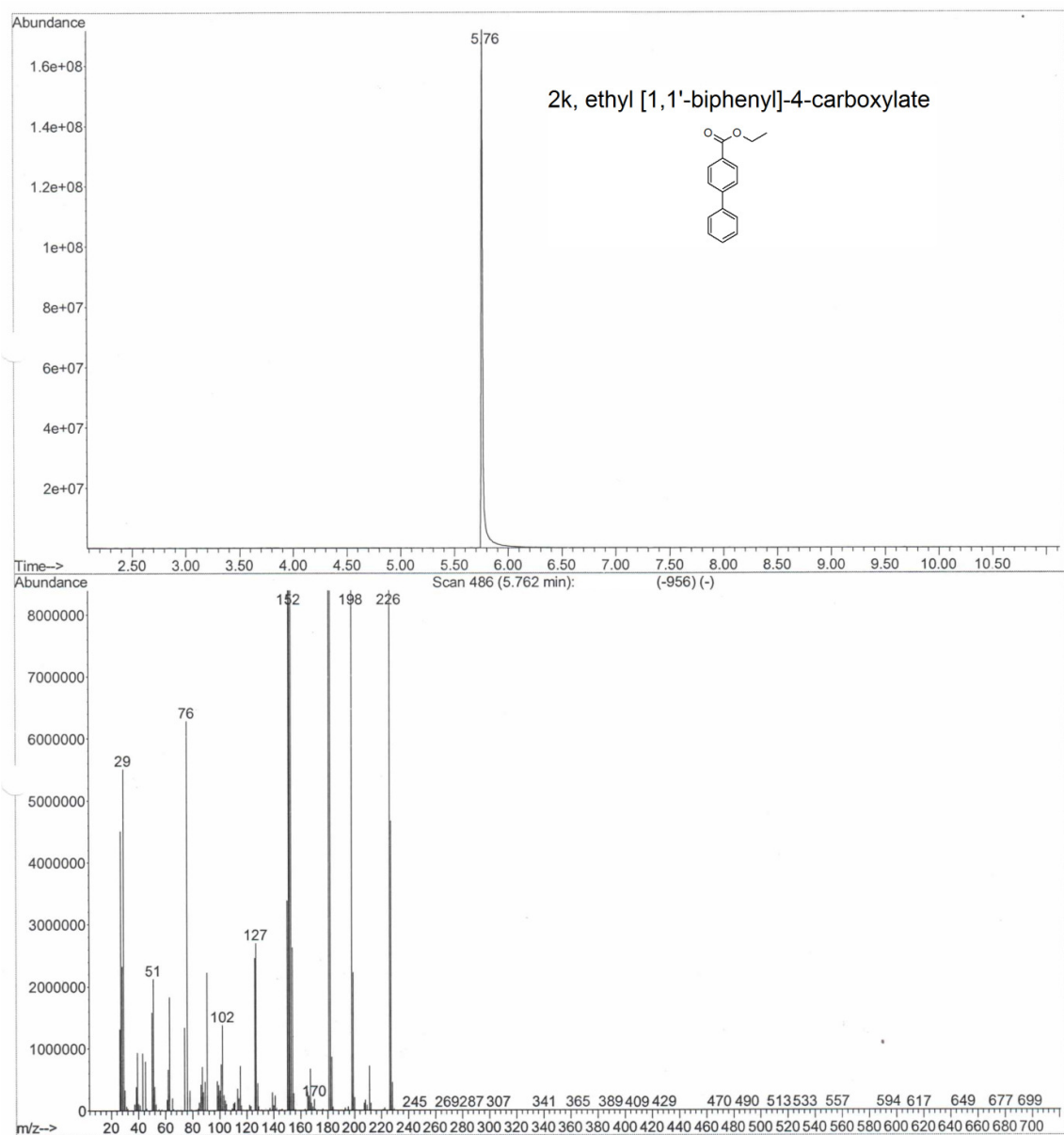
2i, ethyl 4-nitrobenzoate



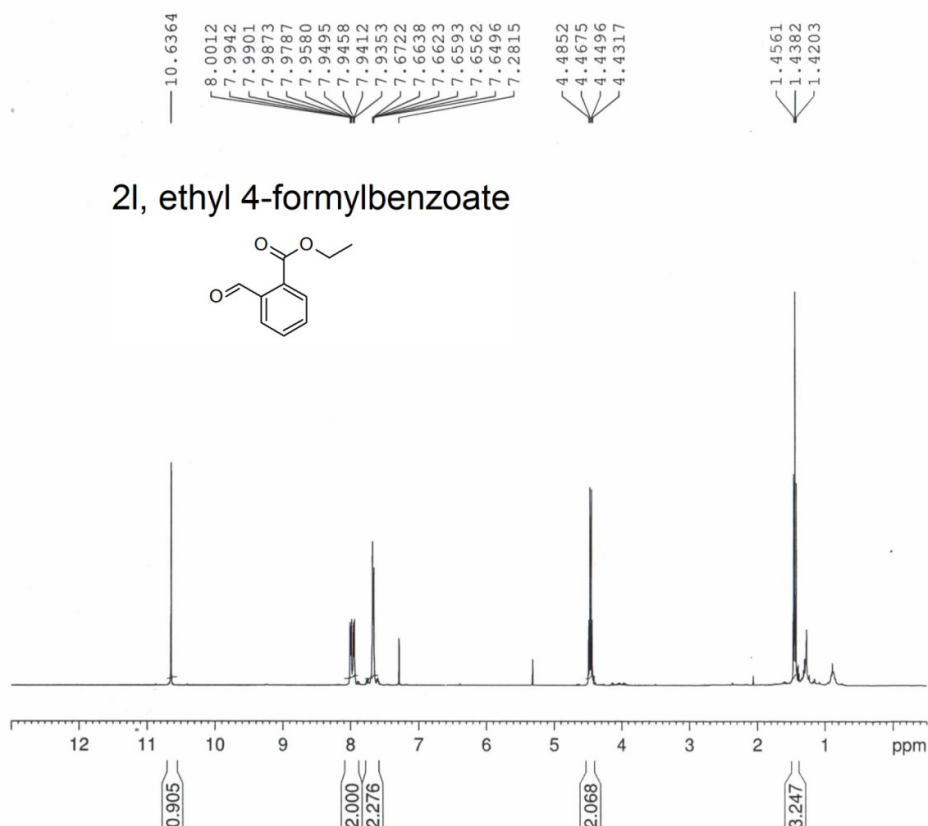
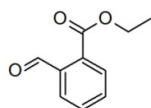




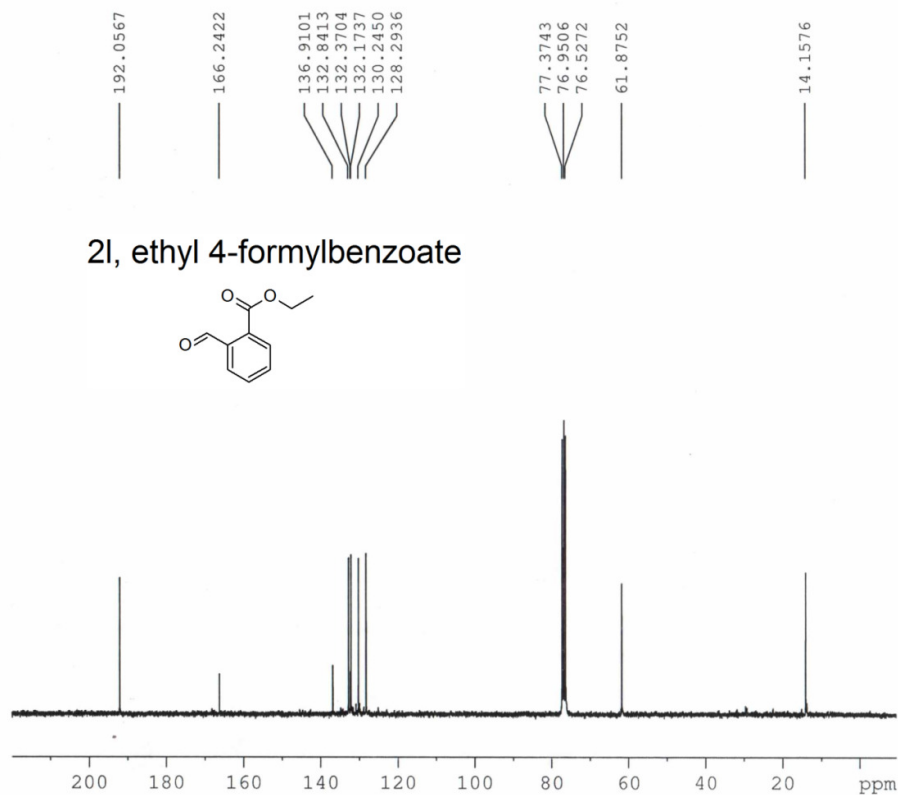
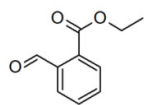


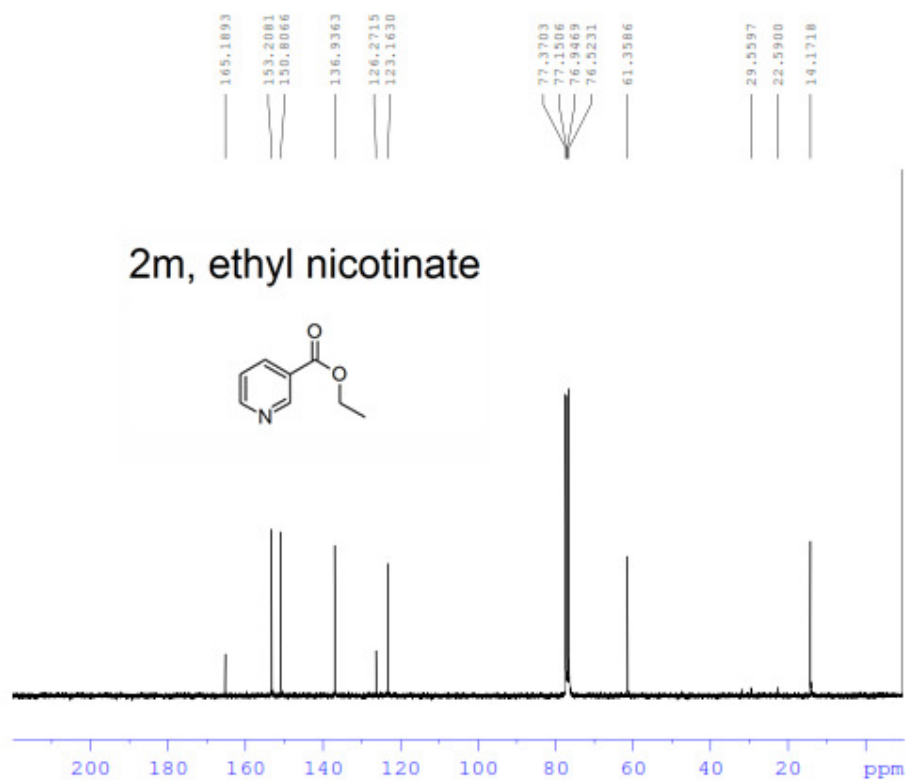
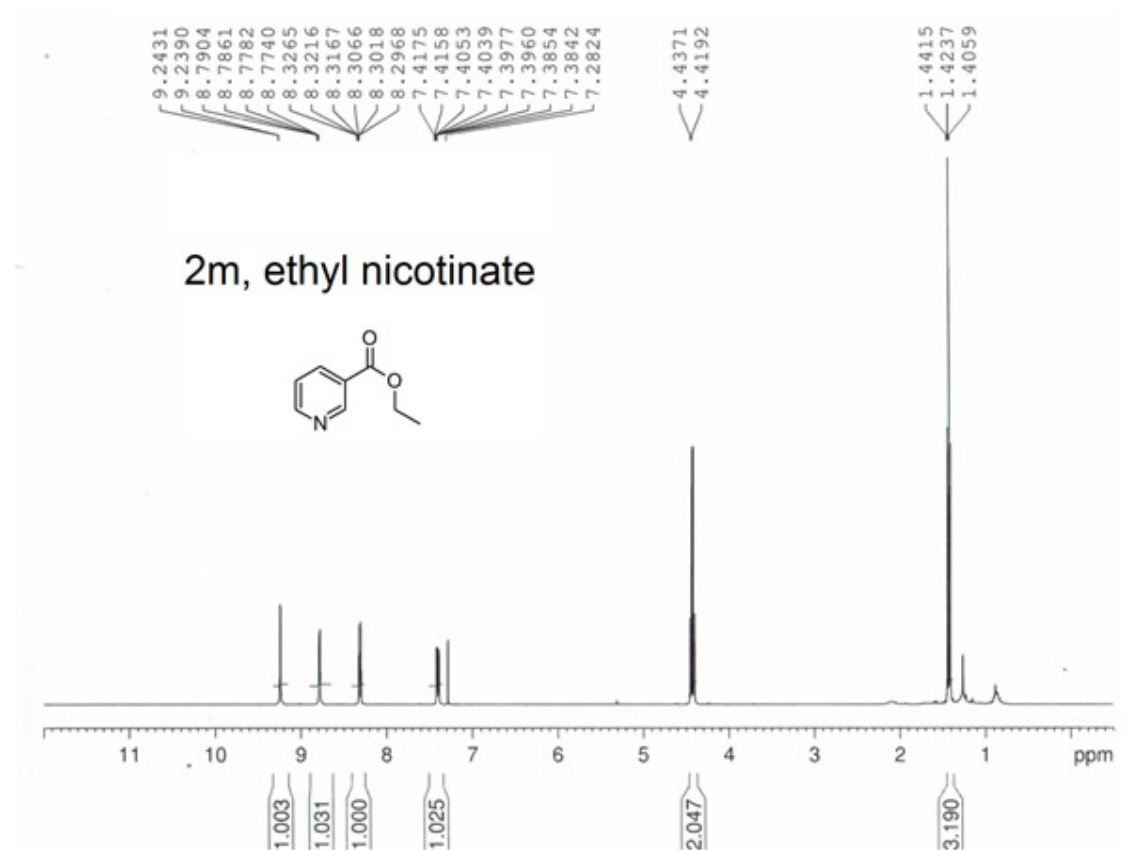


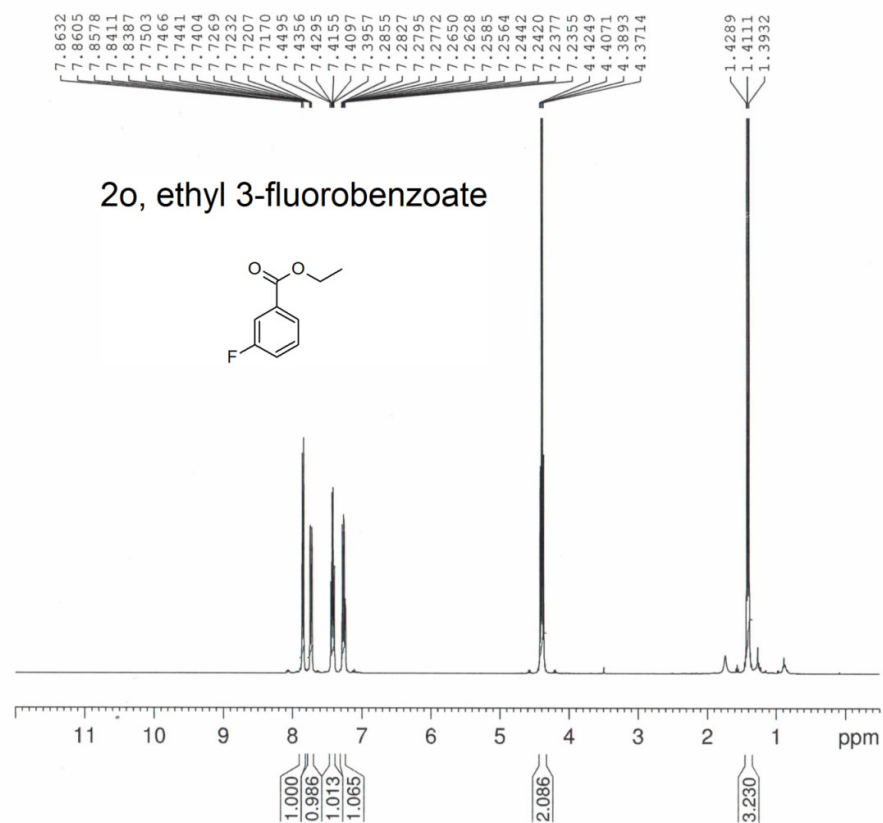
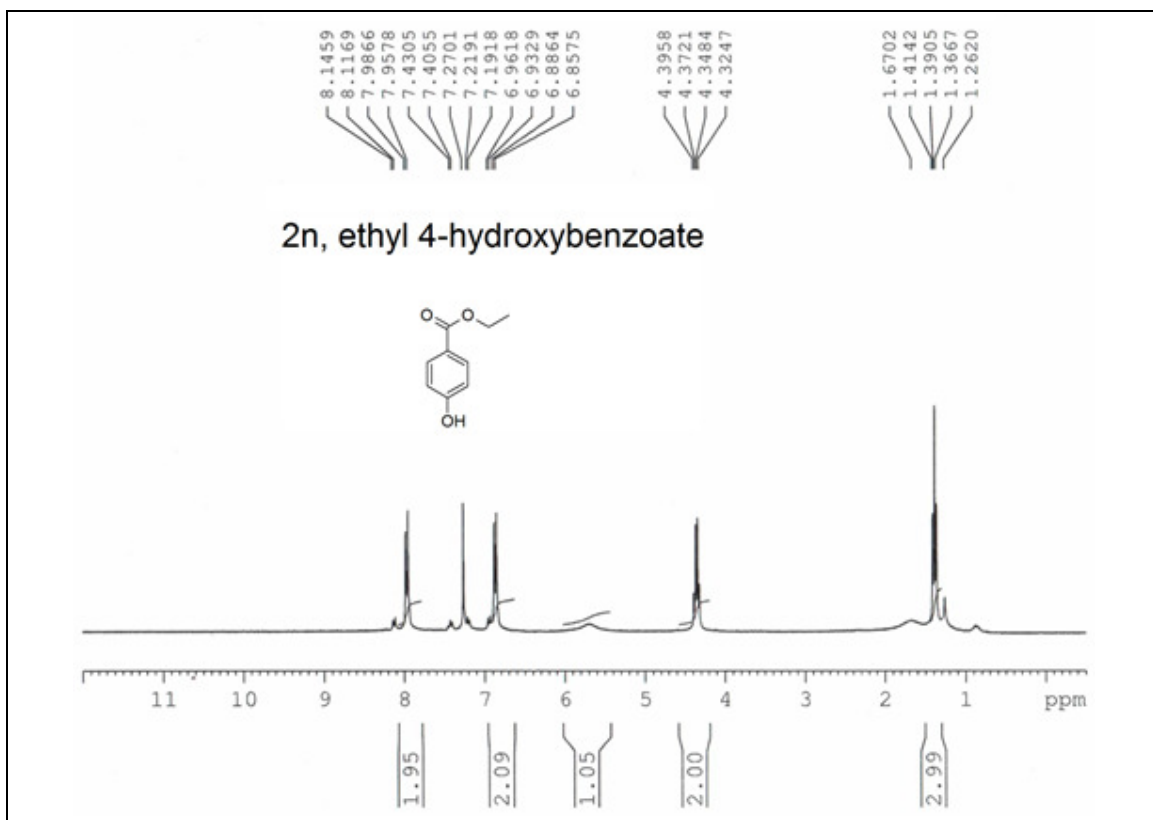
2l, ethyl 4-formylbenzoate

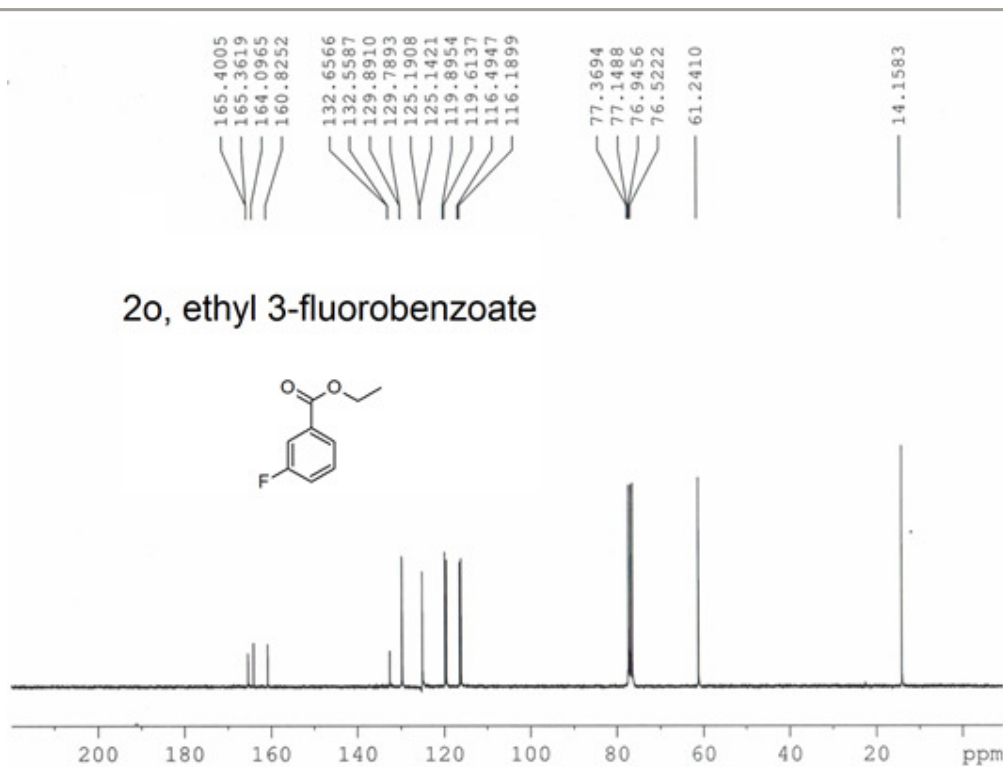


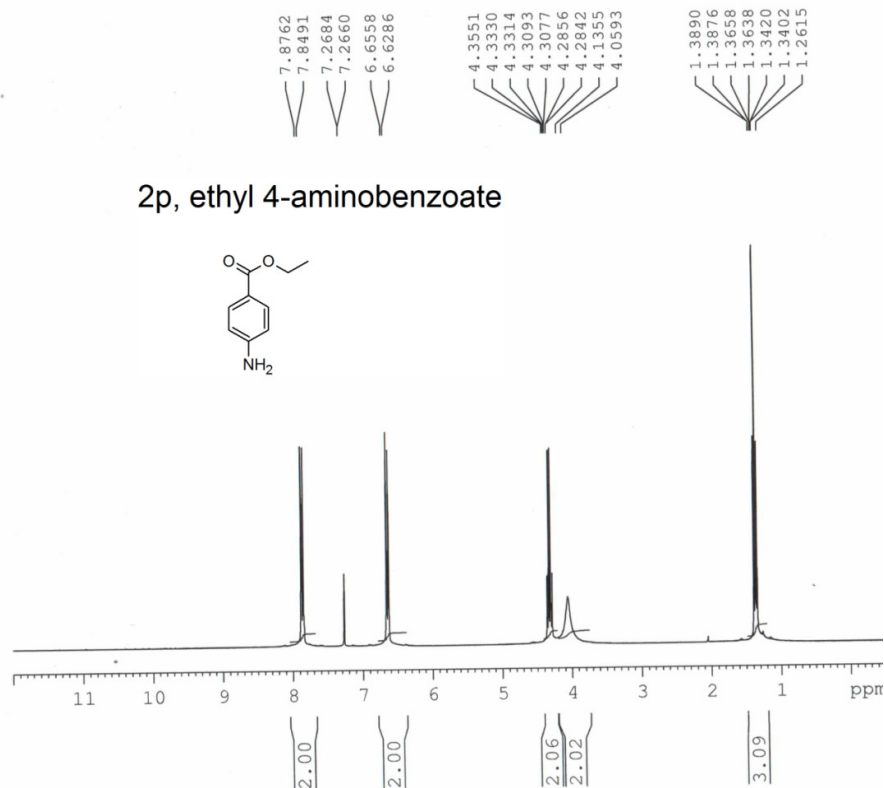
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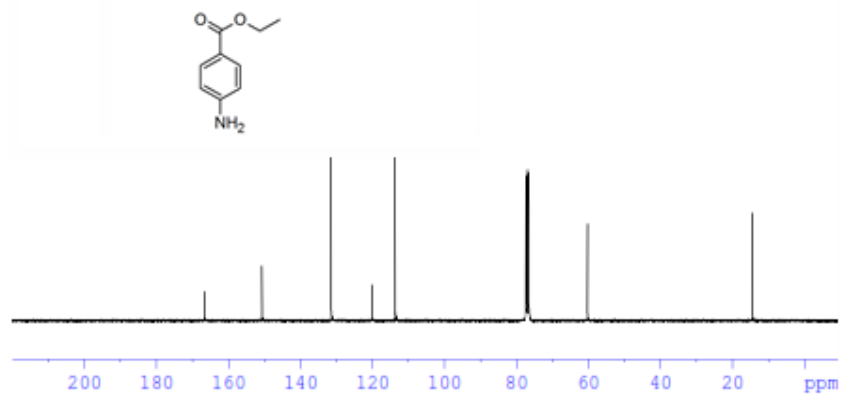


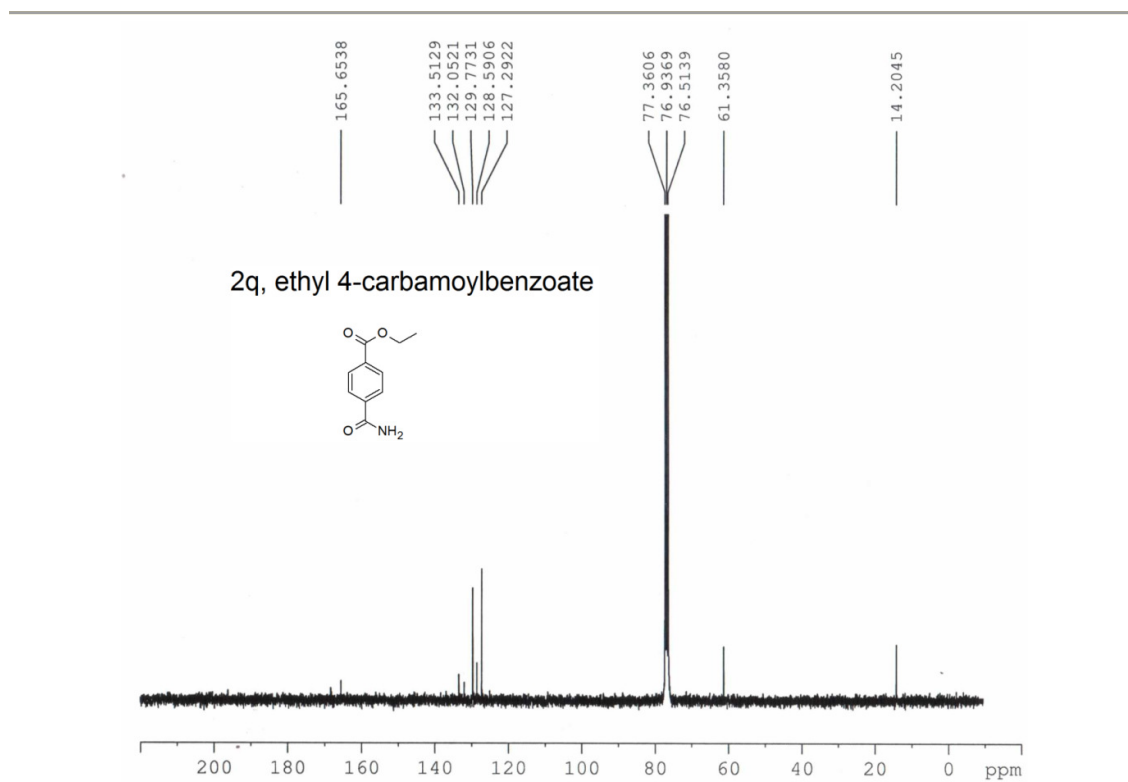
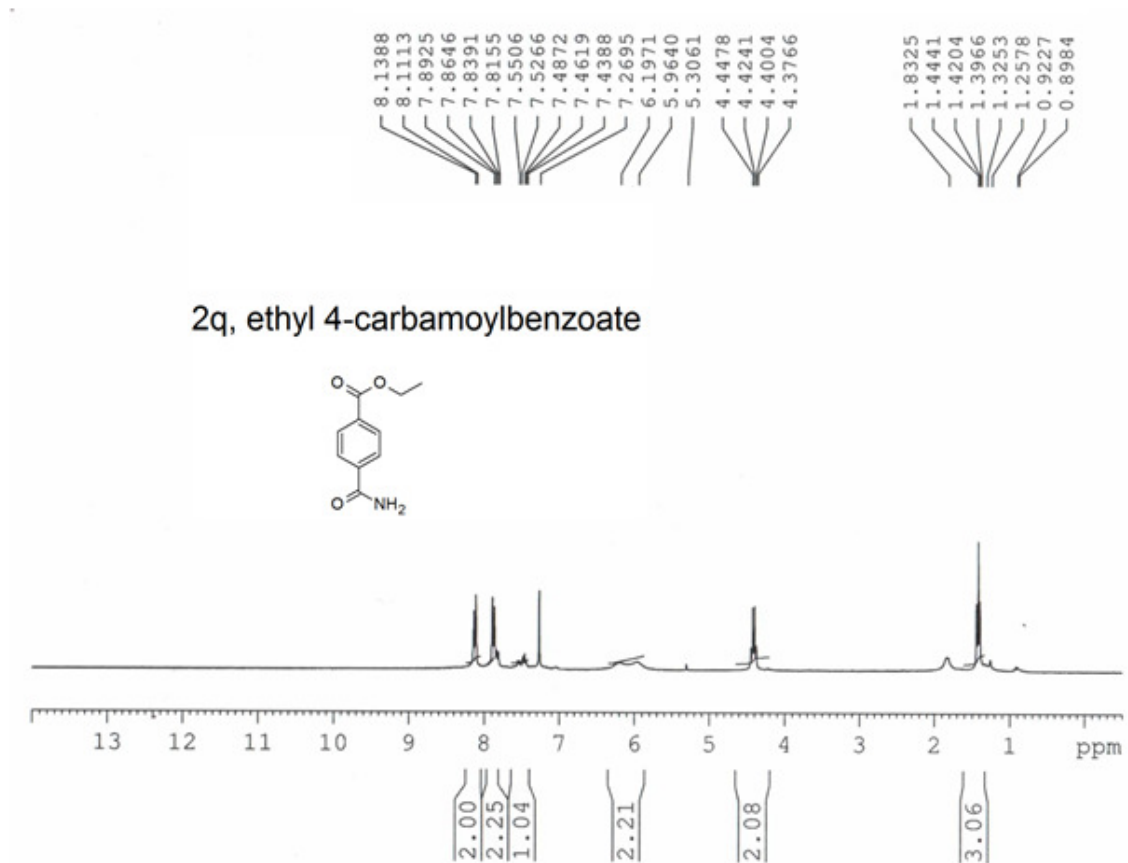


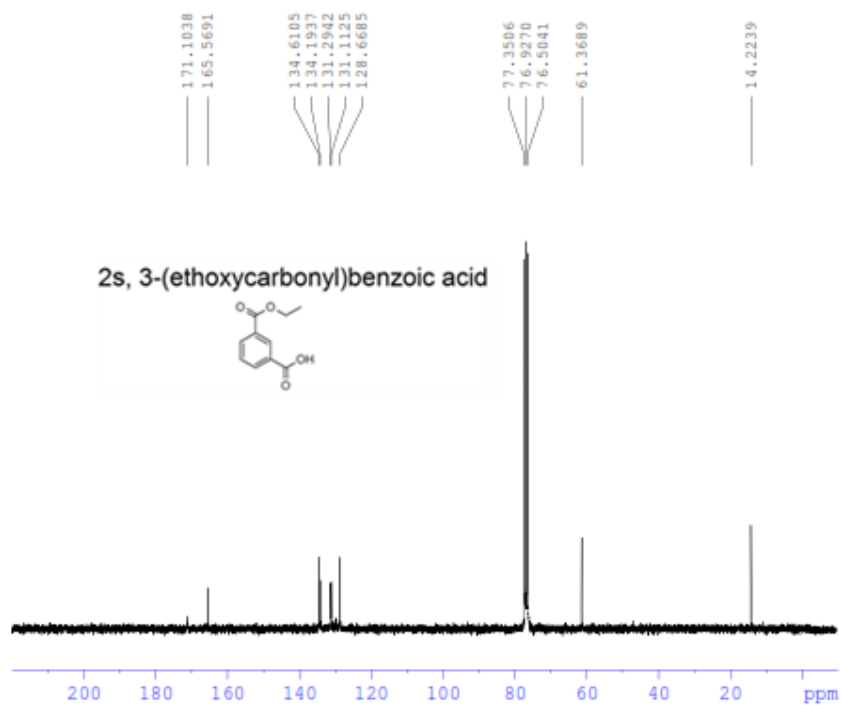
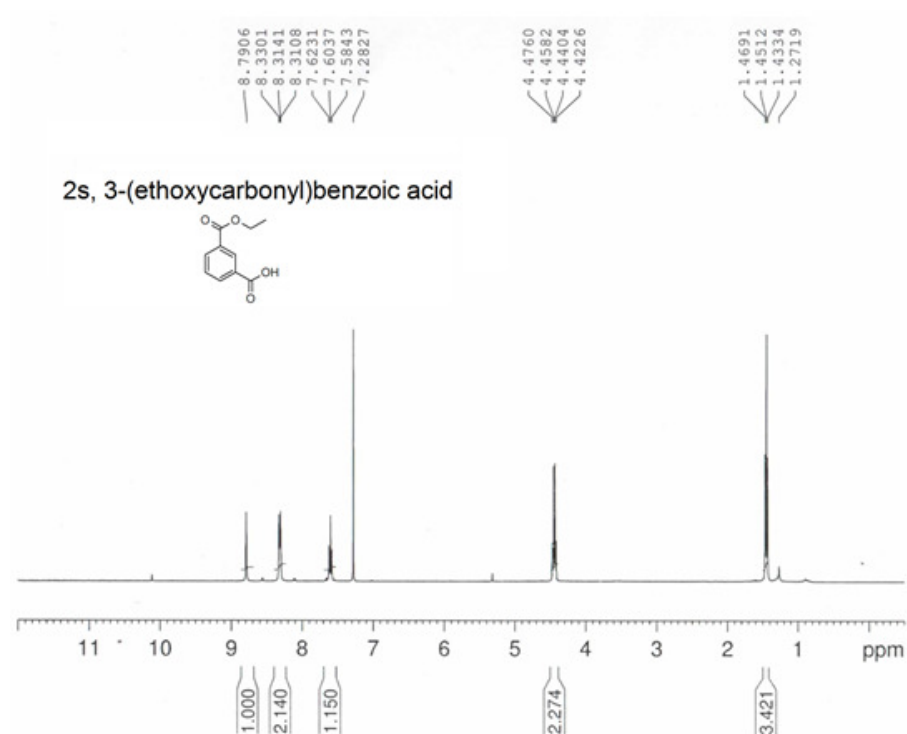


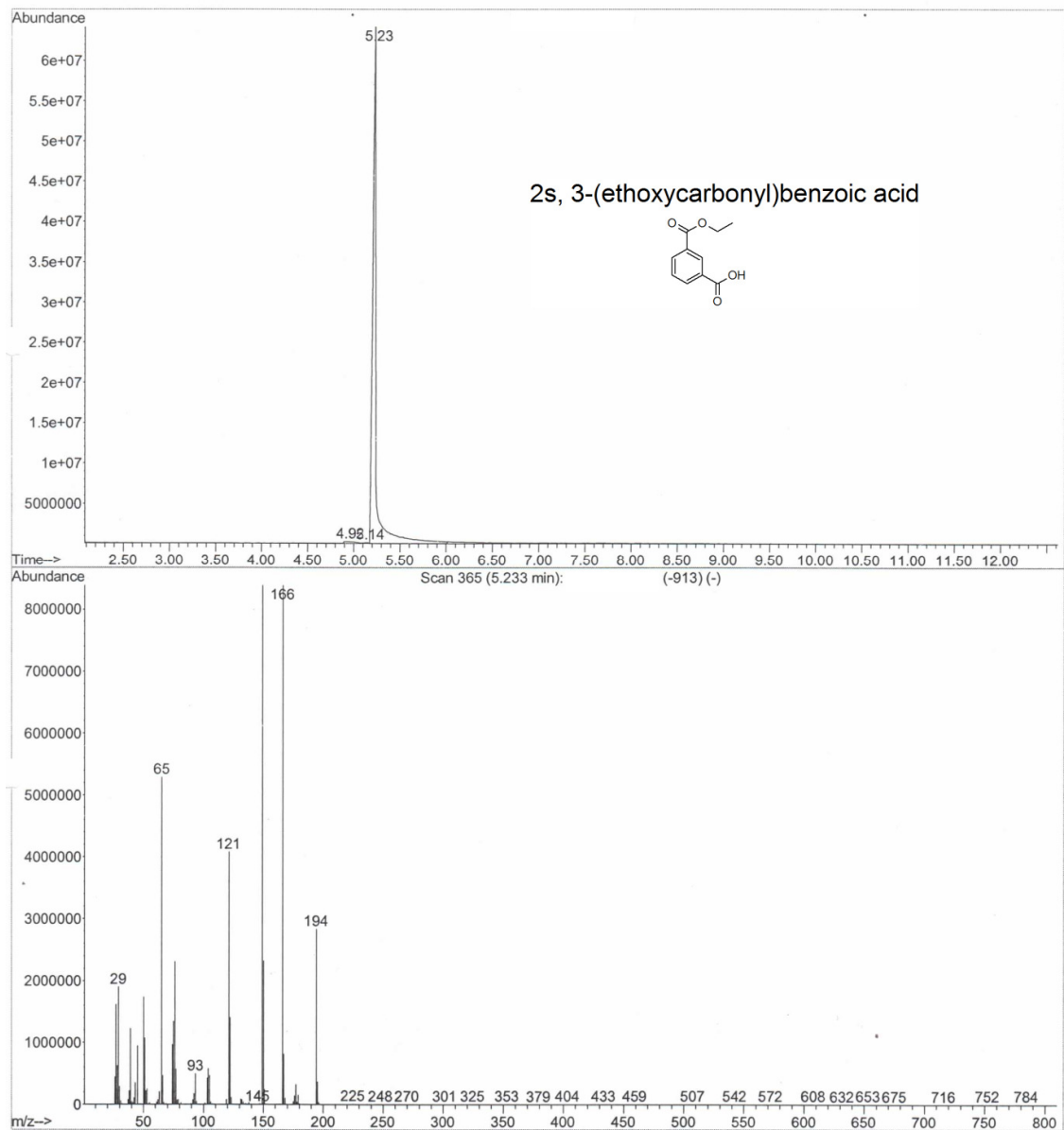


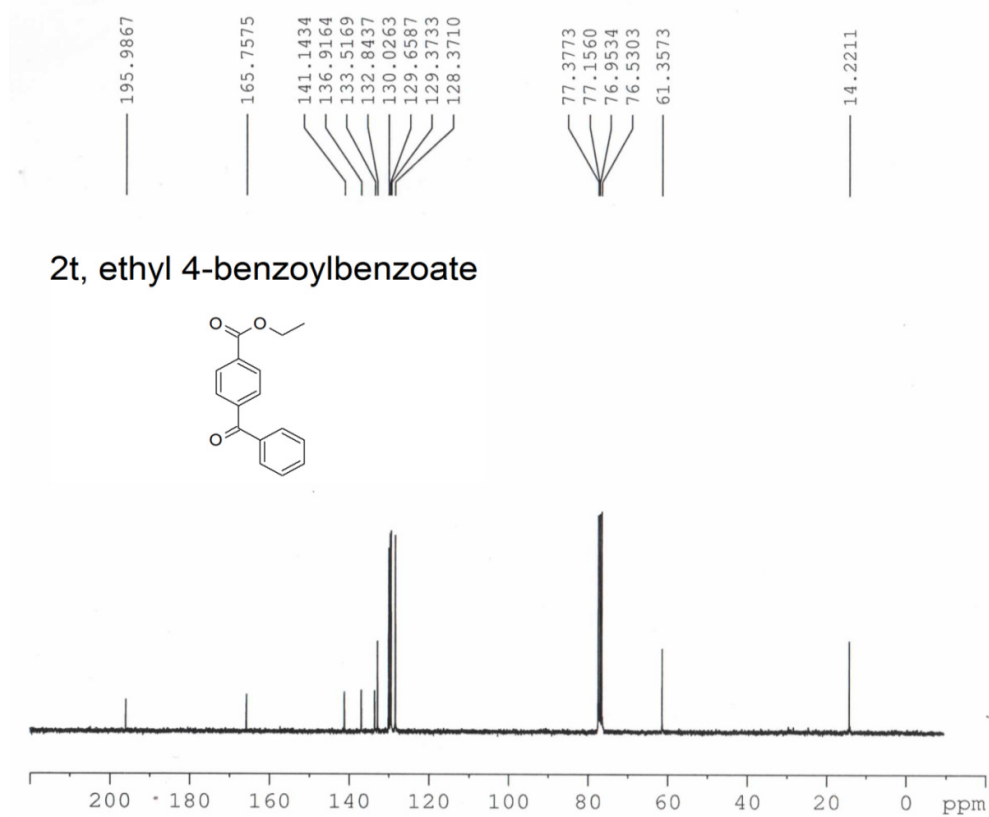
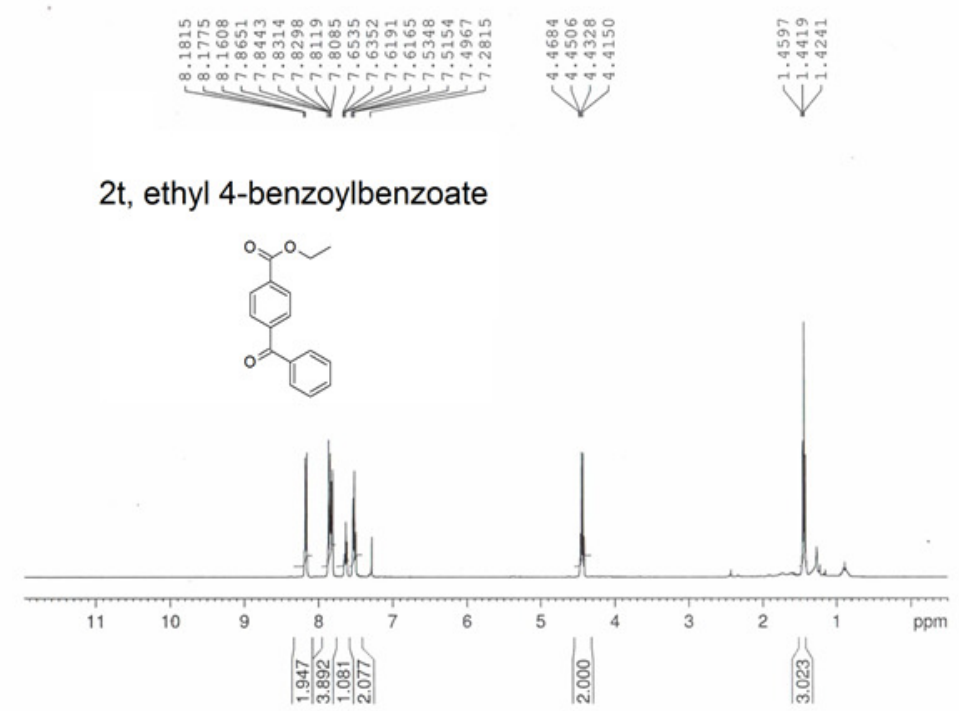
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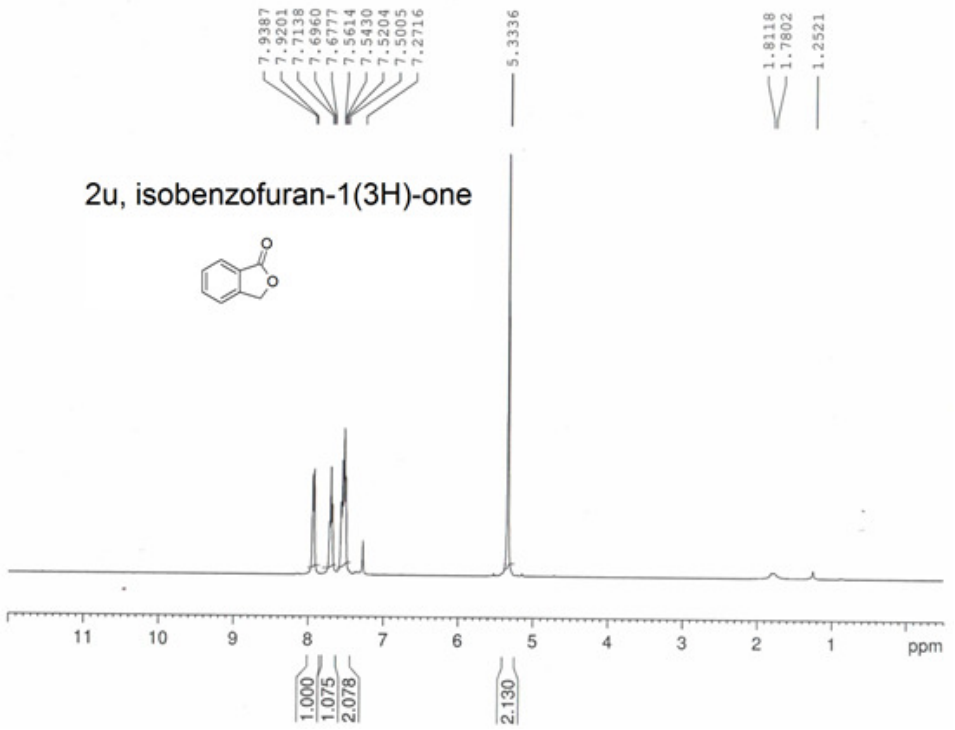


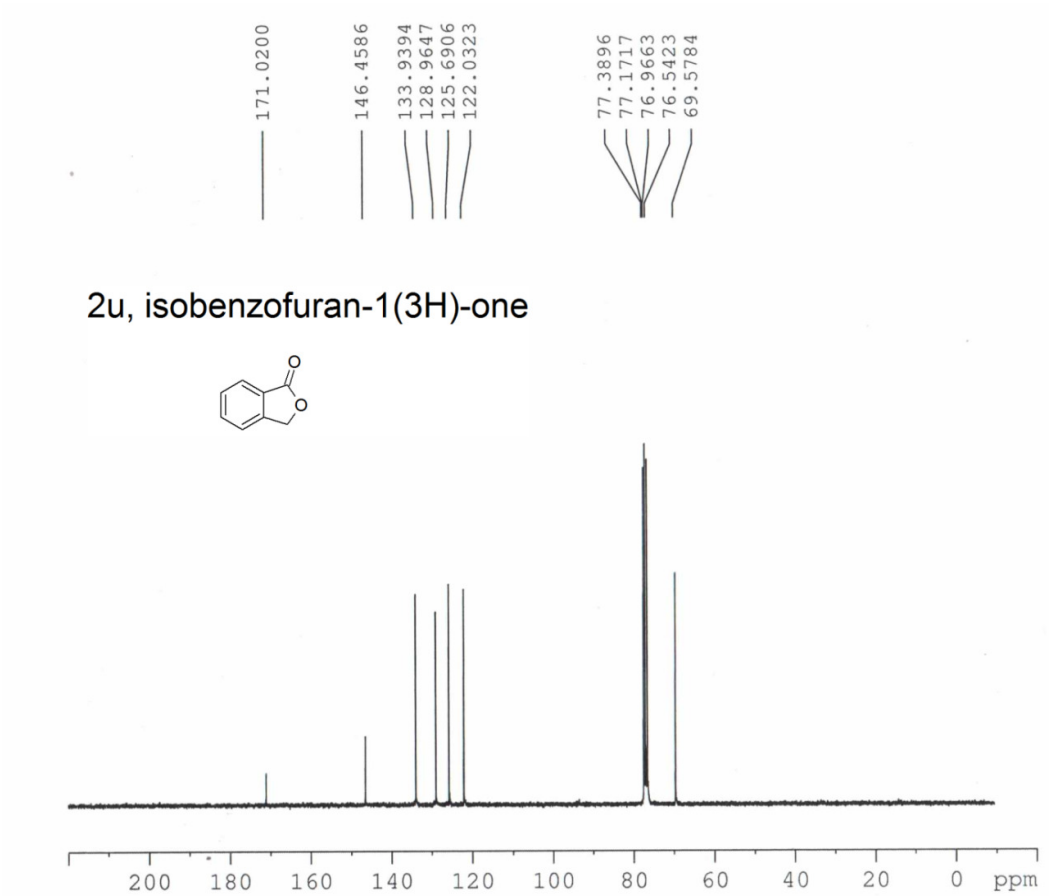


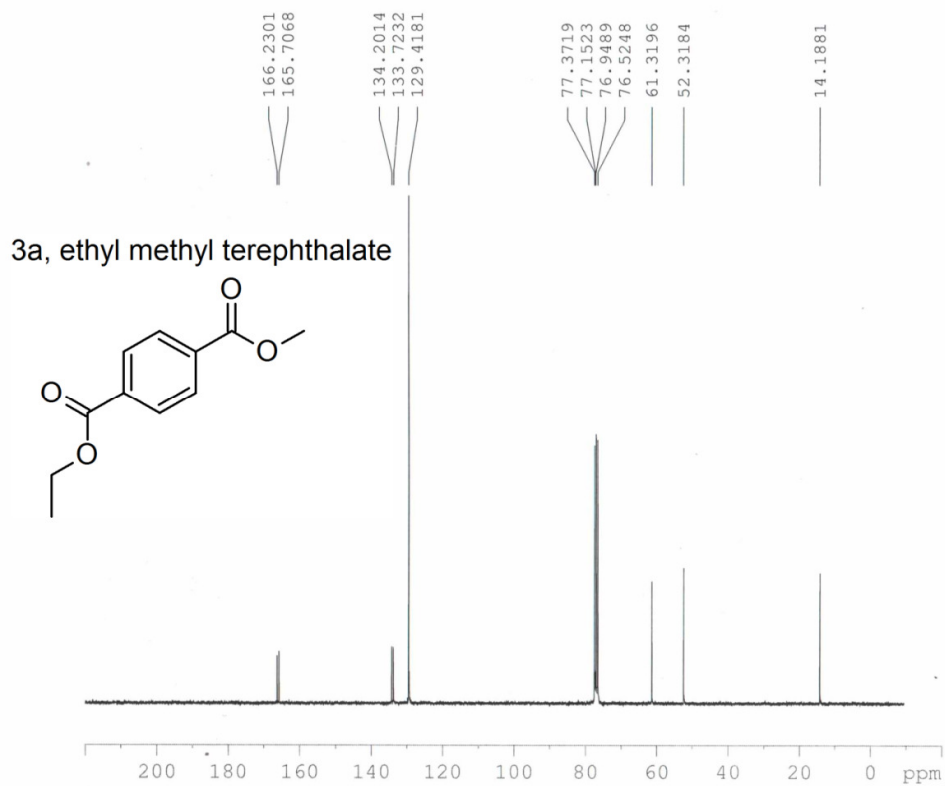
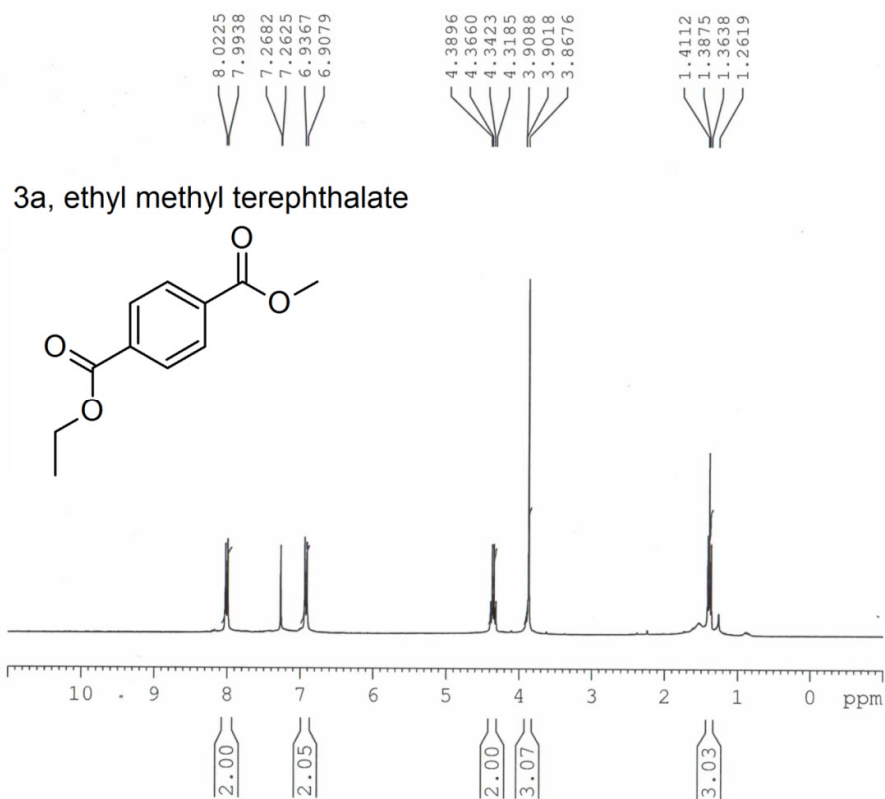


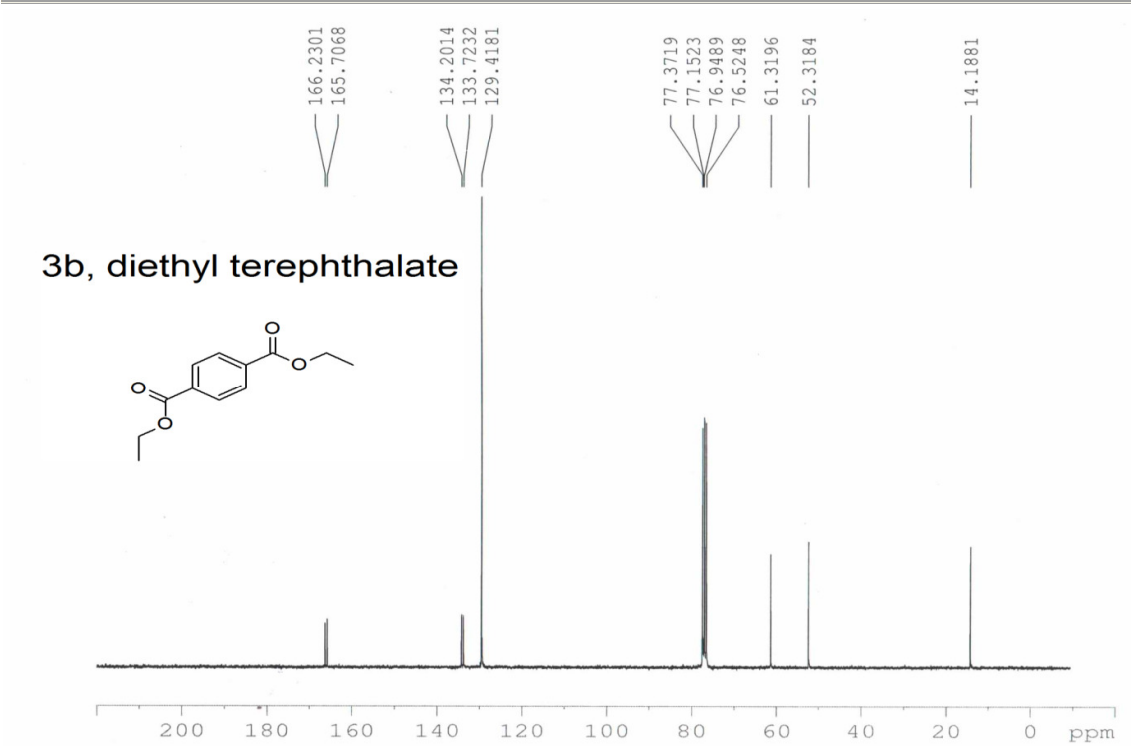
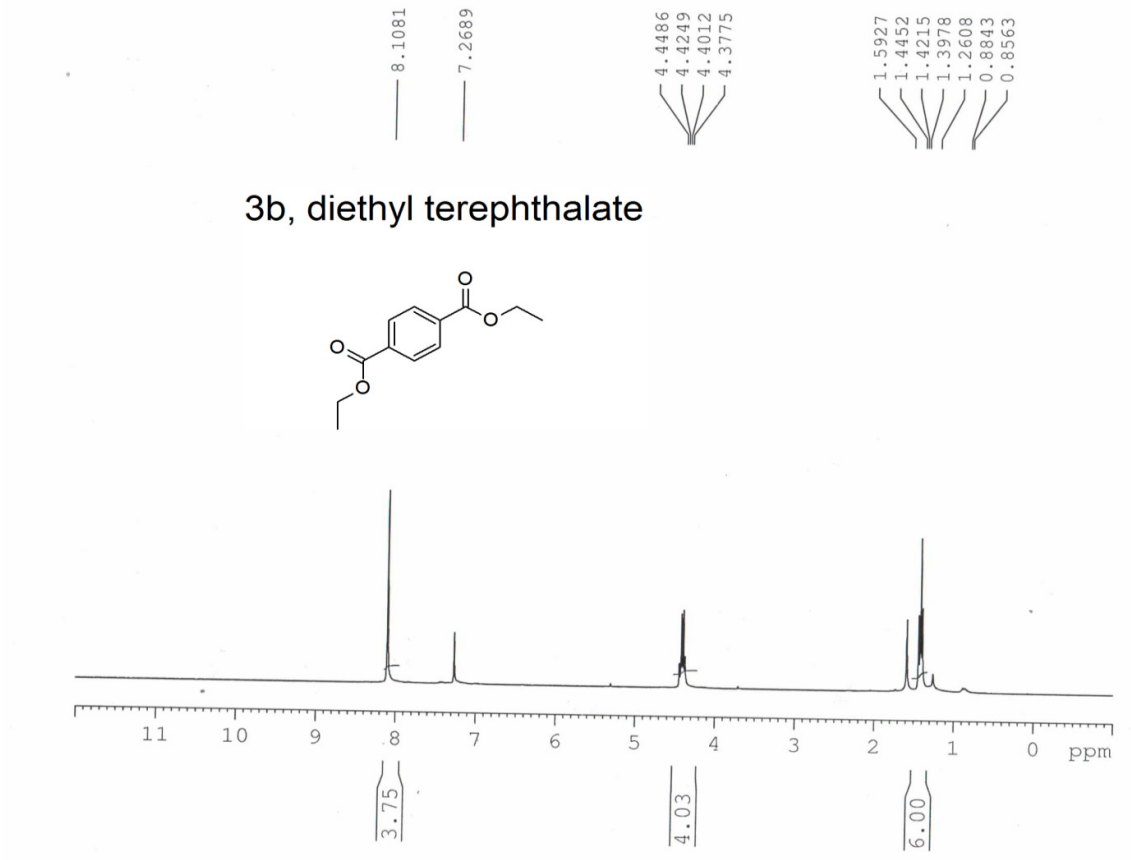


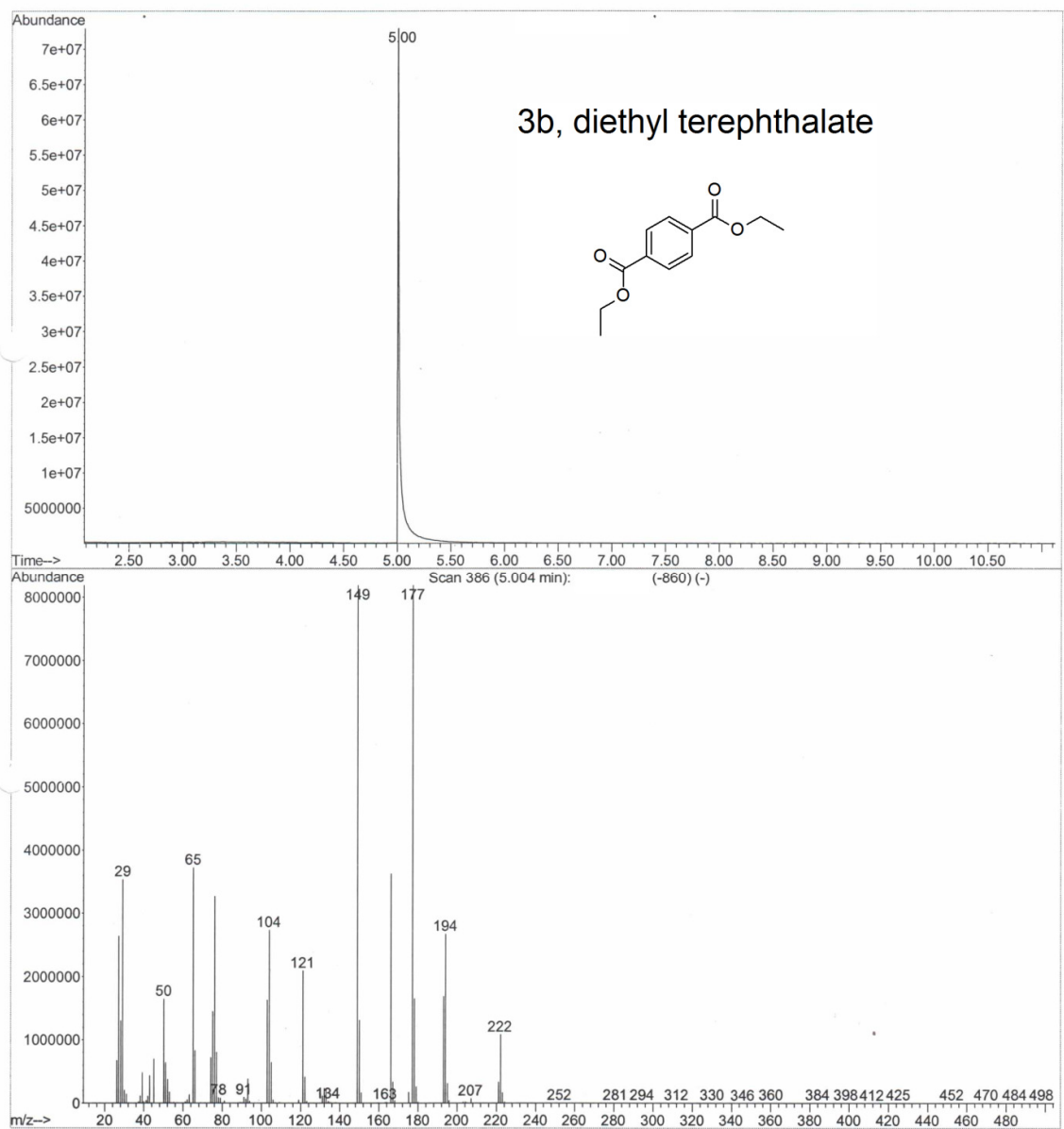


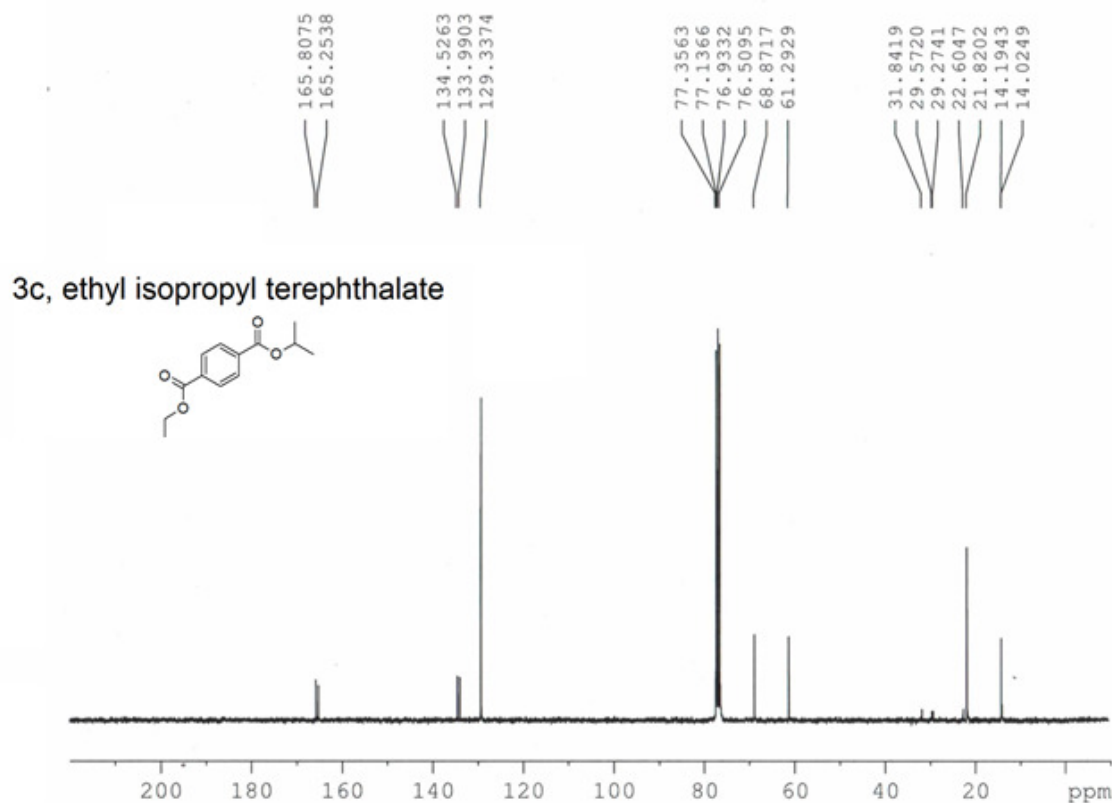
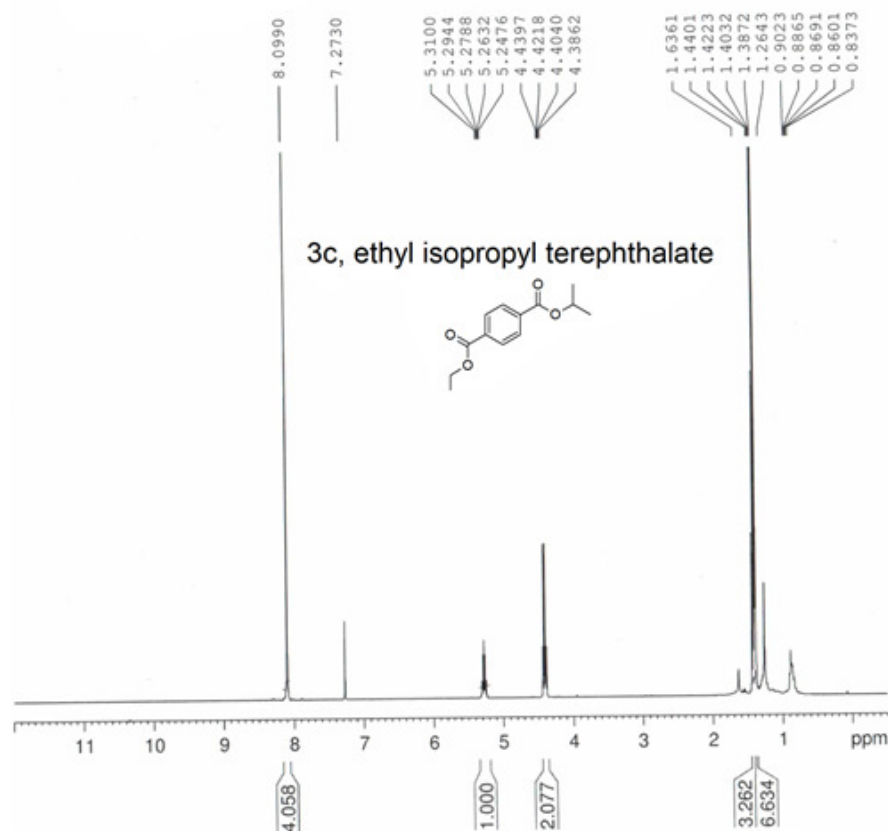




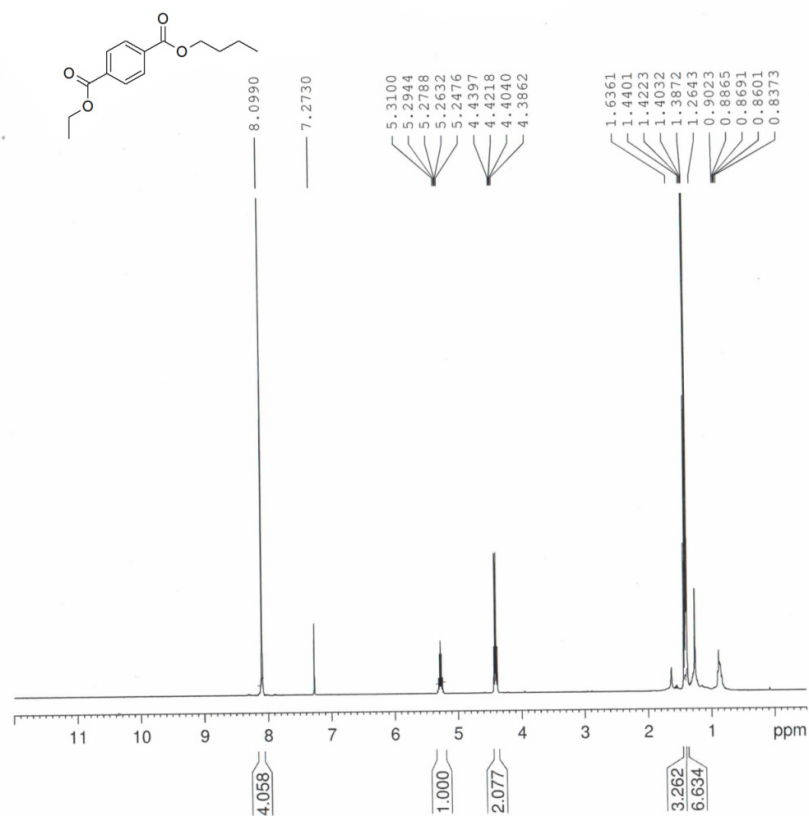








3d, butyl ethyl terephthalate



3d, butyl ethyl terephthalate

