Supporting Information

Synthesis of Phenstatin/*iso*combretastatin-Chalcone Conjugates as Potent Tubulin Polymerization Inhibitors and Mitochondrial Apoptotic Inducers

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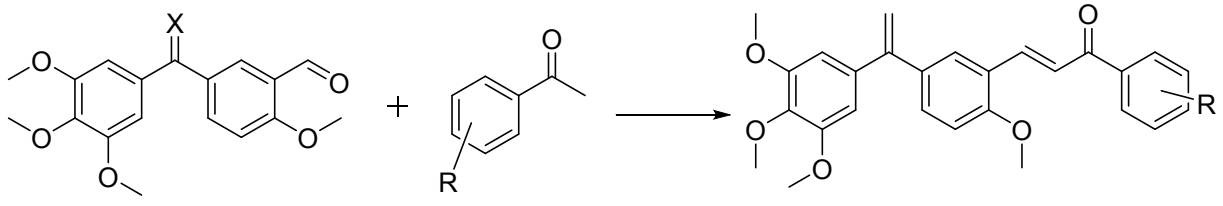
General Method for preparation of Chalcones and their ^{1}H and ^{13}C NMR Spectras

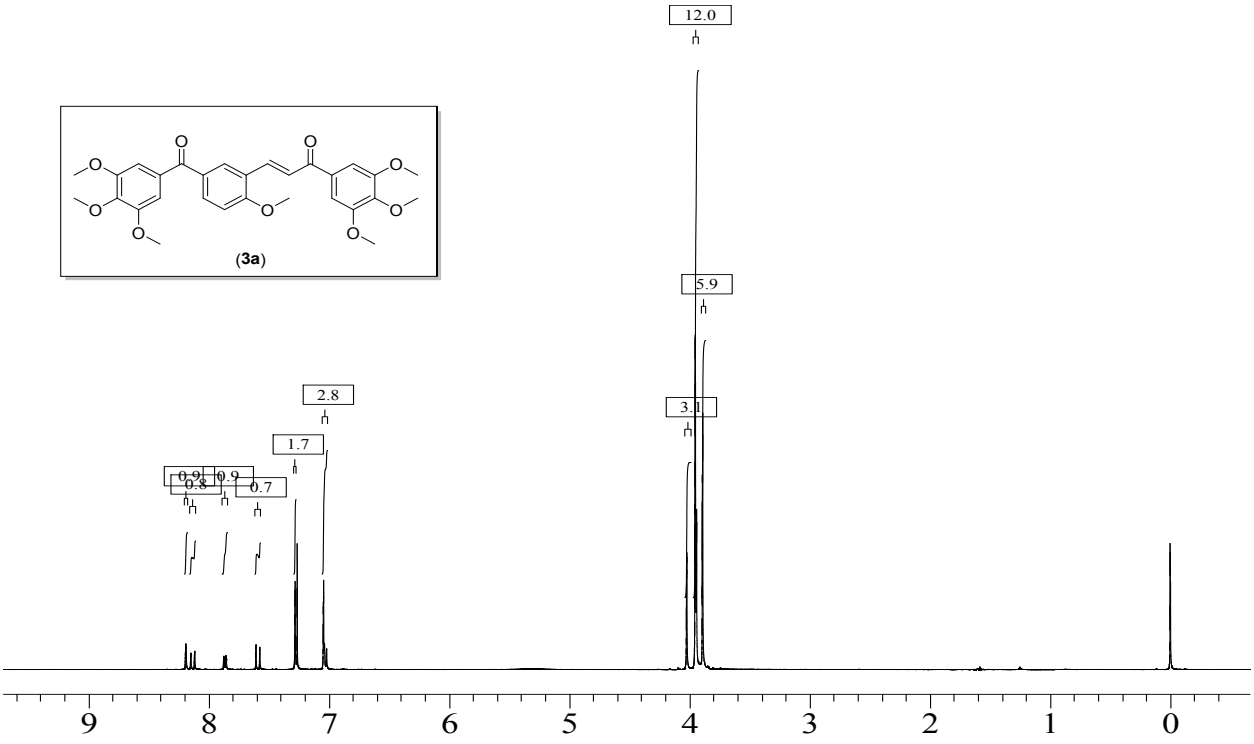
a 10% aqueous solution of KOH (5 mL) was added to a stirred solution of phenstatin-3-aldehyde/isocombretastatin 3-aldehyde(**14a** and 1**4b**) **(**0.303 mmol) and substituted phenyl acetophenone (**15a-l**)(0.303 mmol) in ethanol (20 mL). The reaction mixture was stirred at room temperature 27 ˚C for 4 h and was monitored by TLC. After completion of the reaction the solvent was evaporated under vacuum, then the residue was dissolved in EtOAc/H_2O. The organic layer was washed with brine and evaporated. This was further purified by column chromatography using EtOAc/Hex (1:1) as a solvent system to obtain the pure product as light yellow colour solid.



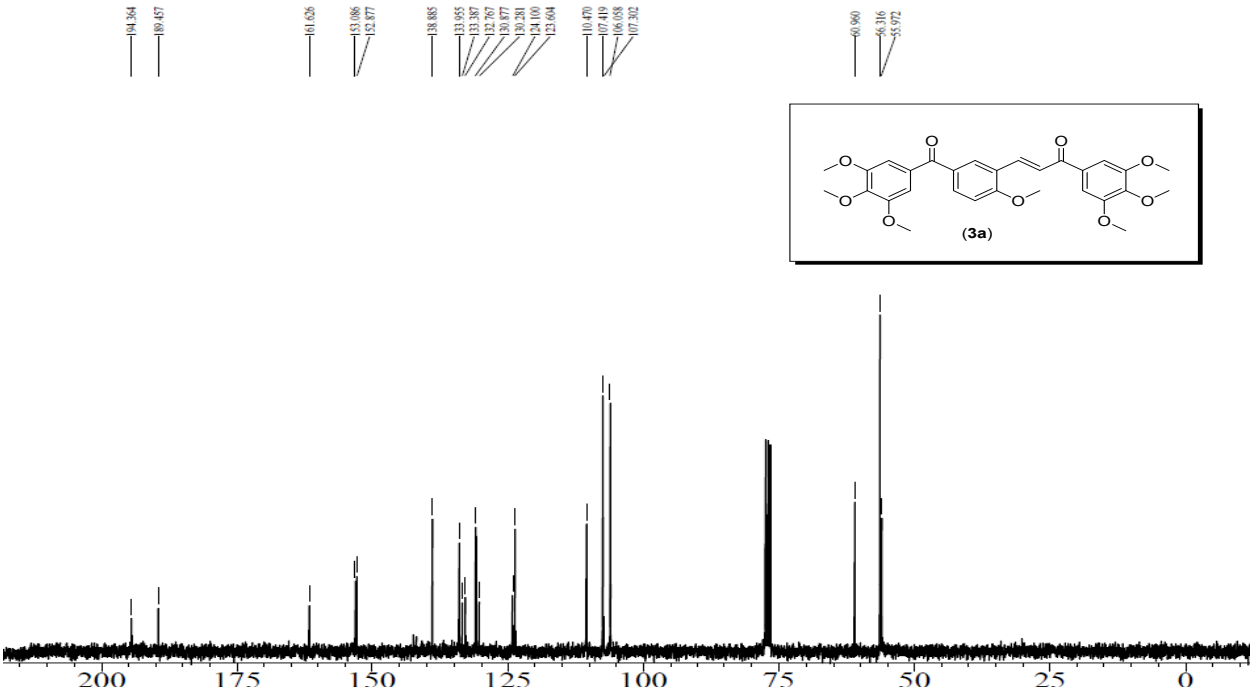
14a : X = O
14b : X = CH_2

15a-l

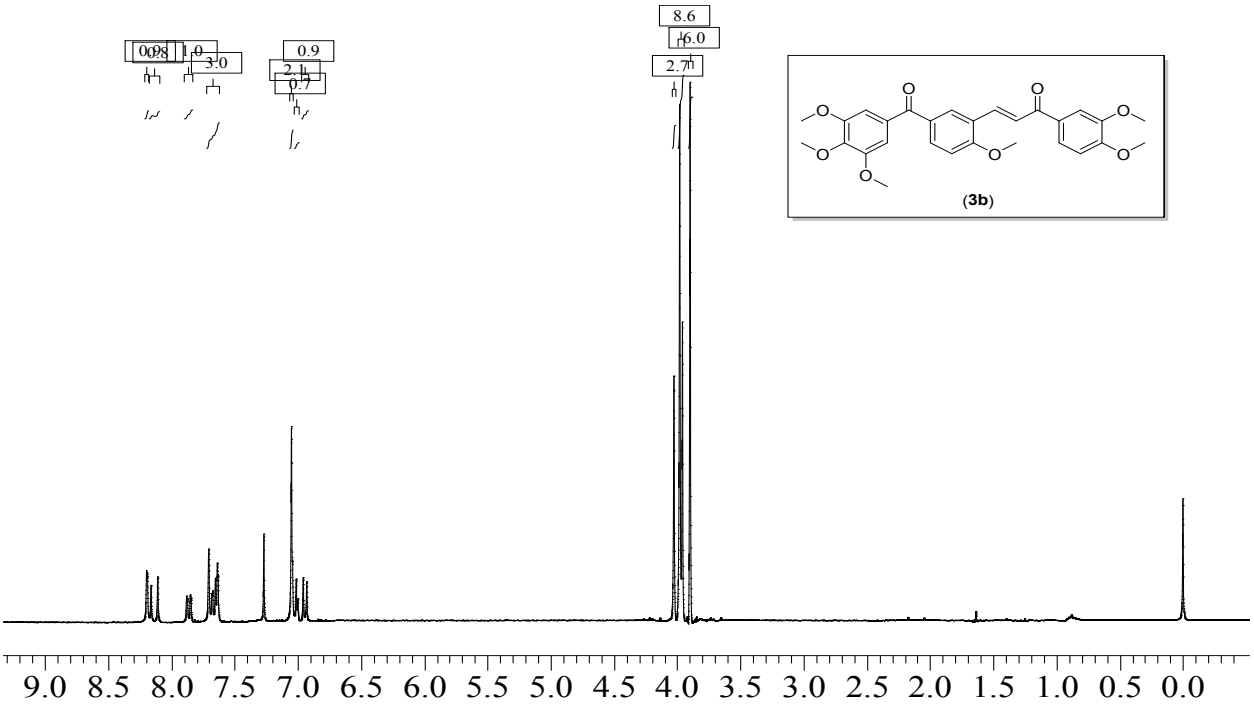
(**3a-l** and **4a-l**)



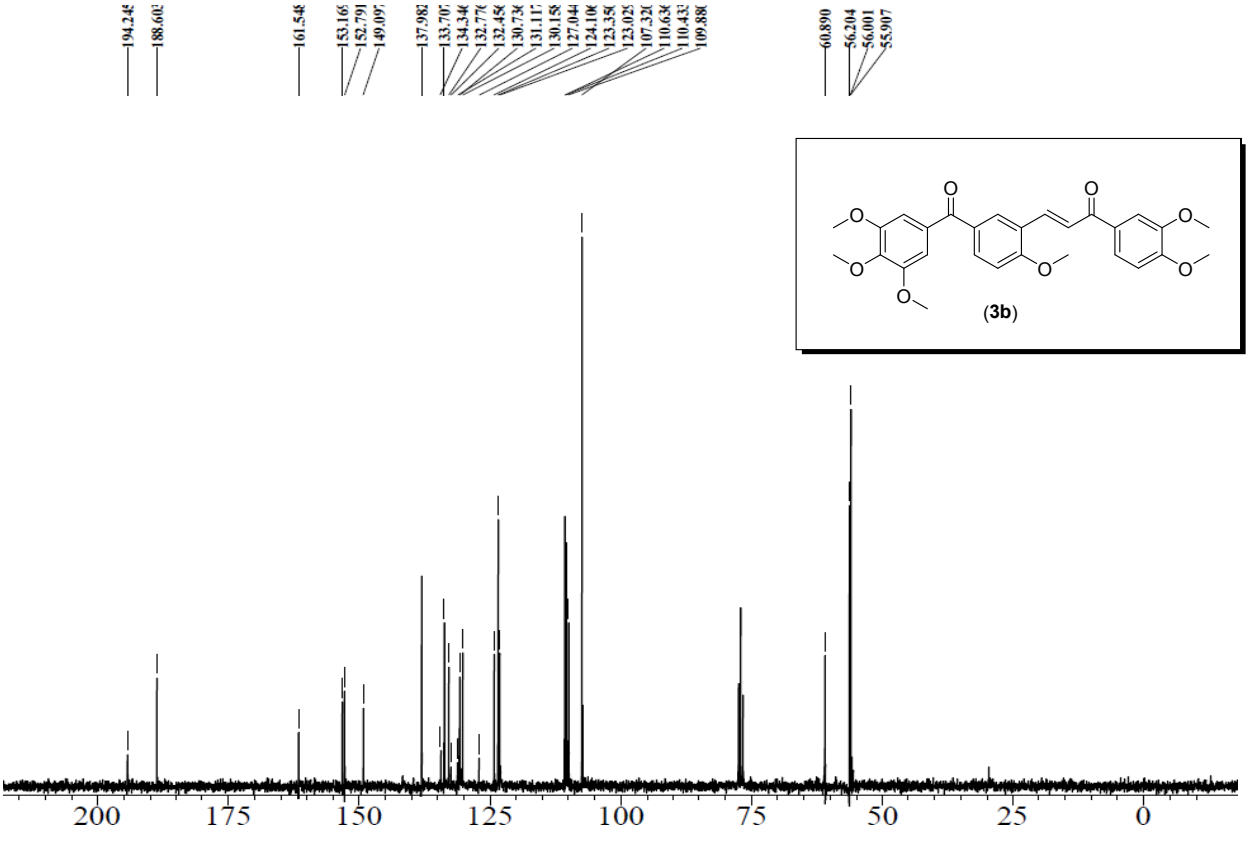
1H NMR Spectrum of Compound **3a**



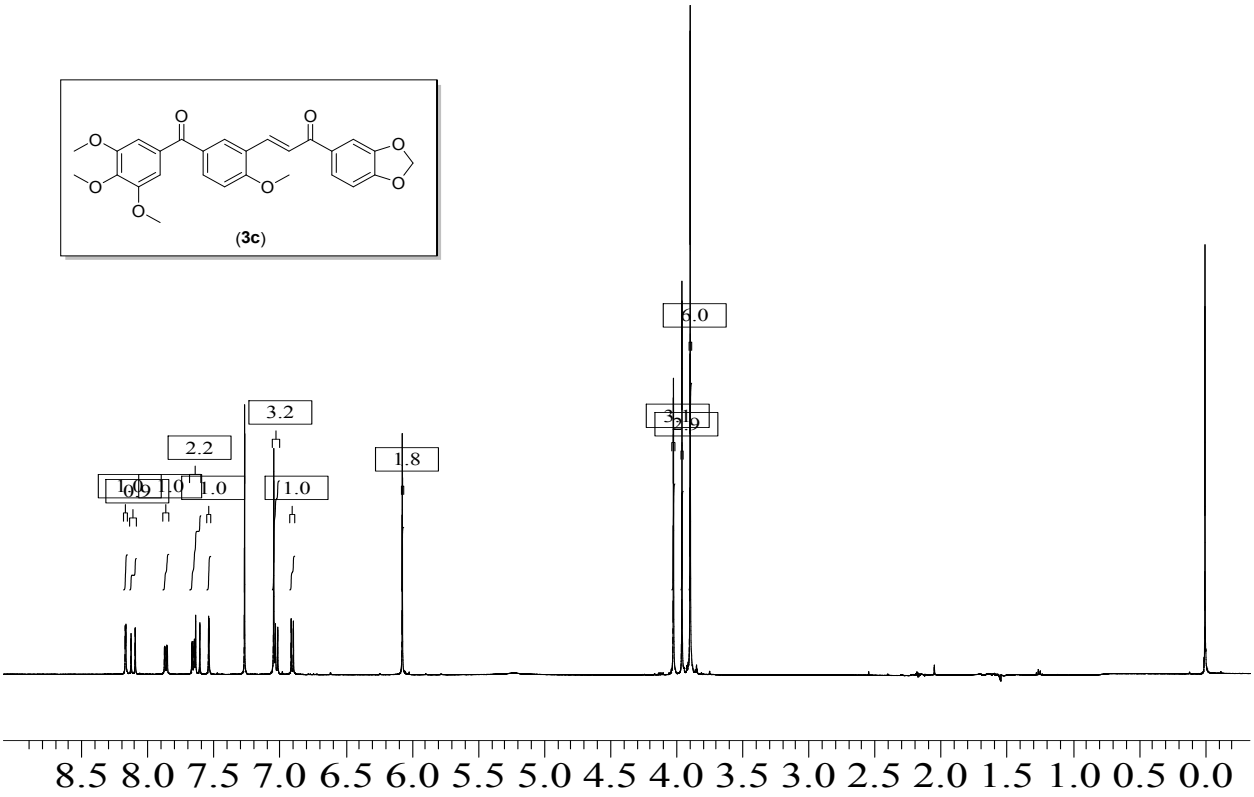
13C NMR Spectrum of Compound **3a**



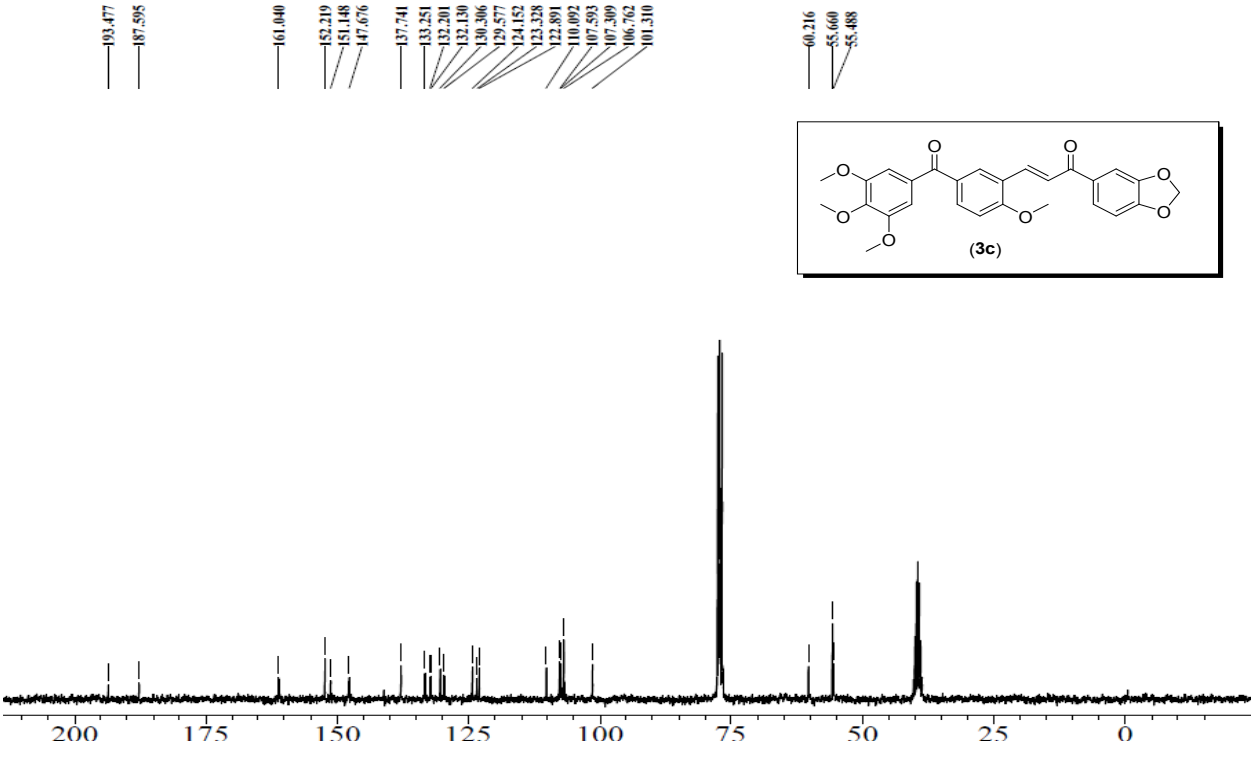
1H NMR Spectrum of Compound **3b**



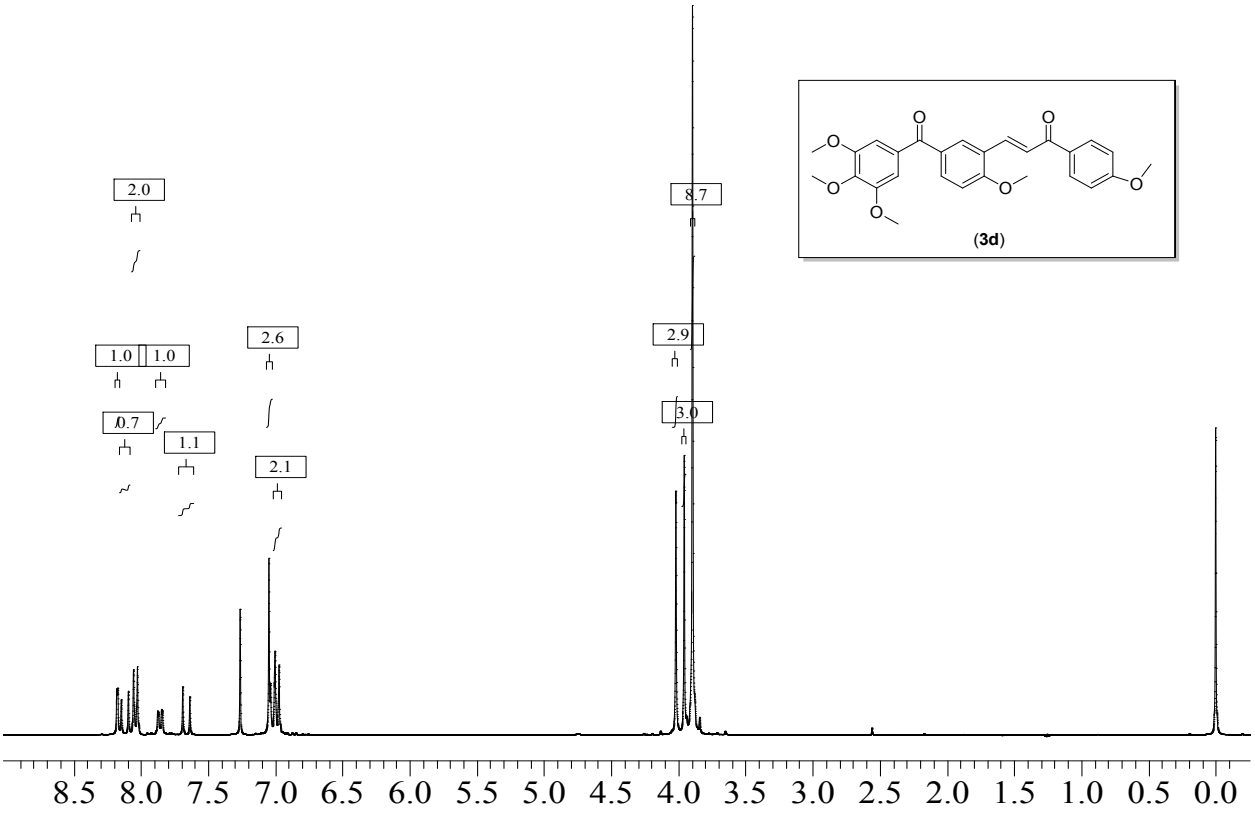
13C NMR Spectrum of Compound **3b**



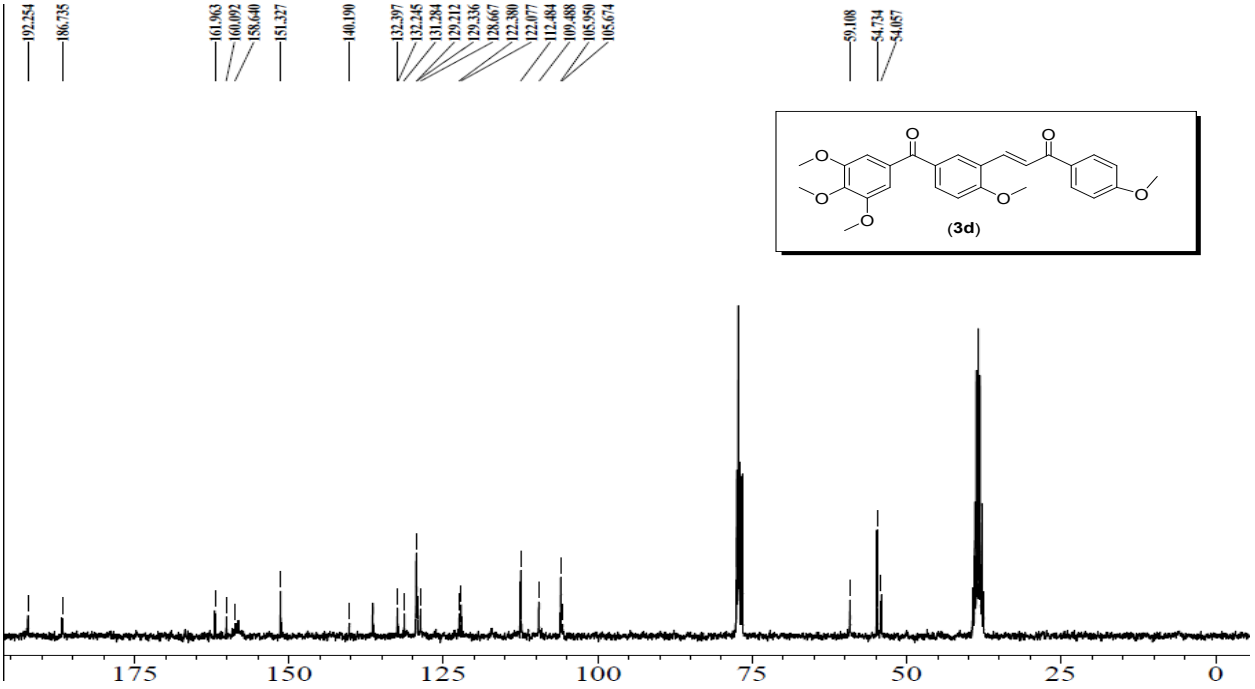
1H NMR Spectrum of Compound **3c**



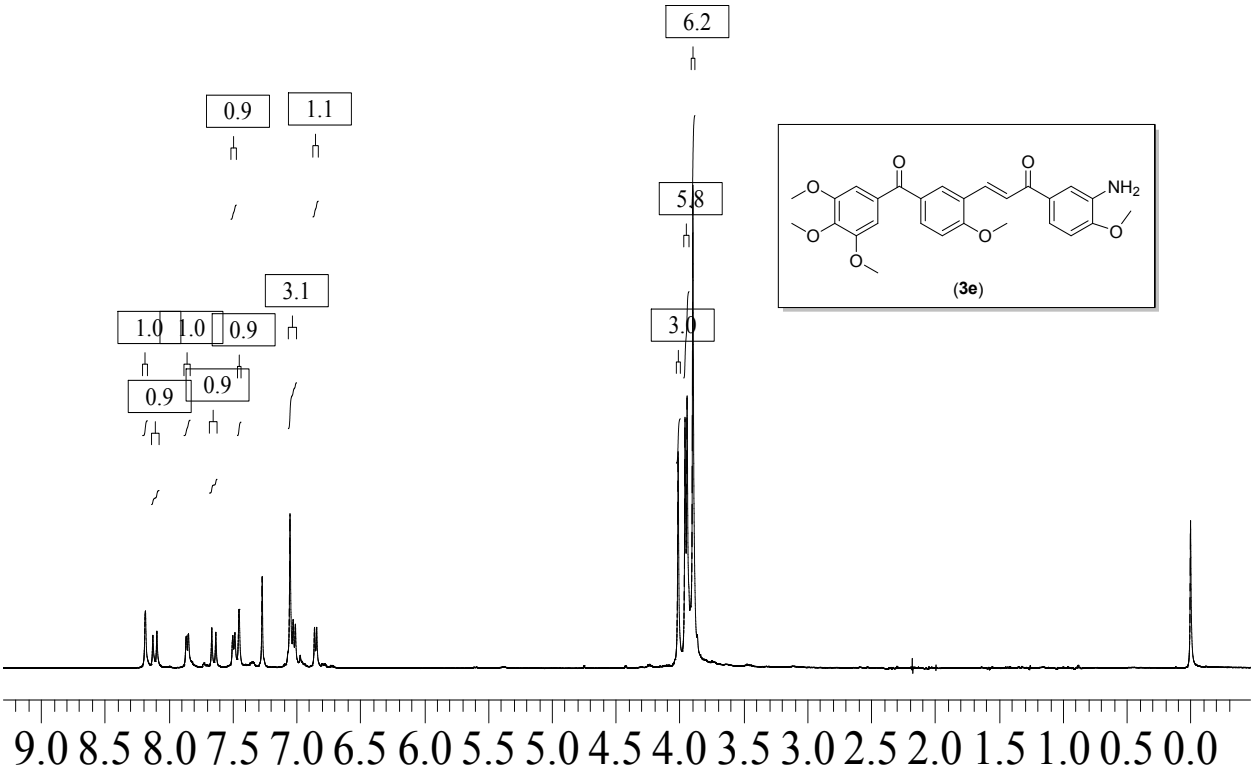
13C NMR Spectrum of Compound **3c**



1H NMR Spectrum of Compound **3d**



13C NMR Spectrum of Compound **3d**



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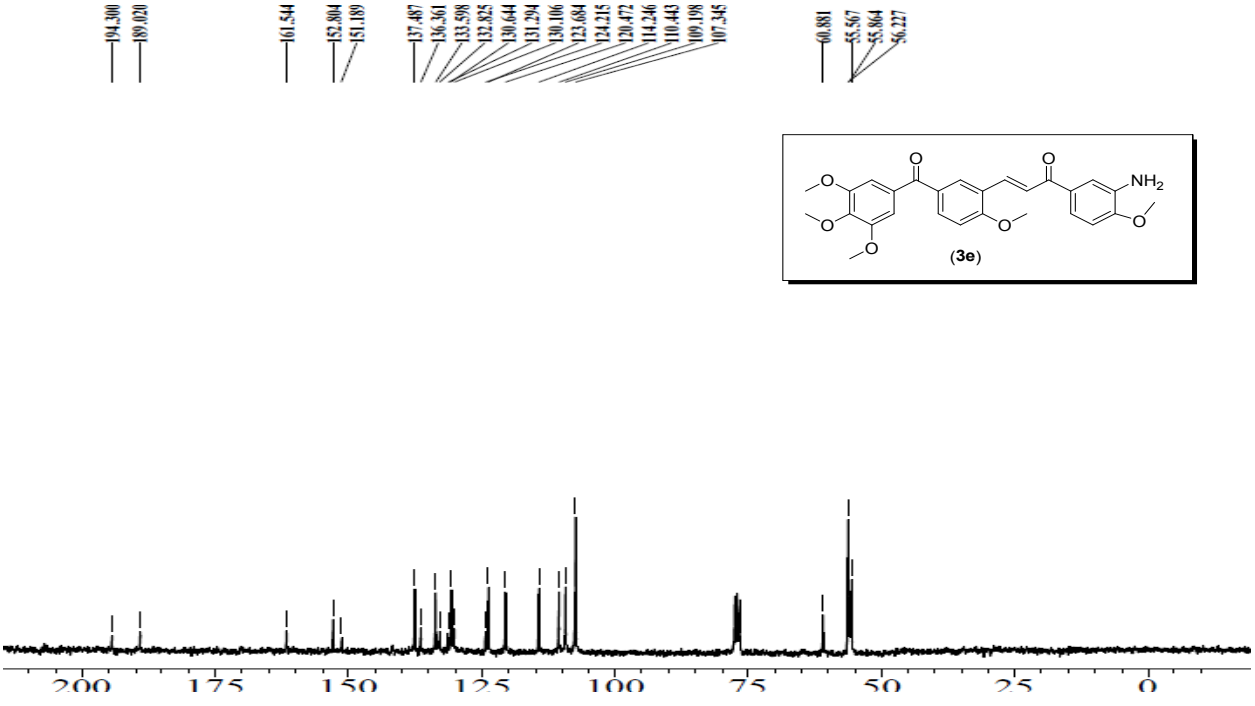
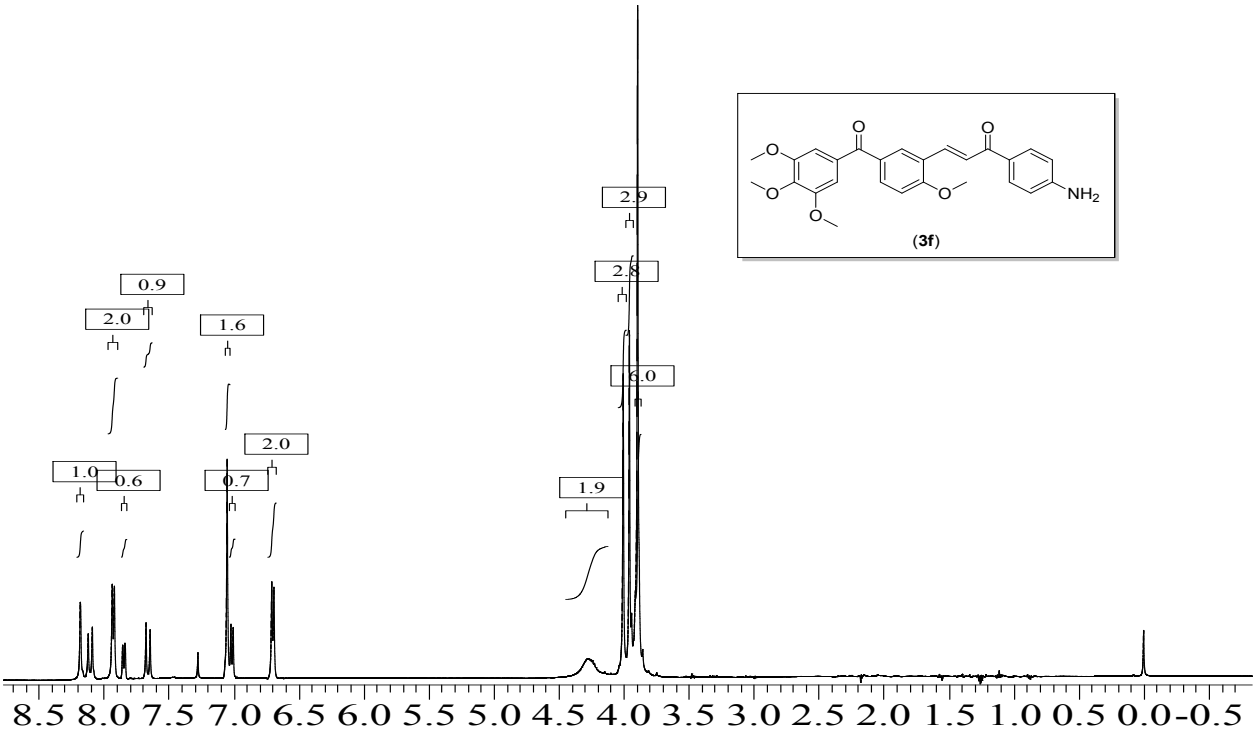


13C NMR Spectrum of Compound **3e**



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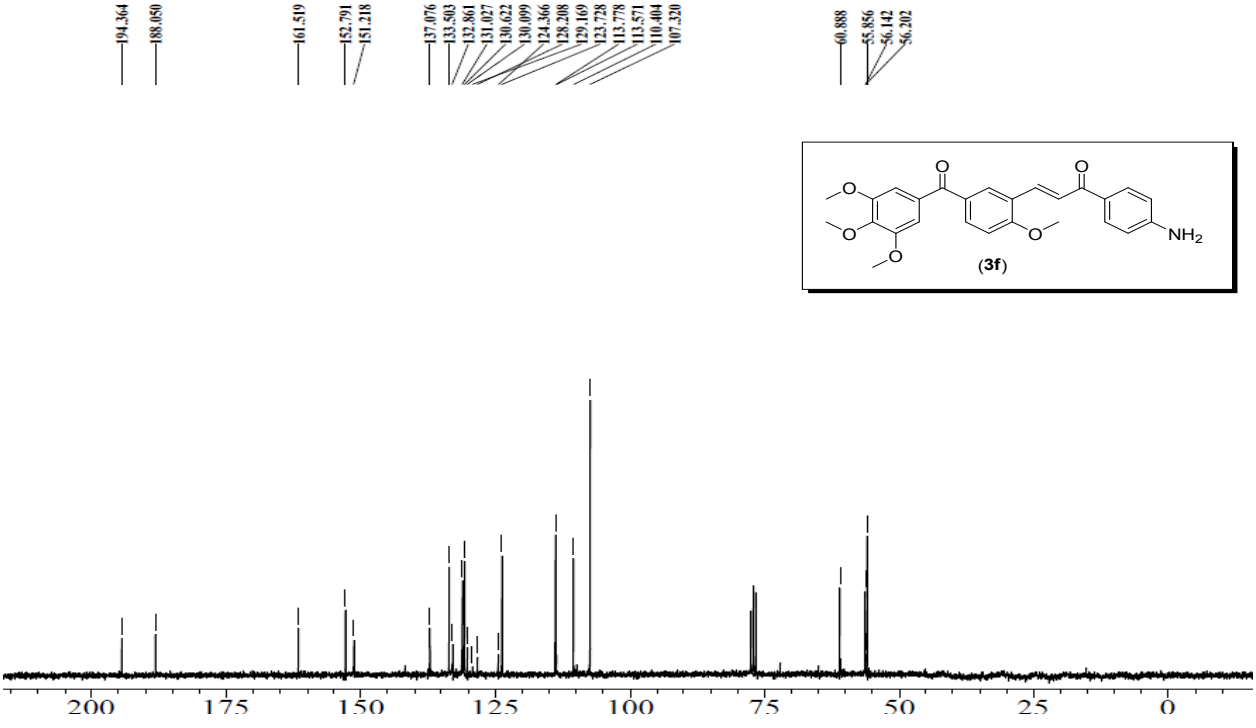
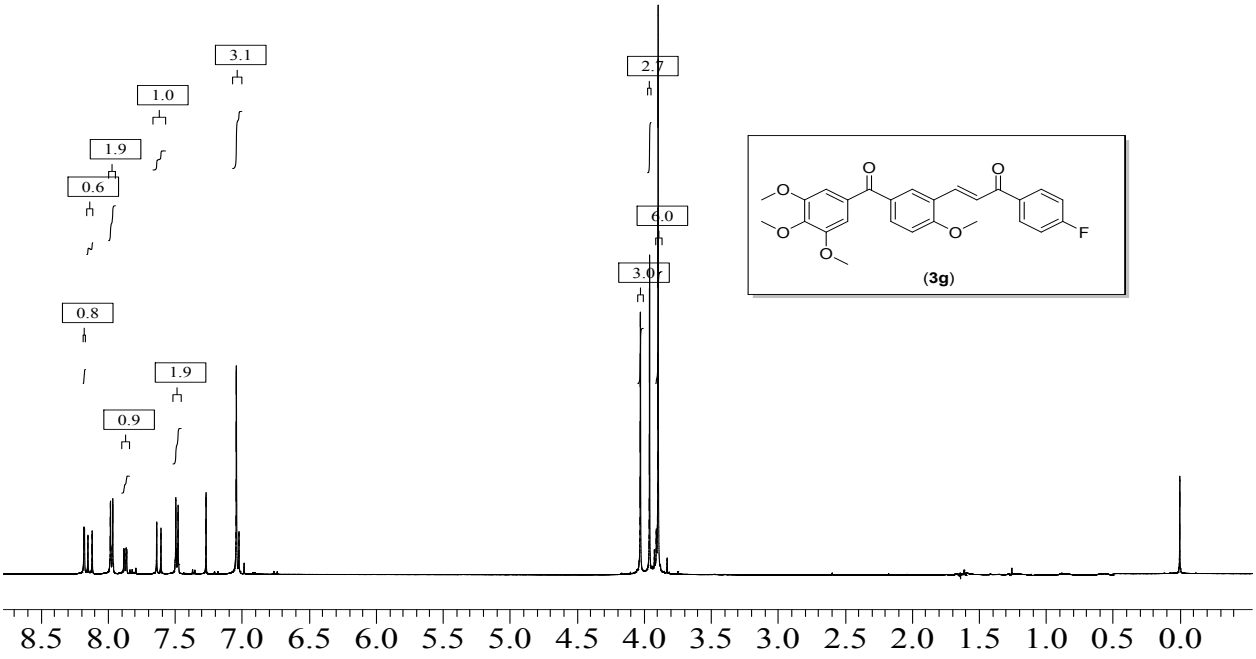


13C NMR Spectrum of Compound **3f**



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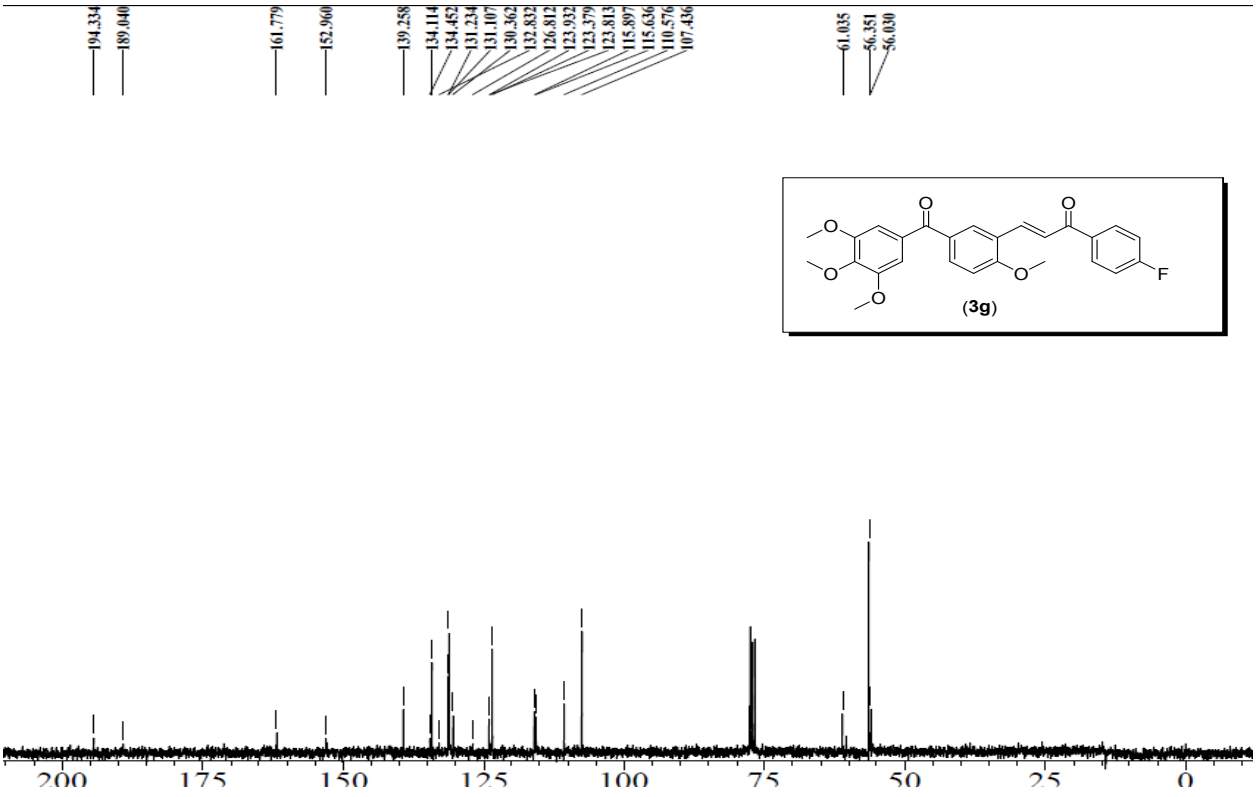
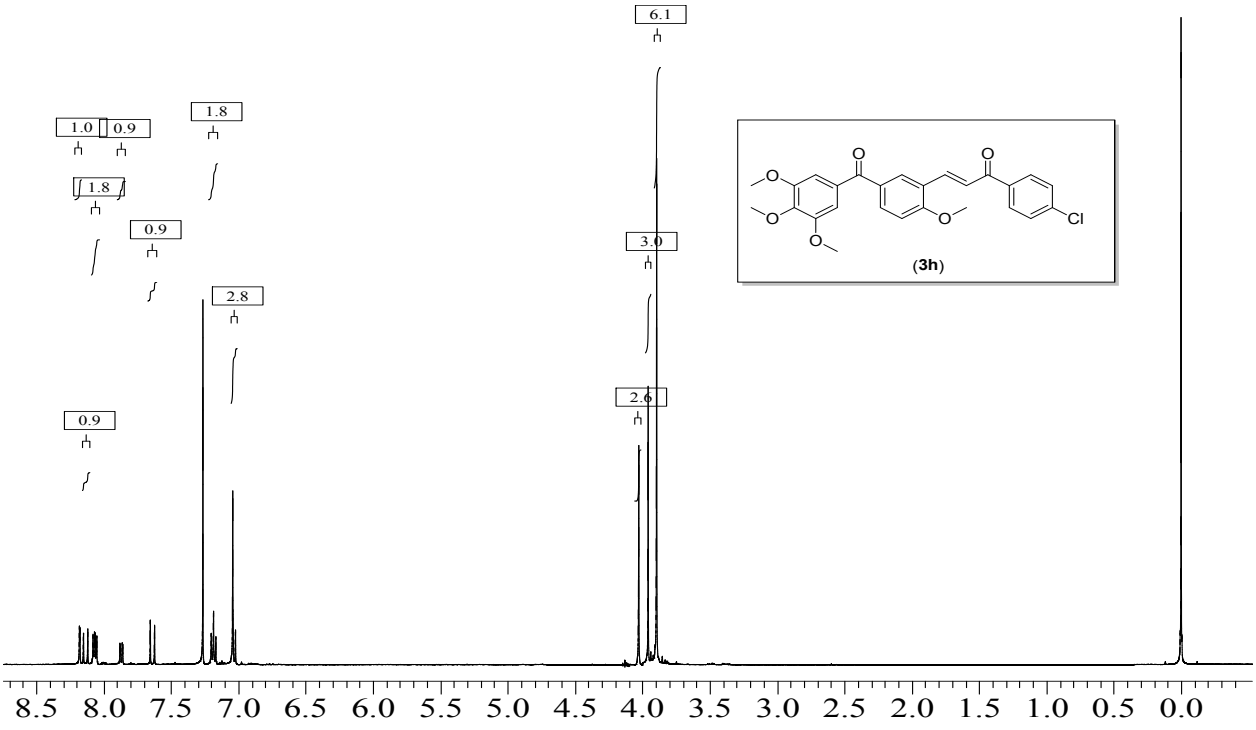
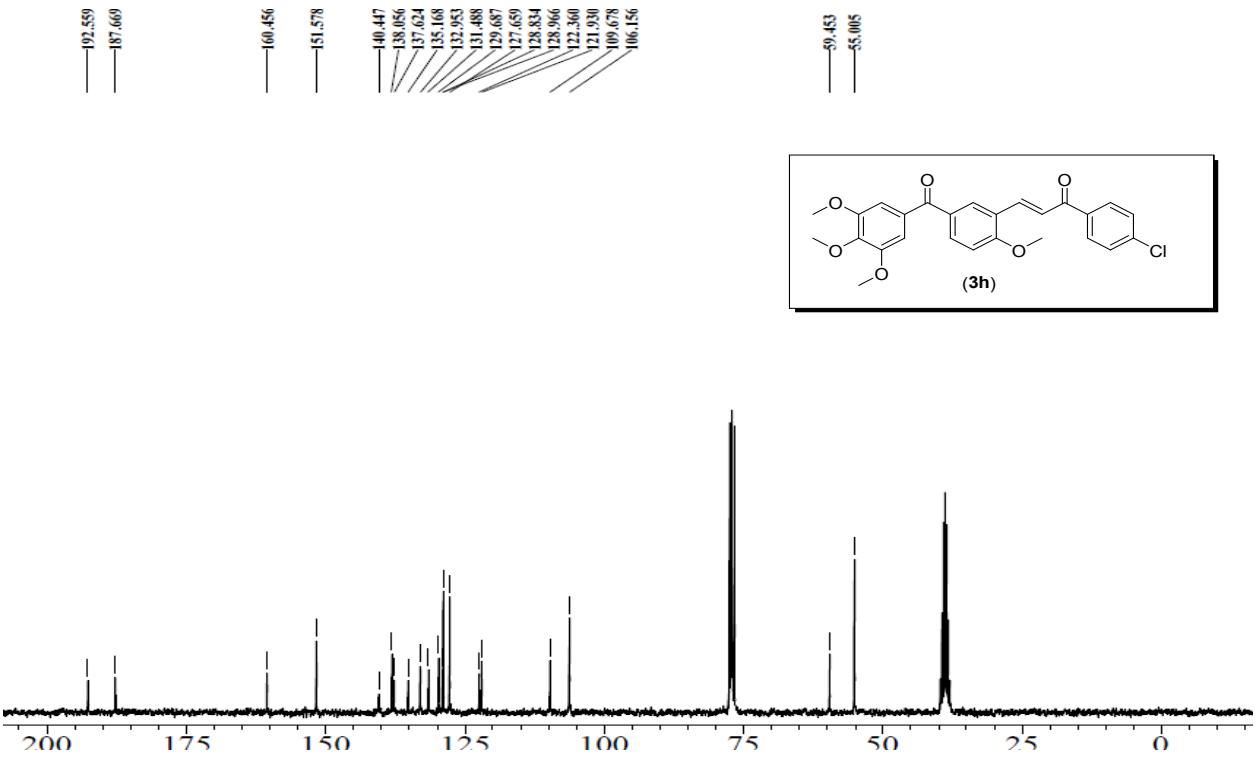


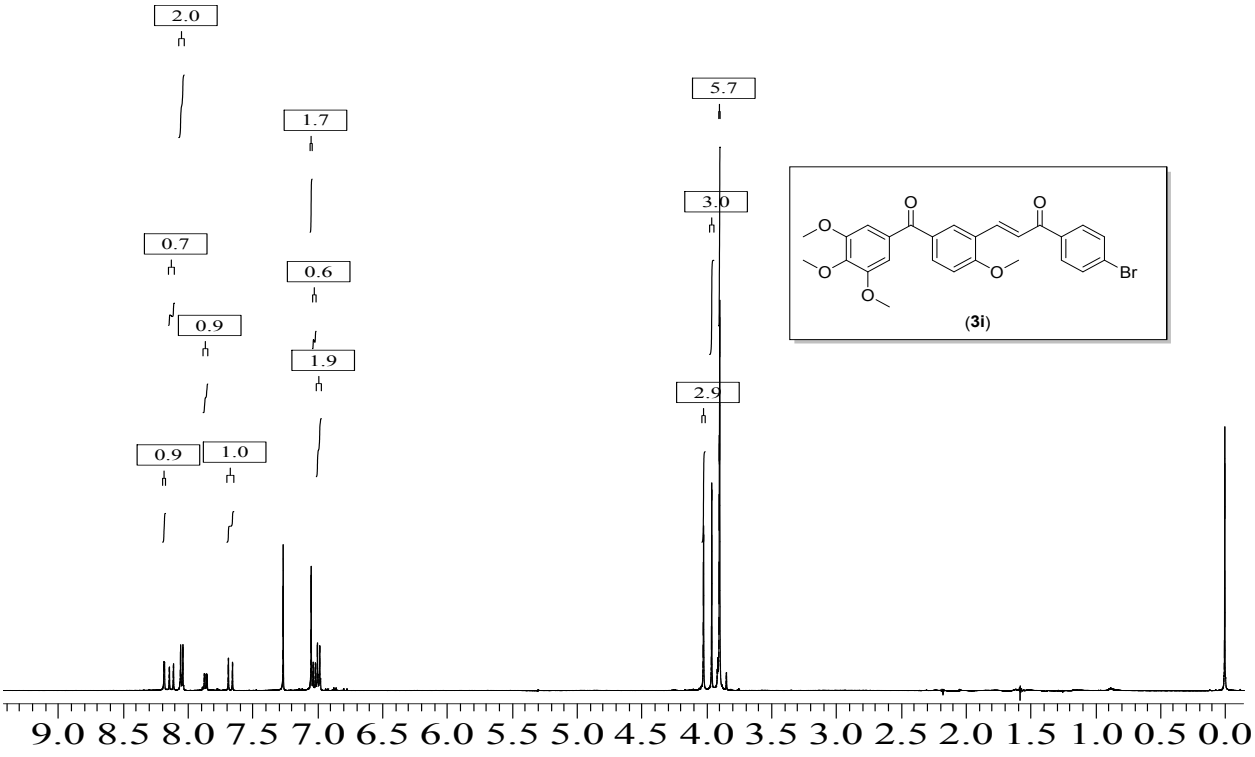
13C NMR Spectrum of Compound **3g**



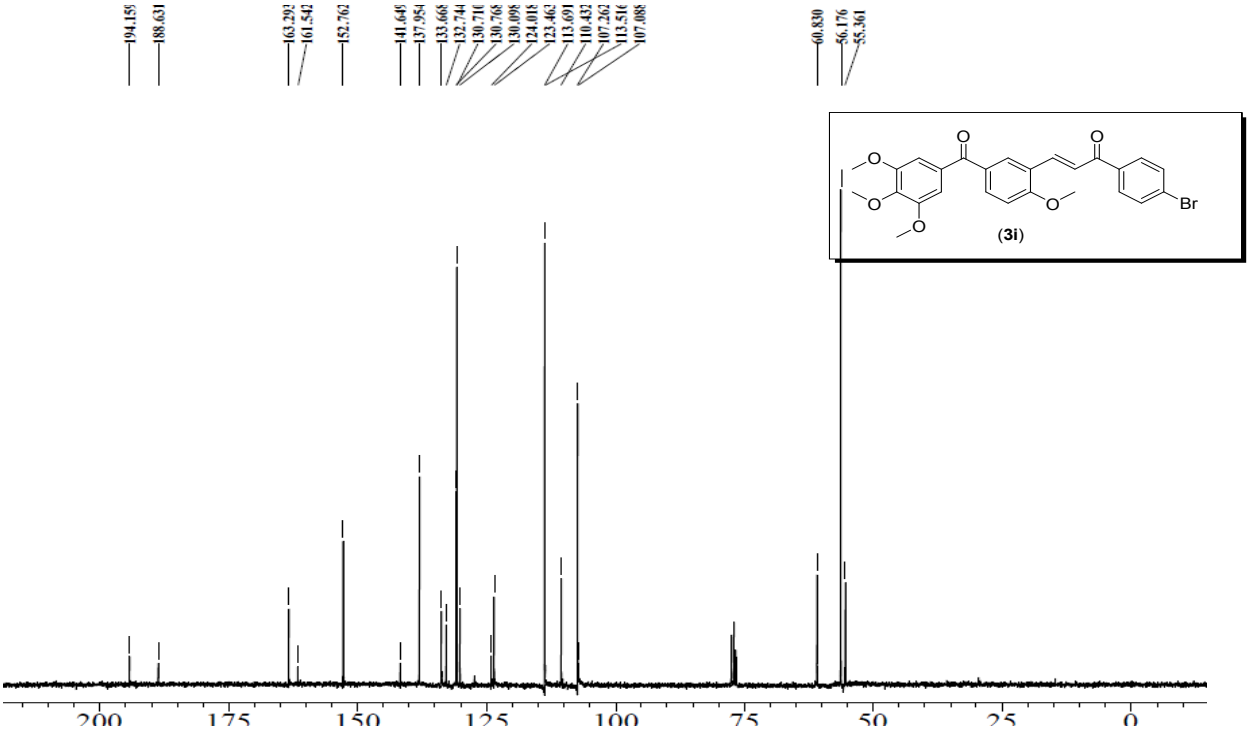
1H NMR Spectrum of Compound **3h**



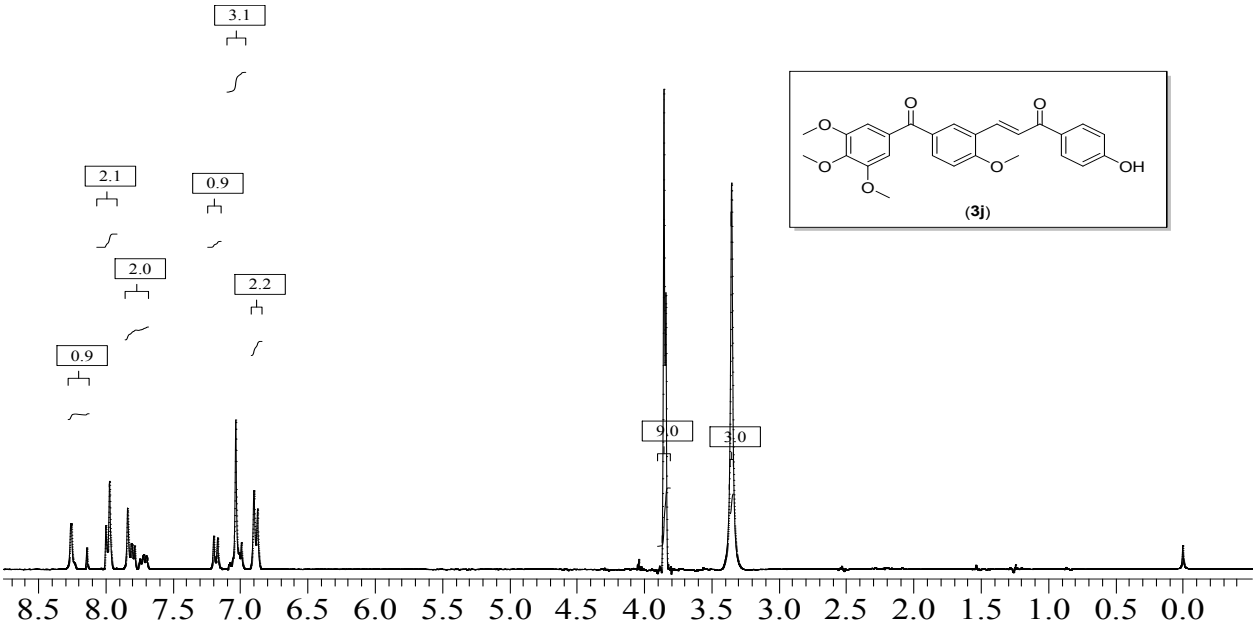
13C NMR Spectrum of Compound **3h**



1H NMR Spectrum of Compound **3i**



13C NMR Spectrum of Compound **3i**



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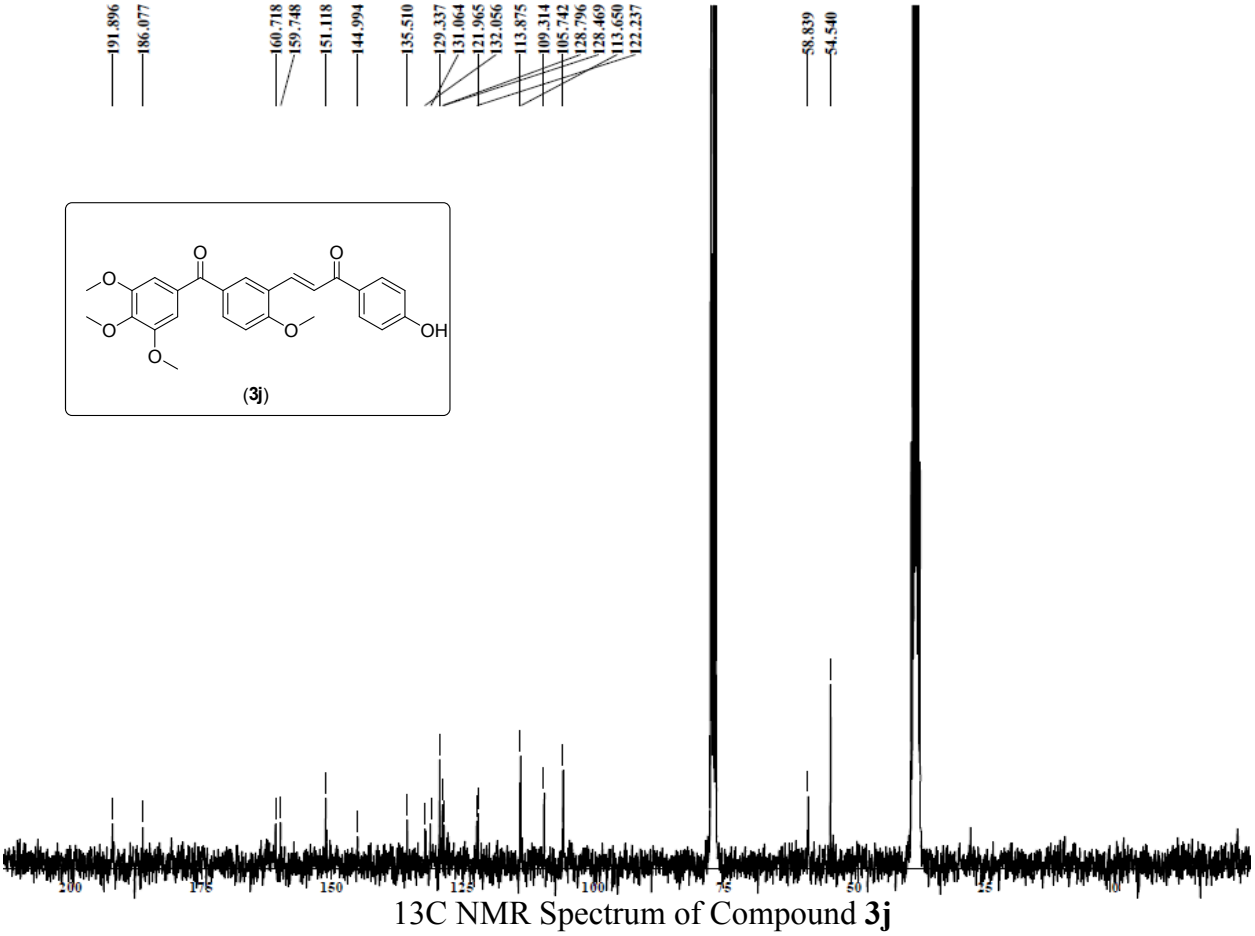

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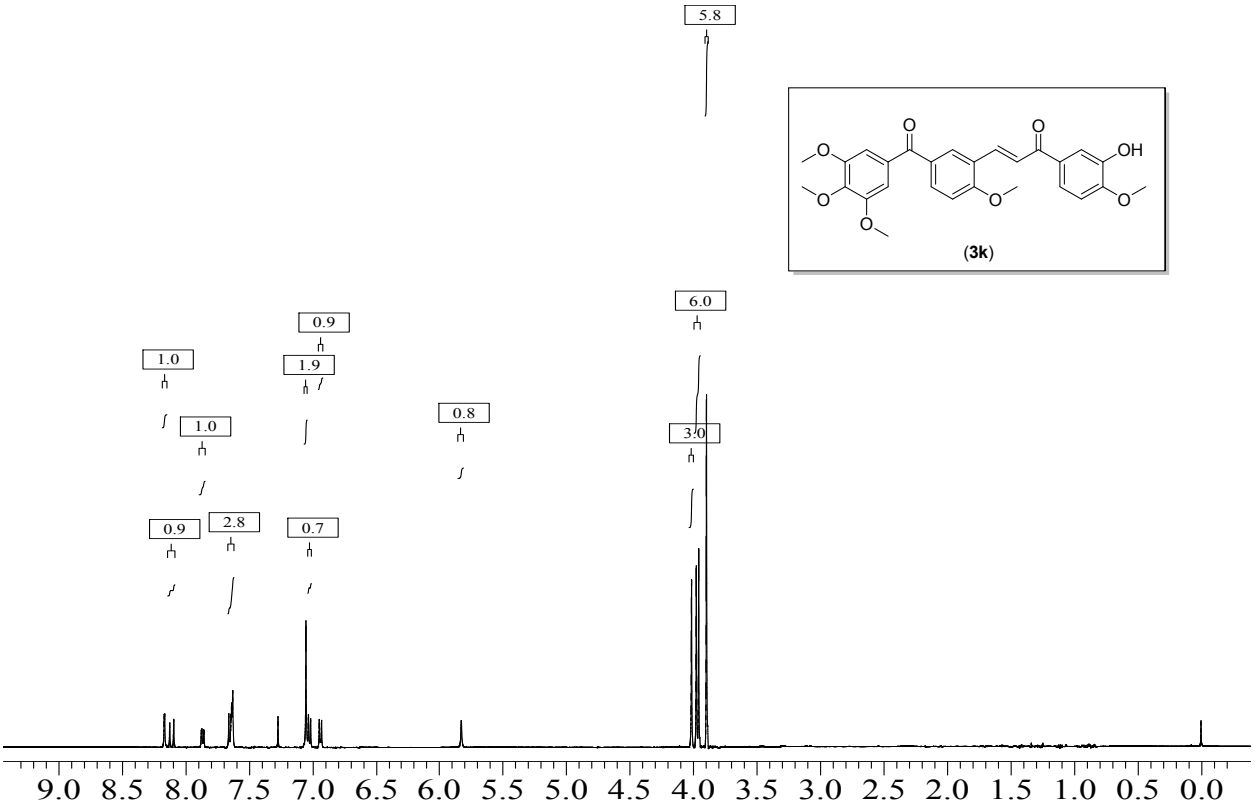
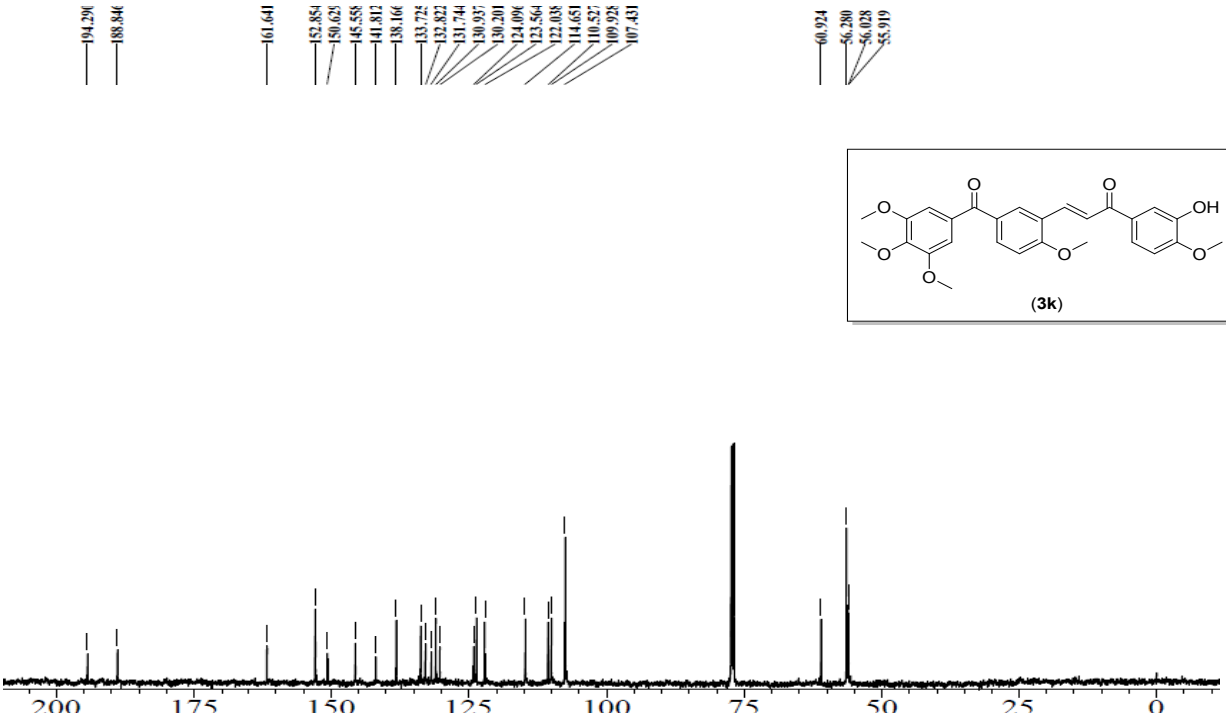


1H NMR Spectrum of Compound **3k**



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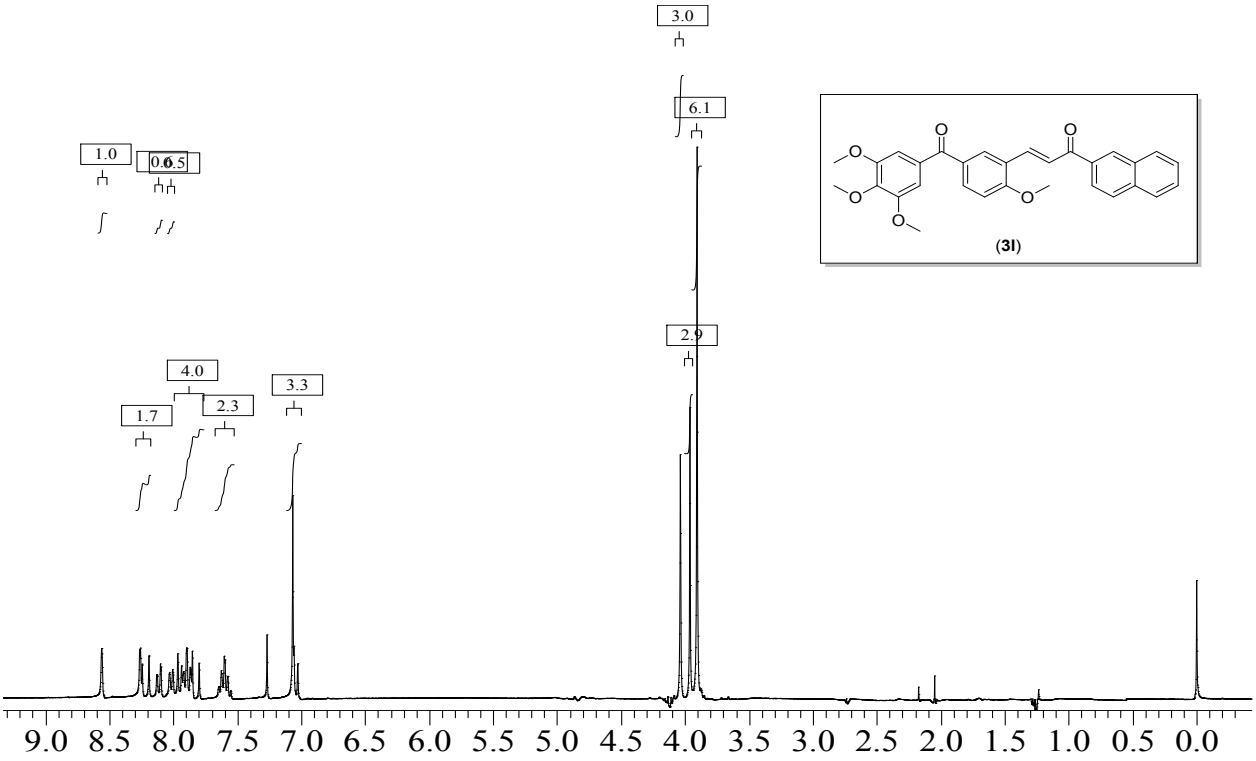

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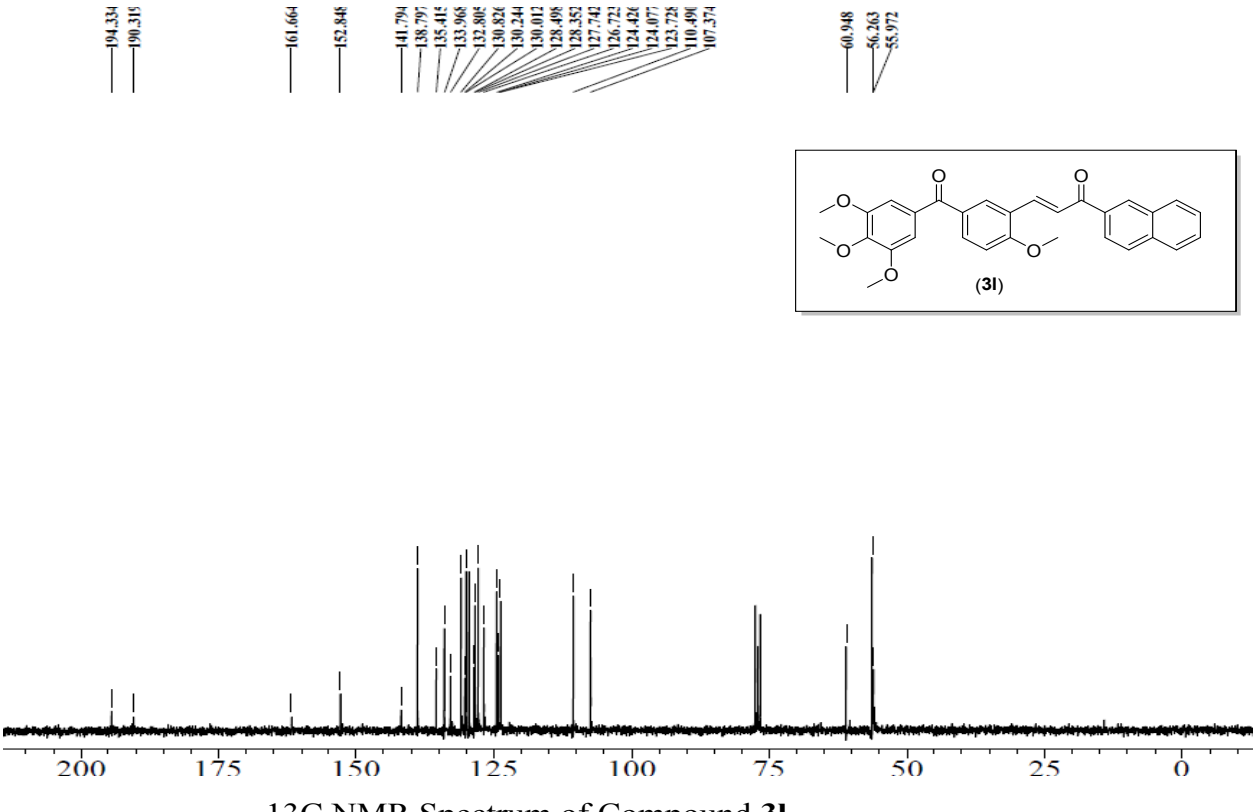

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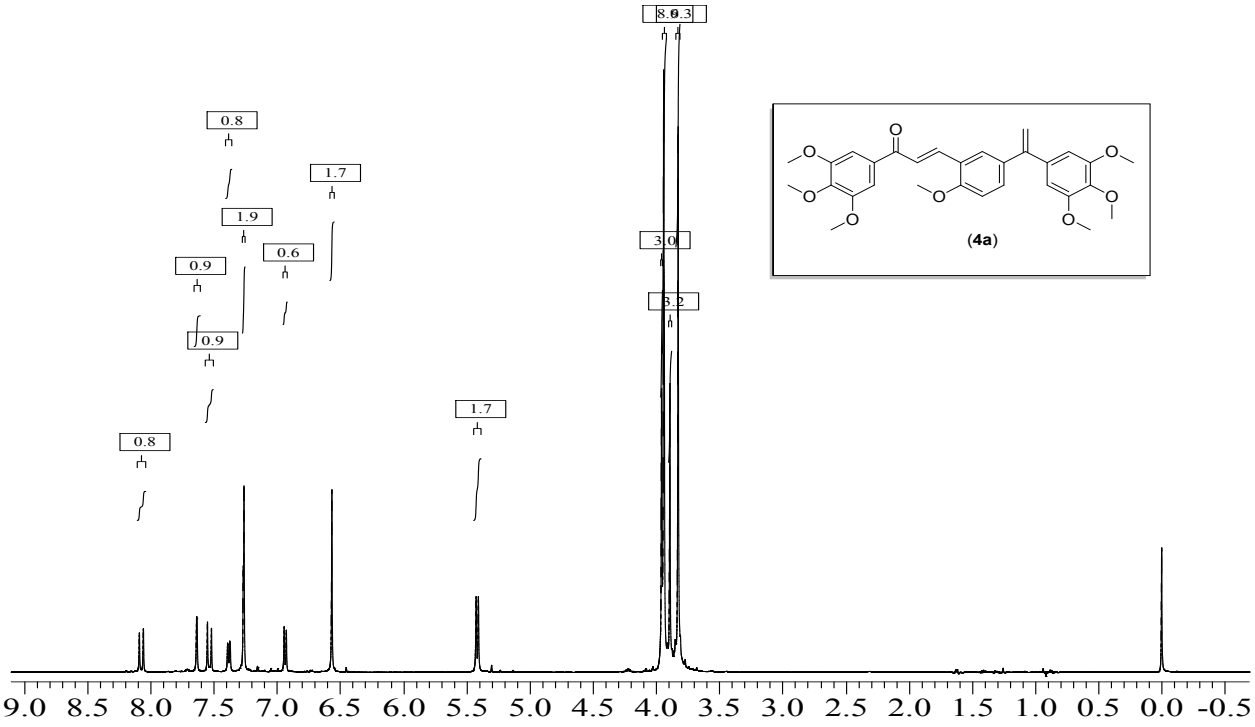
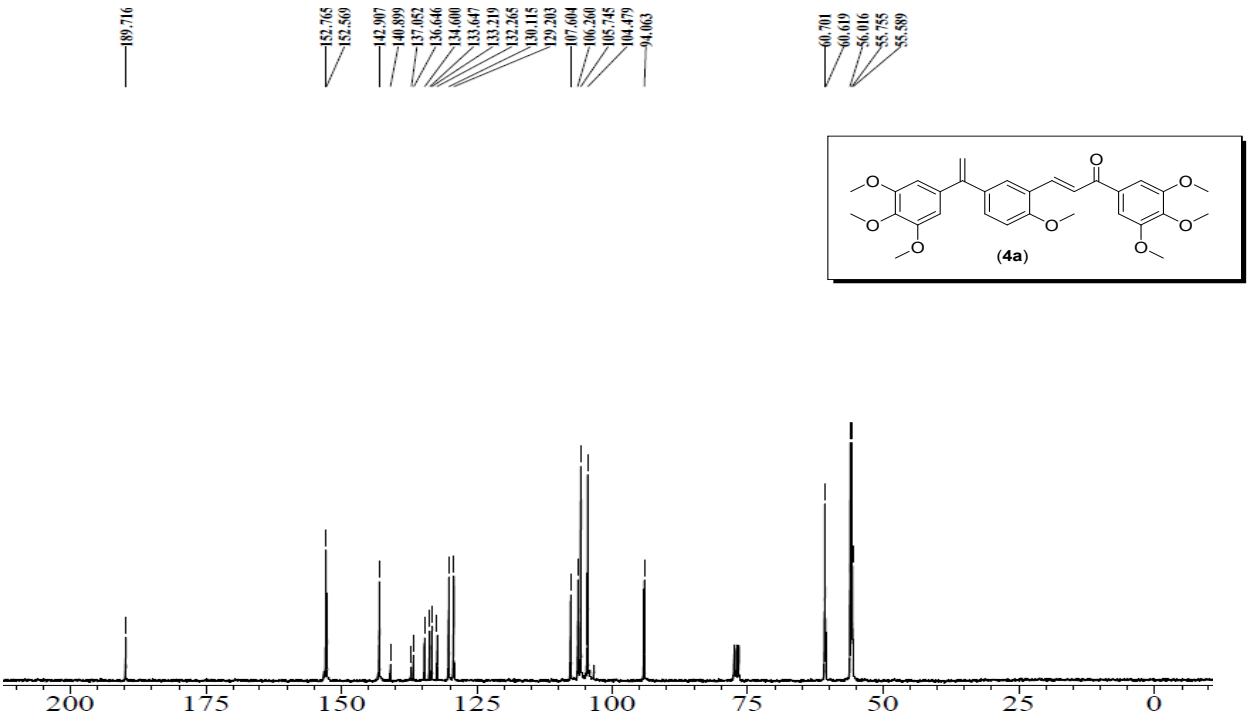
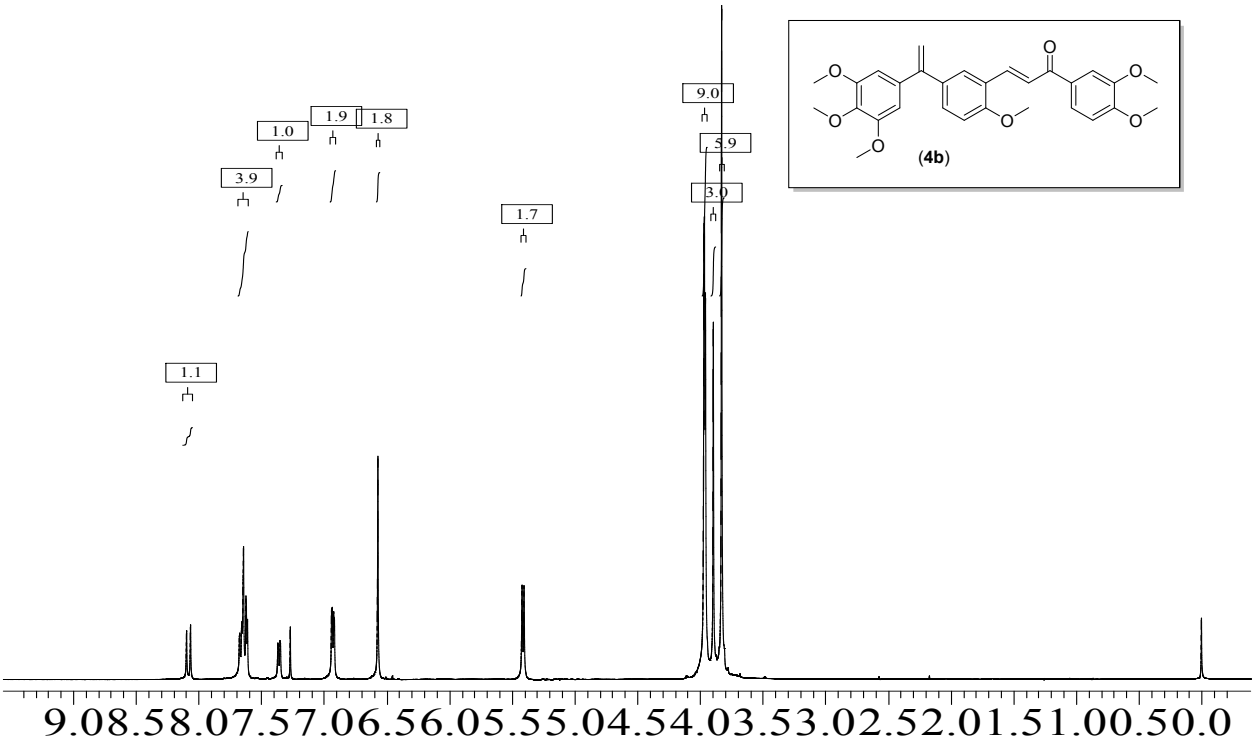


1H NMR Spectrum of Compound **4a**



13C NMR Spectrum of Compound **4a**



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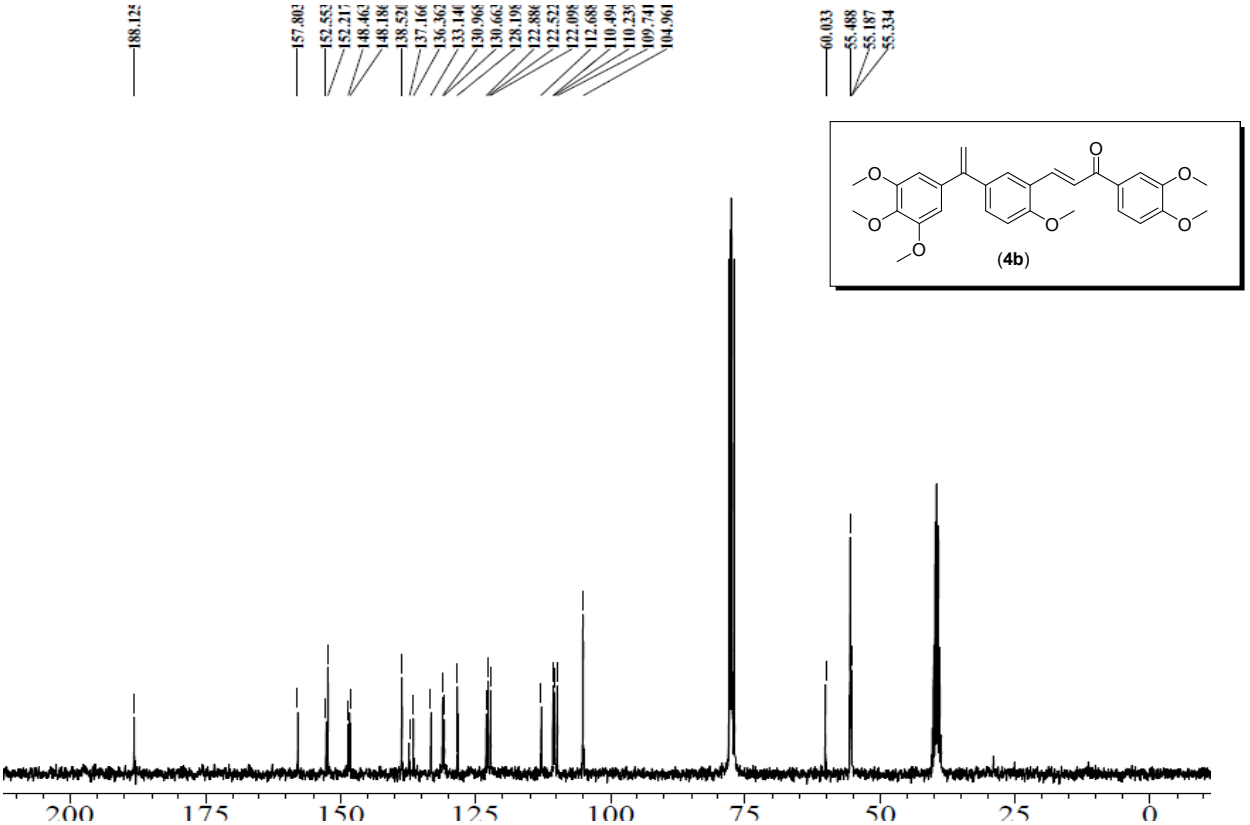
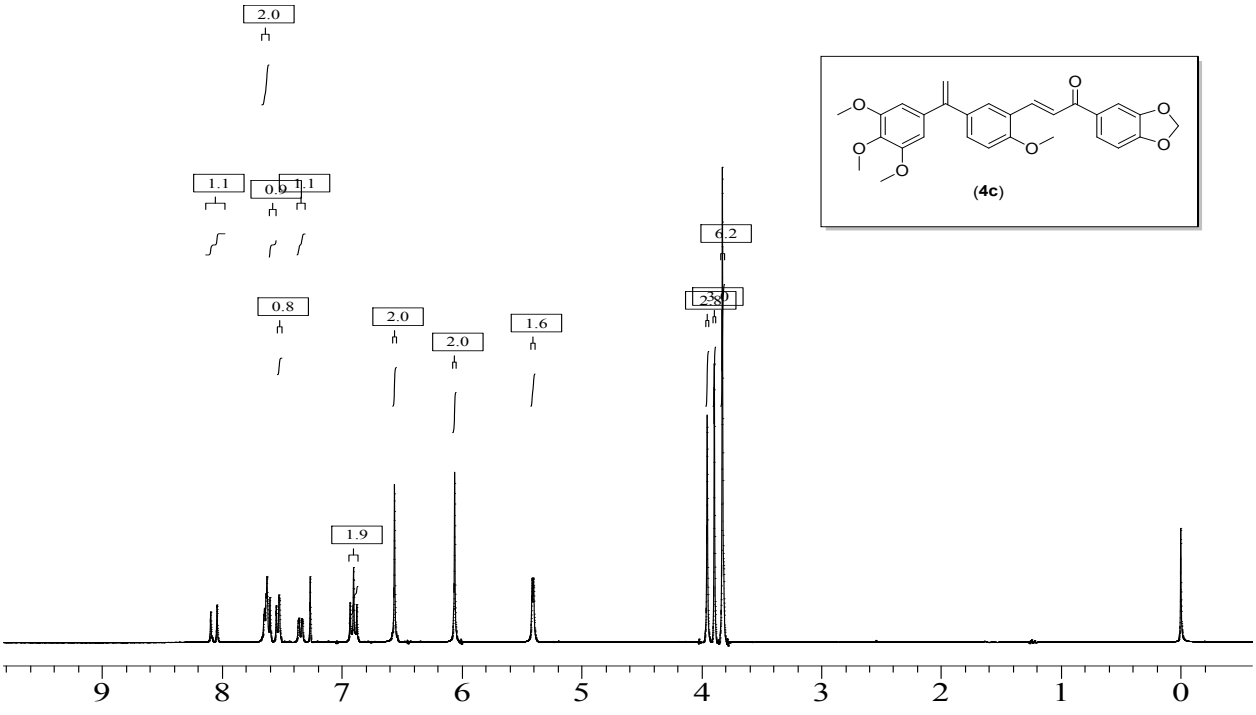


13C NMR Spectrum of Compound **4b**



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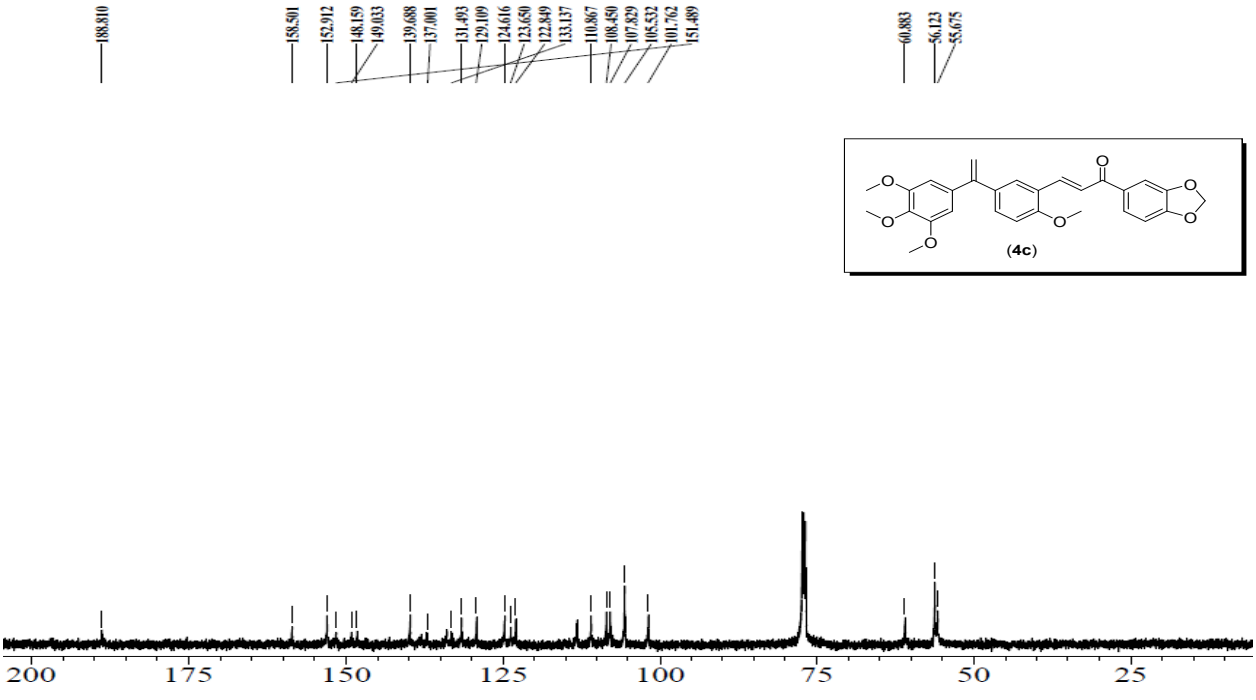
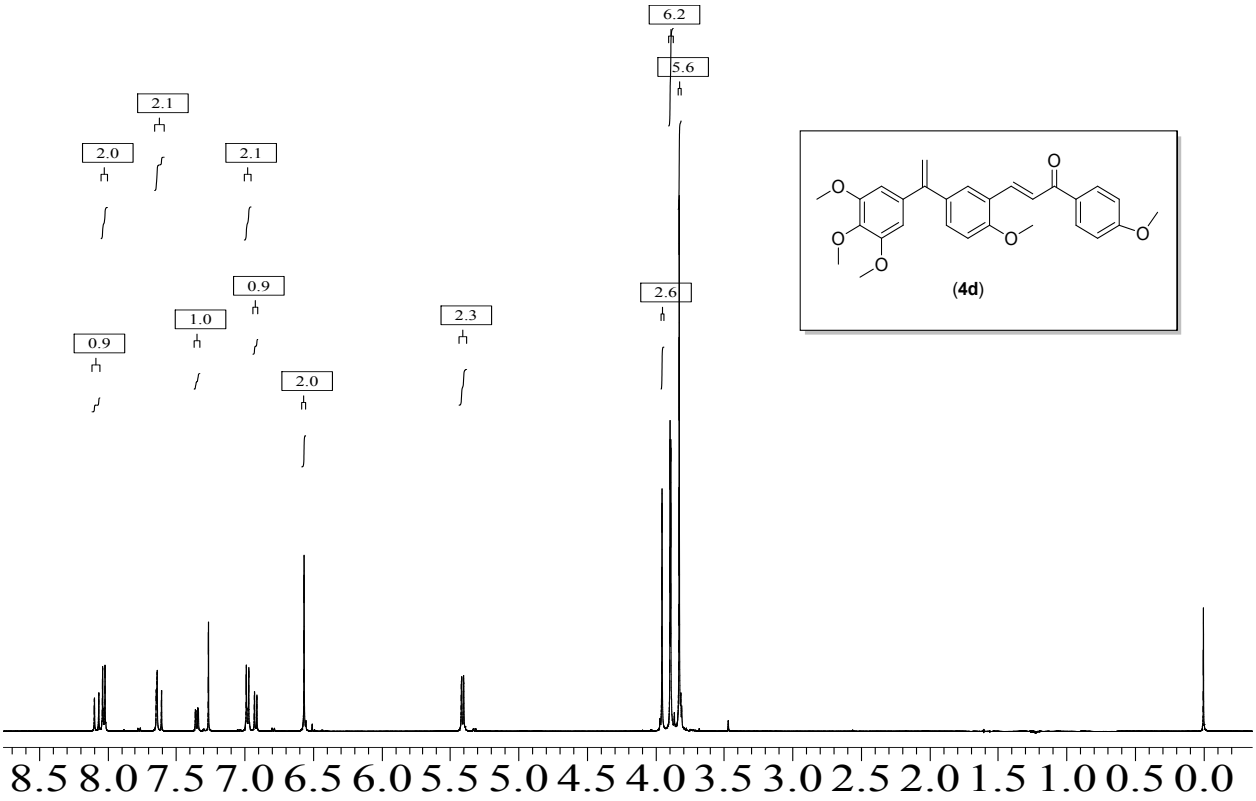
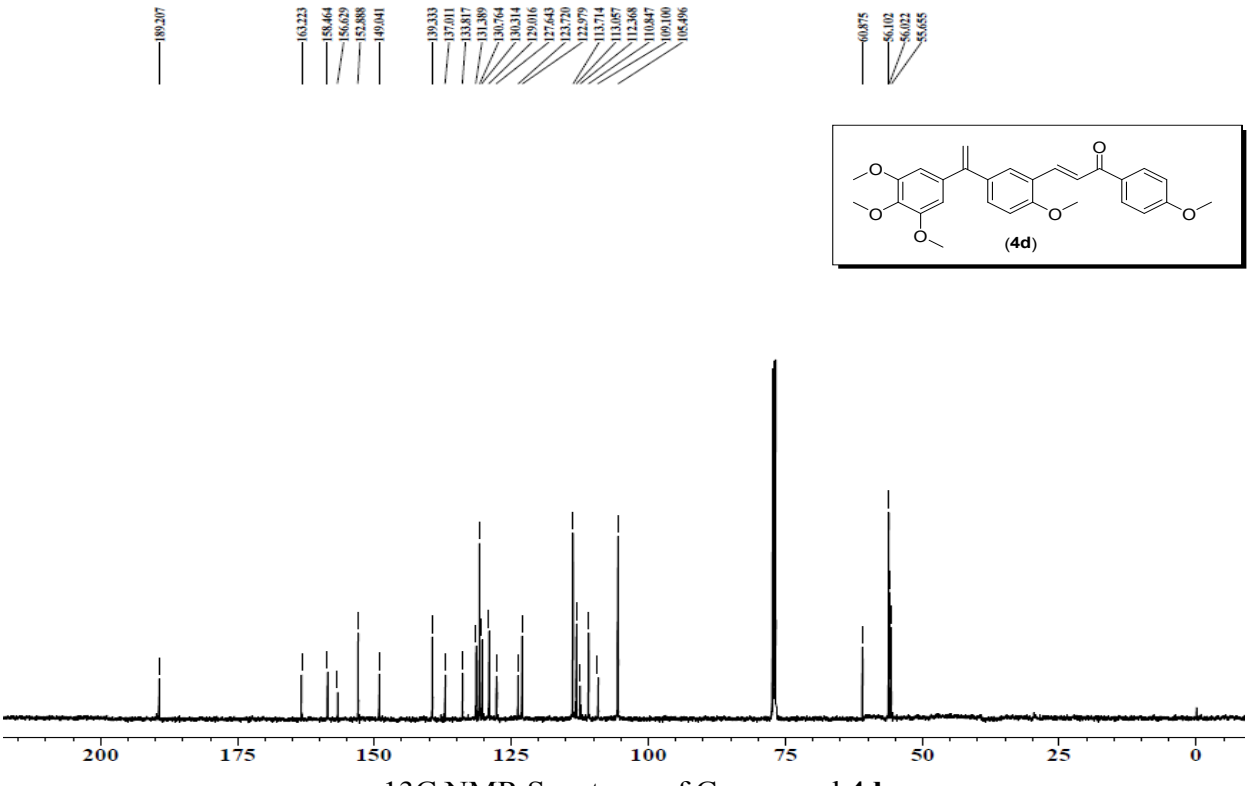


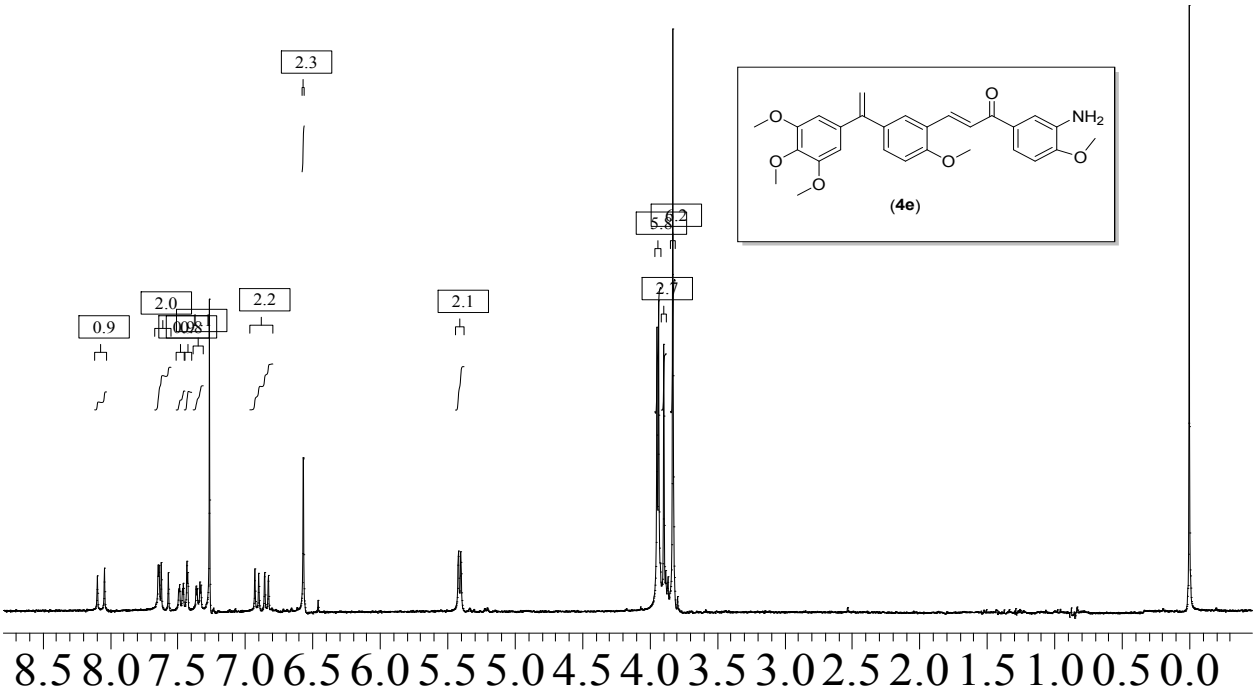
13C NMR Spectrum of Compound **4c**



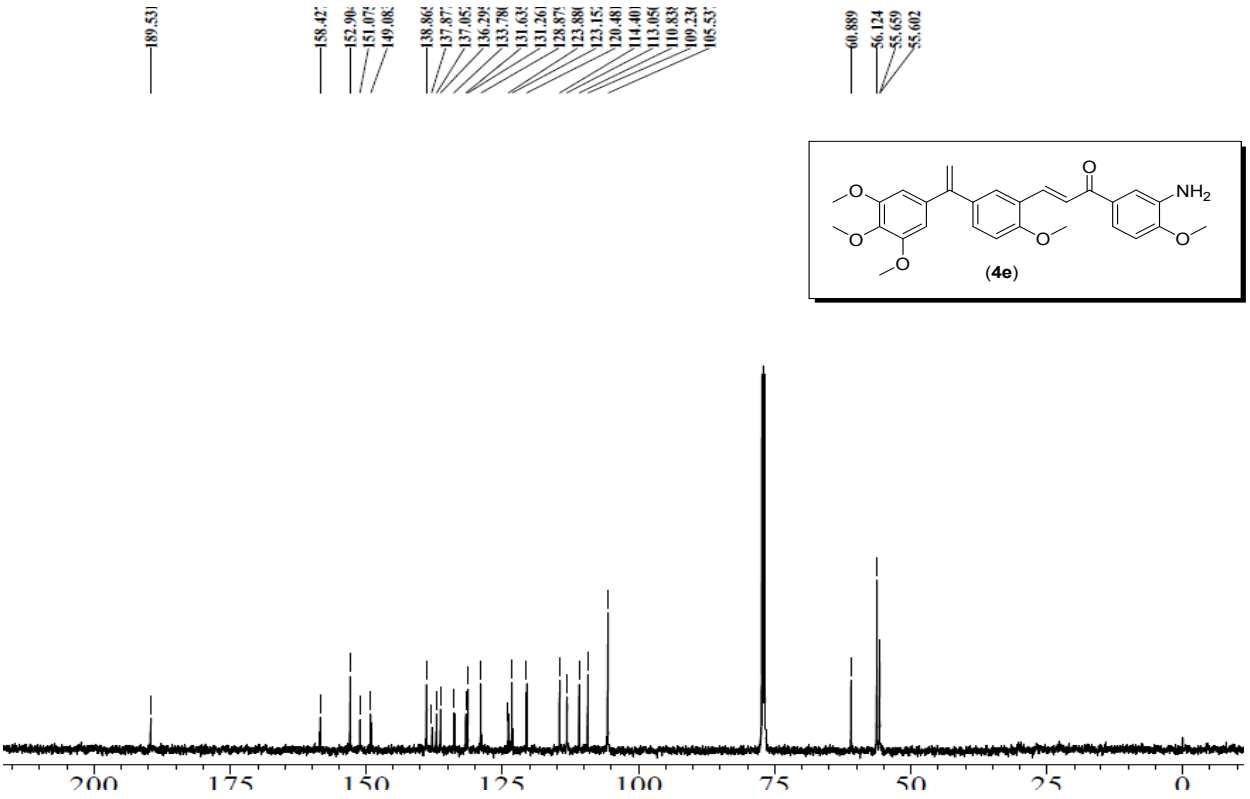
1H NMR Spectrum of Compound **4d**



13C NMR Spectrum of Compound **4d**



1H NMR Spectrum of Compound **4e**



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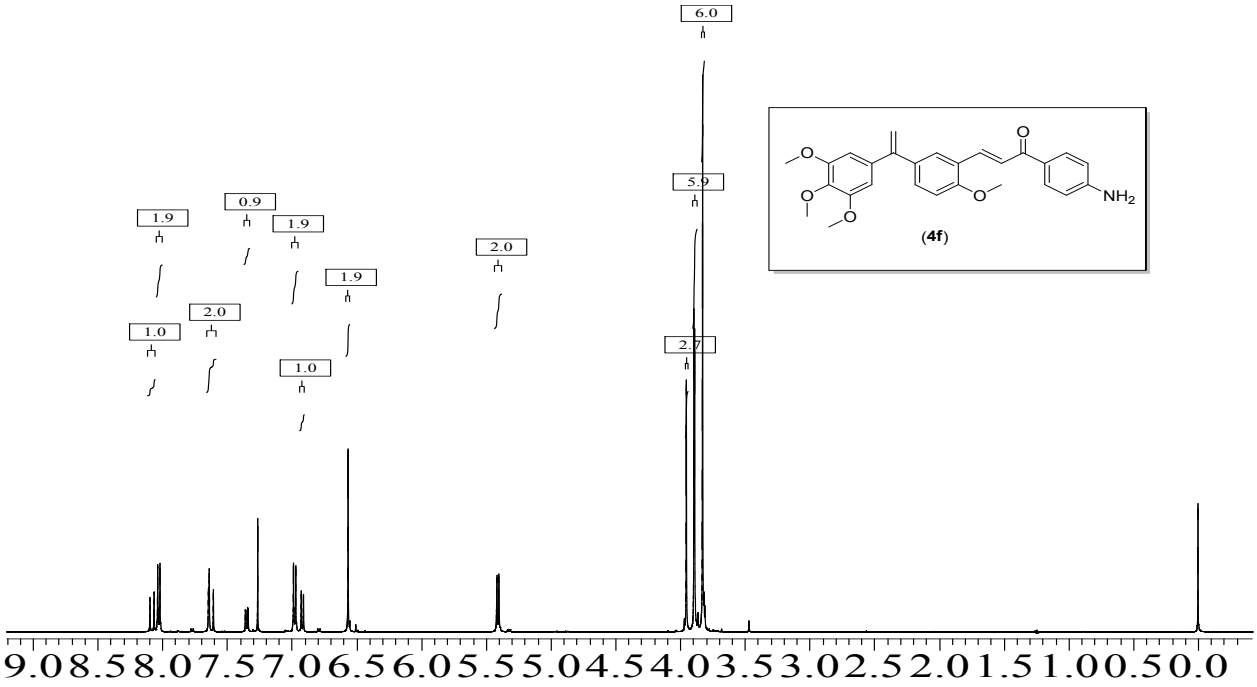

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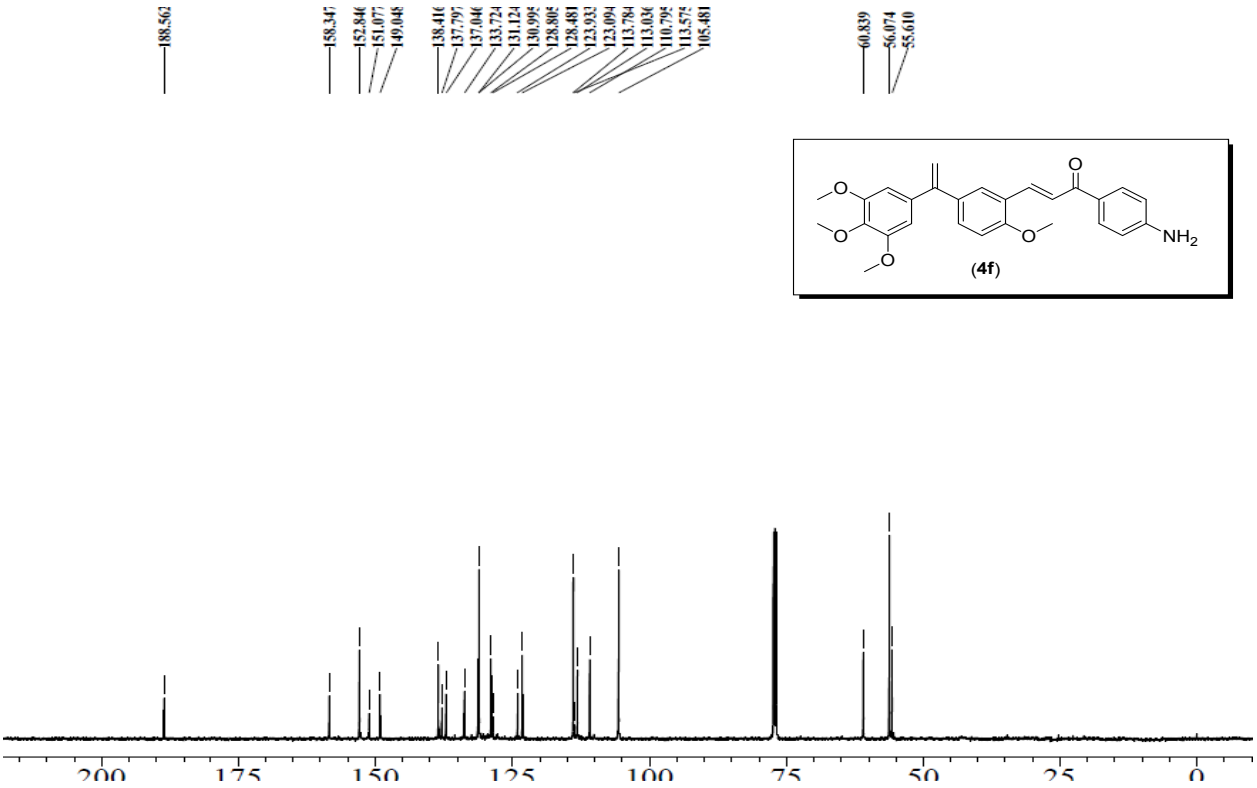

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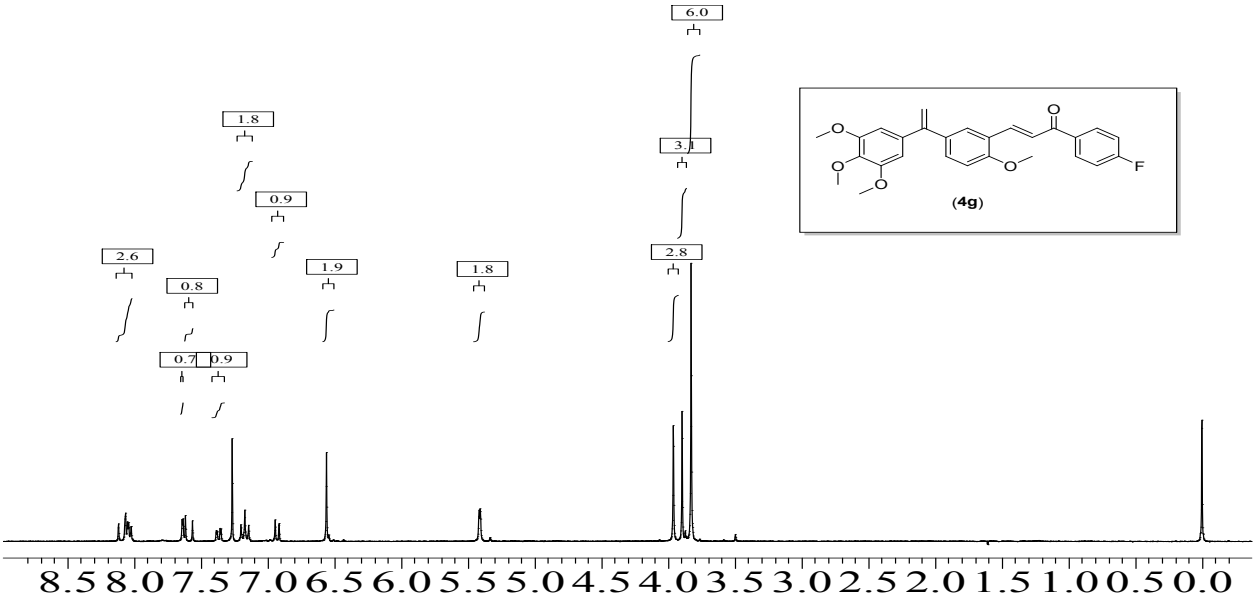
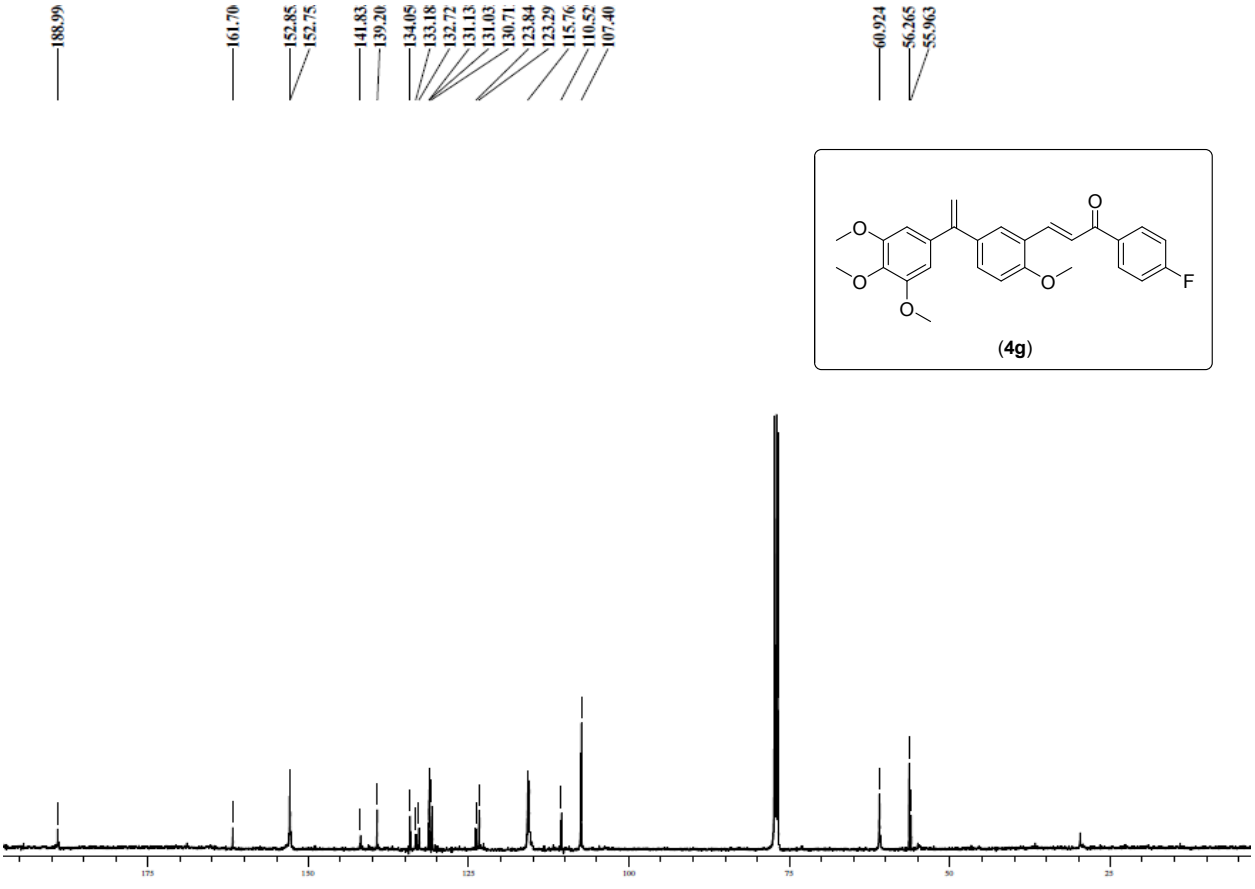


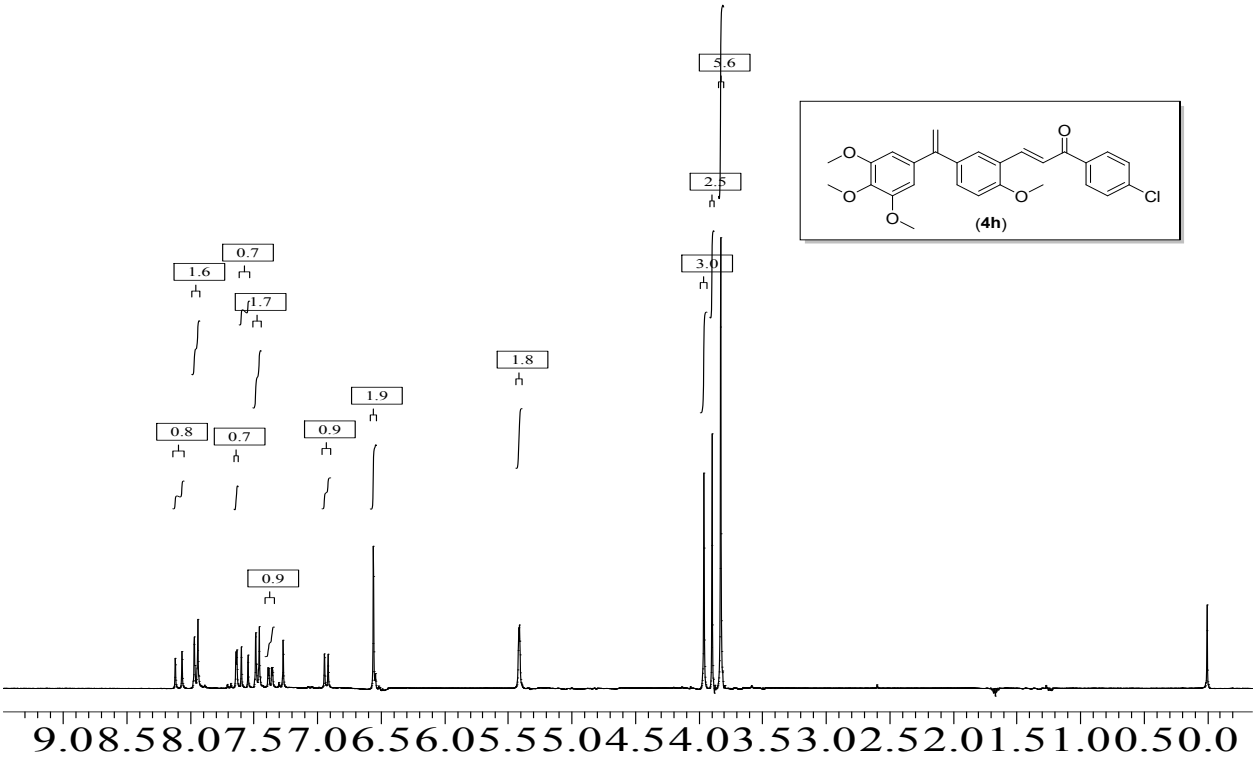
(4g)

1H NMR Spectrum of Compound **4g**

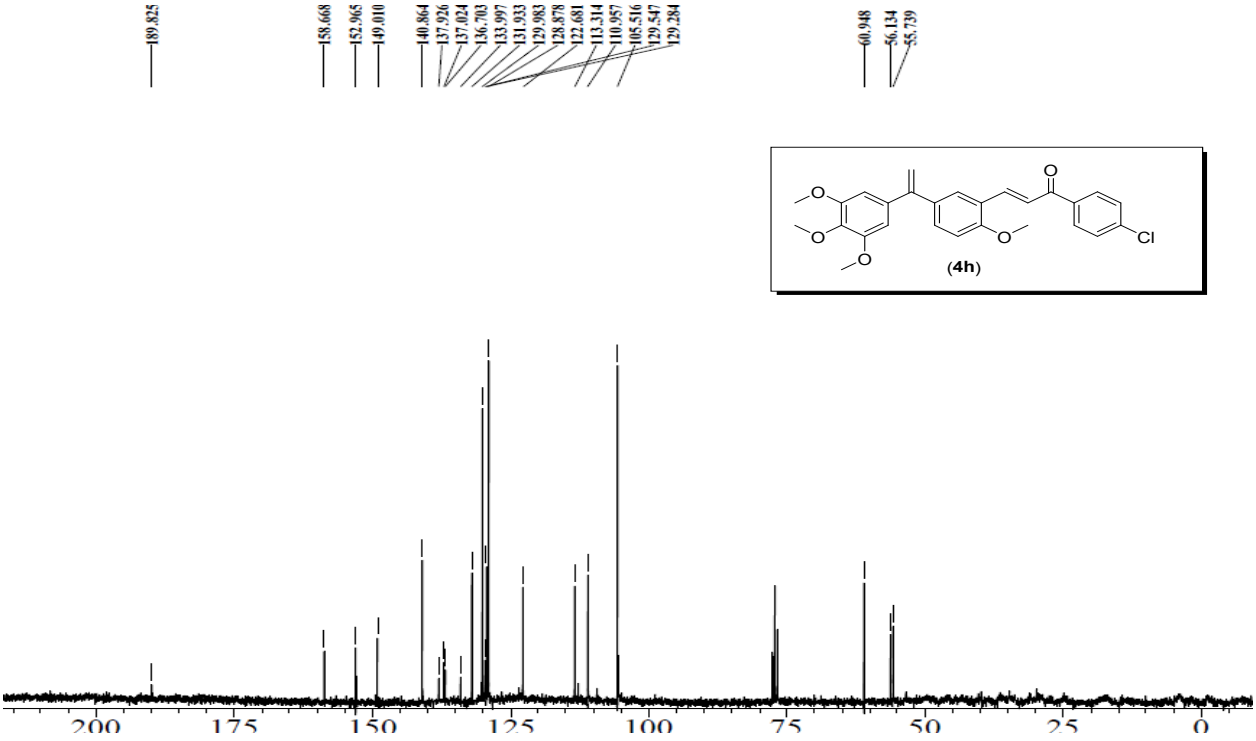


(4g)

13C NMR Spectrum of Compound **4g**

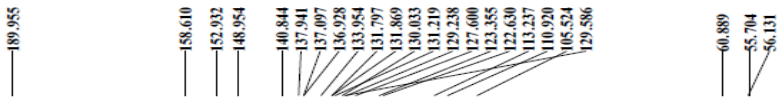


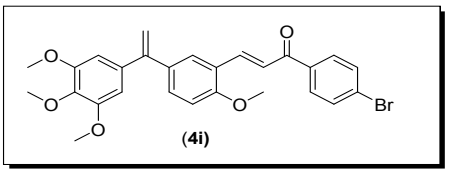
1H NMR Spectrum of Compound **4h**

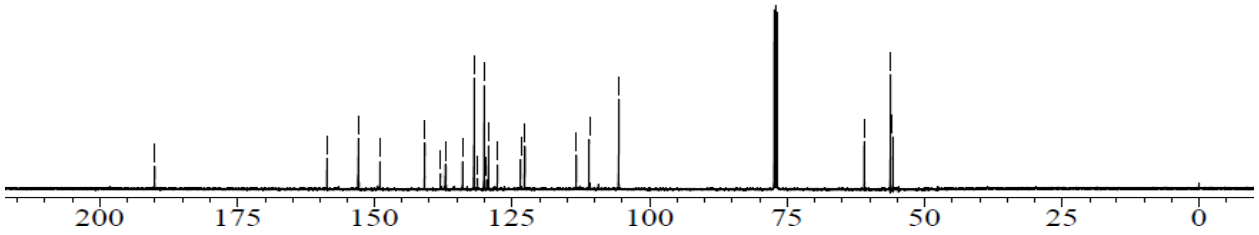


13C NMR Spectrum of Compound **4h**

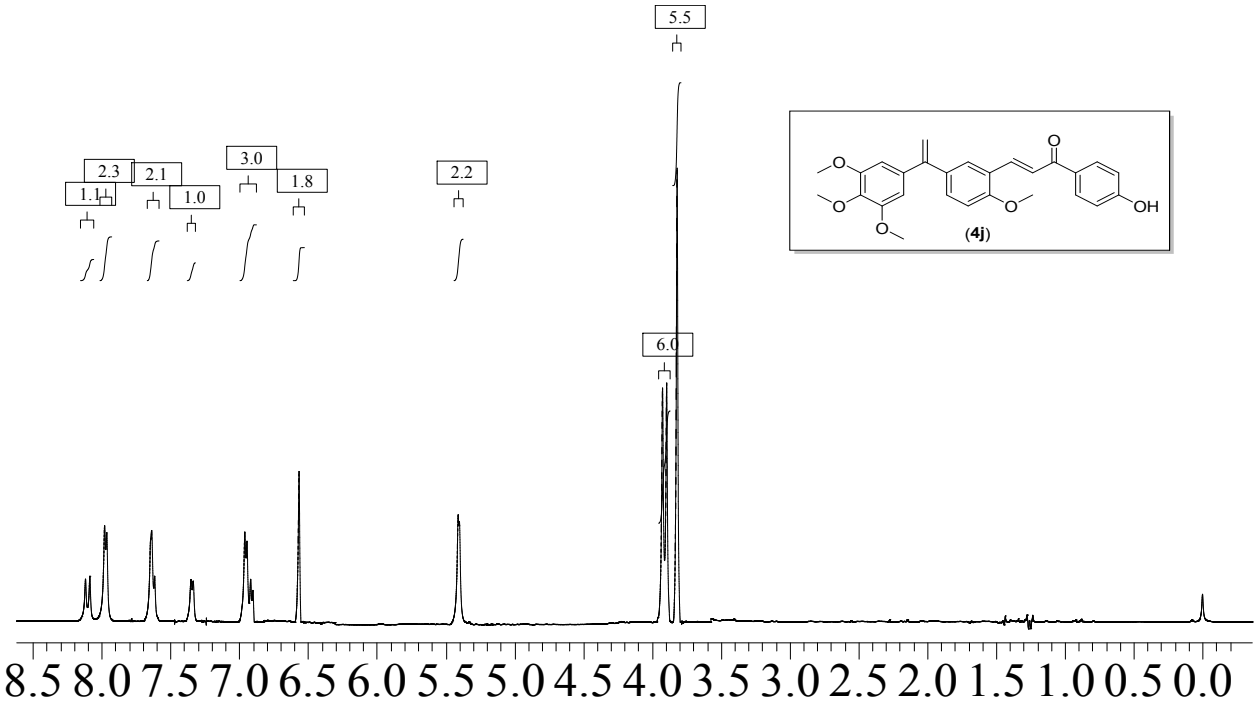
1H NMR Spectrum of Compound **4i**







13C NMR Spectrum of Compound **4i**



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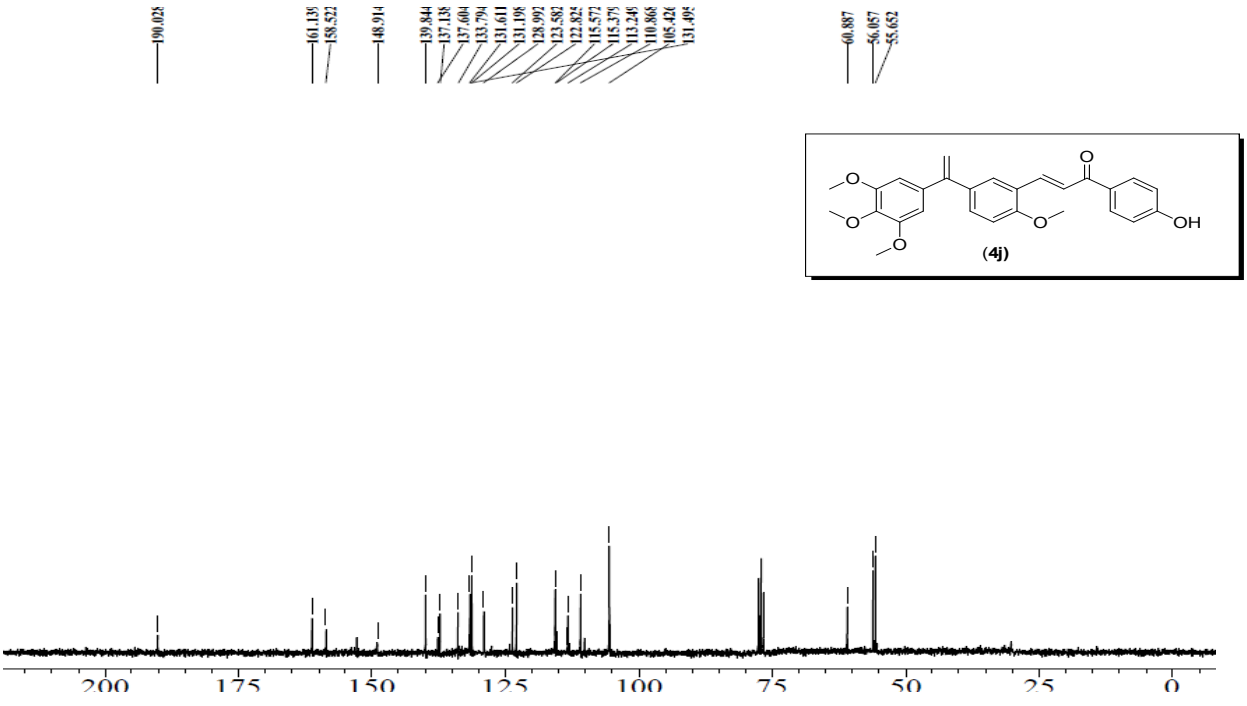
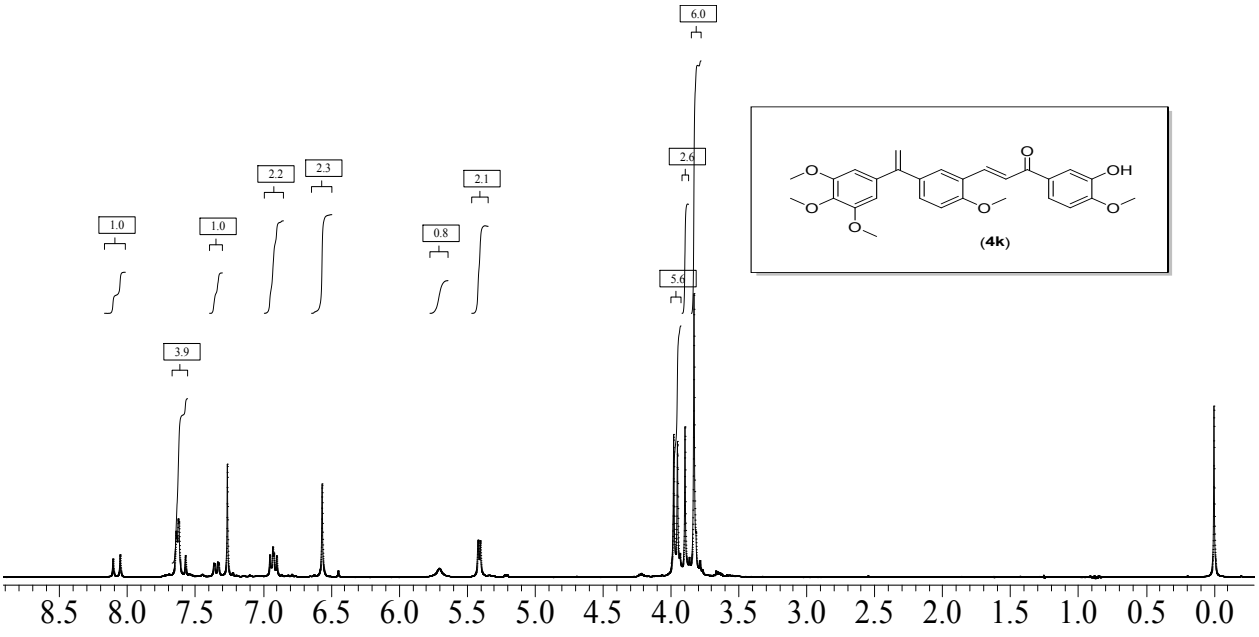
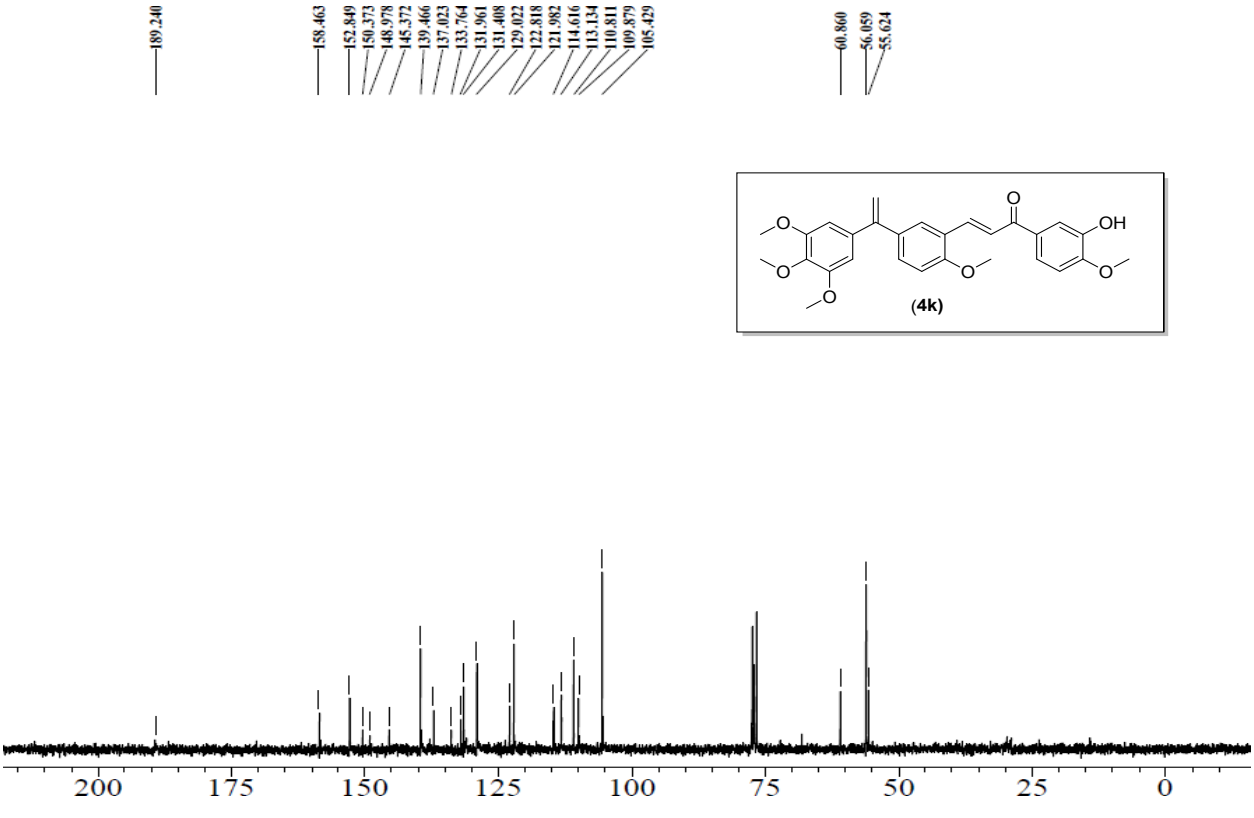


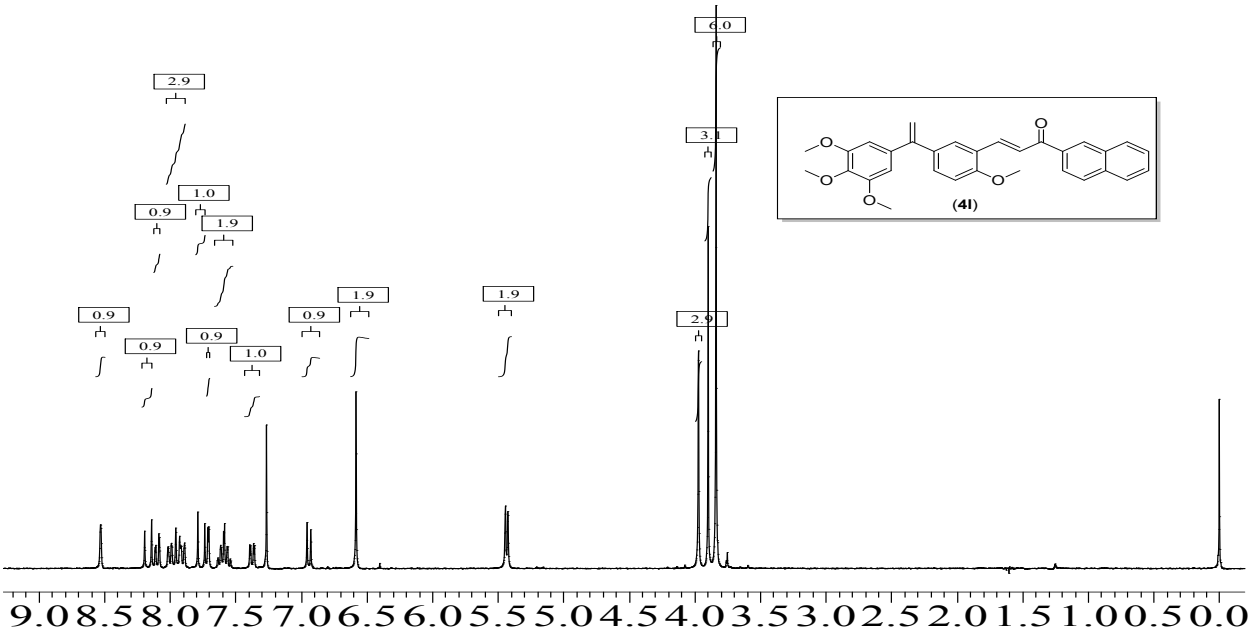
13C NMR Spectrum of Compound



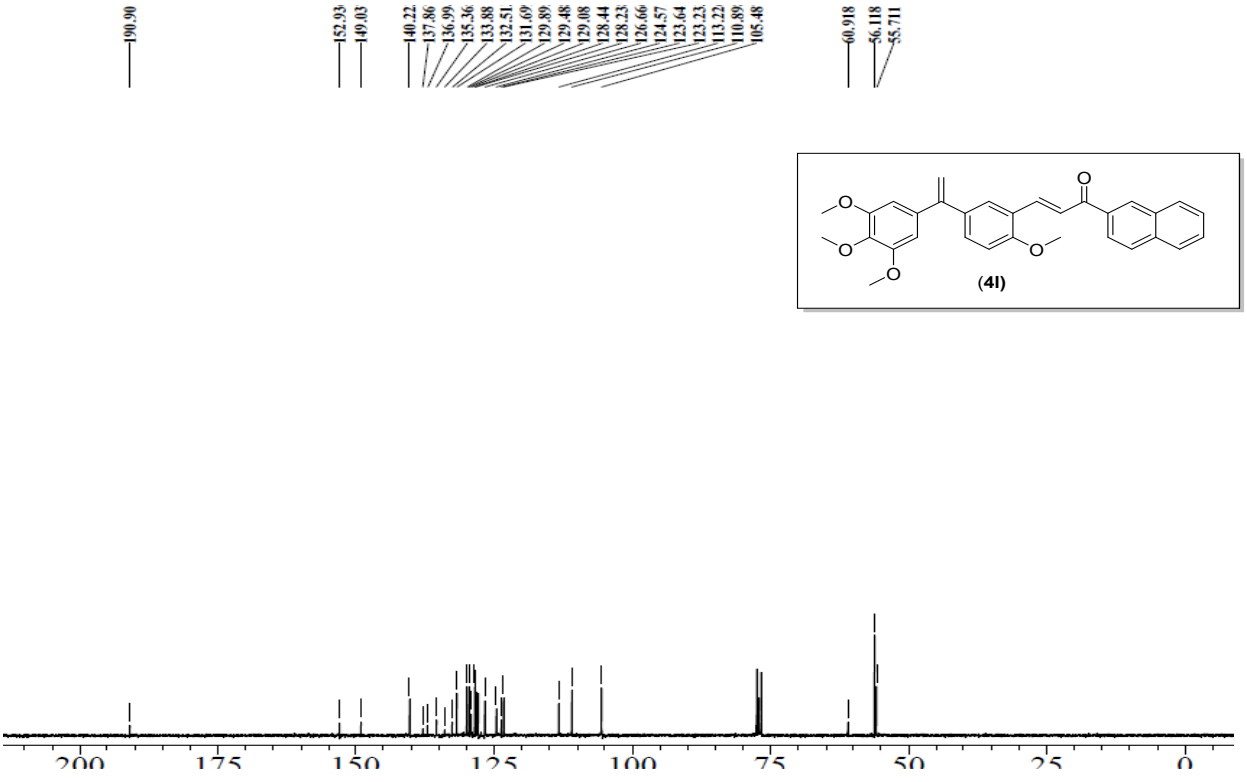
1H NMR Spectrum of Compound **4k**



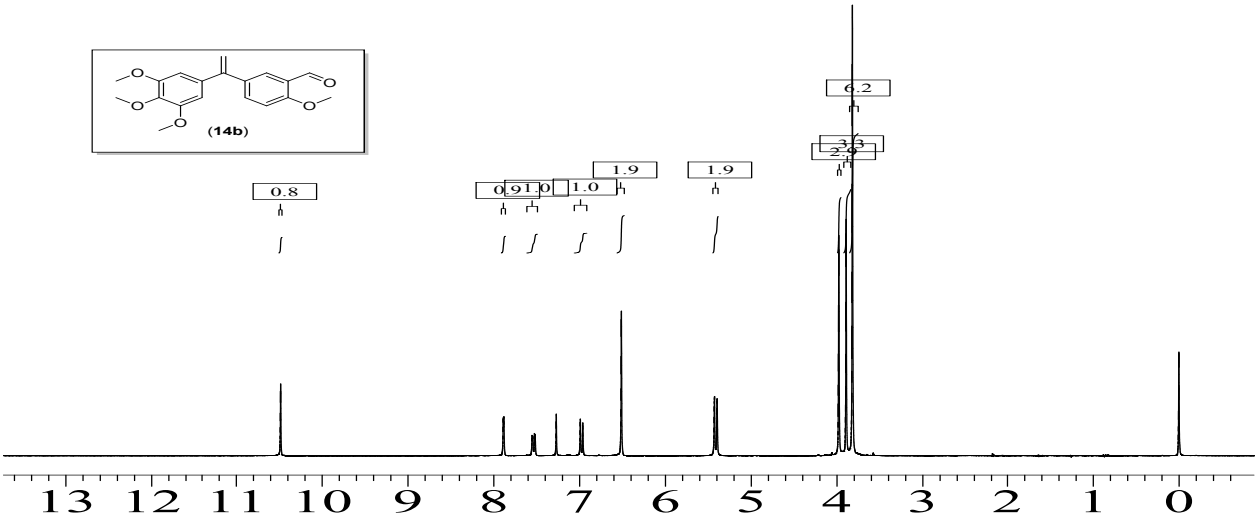
13C NMR Spectrum of Compound **4k**



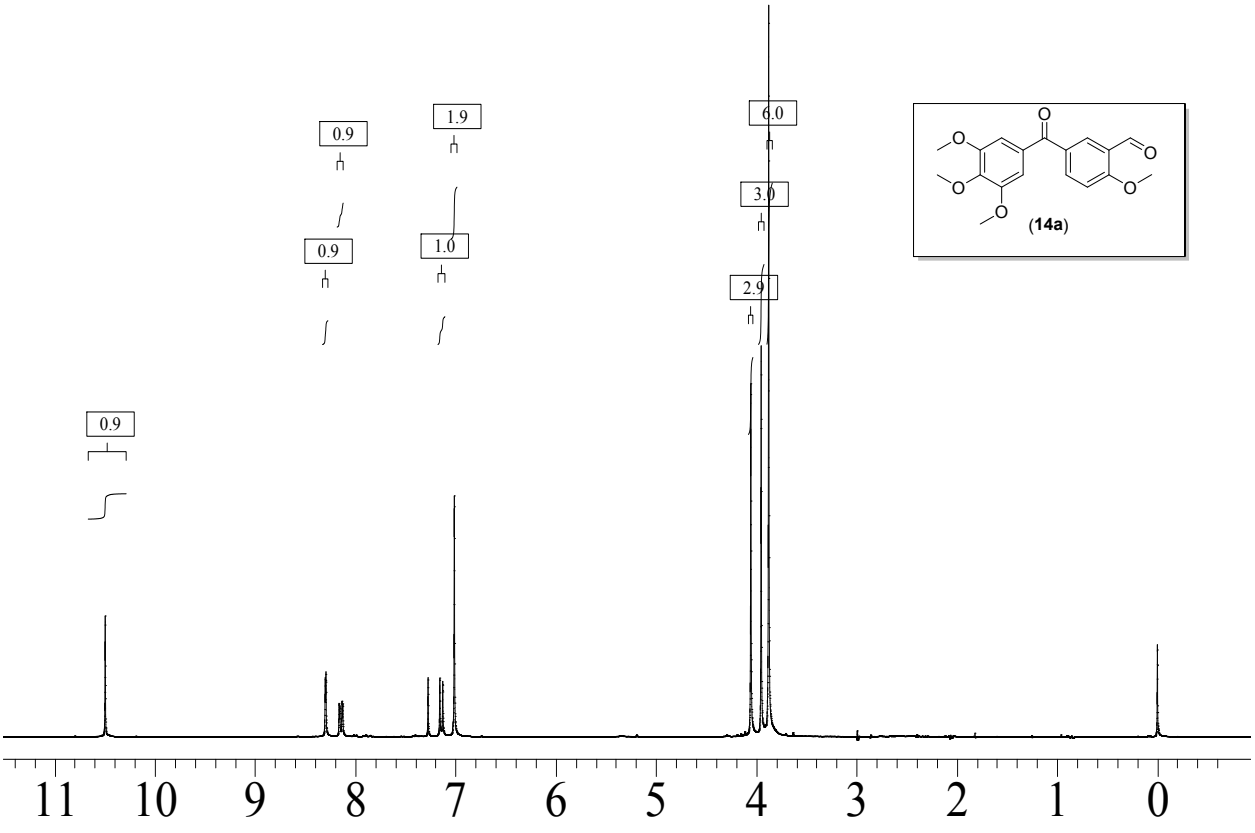
1H NMR Spectrum of Compound **4l**



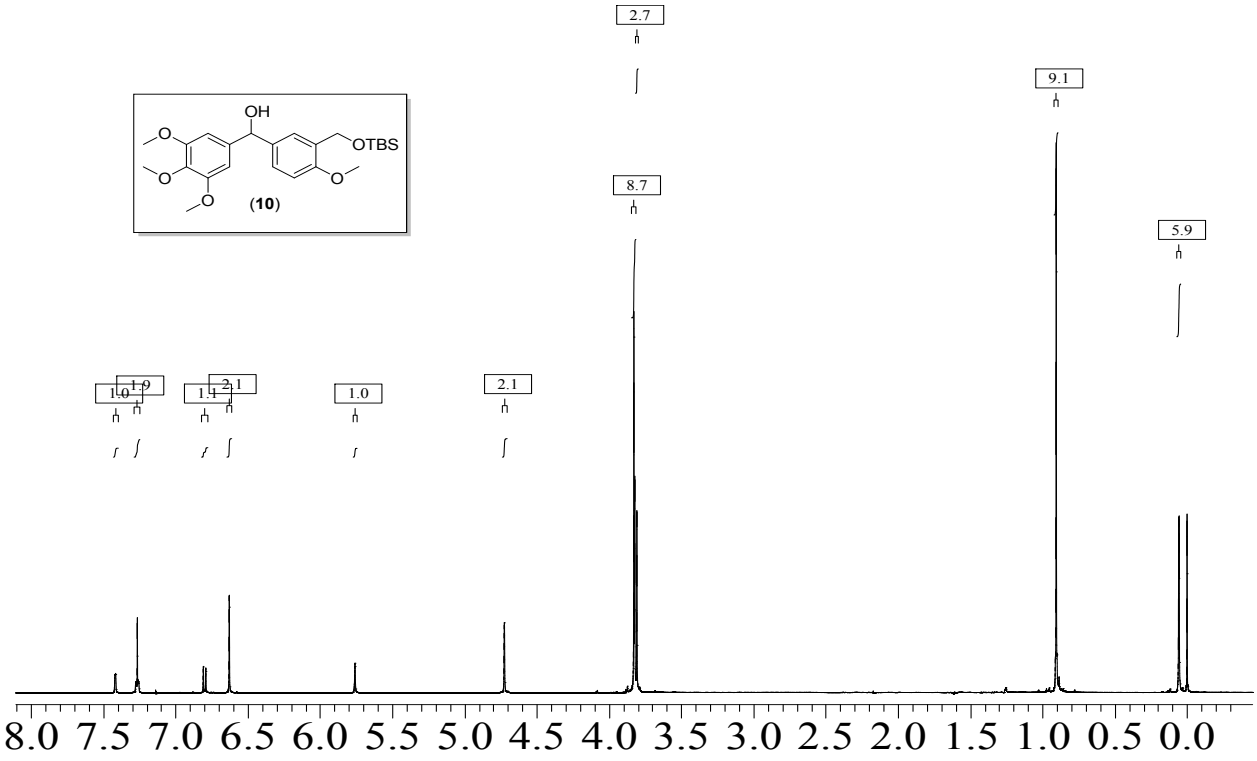
13C NMR Spectrum of Compound **4l**



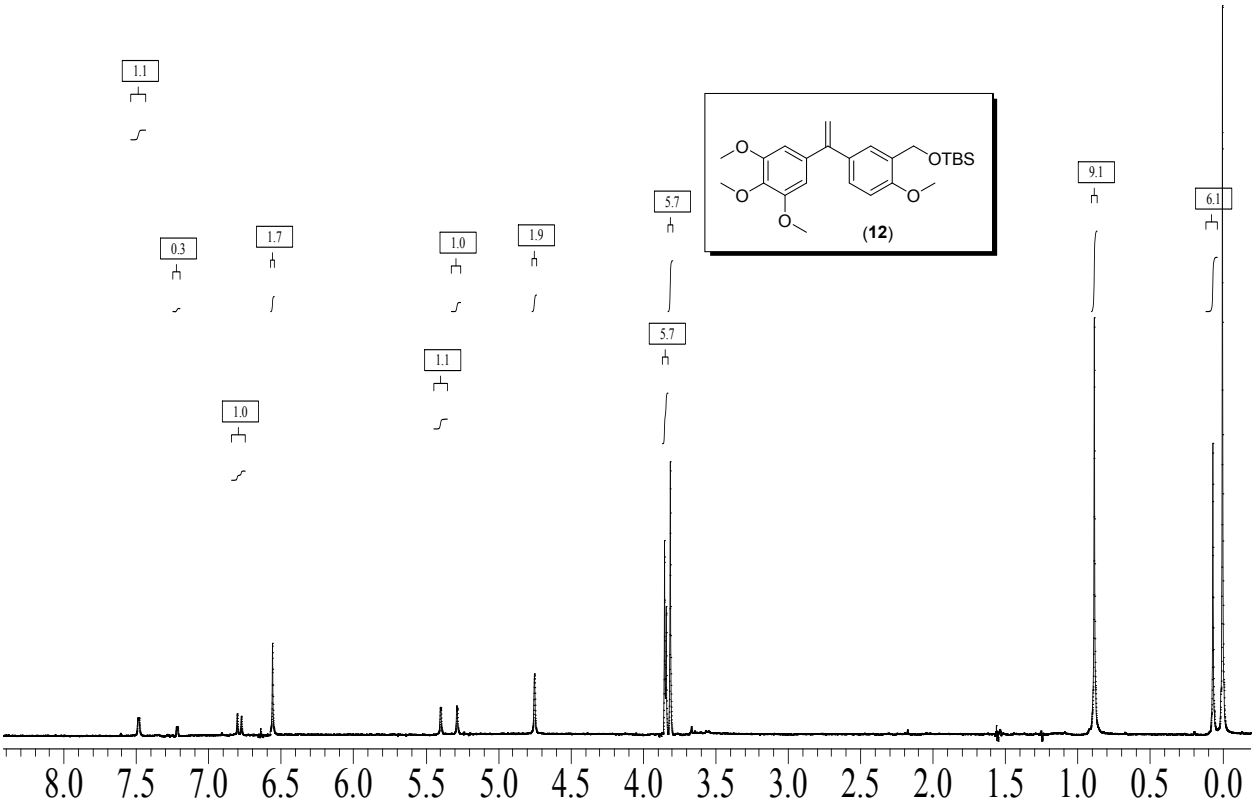
1H NMR Spectrum of Compound **14b**



1H NMR Spectrum Of Compound **14a**



1H NMR Spectrum of Compound **10**



1H NMR Spectrum of Compound **12**