

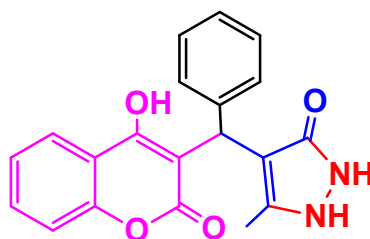
Supporting Information

Greener design and characterization of biochar/Fe₃O₄@SiO₂-Ag magnetic nanocomposite as efficient catalyst for synthesis of bioactive benzylpyrazolyl coumarin derivatives

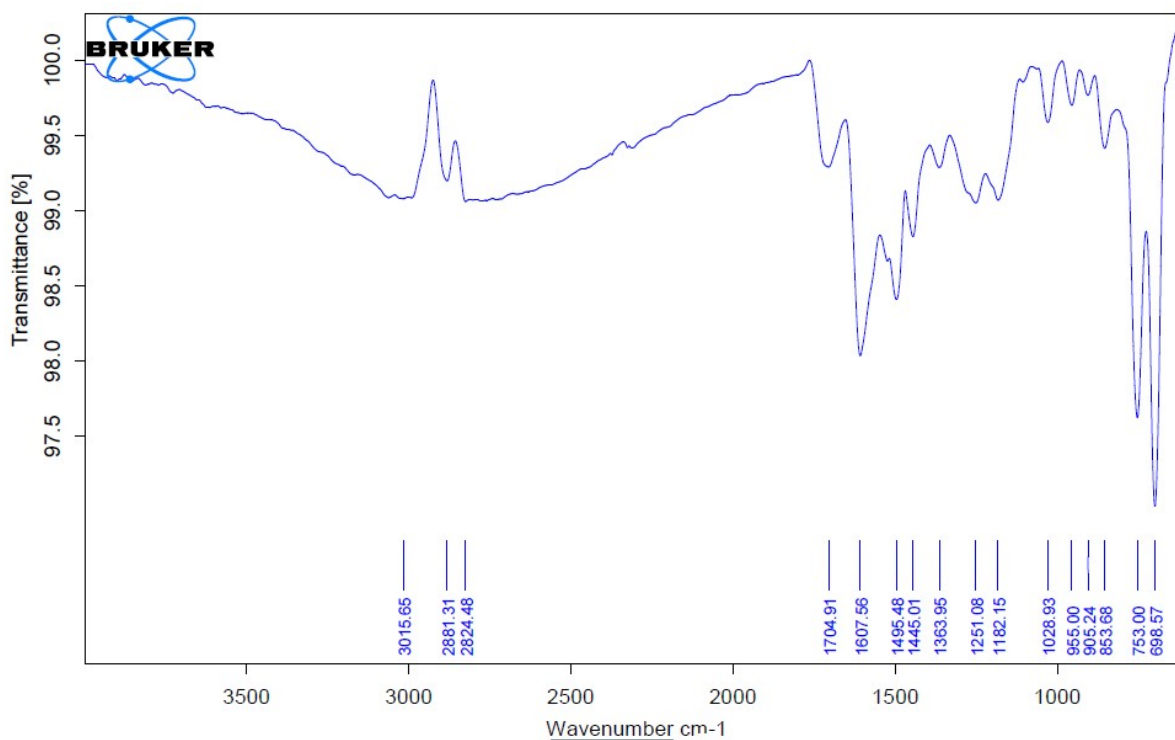
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Department of Chemistry, Mohanlal Sukhadia University, Udaipur (Rajasthan)
India

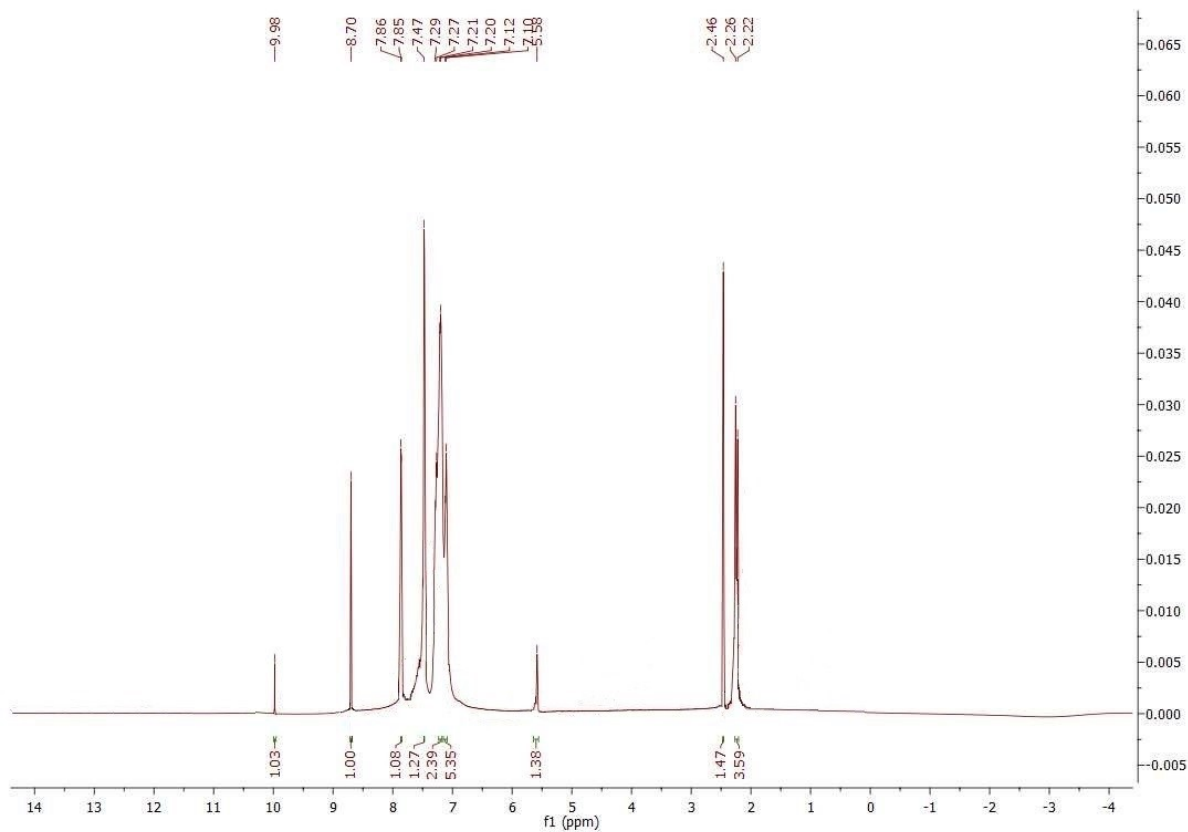
Compound 5a



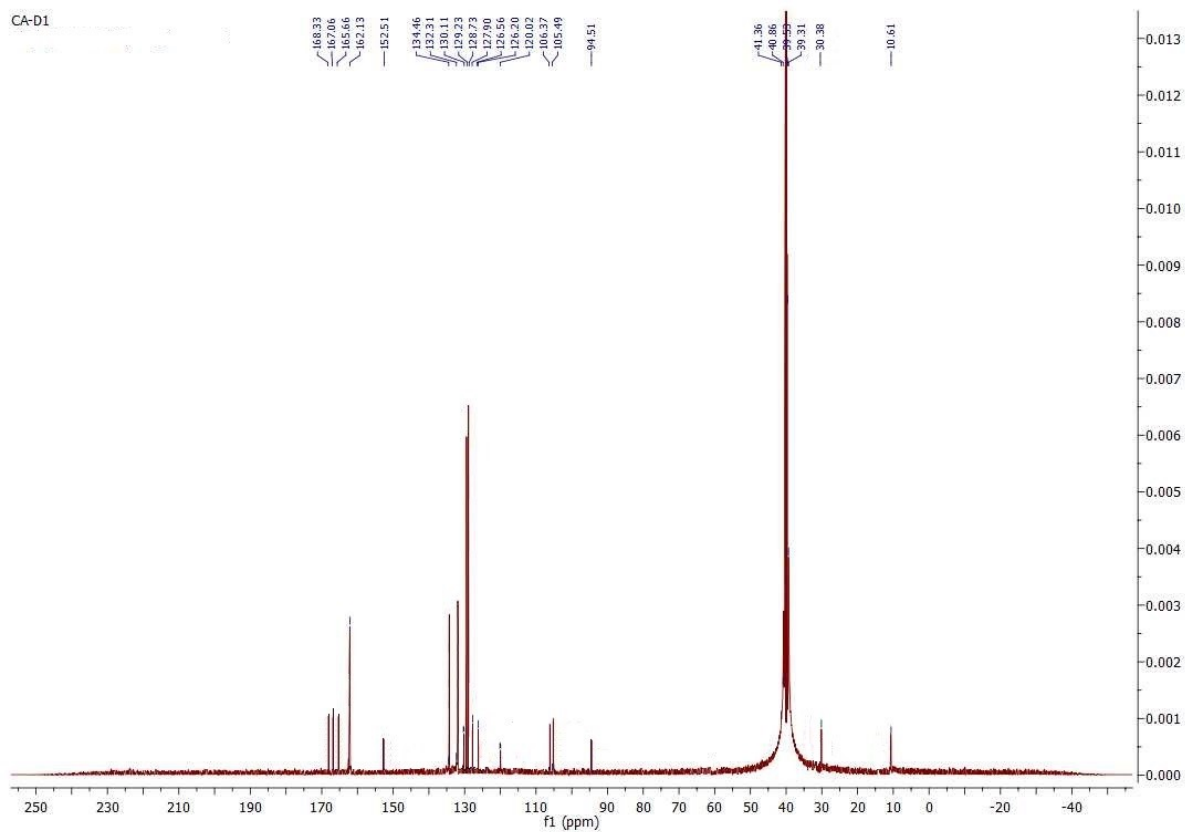
FT-IR of Compound 5a



1H NMR of Compound 5a

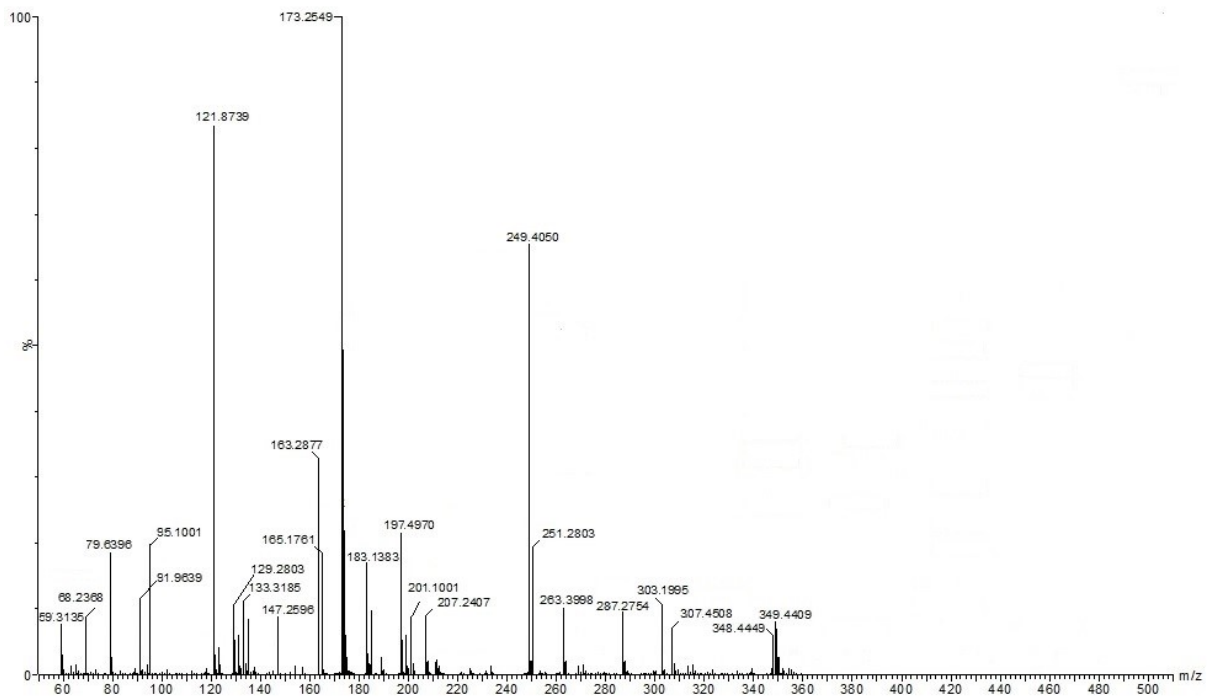


13C NMR of Compound 5a

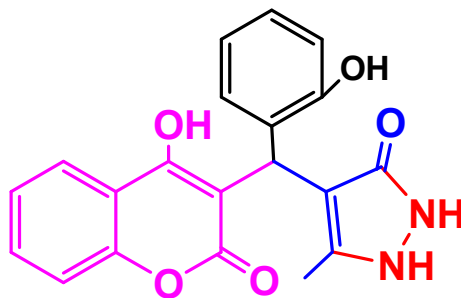


ESI-MS of Compound 5a

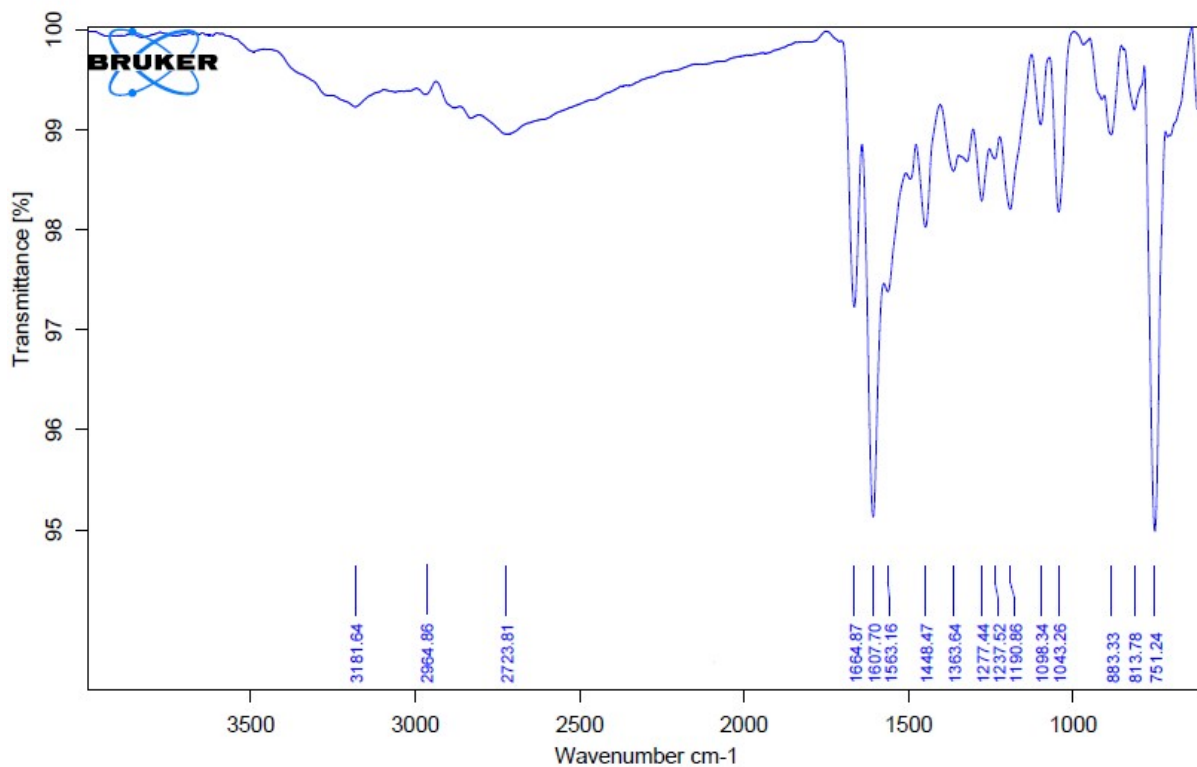
WATERS,Q-TOF MICROMASS (ESI-MS)



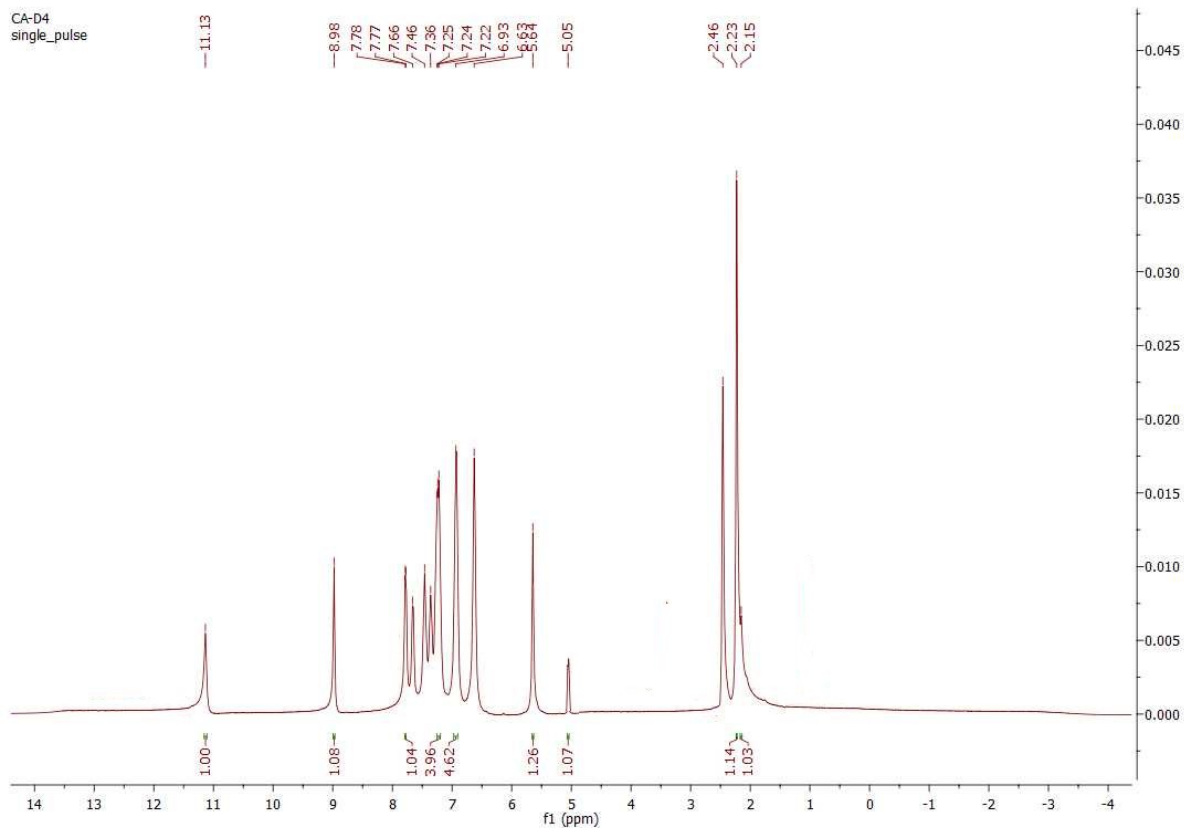
COMPOUND 5b



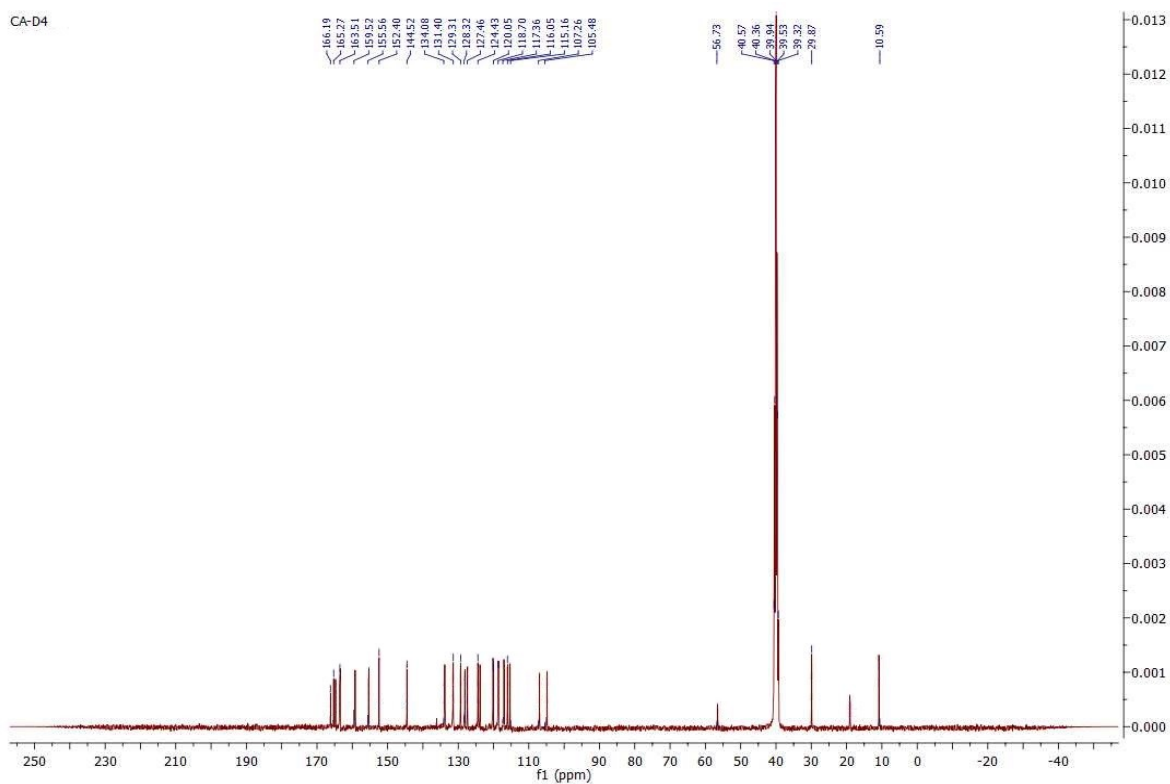
FT-IR of Compound 5b



¹H NMR of Compound 5b

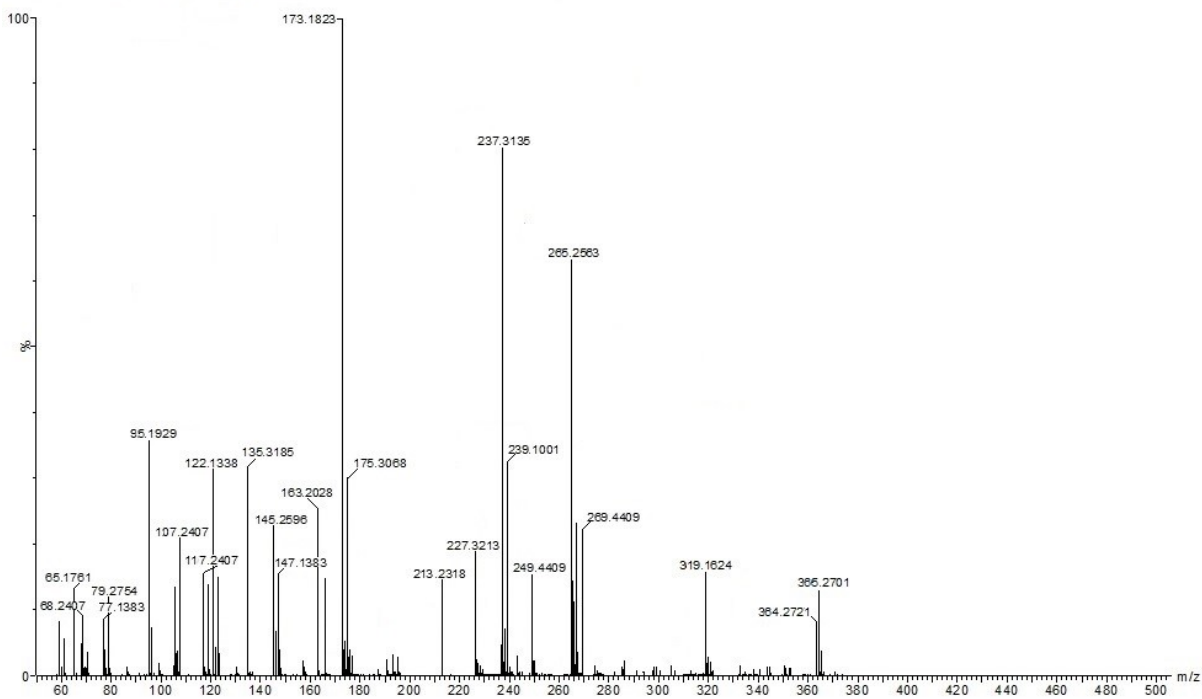


¹³C NMR of Compound 5b

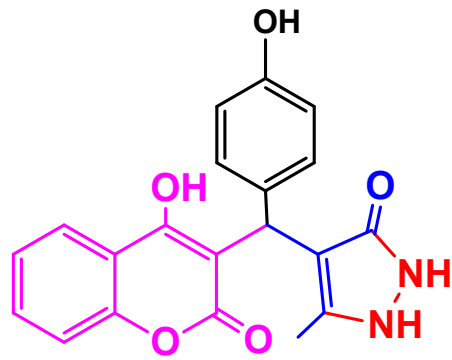


ESI-MS of Compound 5b

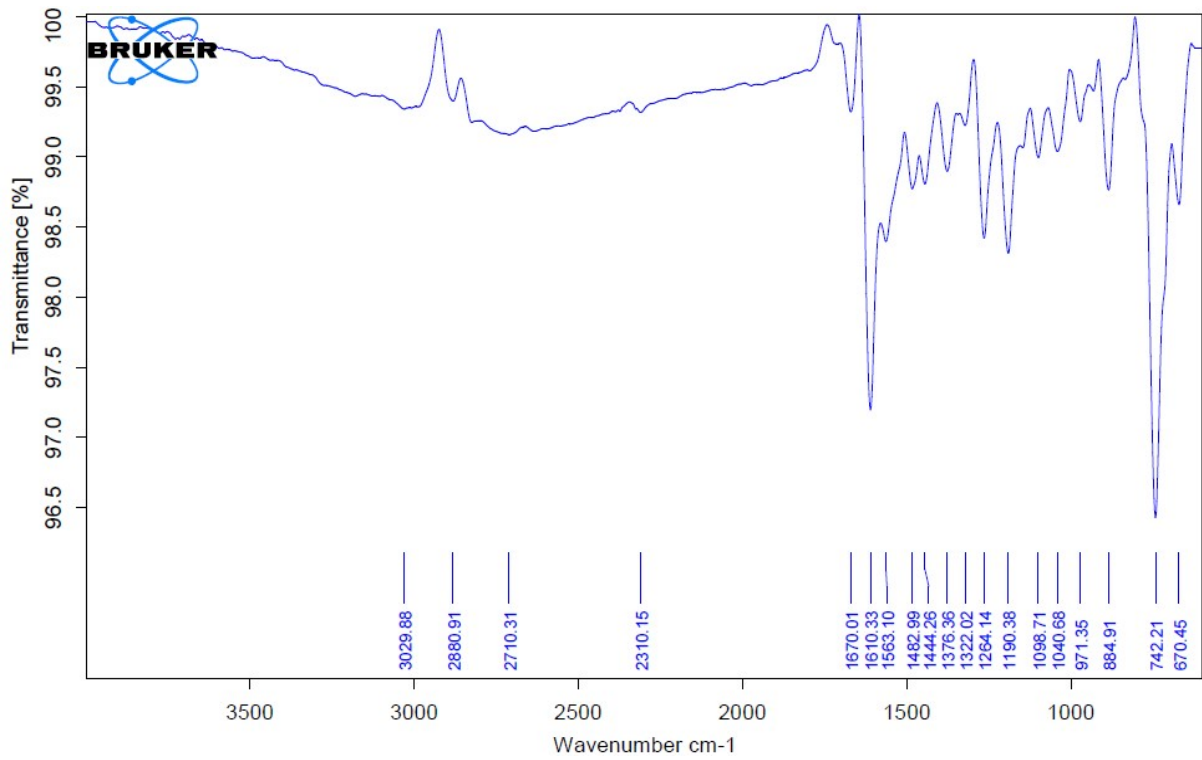
WATERS,Q-TOF MICROMASS (ESI-MS)



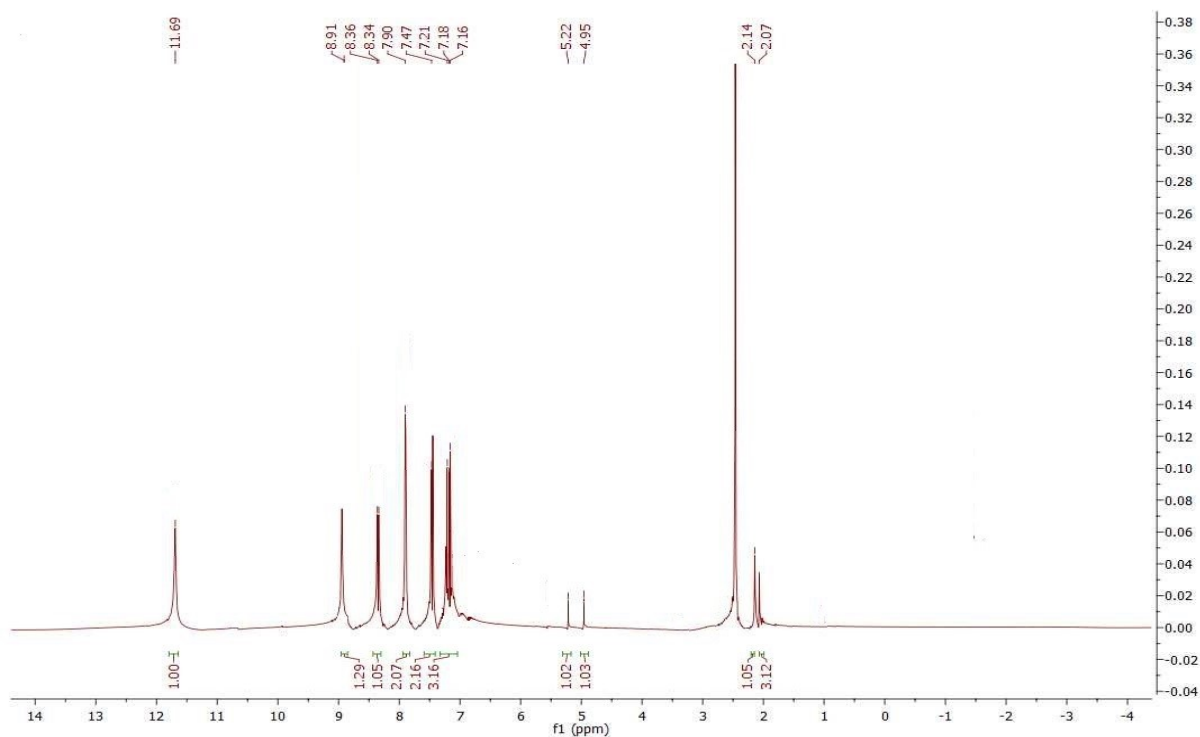
COMPOUND 5c



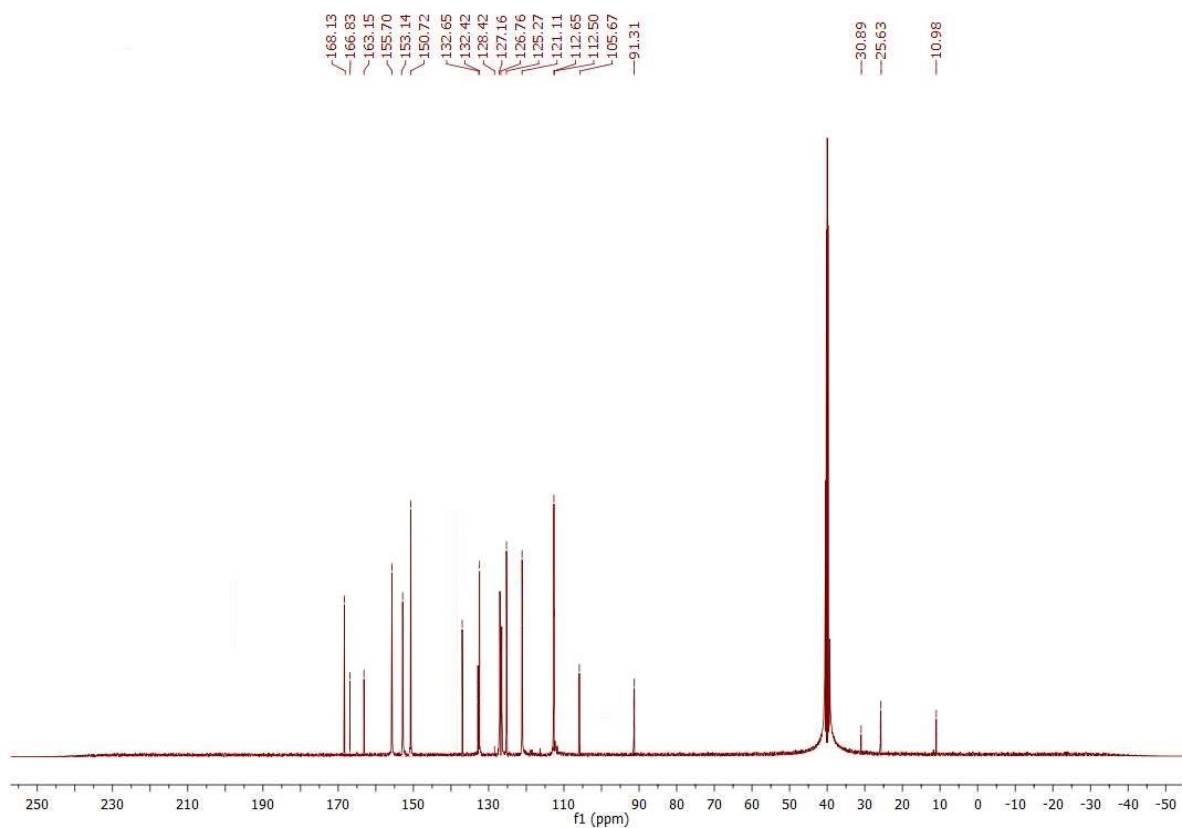
FT-IR of compound 5c



1H NMR of compound 5c

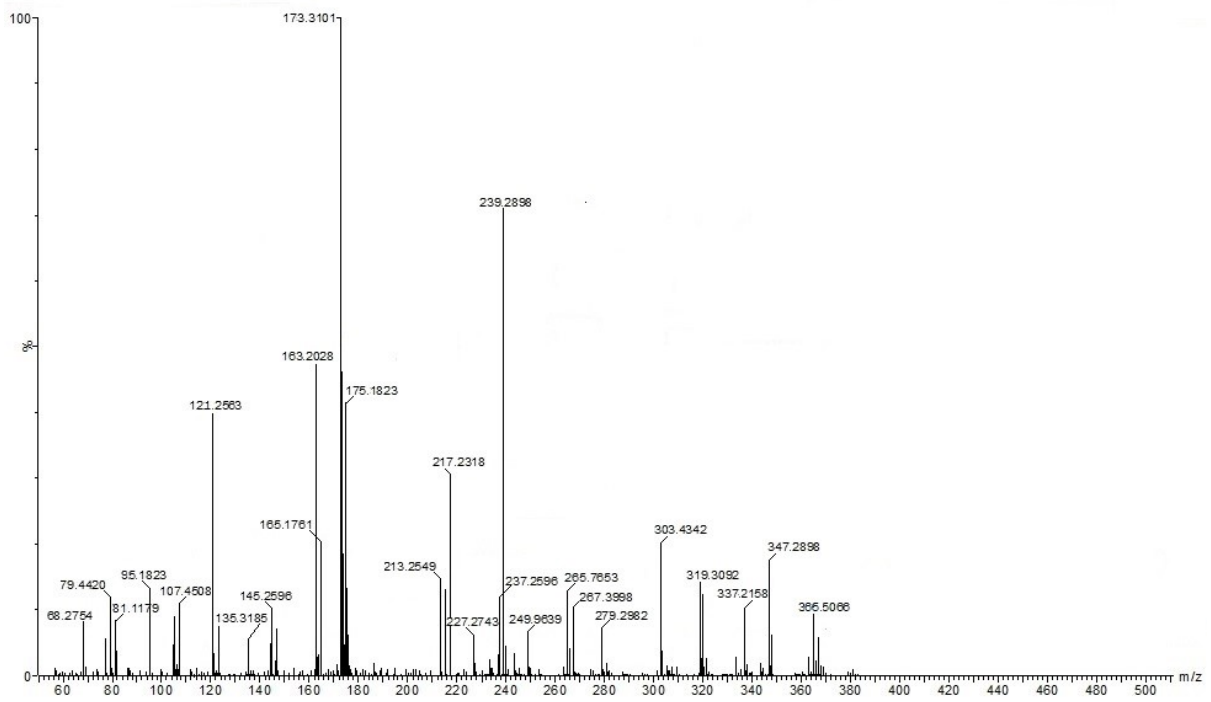


13C NMR of compound 5c

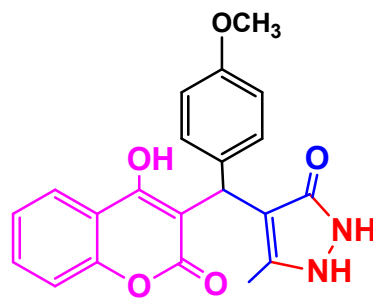


ESI-MS of Compound 5c

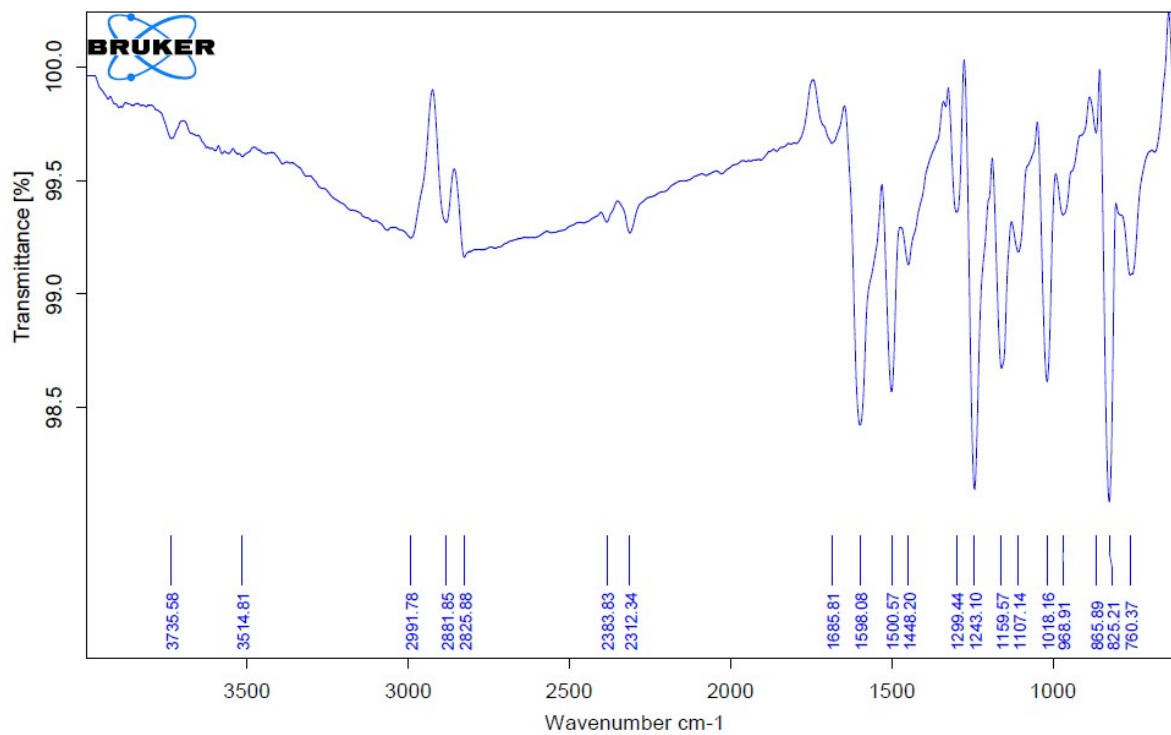
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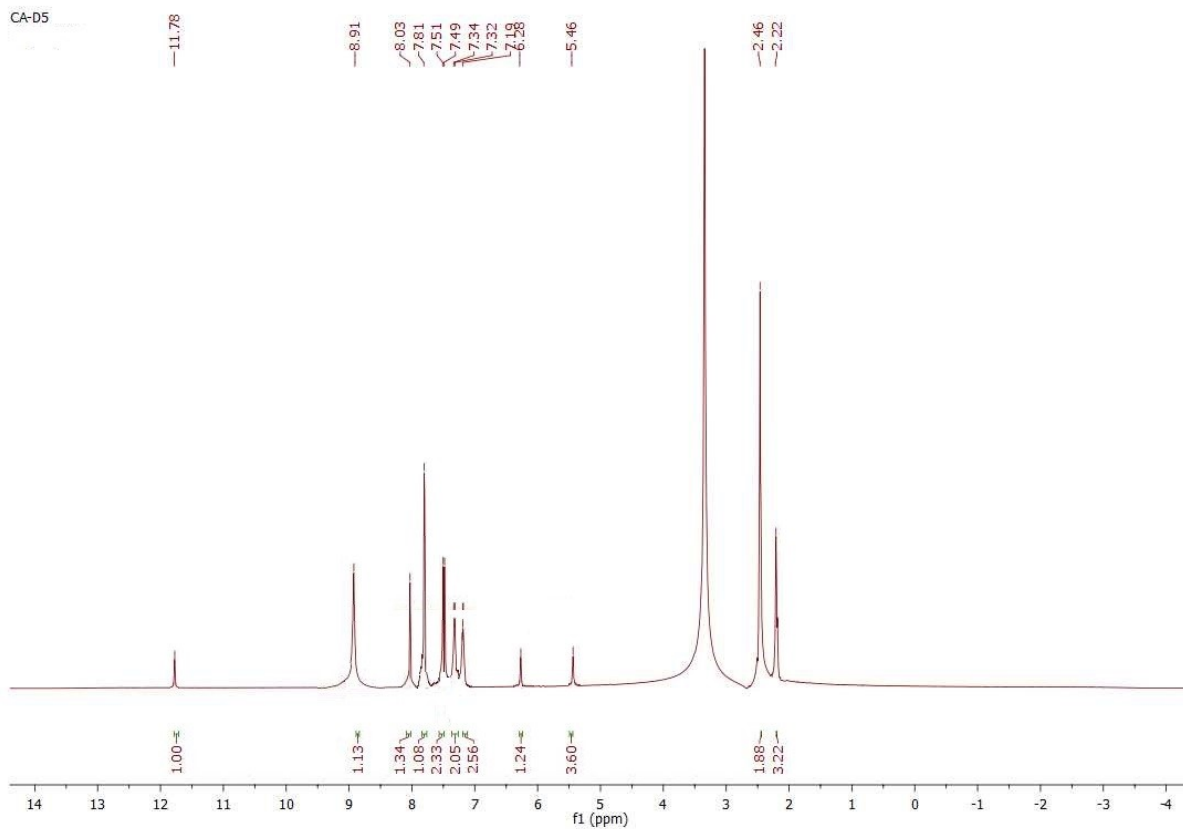
COMPOUND 5d



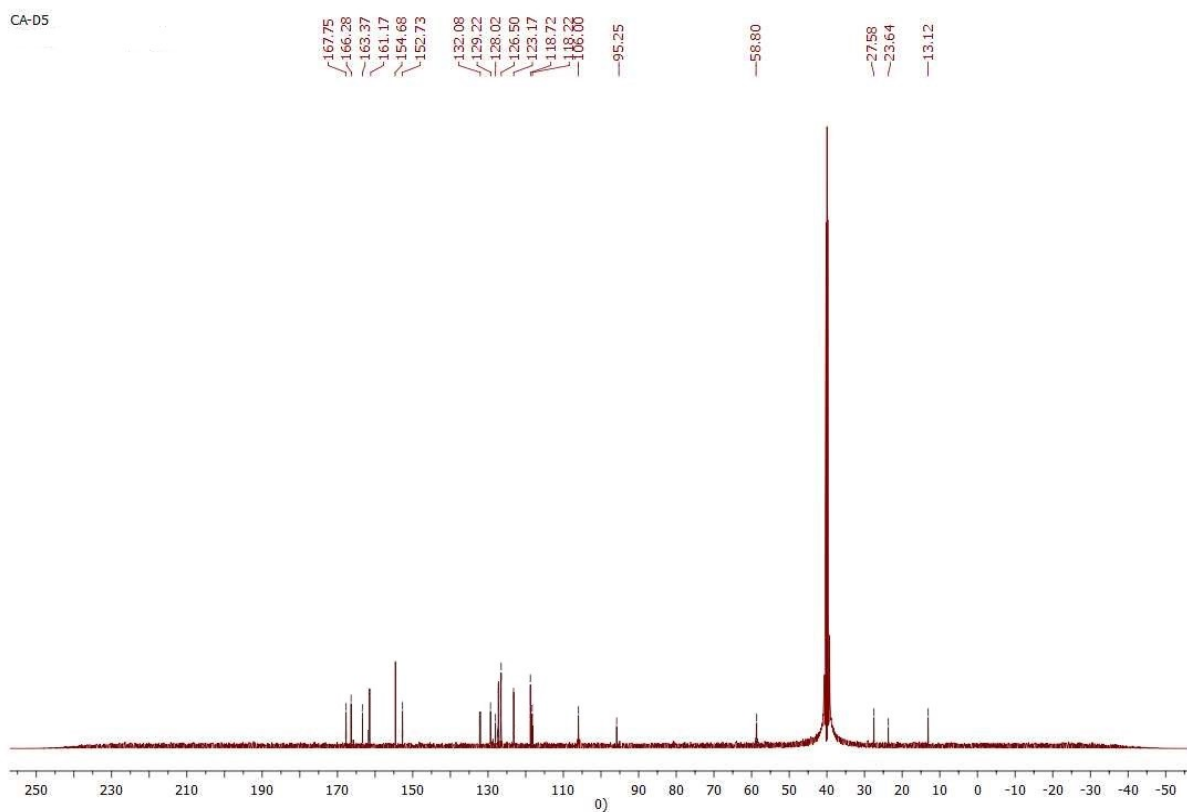
FT-IR of compound 5d



¹H NMR of compound 5d

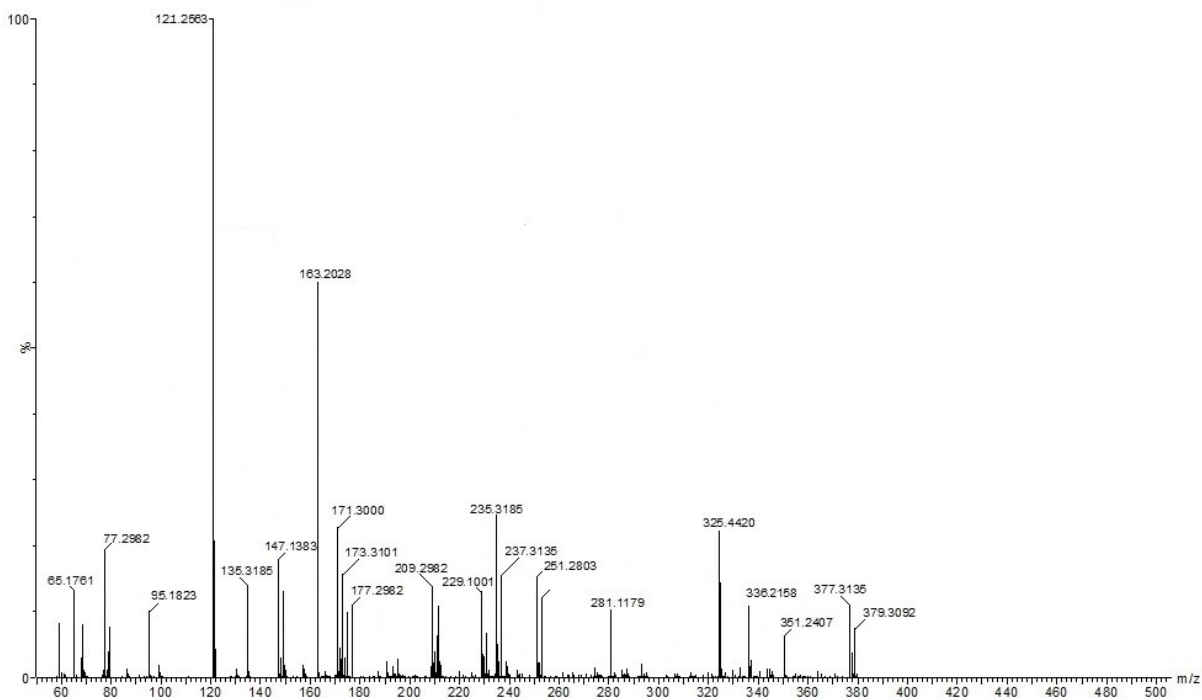


¹³C NMR of compound 5d

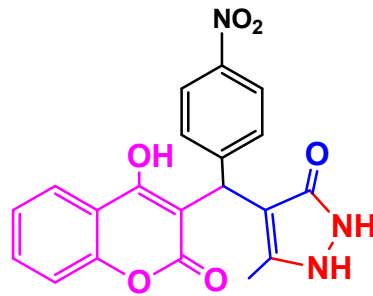


ESI-MS of Compound 5d

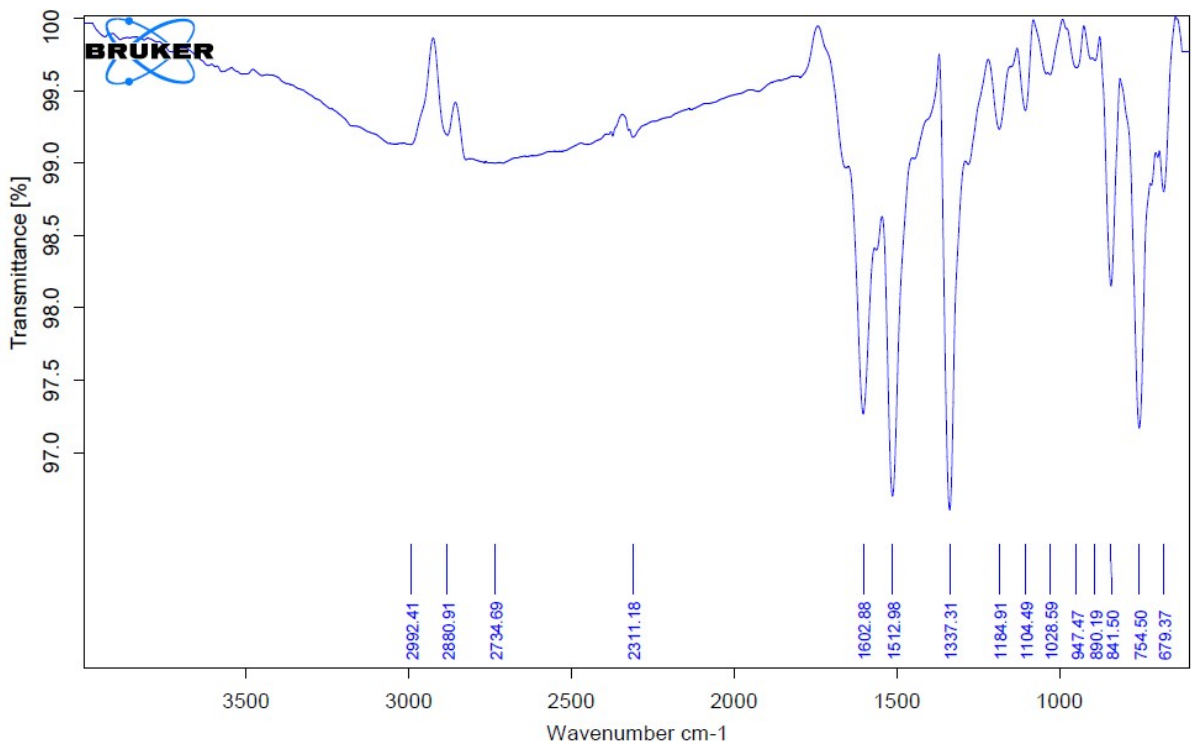
WATERS,Q-TOF MICROMASS (ESI-MS)



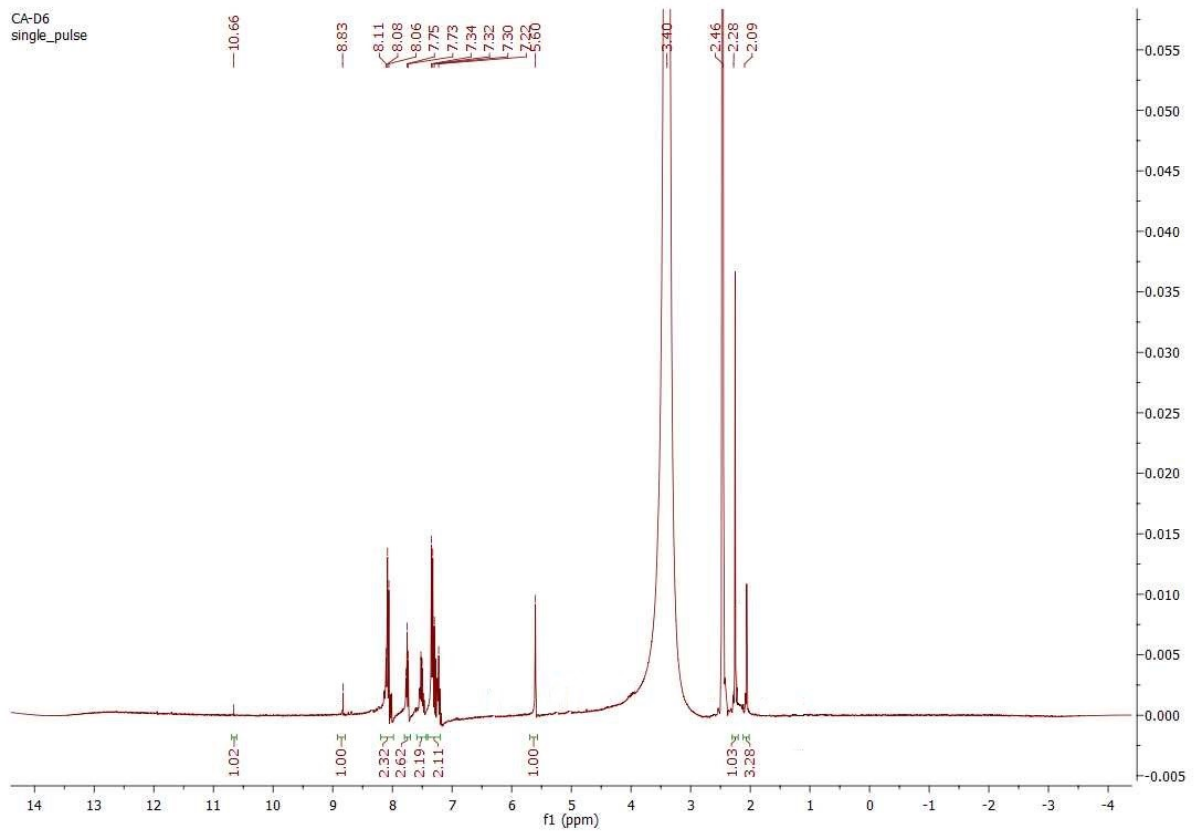
Compound 5e



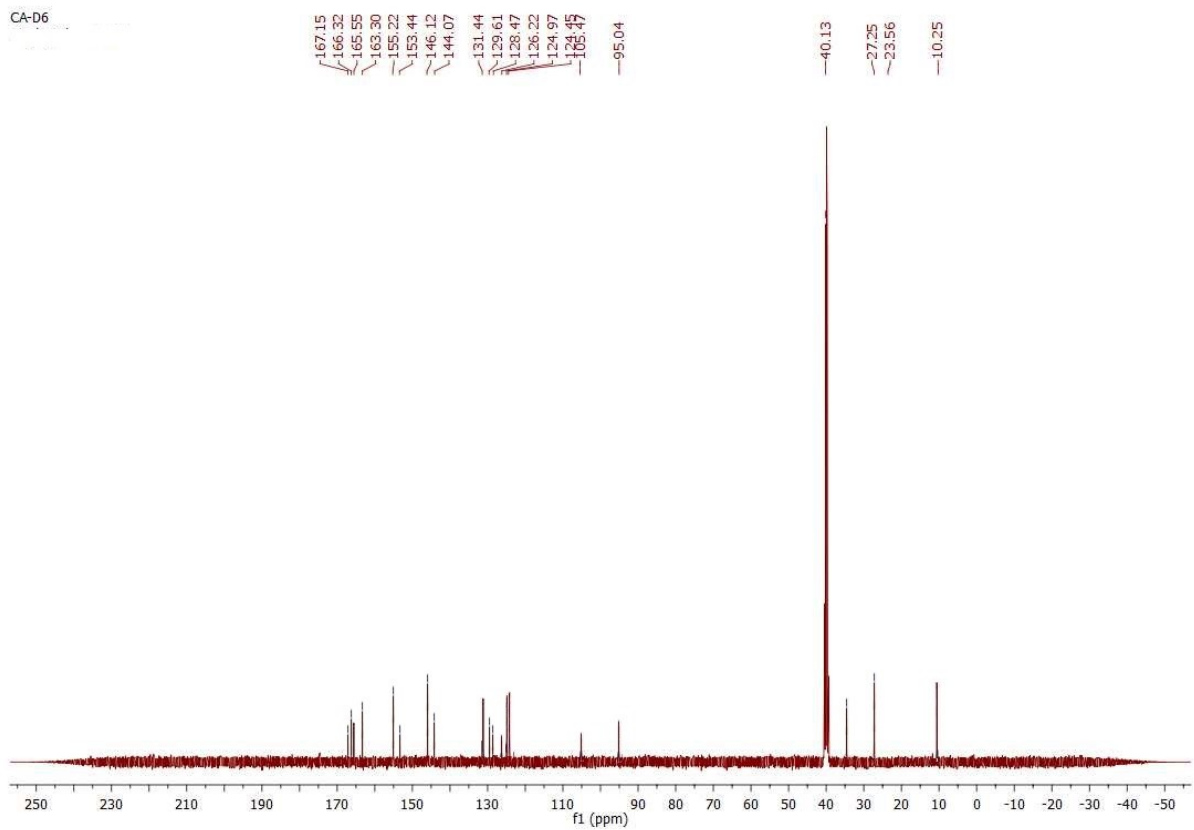
FT-IR of compound 5e



1H NMR of Compound 5e

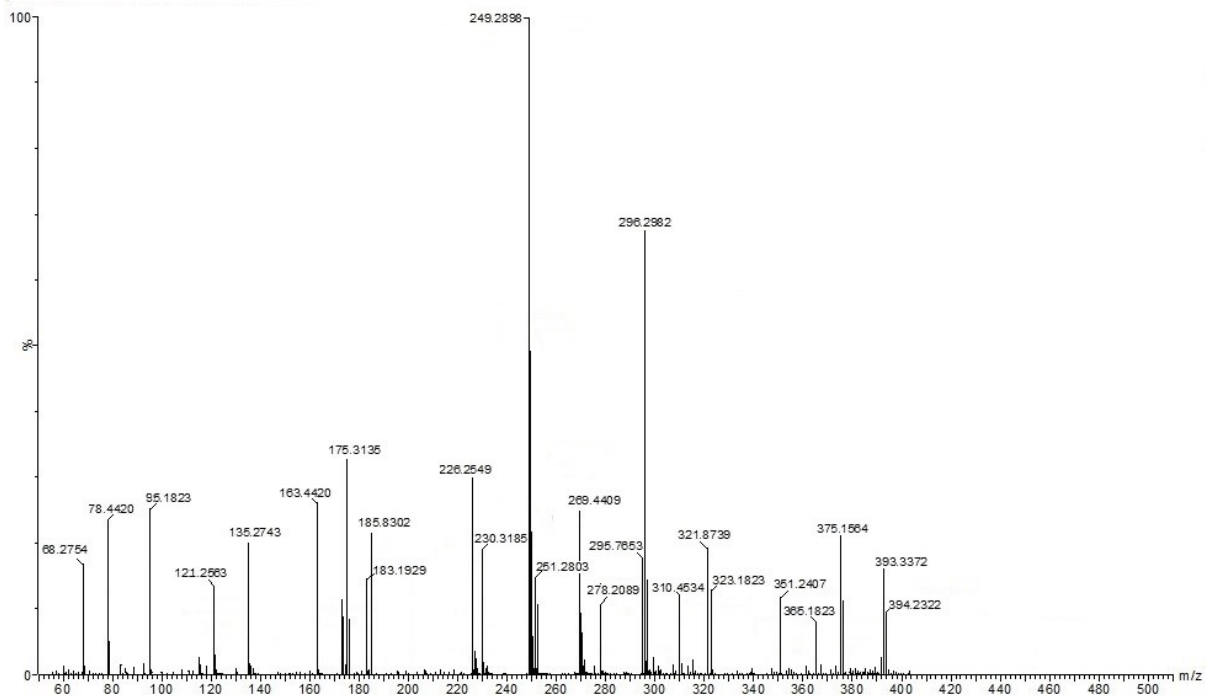


13C NMR of Compound 5e

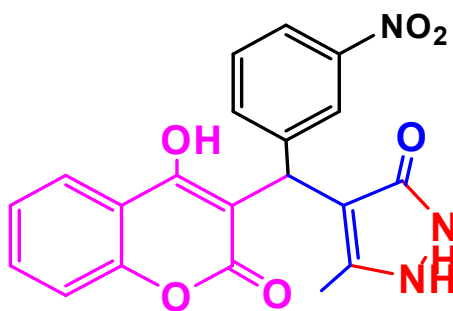


ESI-MS of Compound 5e

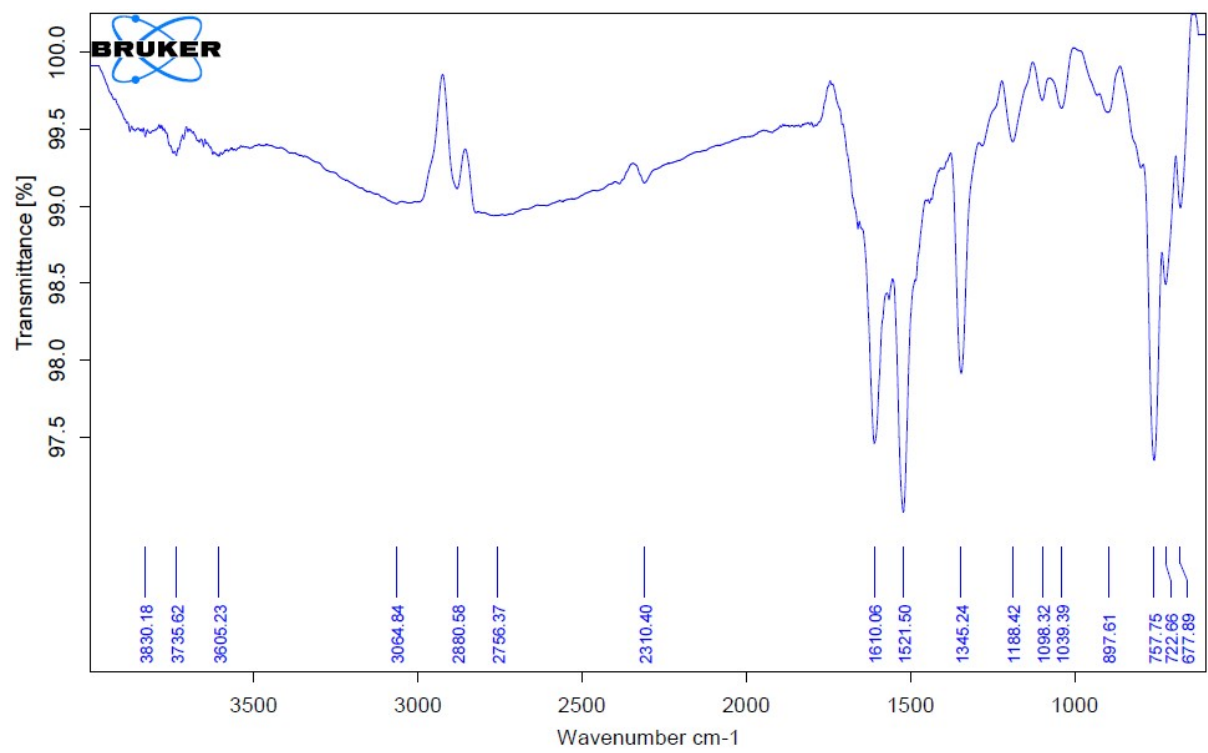
WATERS,Q-TOF MICROMASS (ESI-MS)



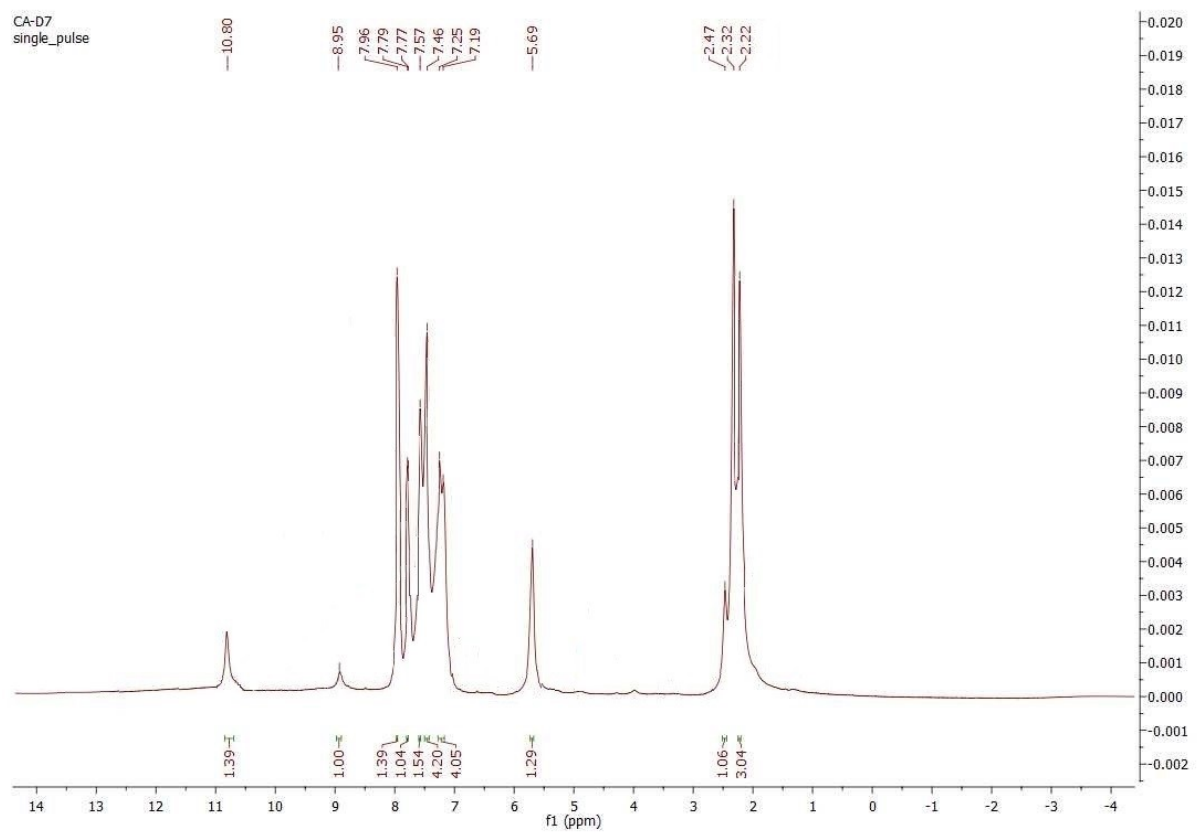
Compound 5f



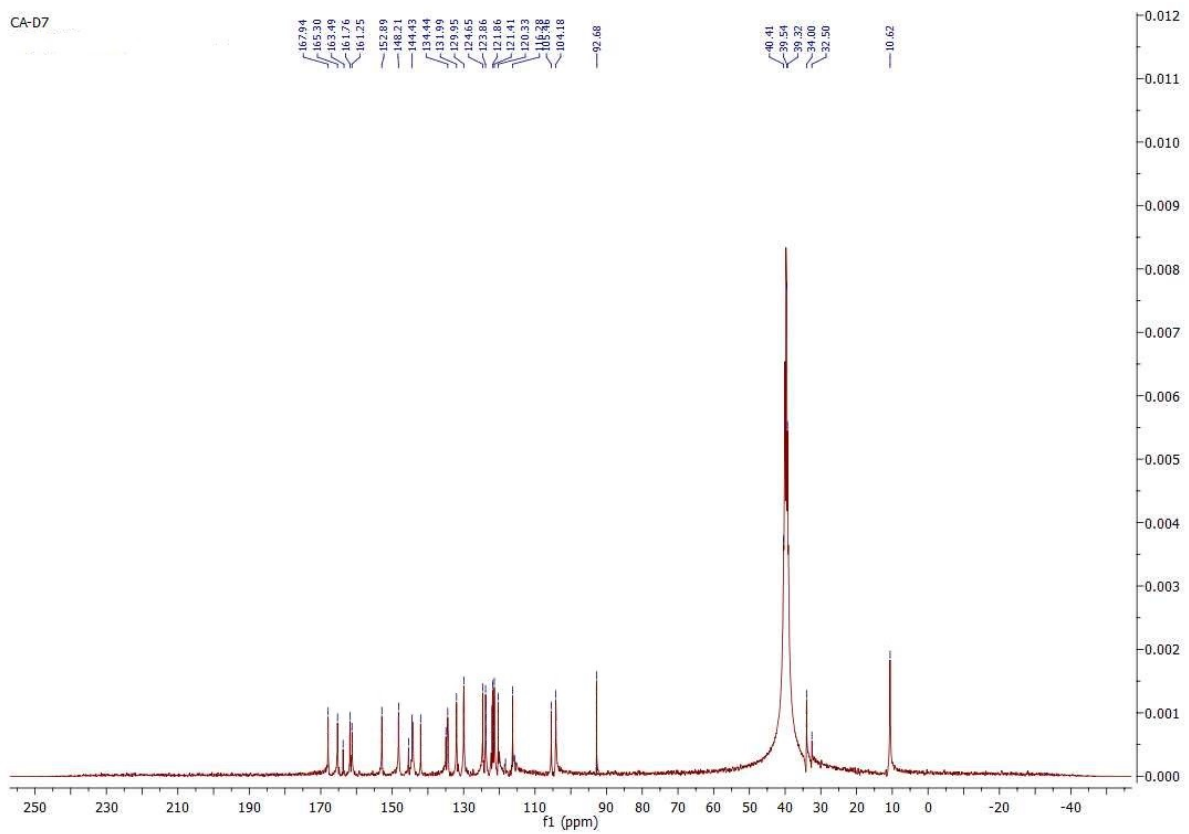
FT-IR of Compound 5f



¹H NMR of Compound 5f

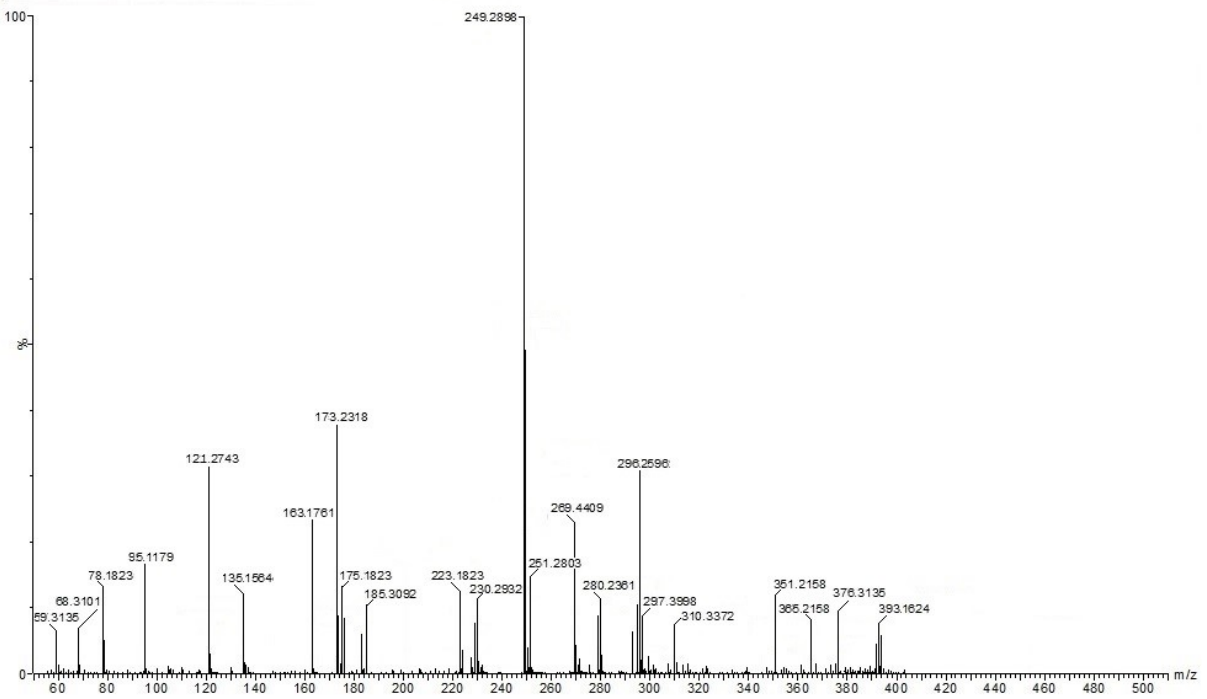


¹³C NMR of Compound 5f

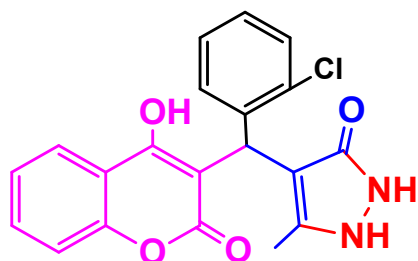


ESI-MS of Compound 5f

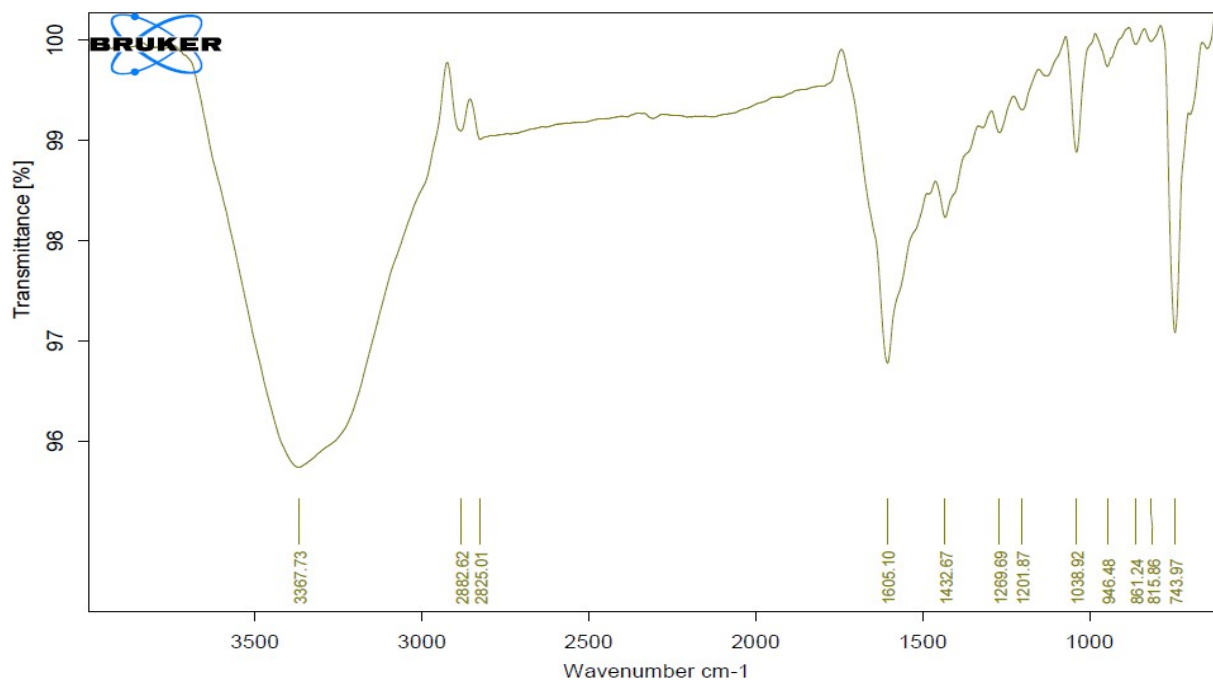
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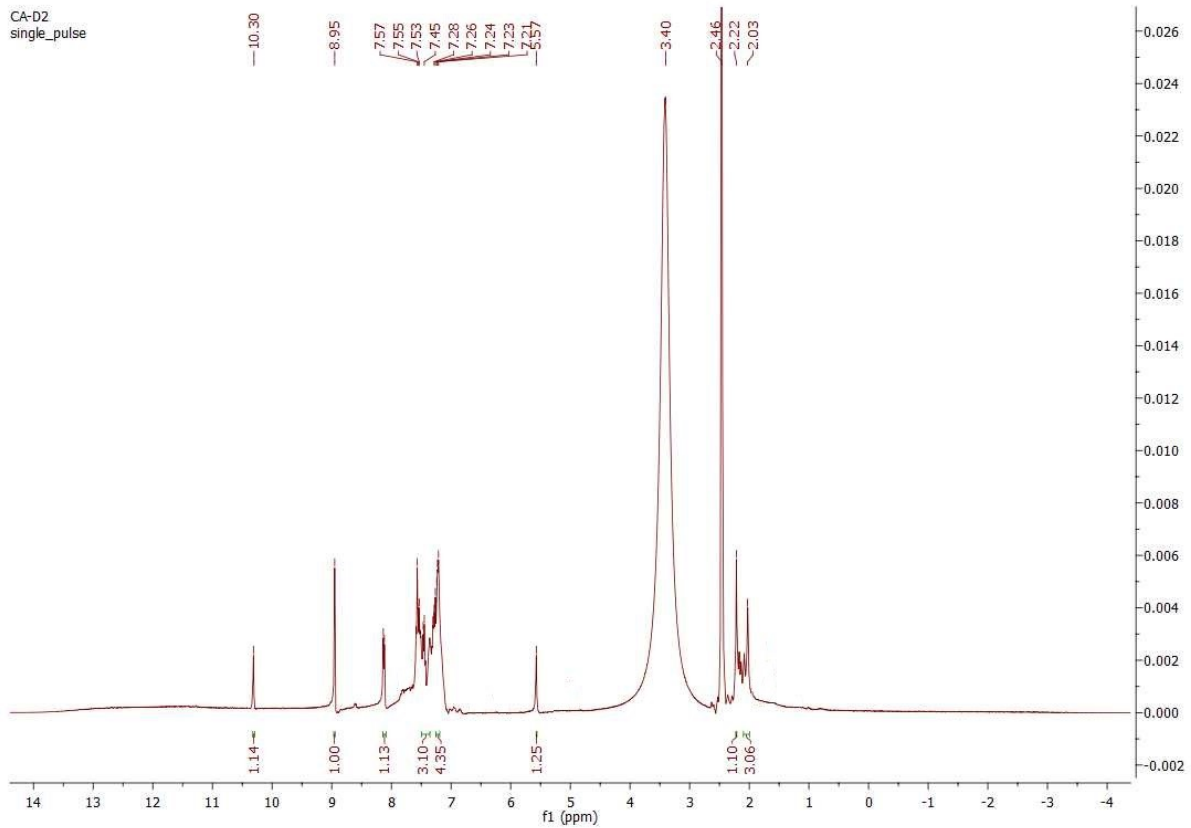
COMPOUND 5i



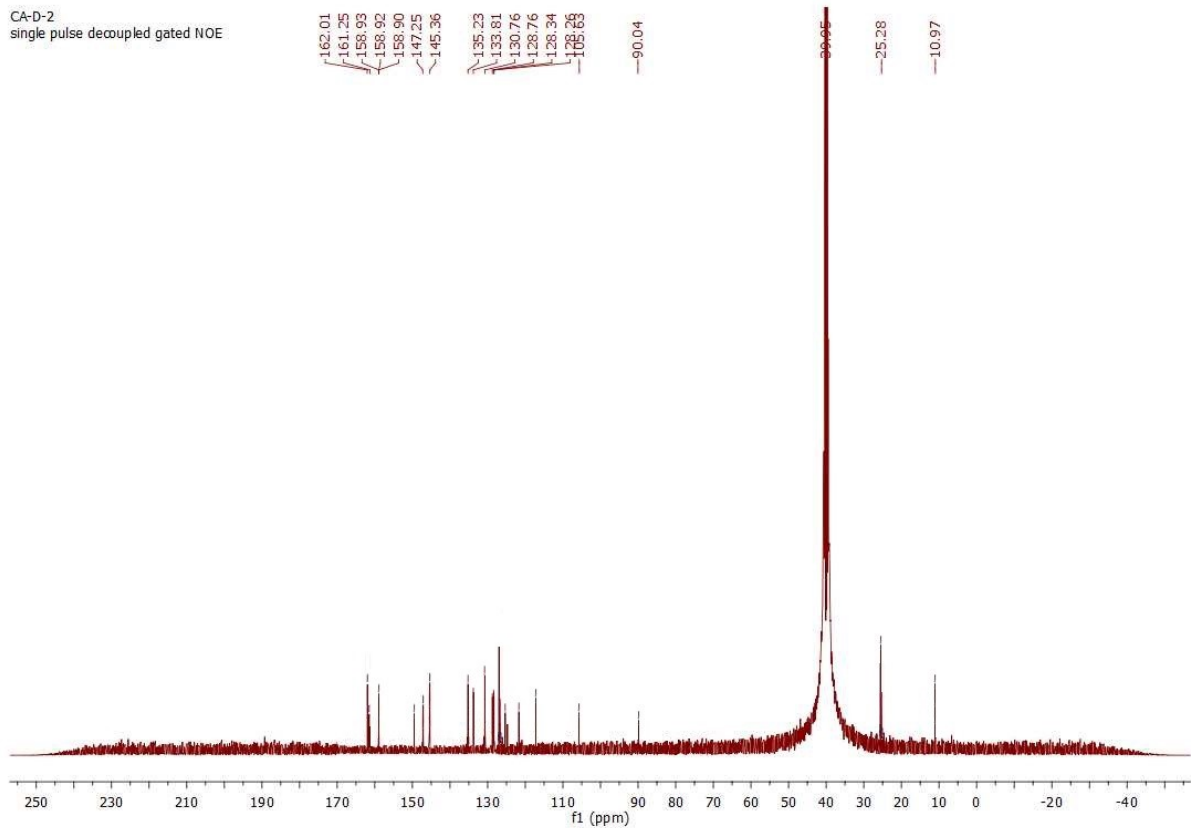
FT-IR of compound 5i



1H NMR of Compound 5i

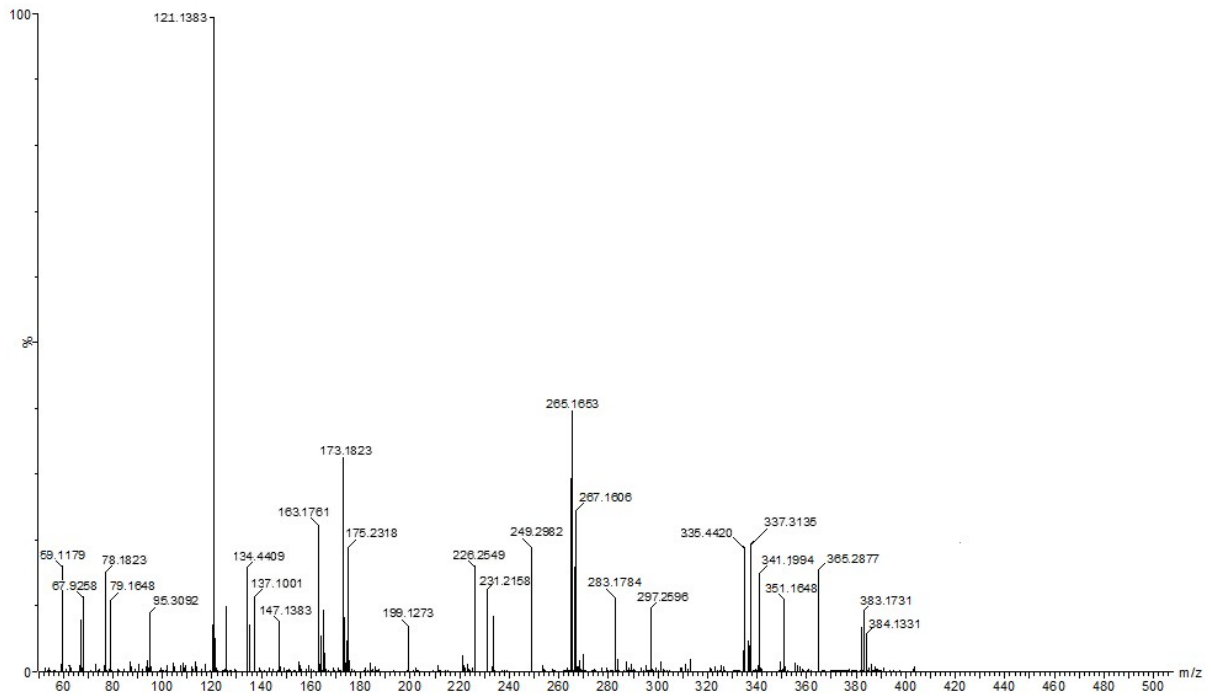


13C NMR of Compound 5i

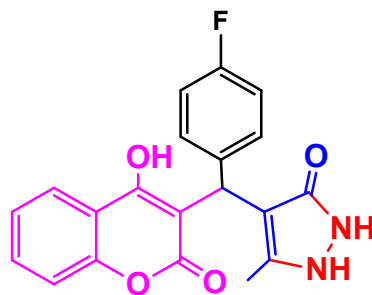


ESI-MS of Compound 5i

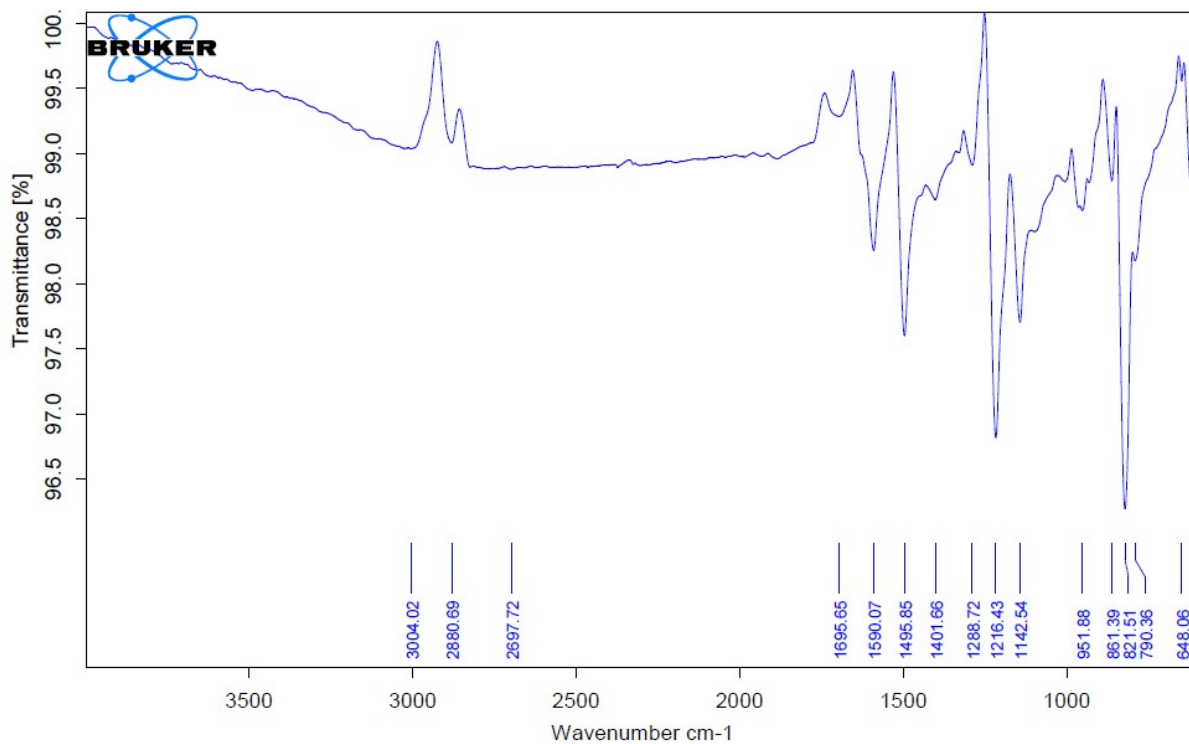
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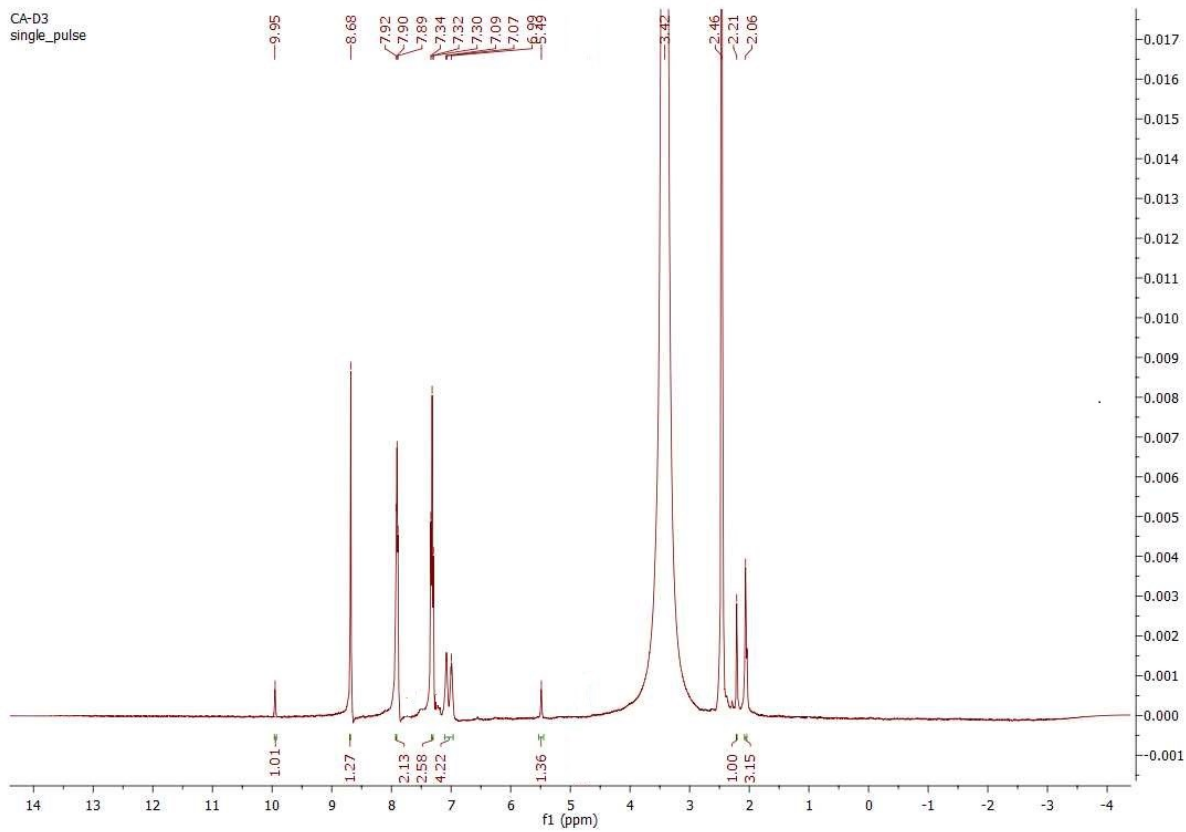
COMPOUND 5j



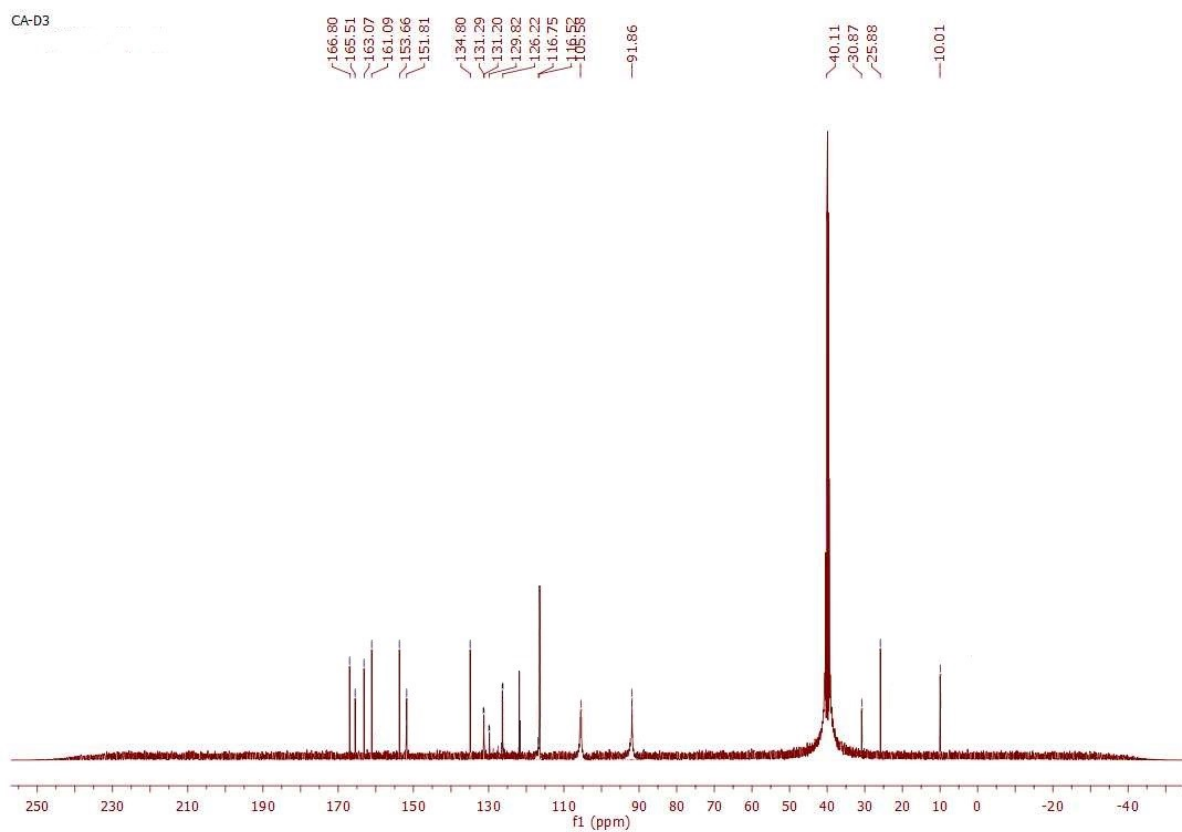
FT-IR of compound 5j



¹H NMR of Compound 5j

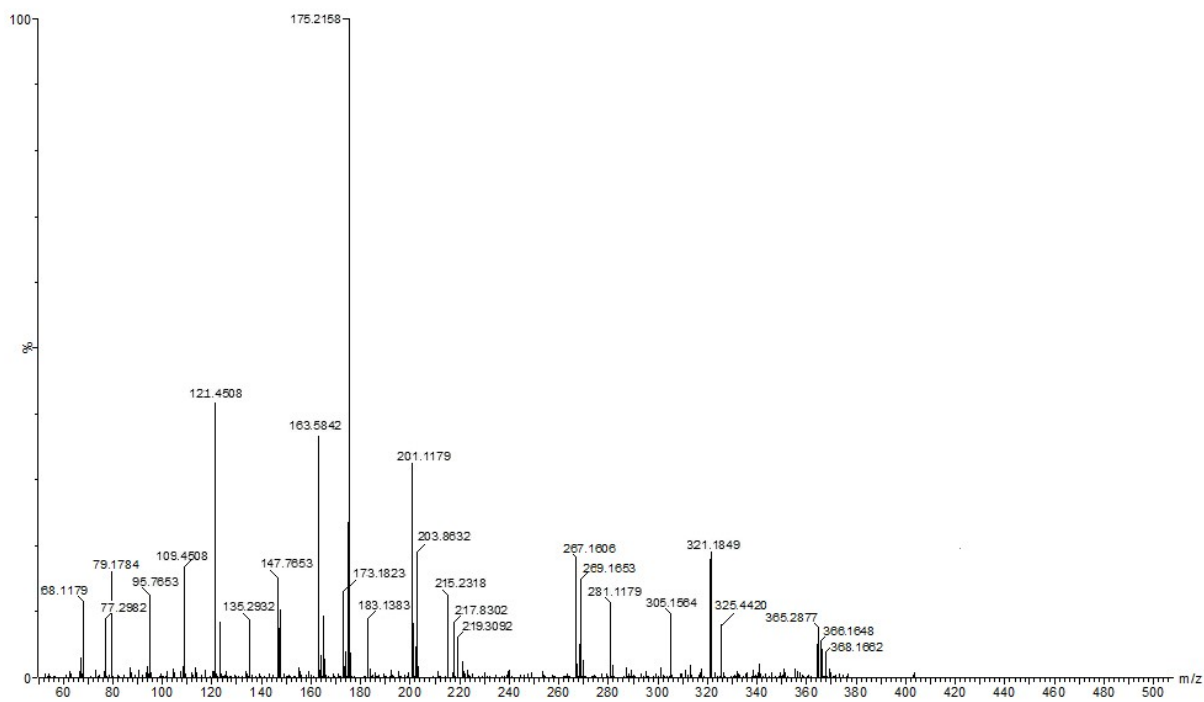


13C NMR of Compound 5j

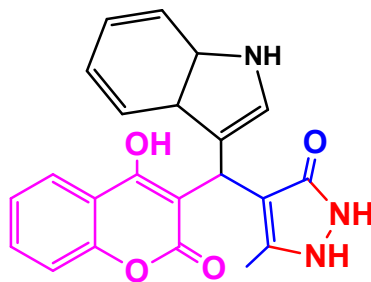


ESI-MS of Compound 5j

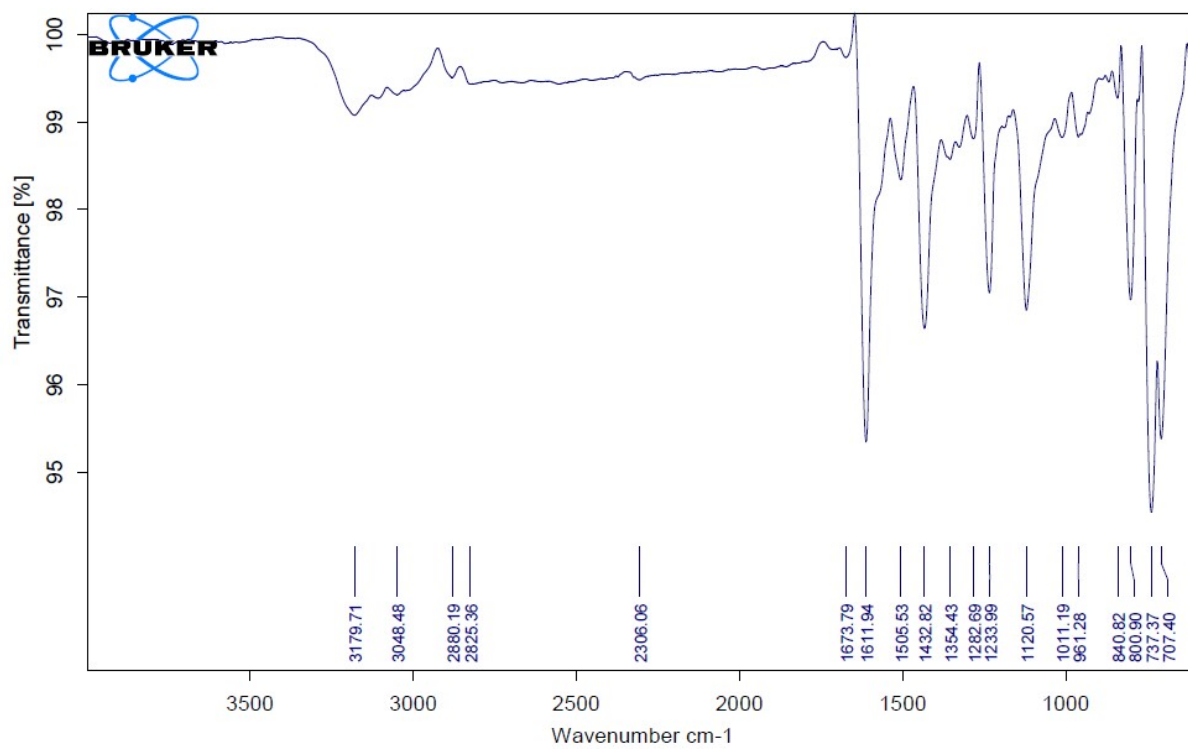
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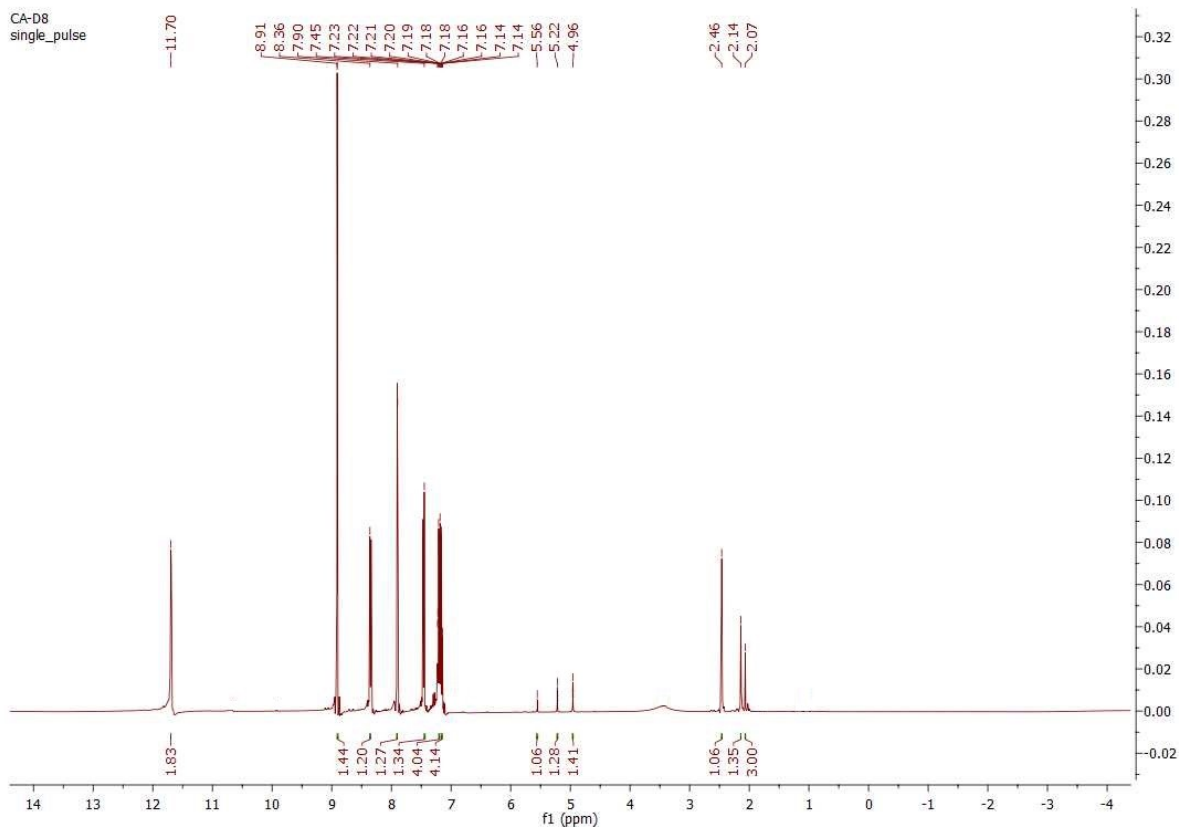
COMPOUND 5k



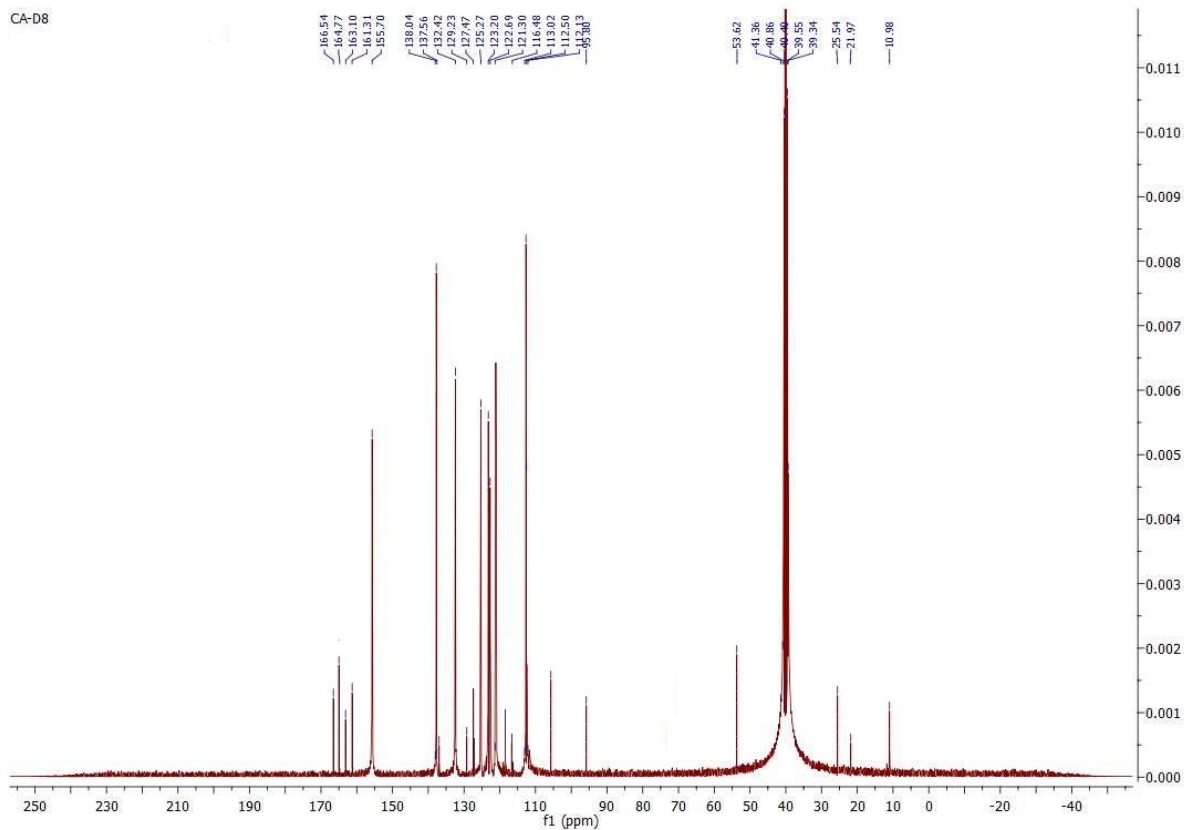
FT-IR of Compound 5k



1H NMR of Compound 5k



13C NMR of Compound 5k



ESI-MS of Compound 5k

WATERS,Q-TOF MICROMASS (ESI-MS)

