

Supporting Information

FeCl₃ catalysed multicomponent divergent synthesis of indeno-fused heterocycles library

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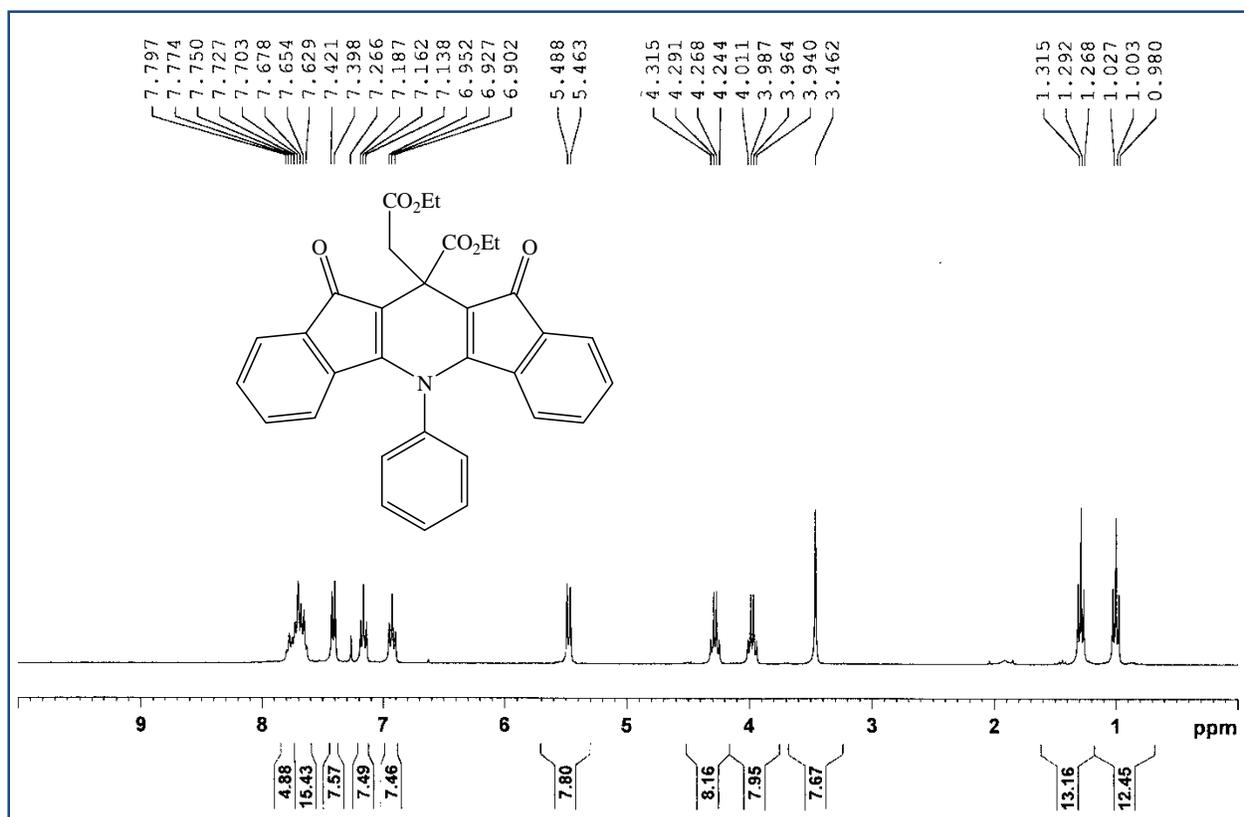
^a: Department of Chemistry, University of Calcutta, 92 APC Road, Kolkata-700009, India.

*E-mail: cmukhop@yahoo.co.in

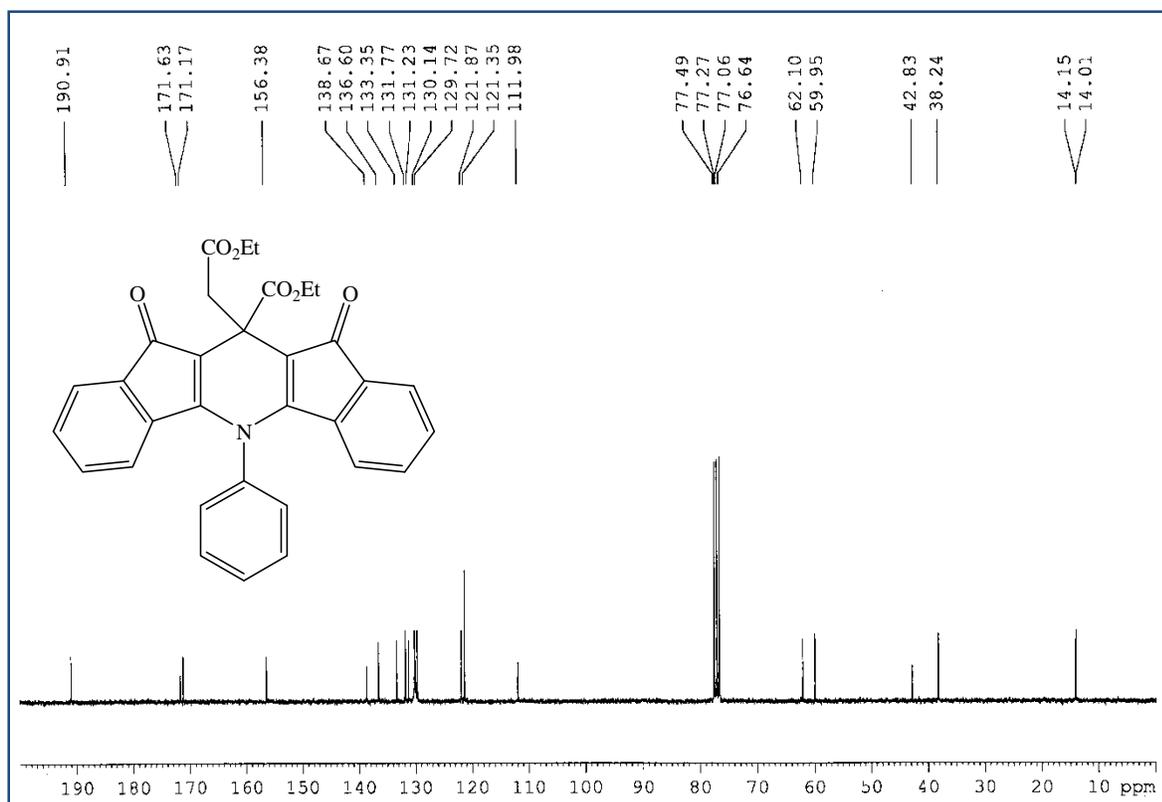
^b: Bruker BioSpin, 2700 Technology Forest Drive, Woodlands, Texas 77381, USA.

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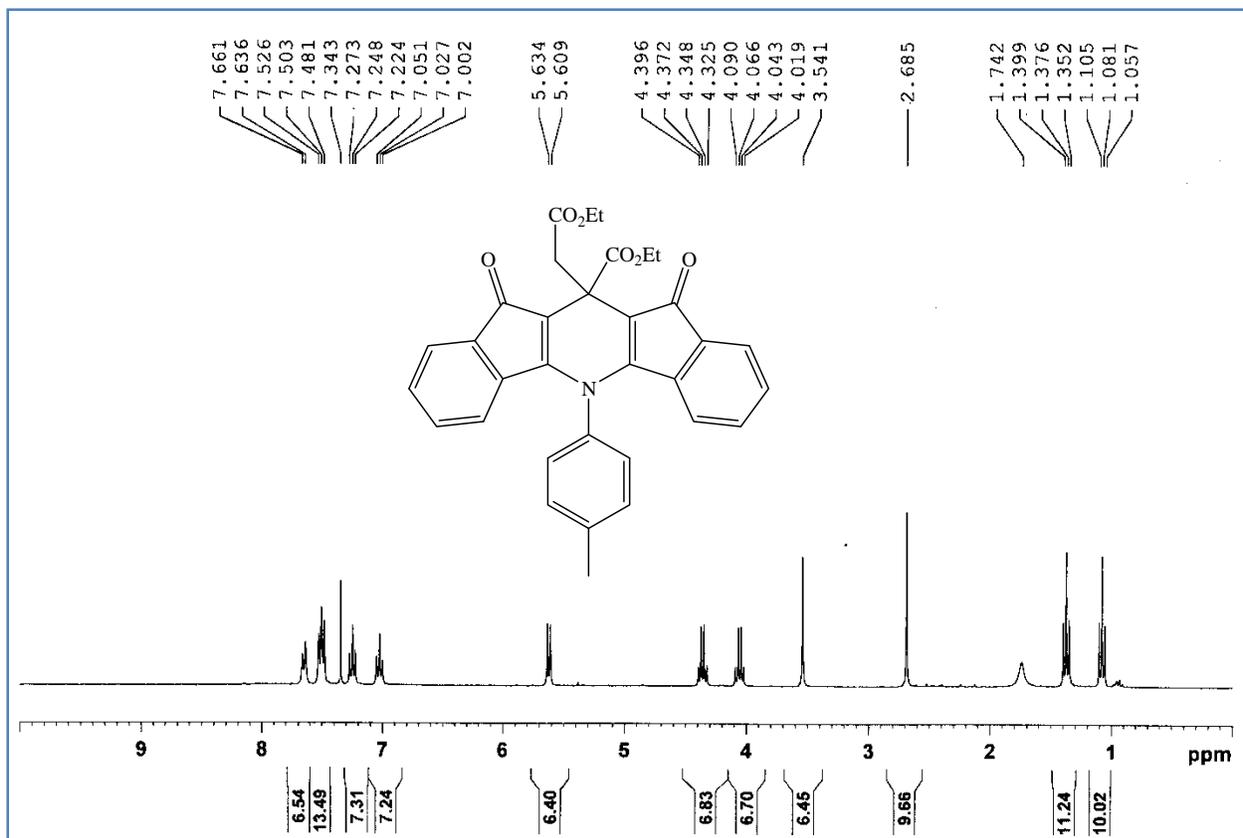
¹ H and ¹³ C NMR spectra of 4a-4x	S2-S47
¹ H and ¹³ C NMR spectra of 10a-10f	S48-S59
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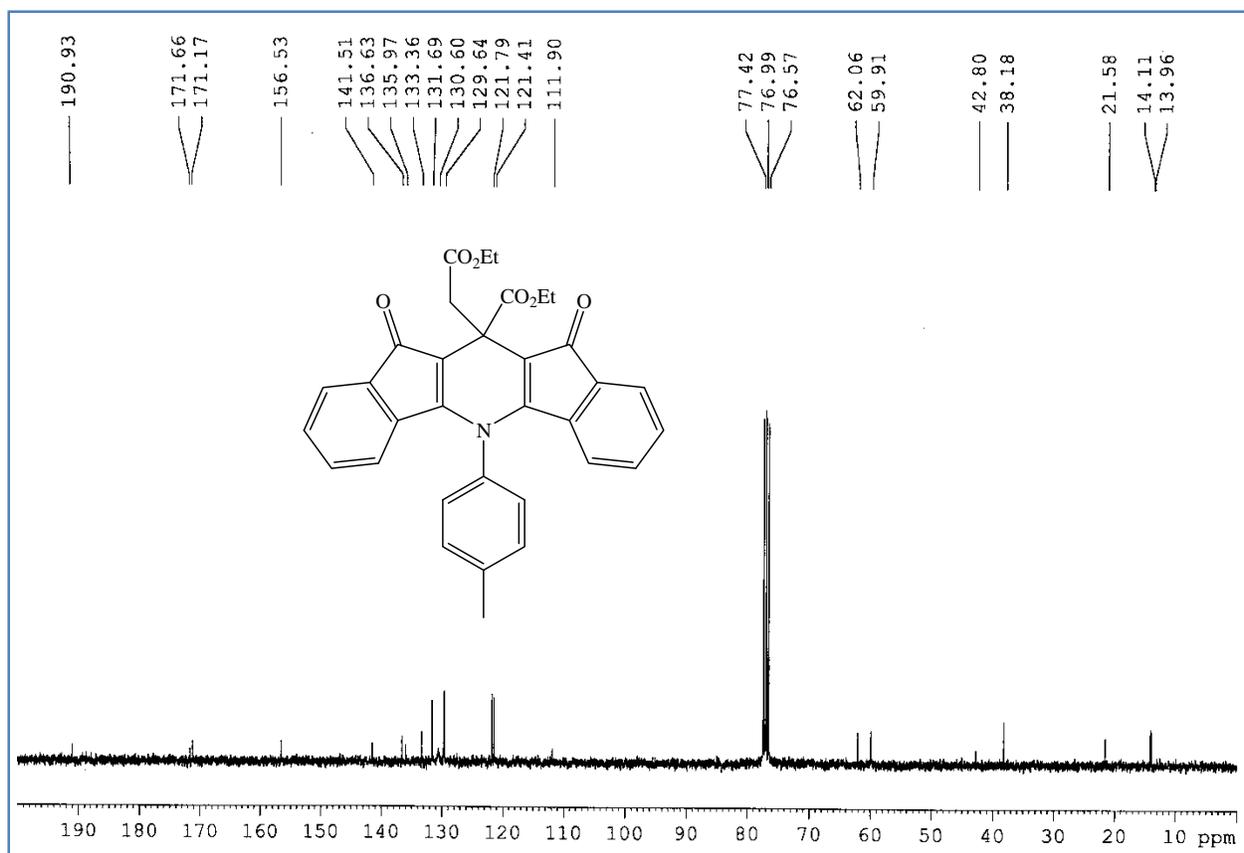
¹H NMR of compound 4a



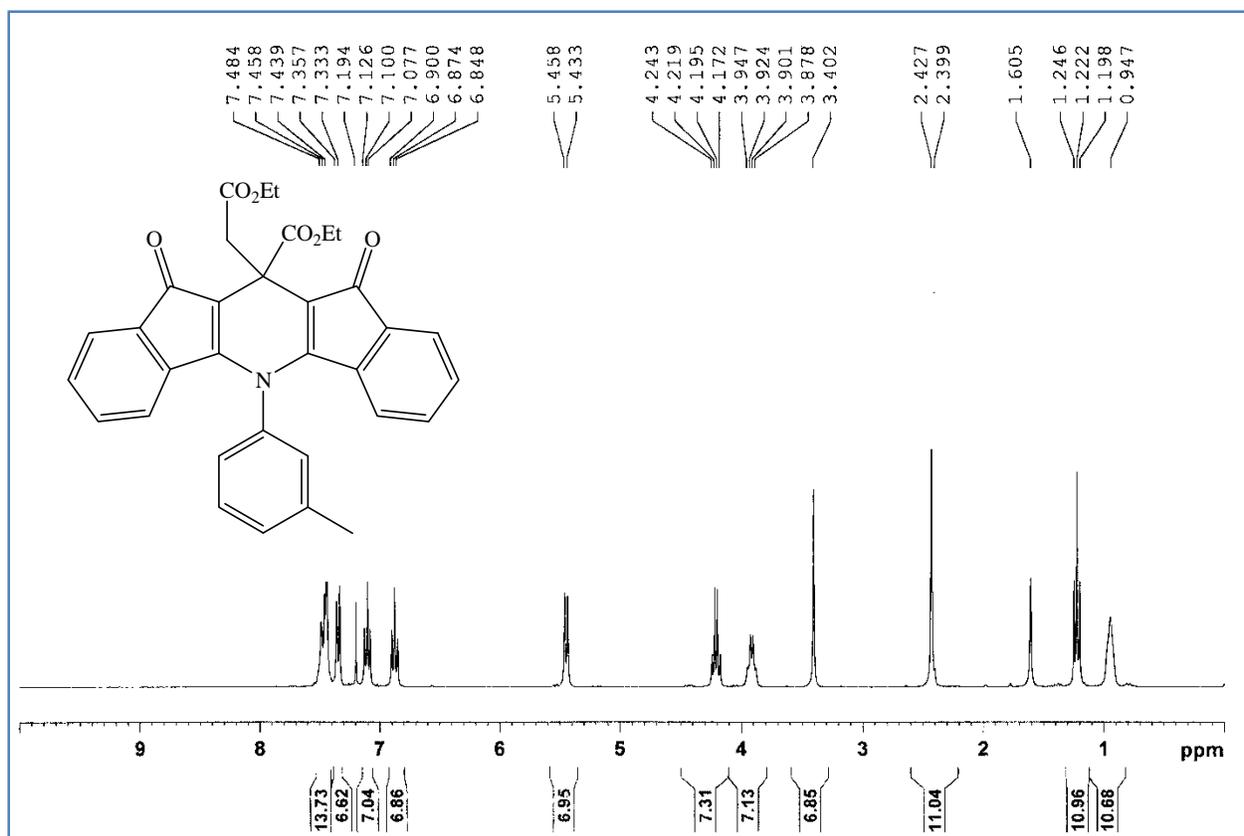
^{13}C NMR of compound **4a**



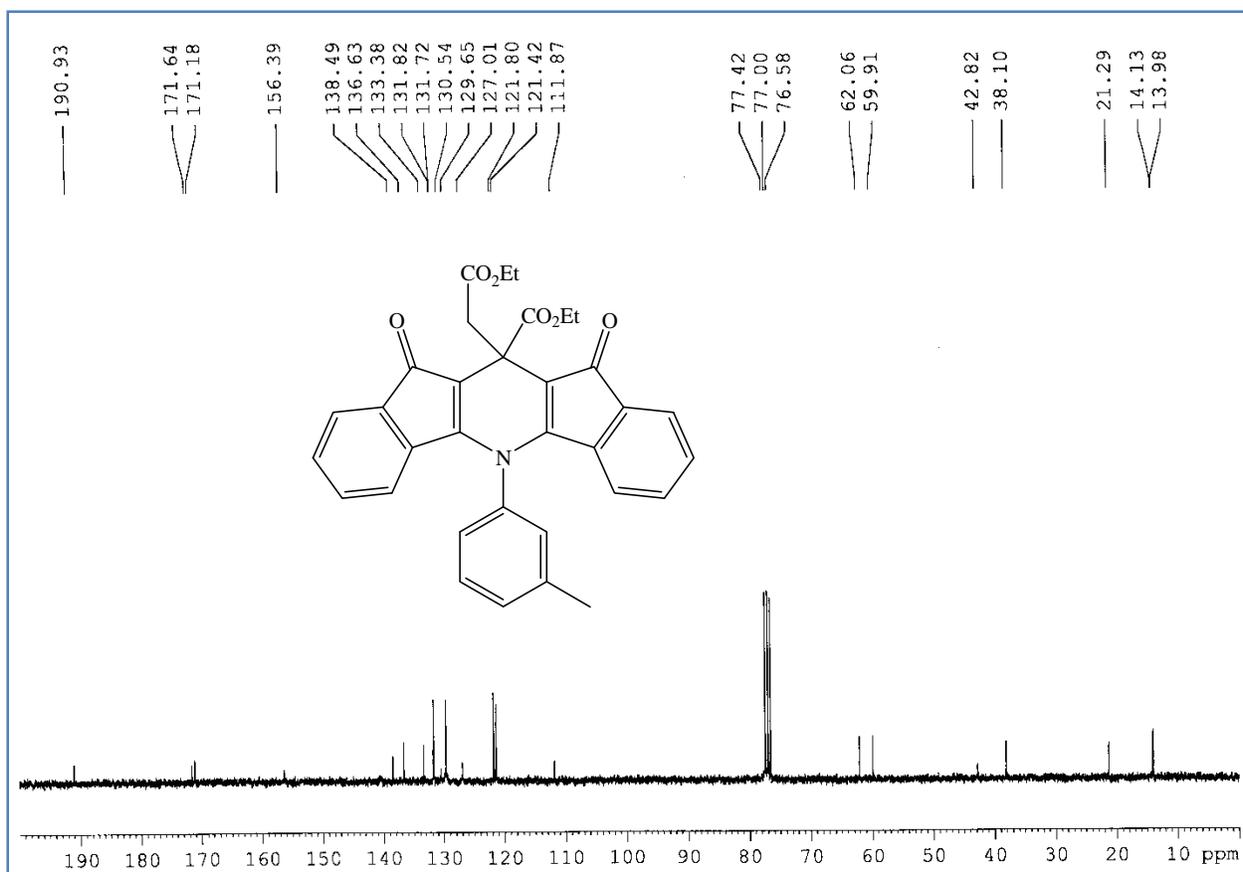
¹H NMR of compound 4b



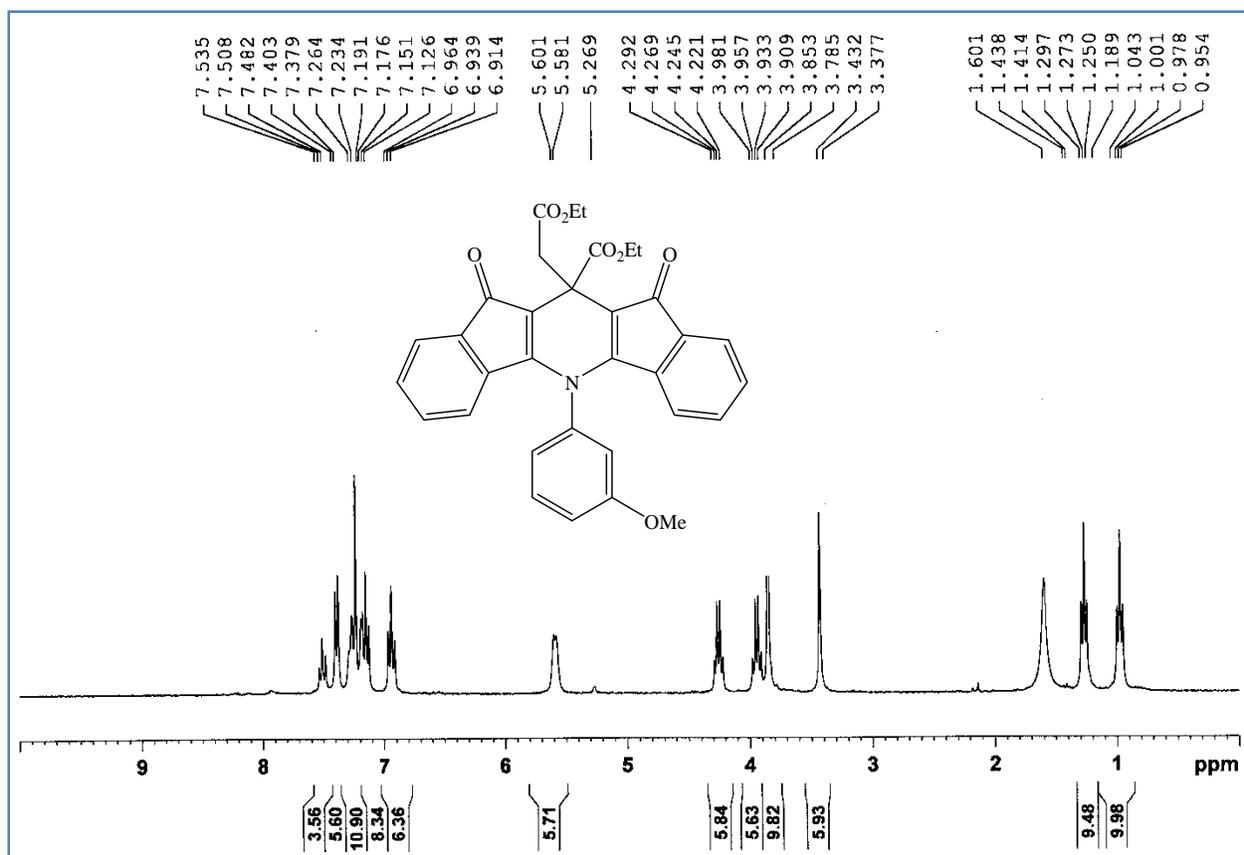
^{13}C NMR of compound **4b**



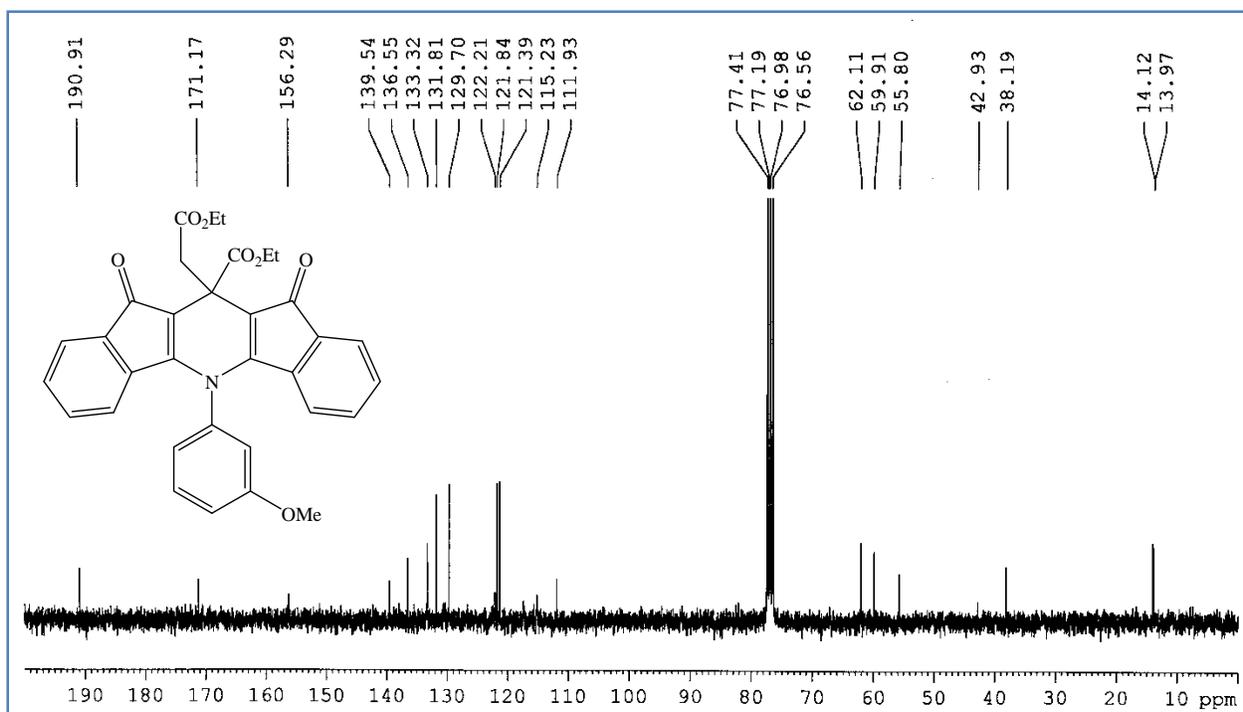
¹H NMR of compound **4c**



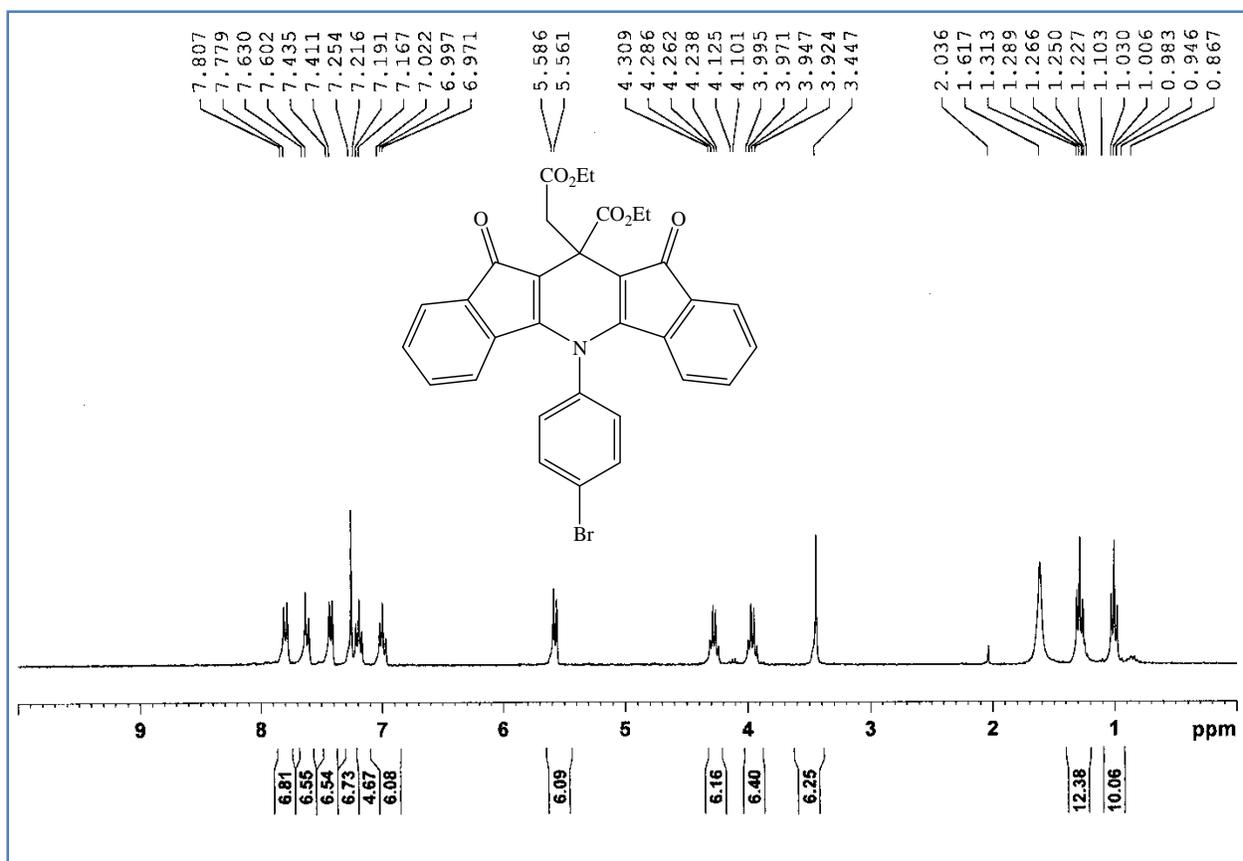
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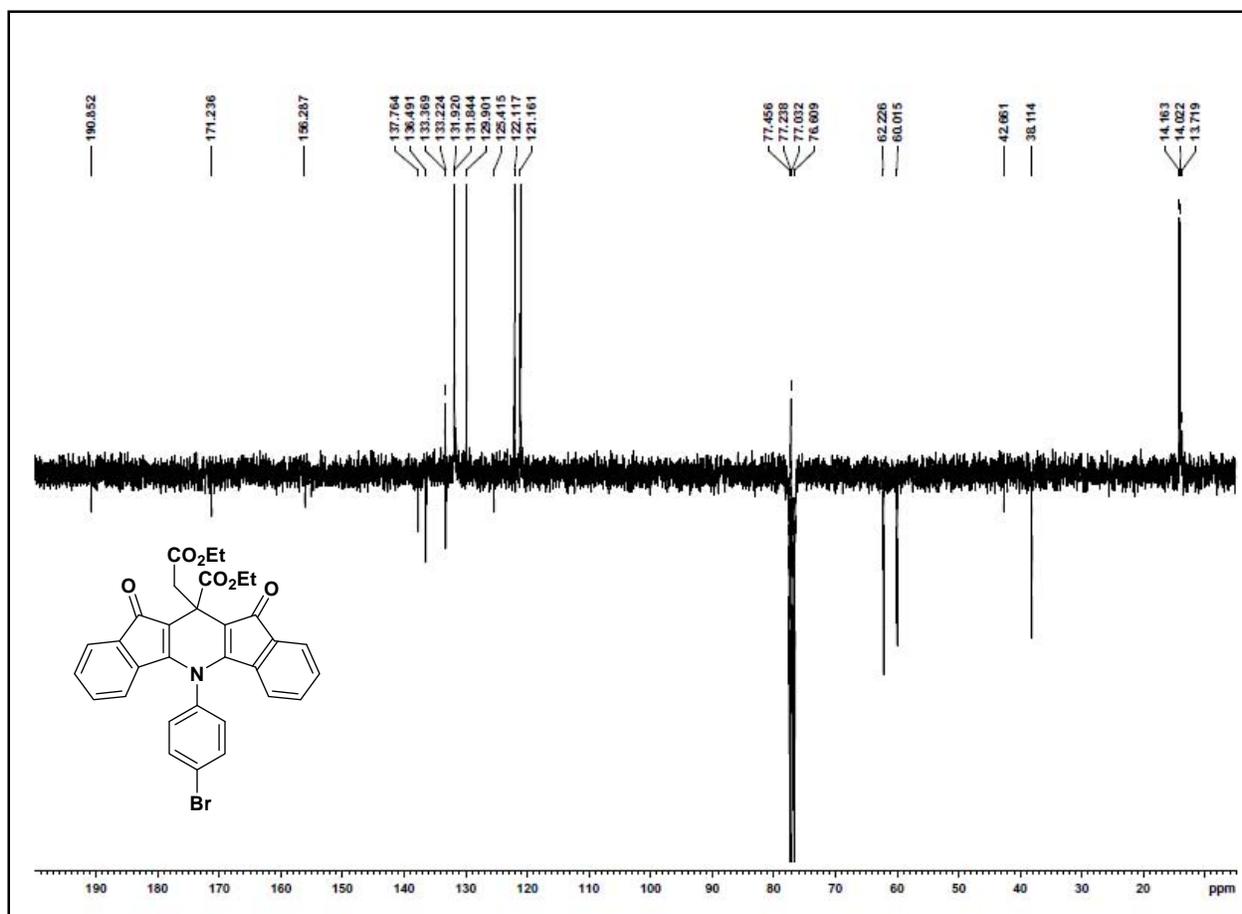
^1H NMR of compound **4d**



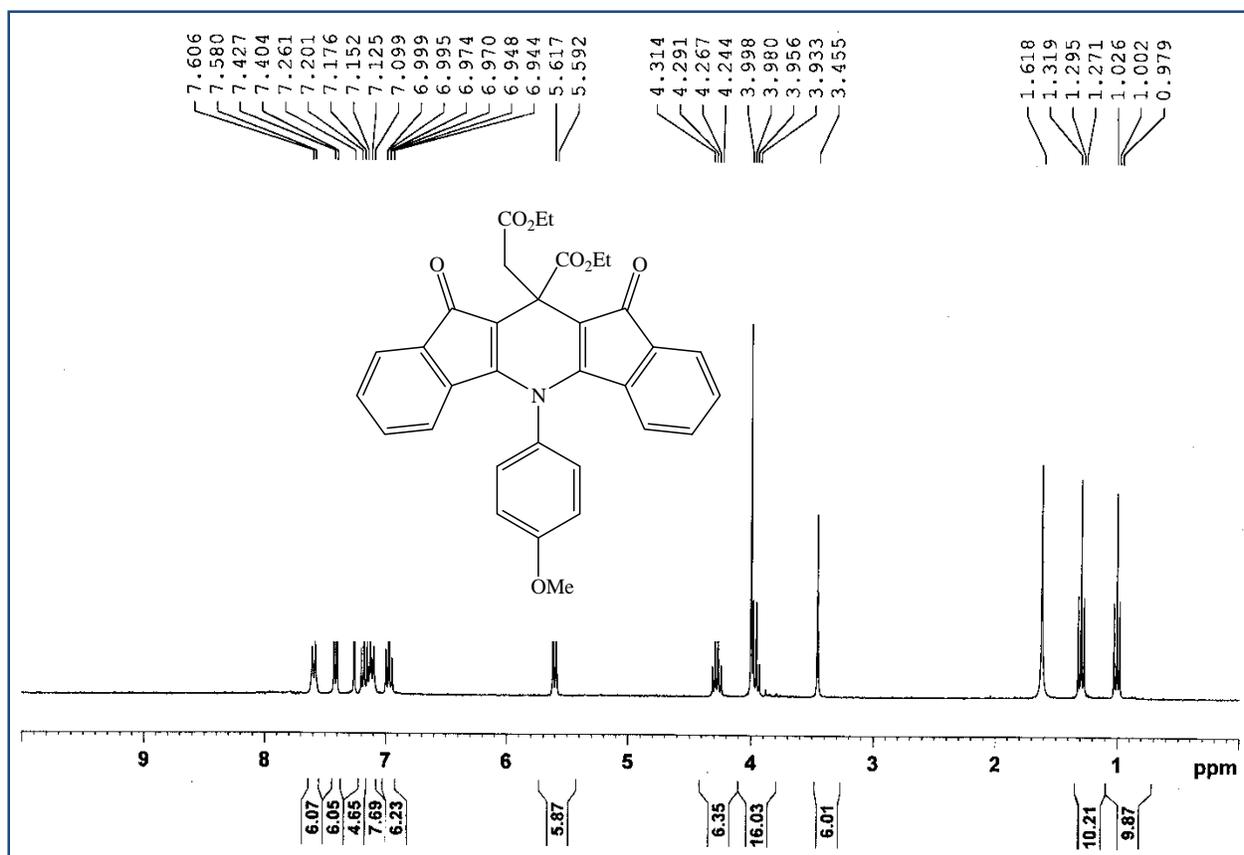
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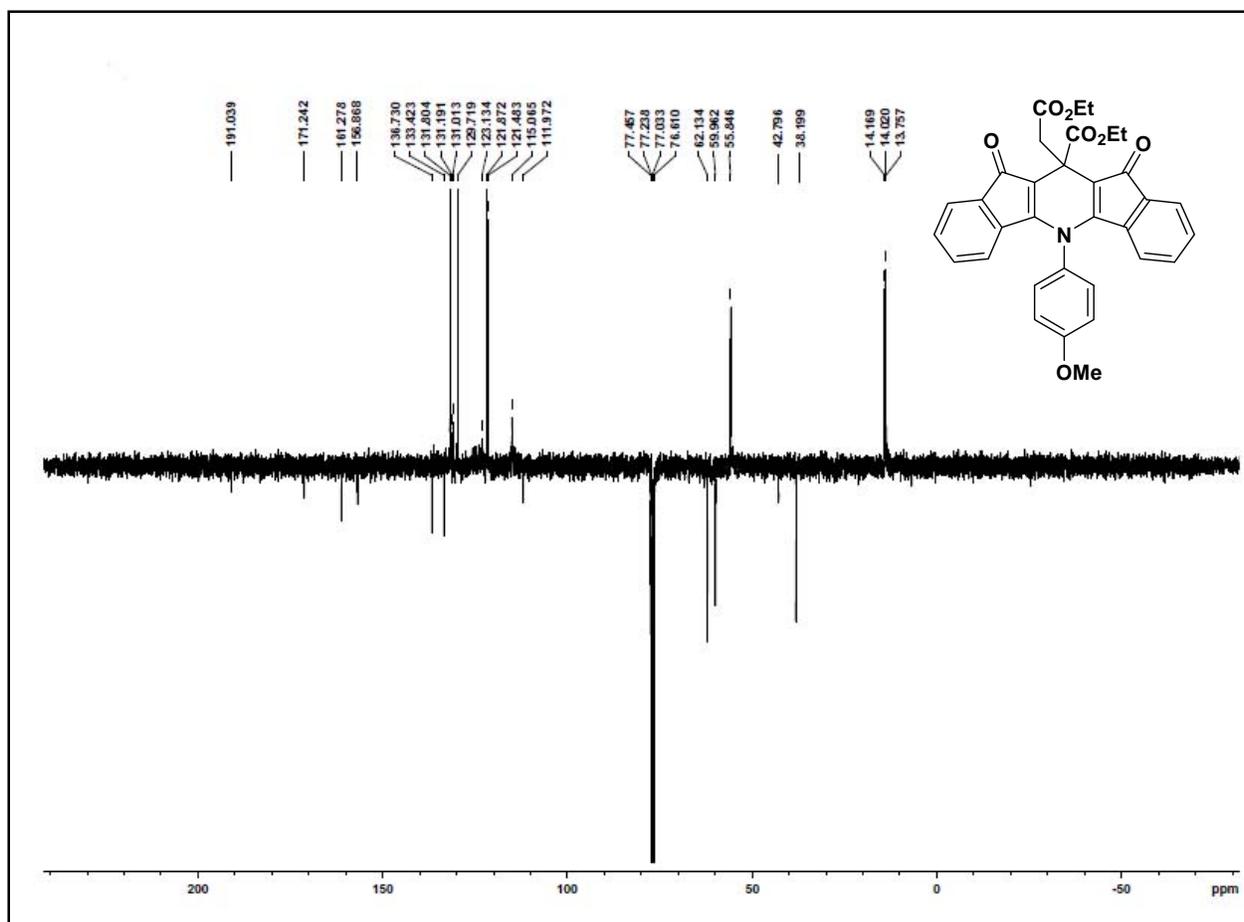
¹H NMR of compound 4e



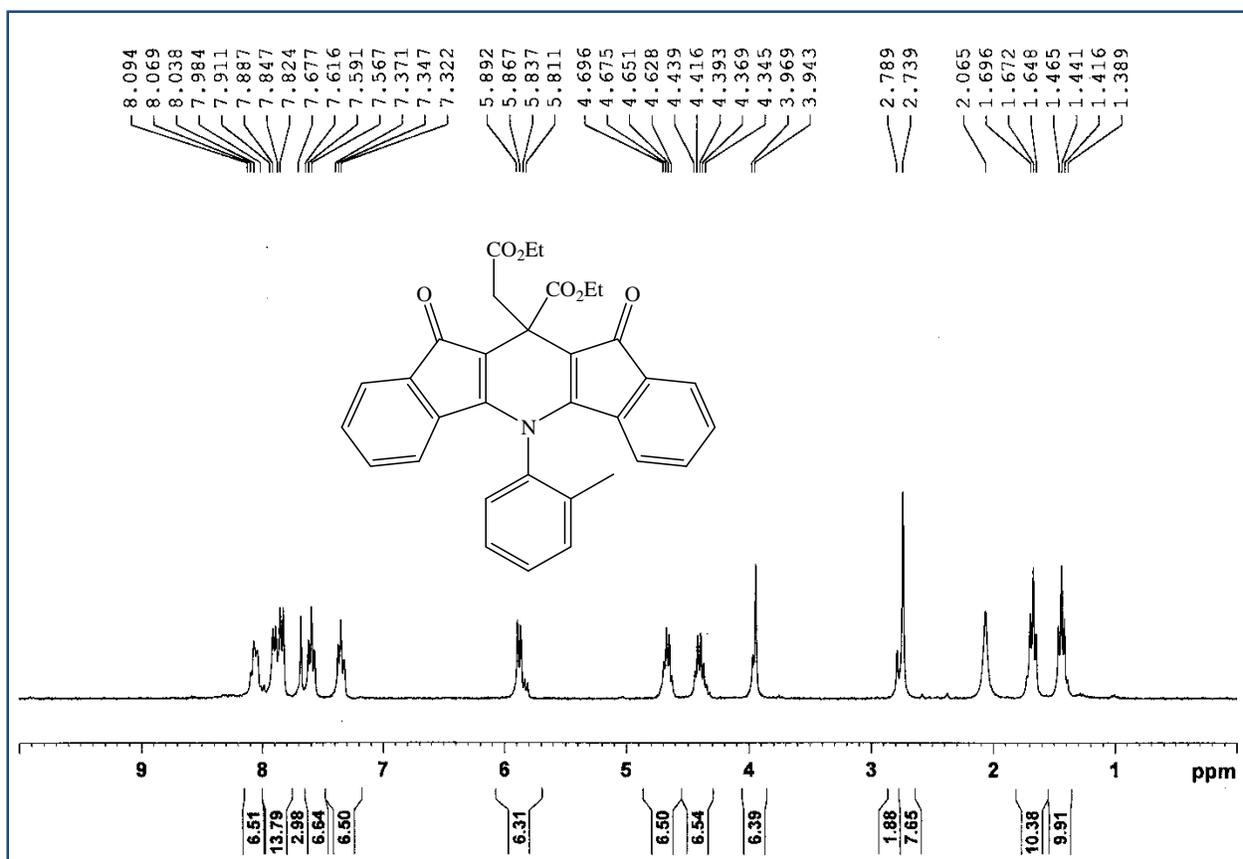
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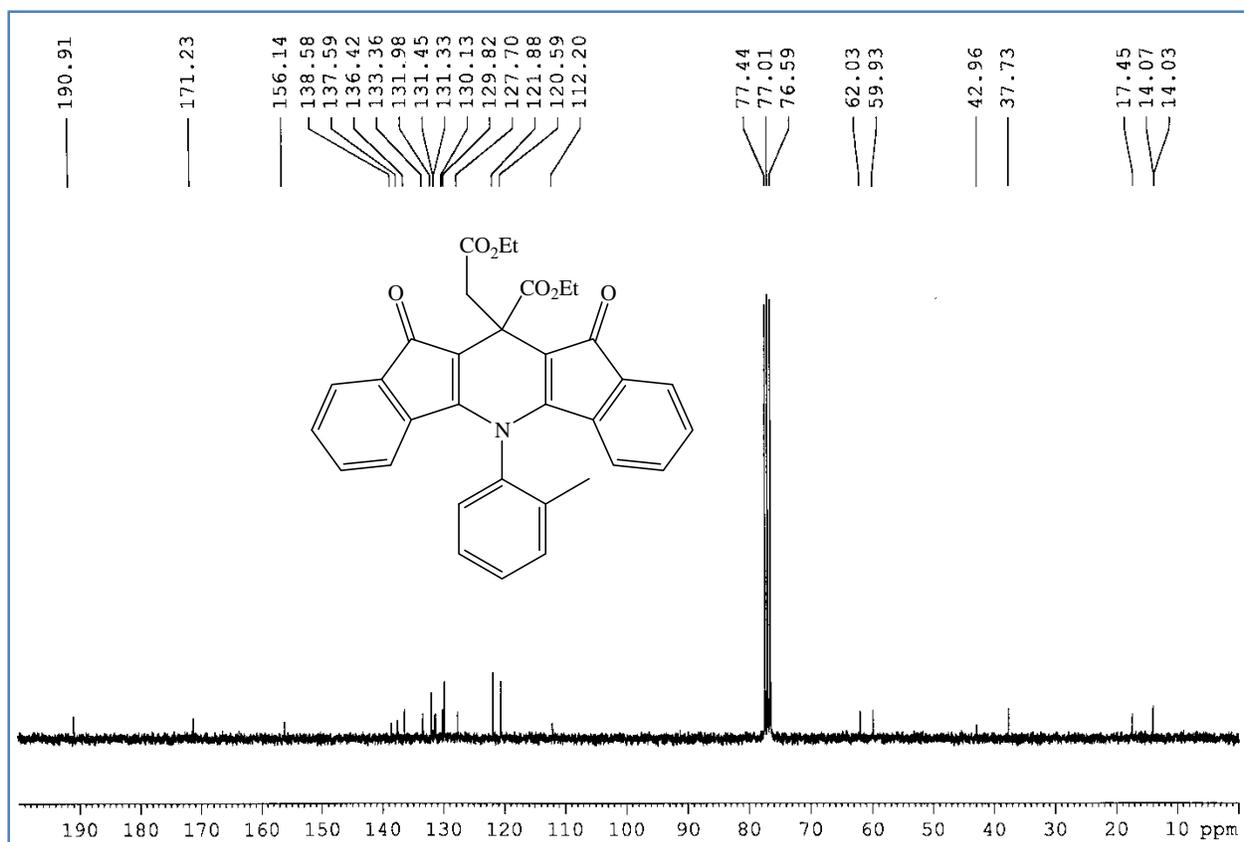
^1H NMR of compound **4f**



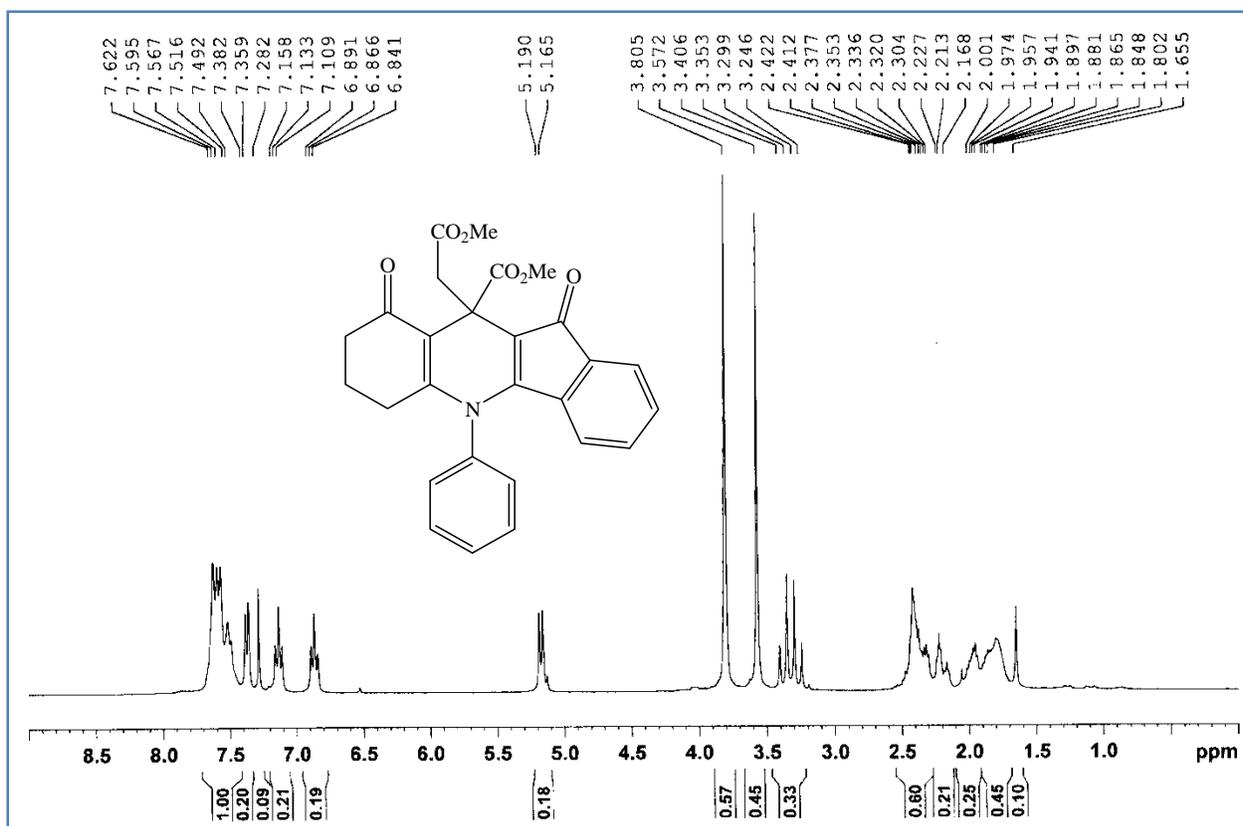
DEPTQ-135 of compound **4f**



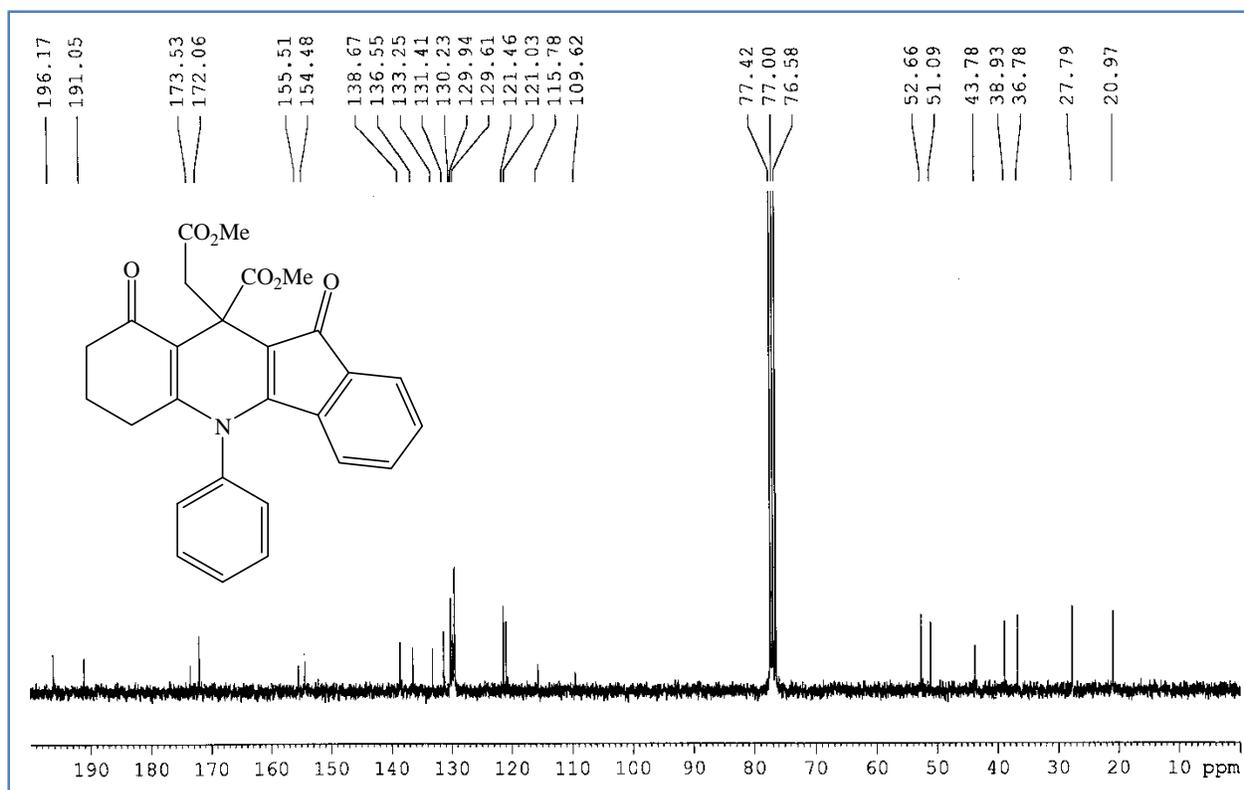
¹H NMR of compound **4g**



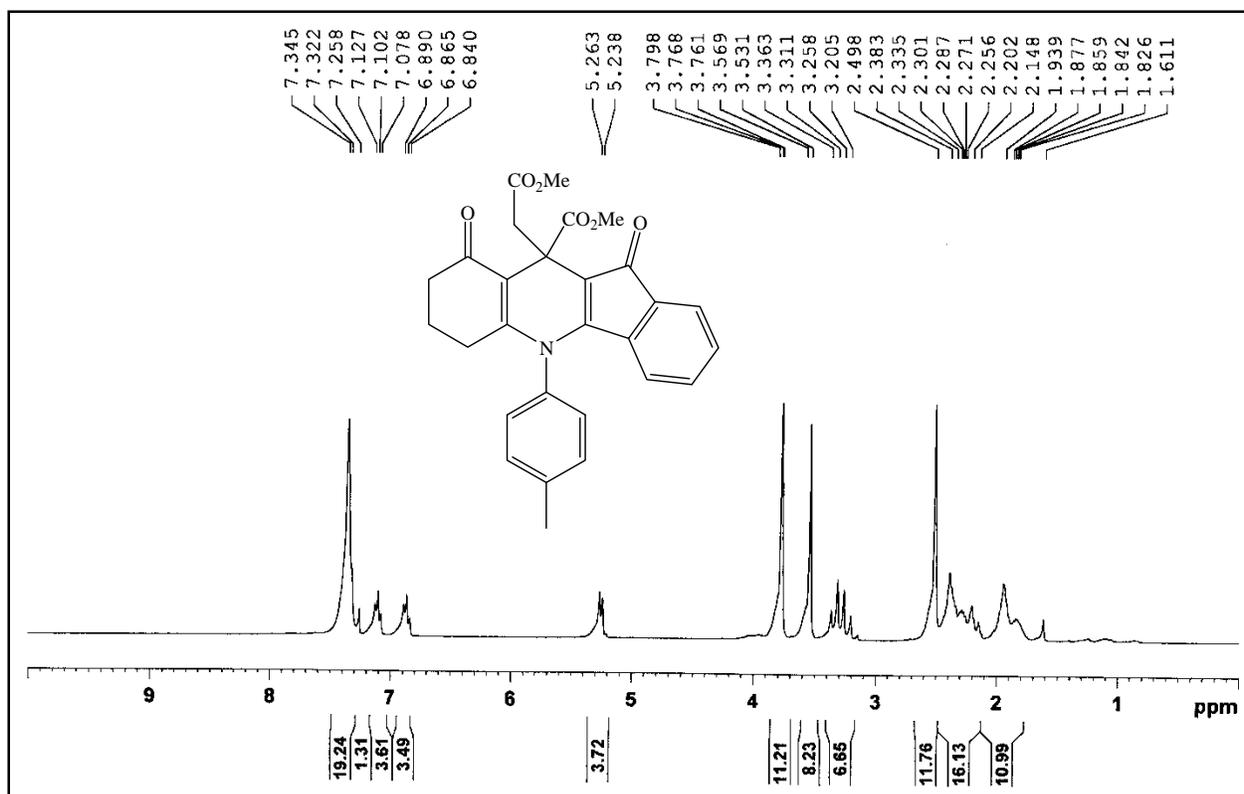
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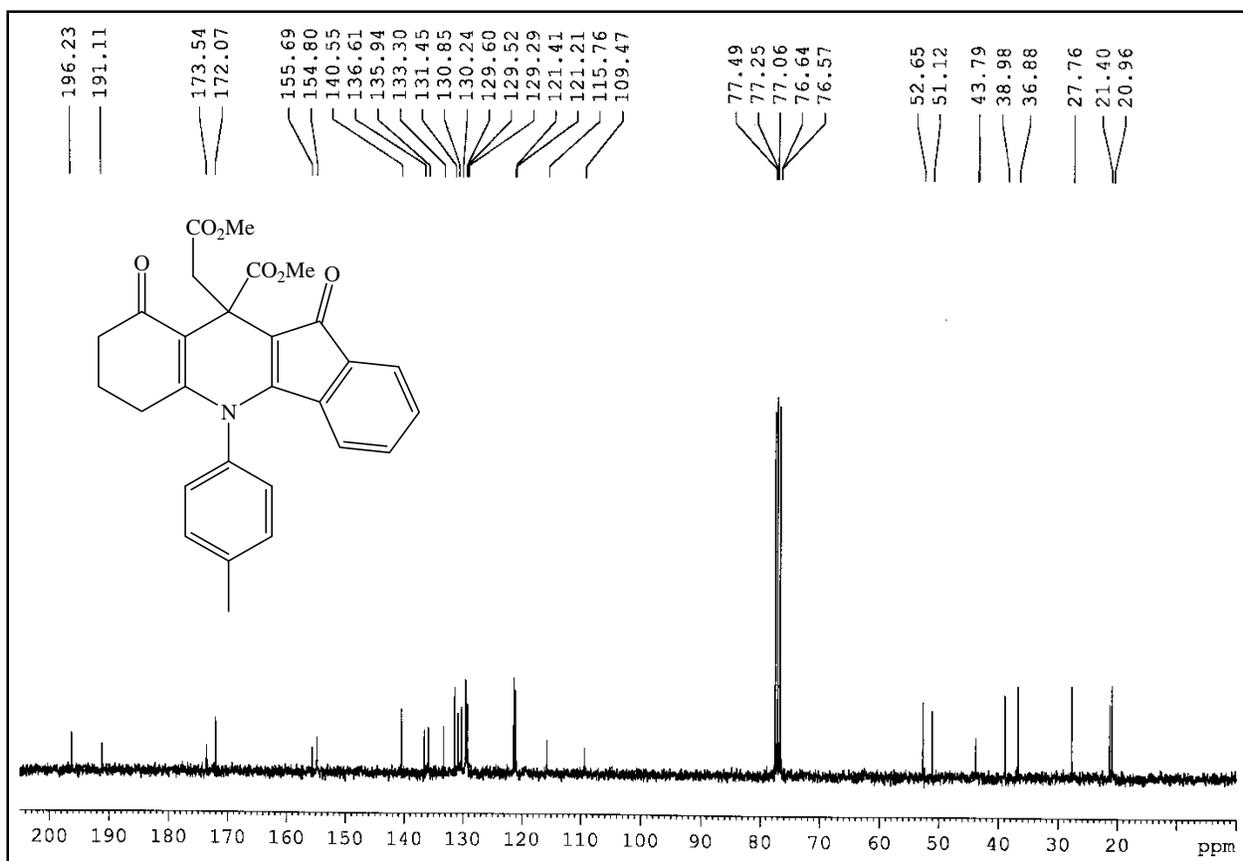
¹H NMR of compound **4h**



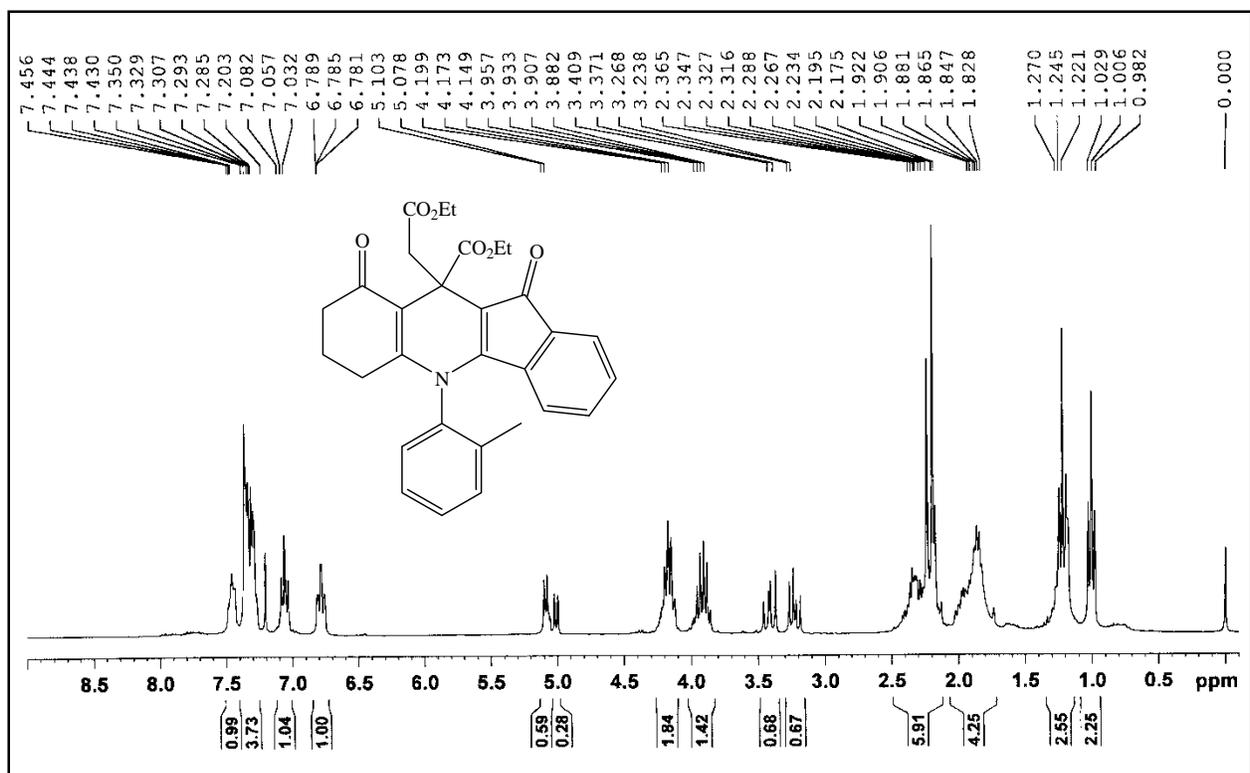
¹³C NMR of compound **4h**



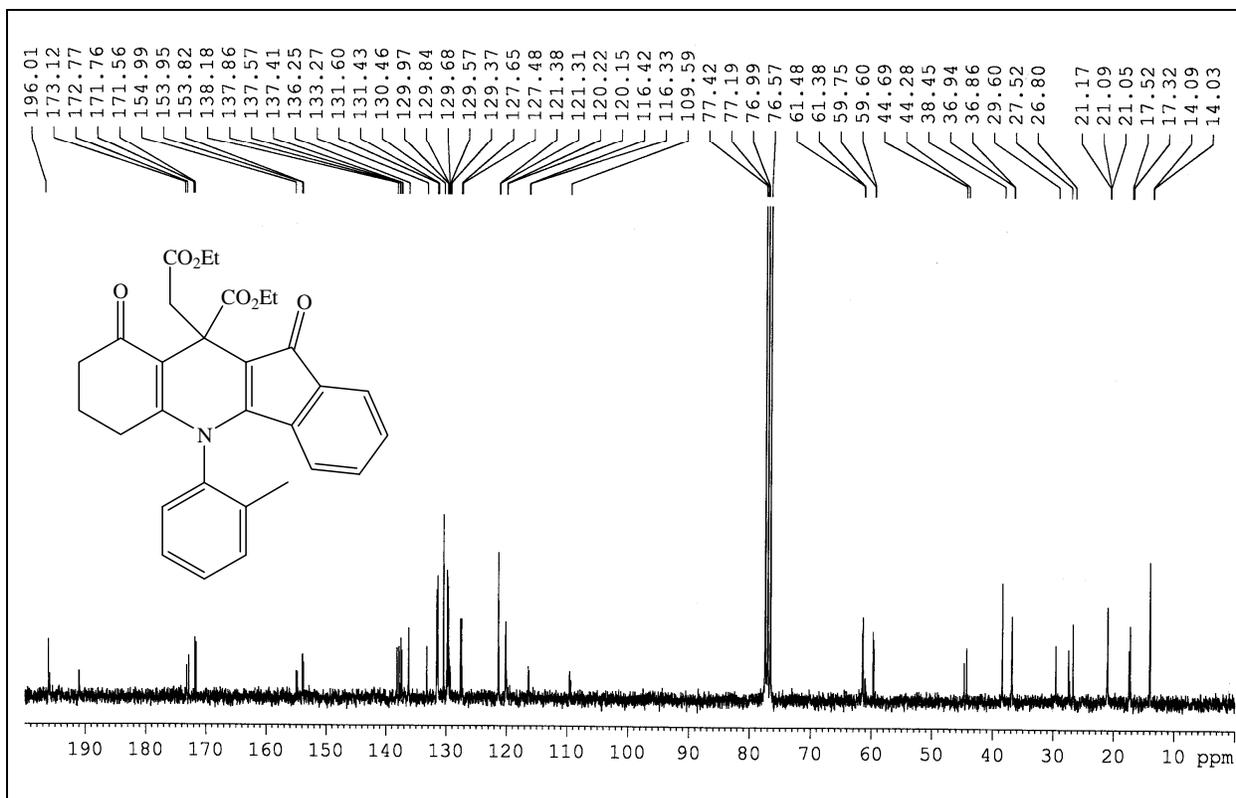
¹H NMR of compound **4i**



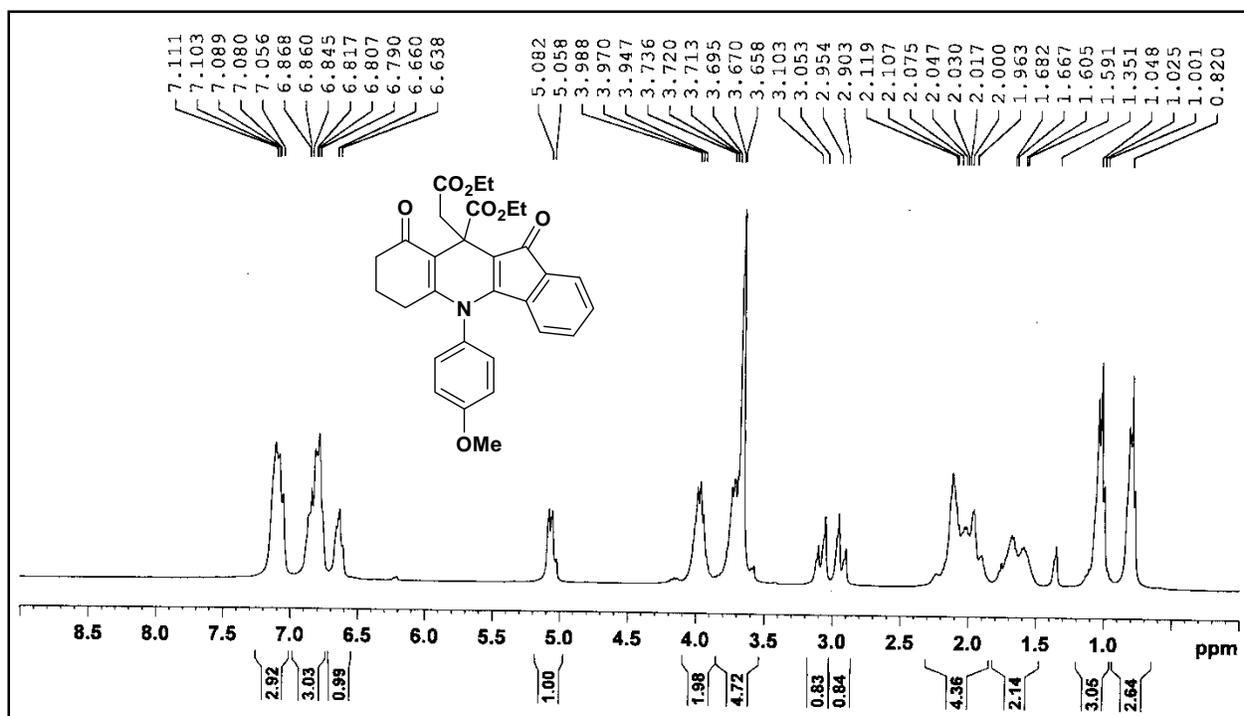
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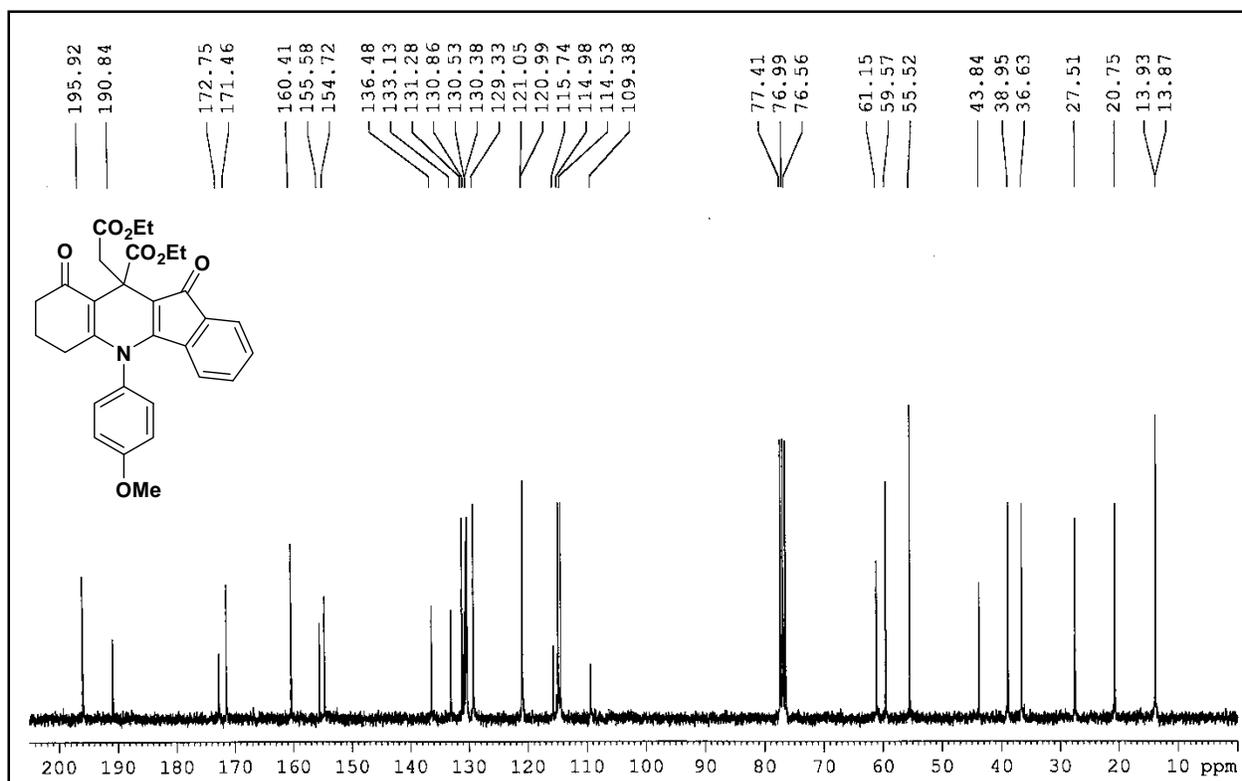
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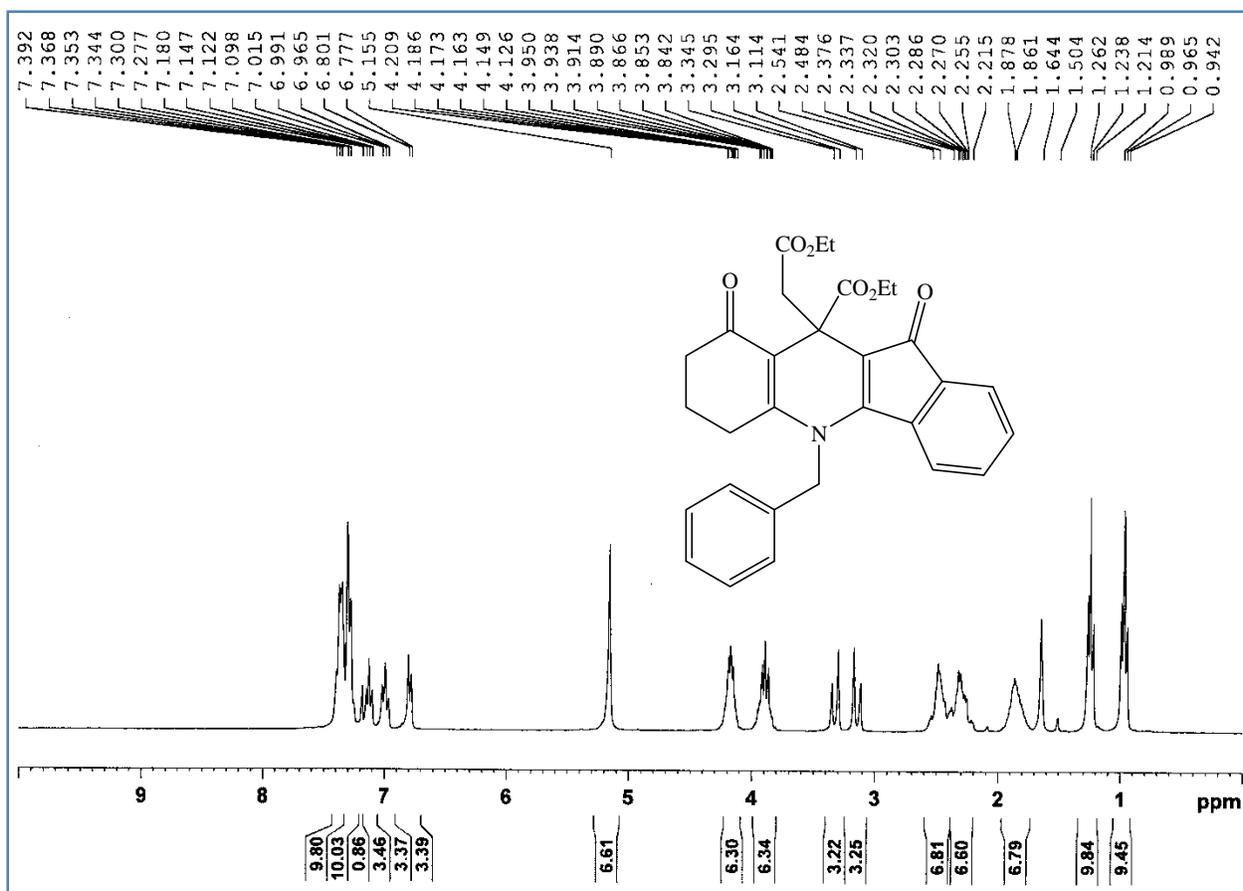
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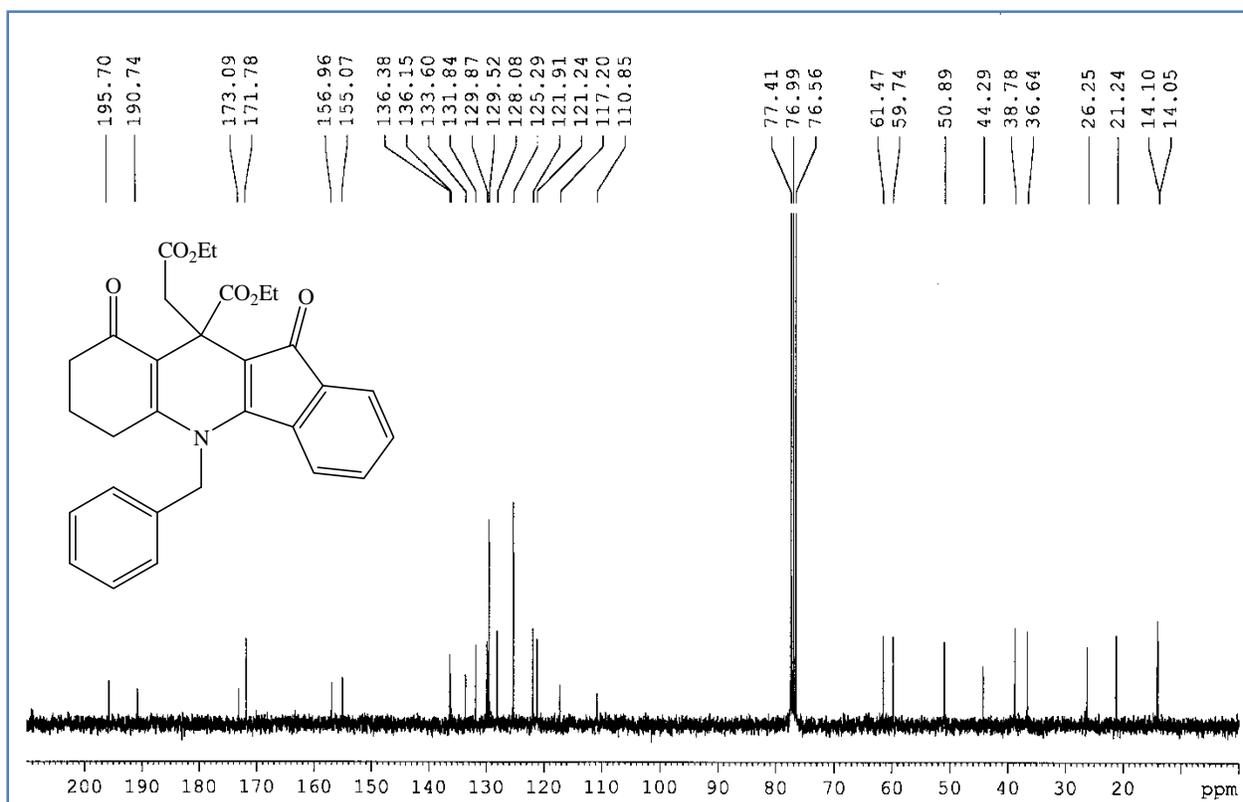
¹H NMR of compound 4k



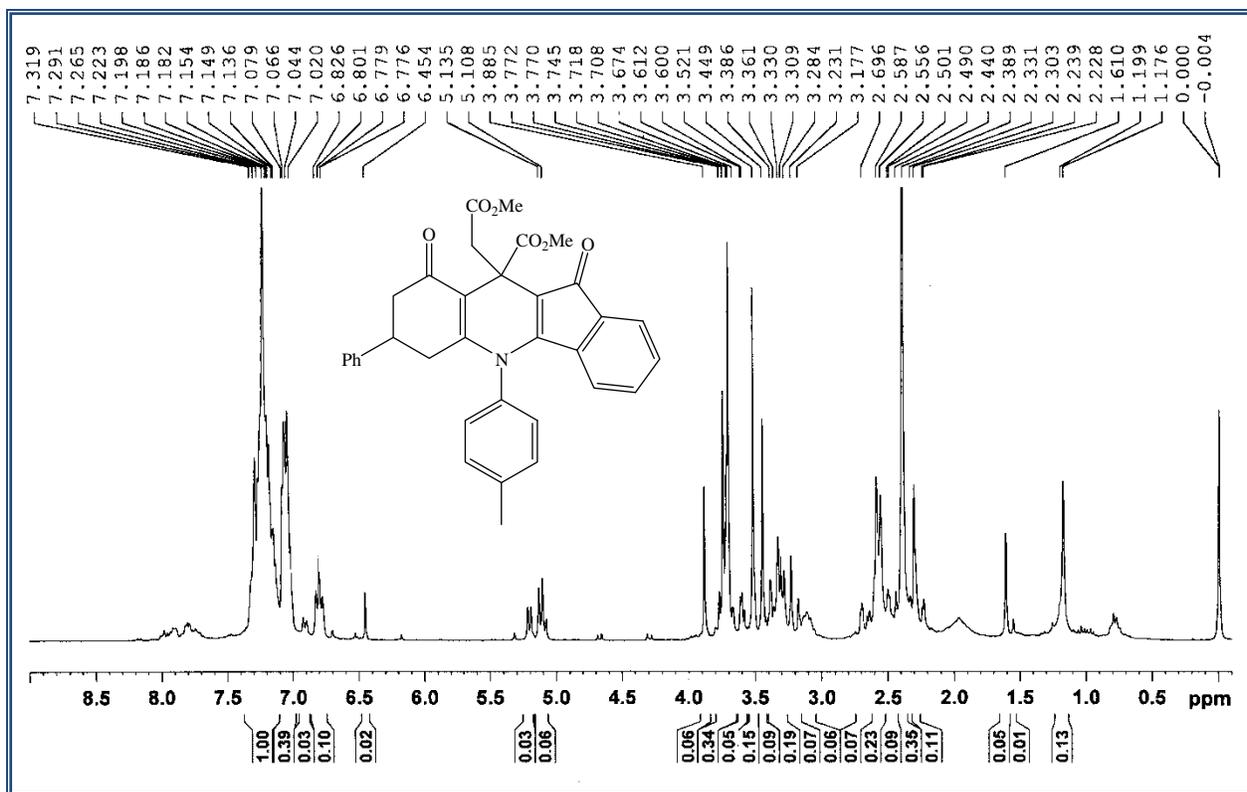
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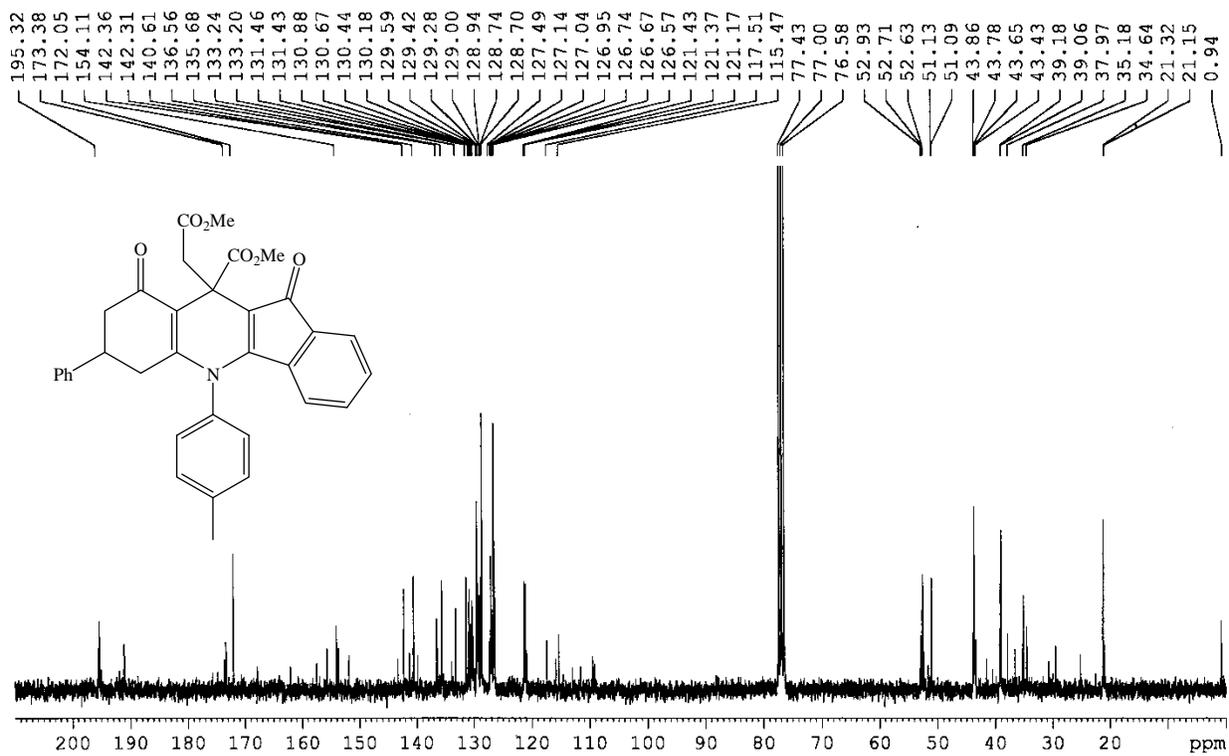
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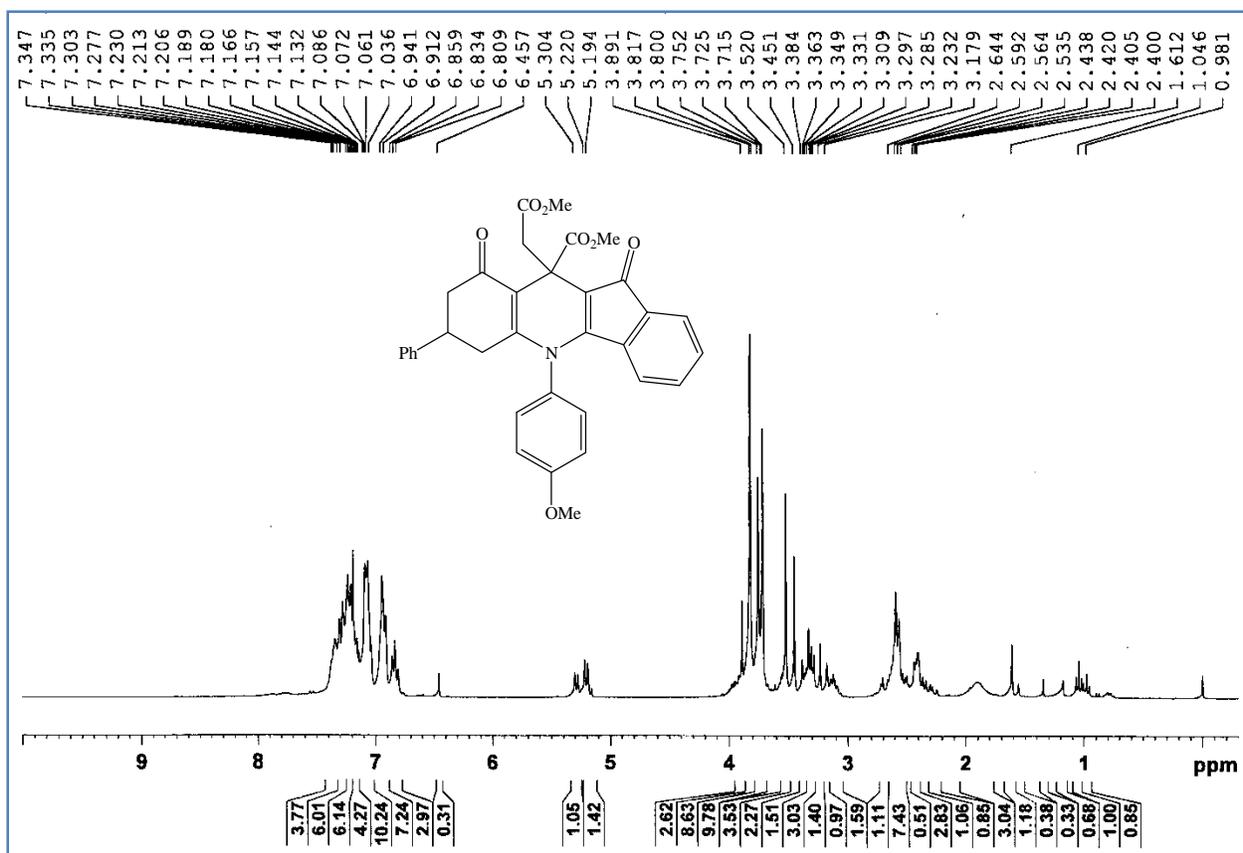
¹³C NMR of compound **41**



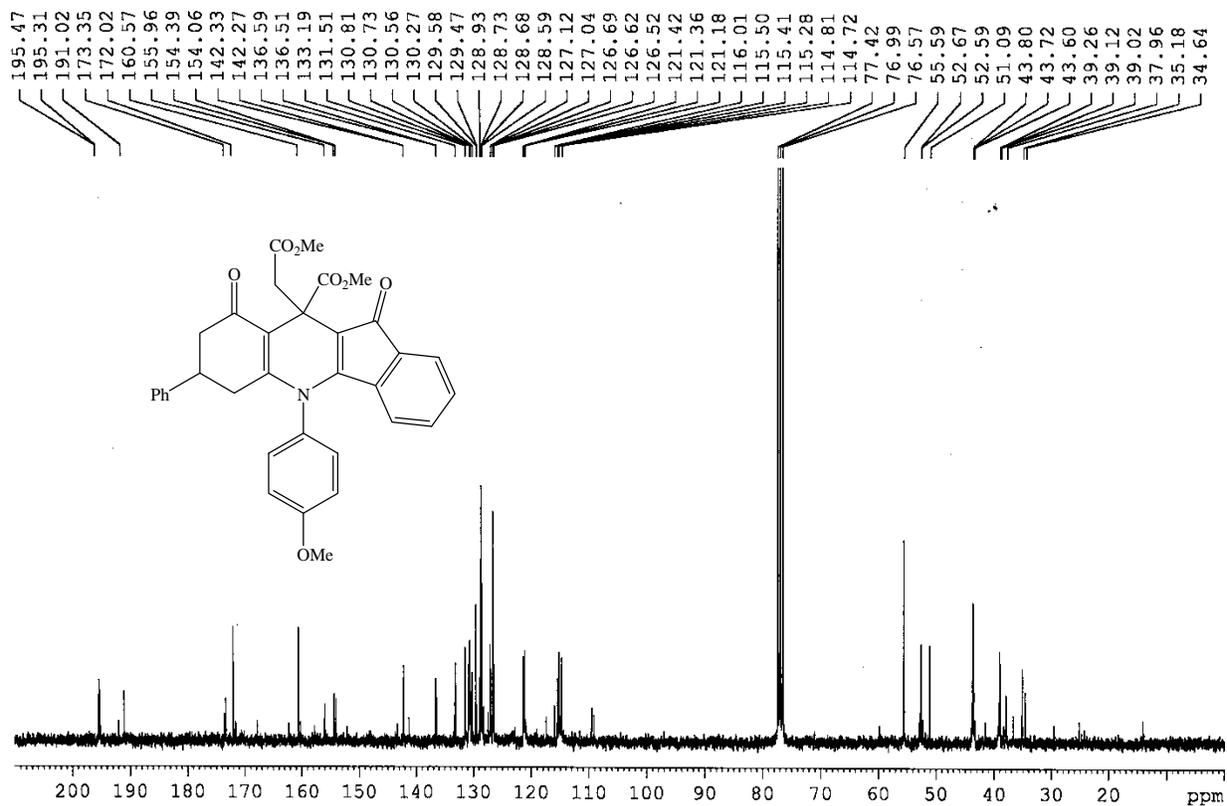
¹H NMR of the crude product mixture **4m**



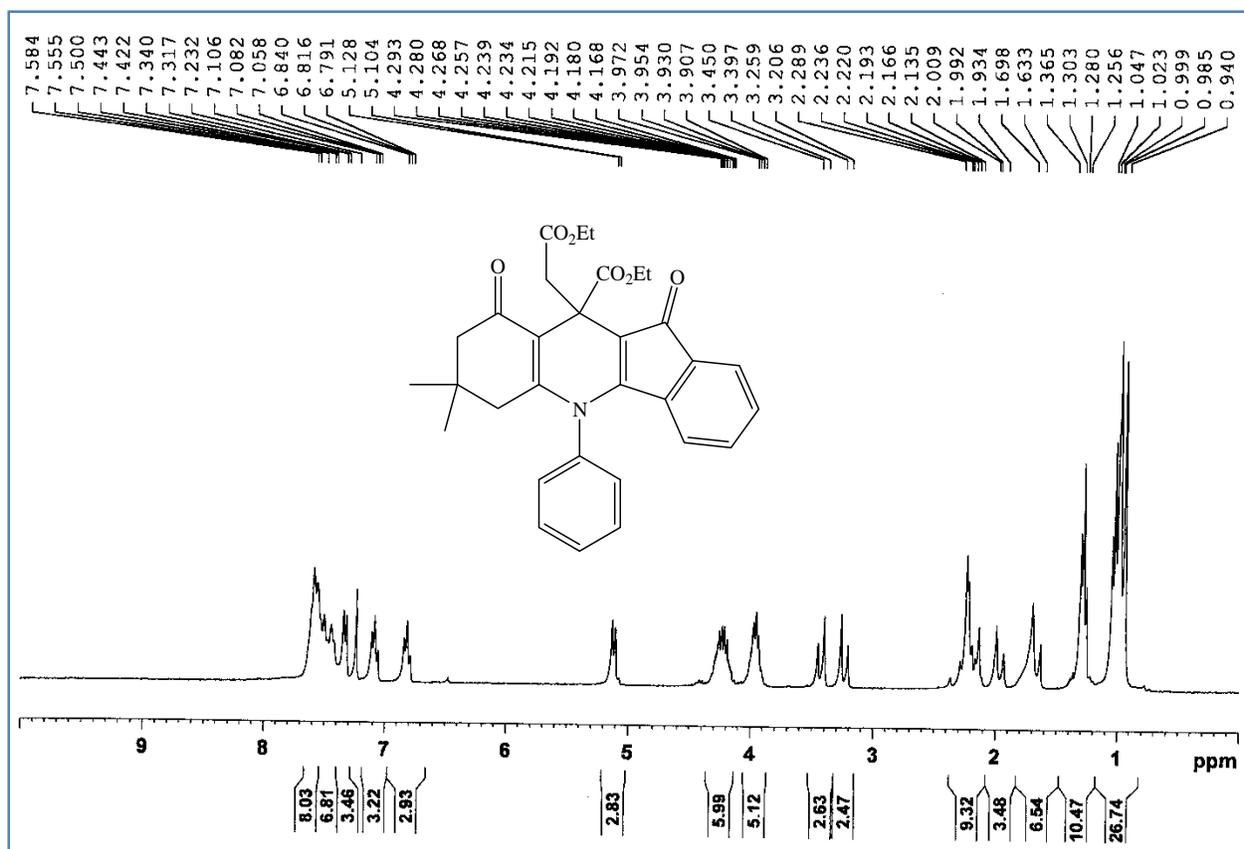
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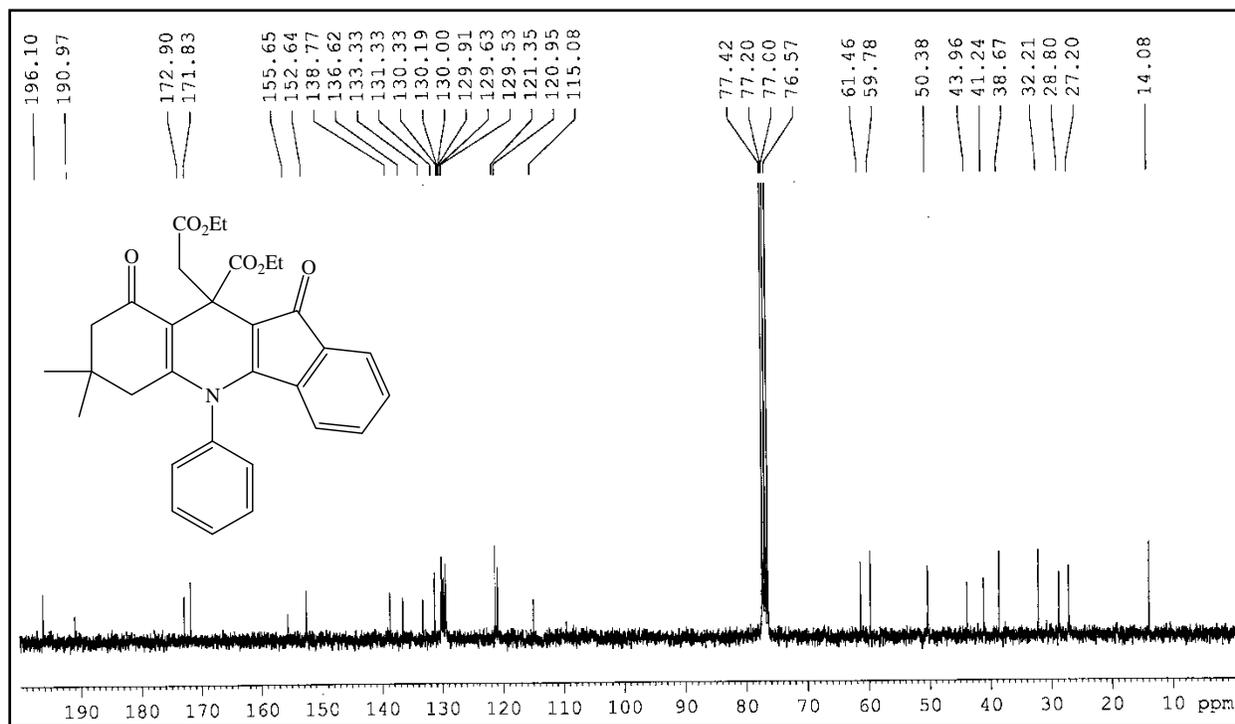
¹H NMR of the crude product mixture **4n**



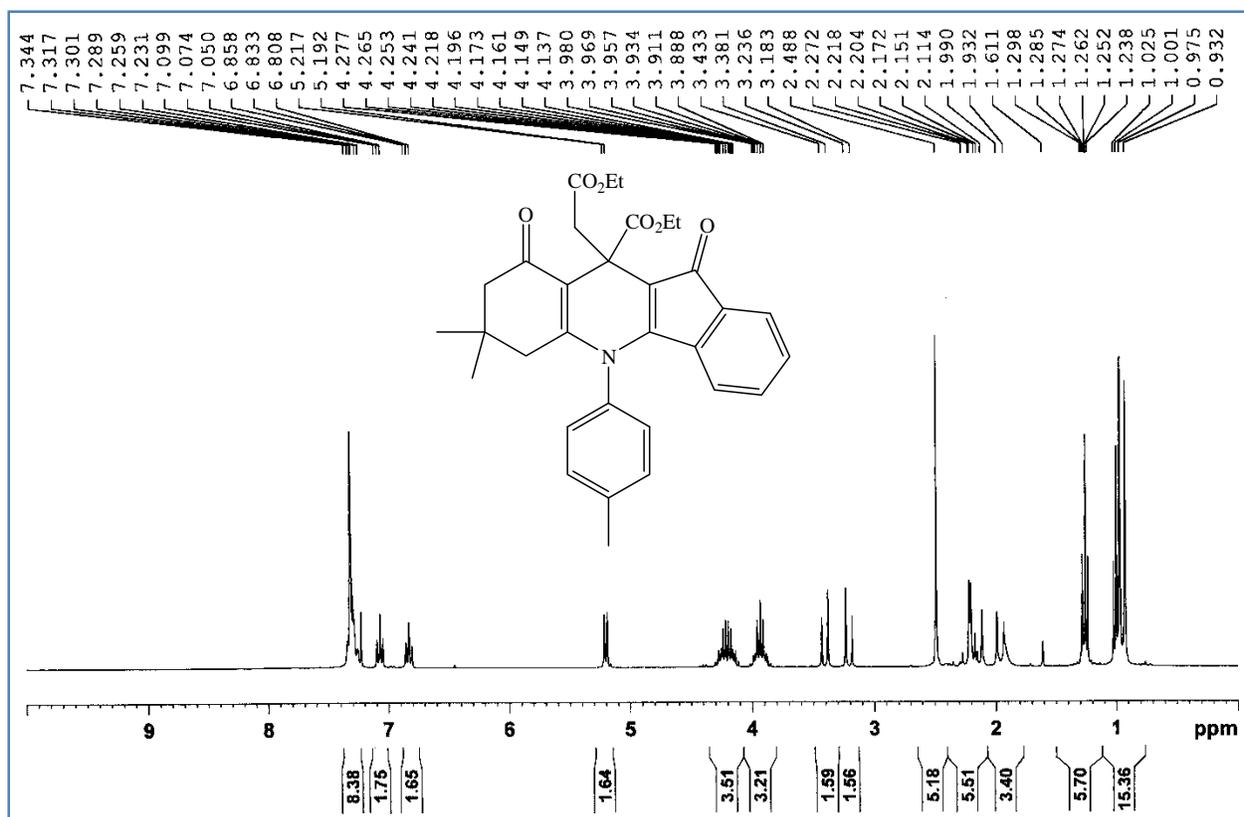
^{13}C NMR of the crude compound **4n**



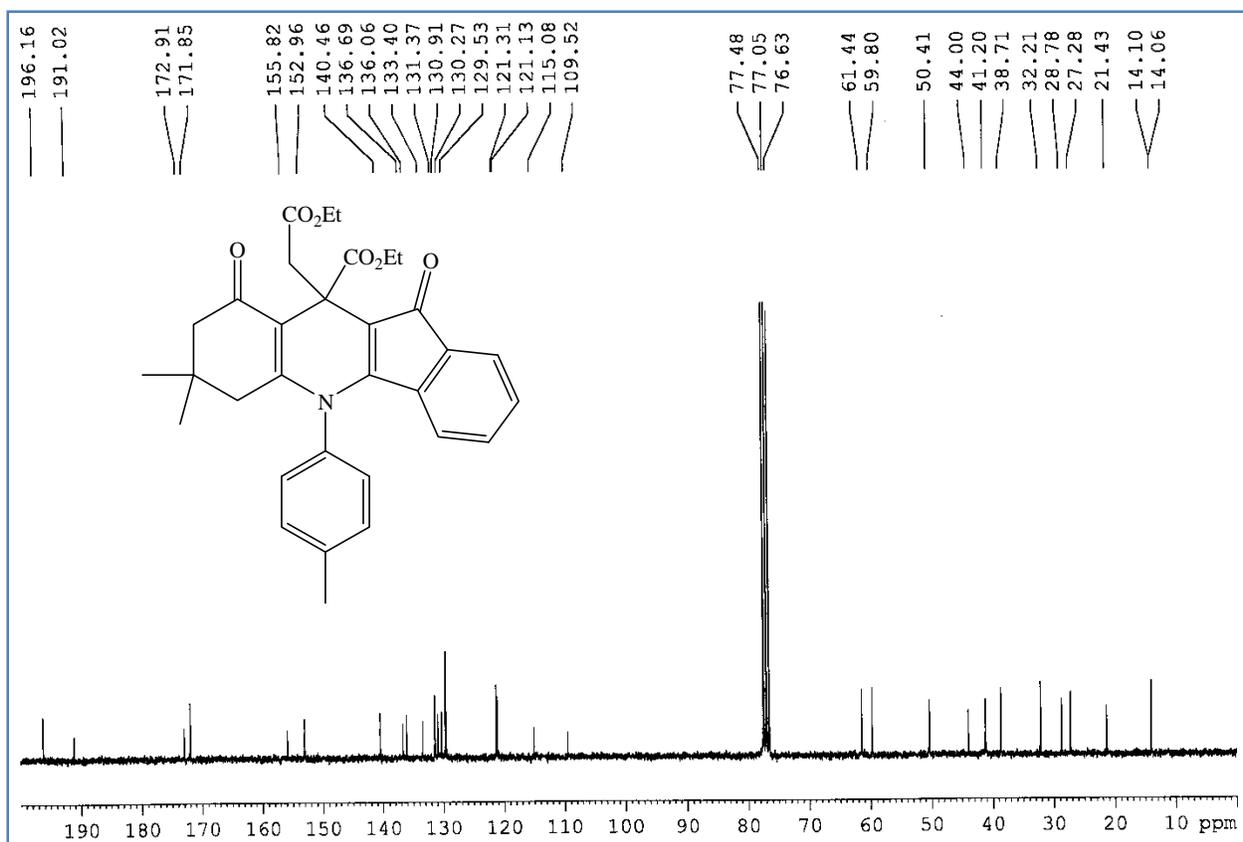
^1H NMR of compound **4o**



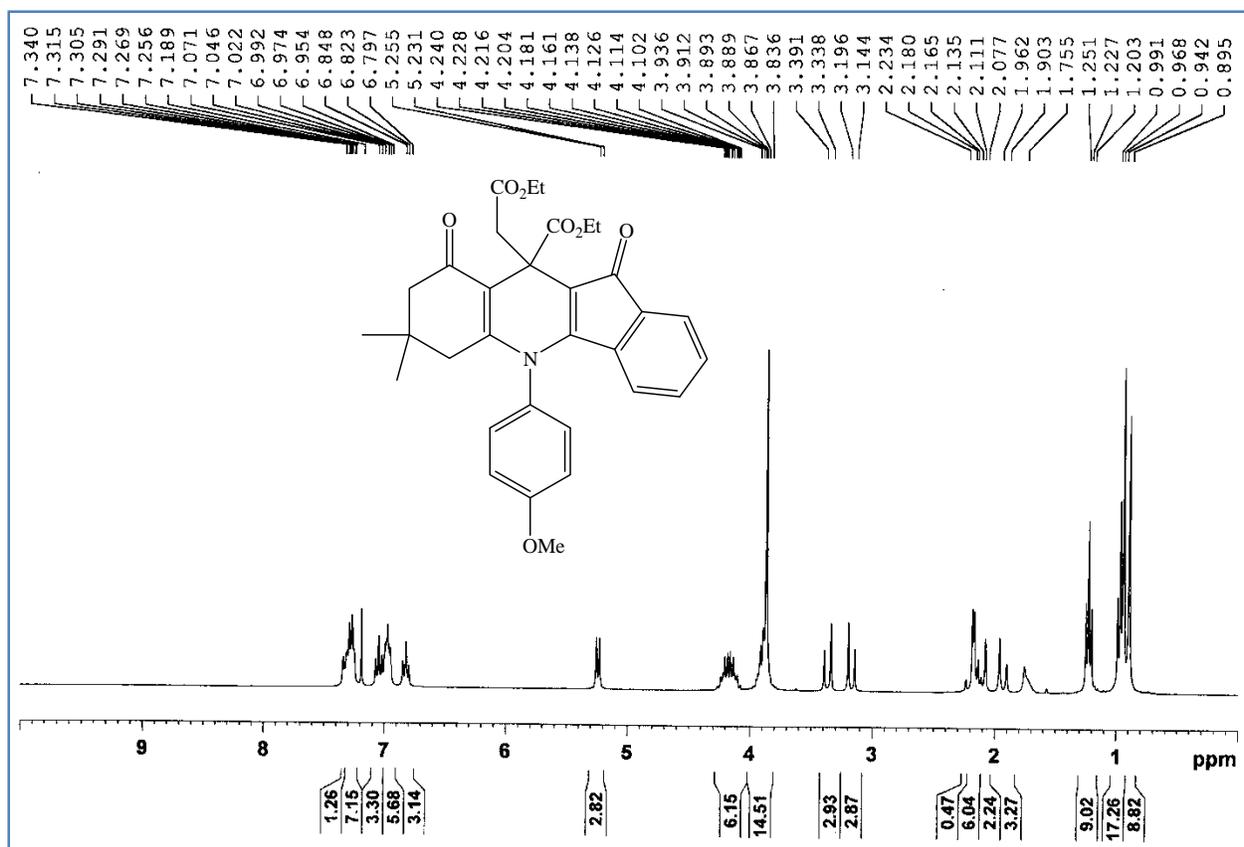
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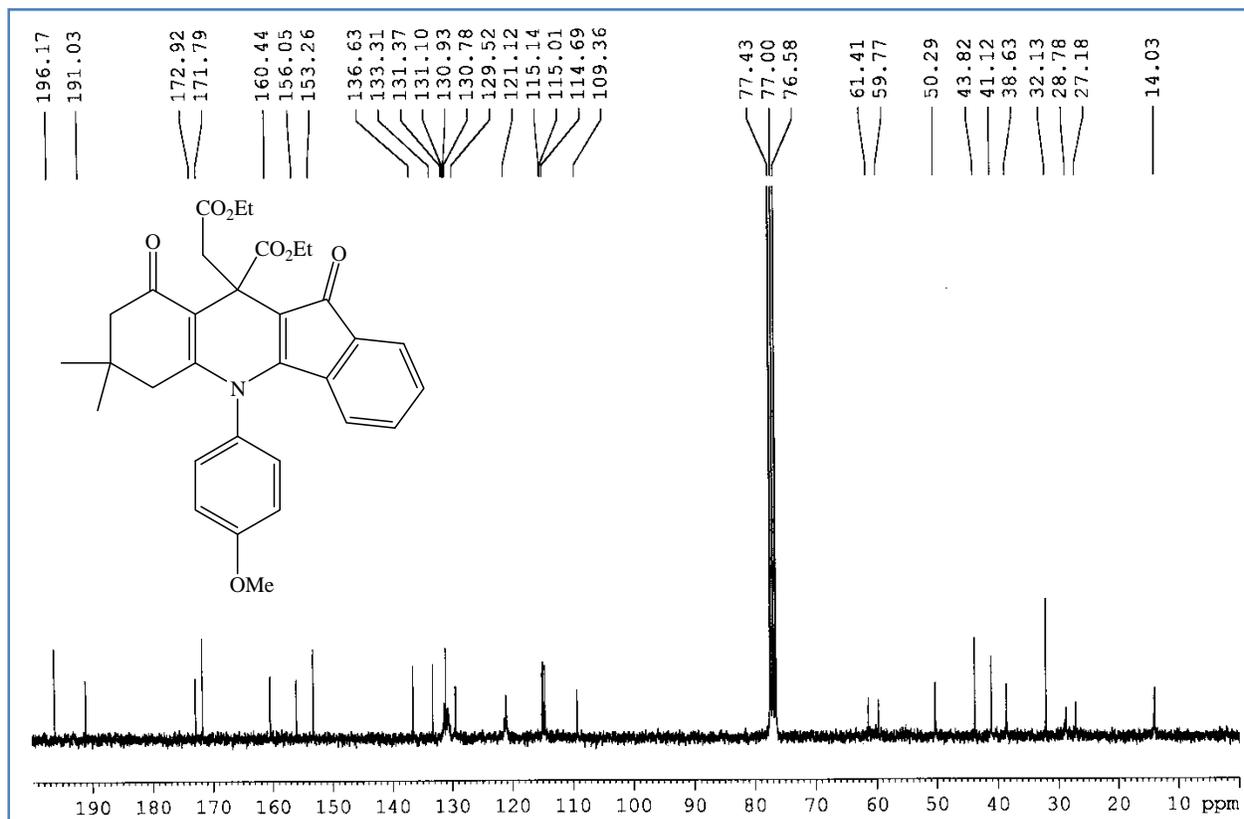
¹H NMR of compound 4p



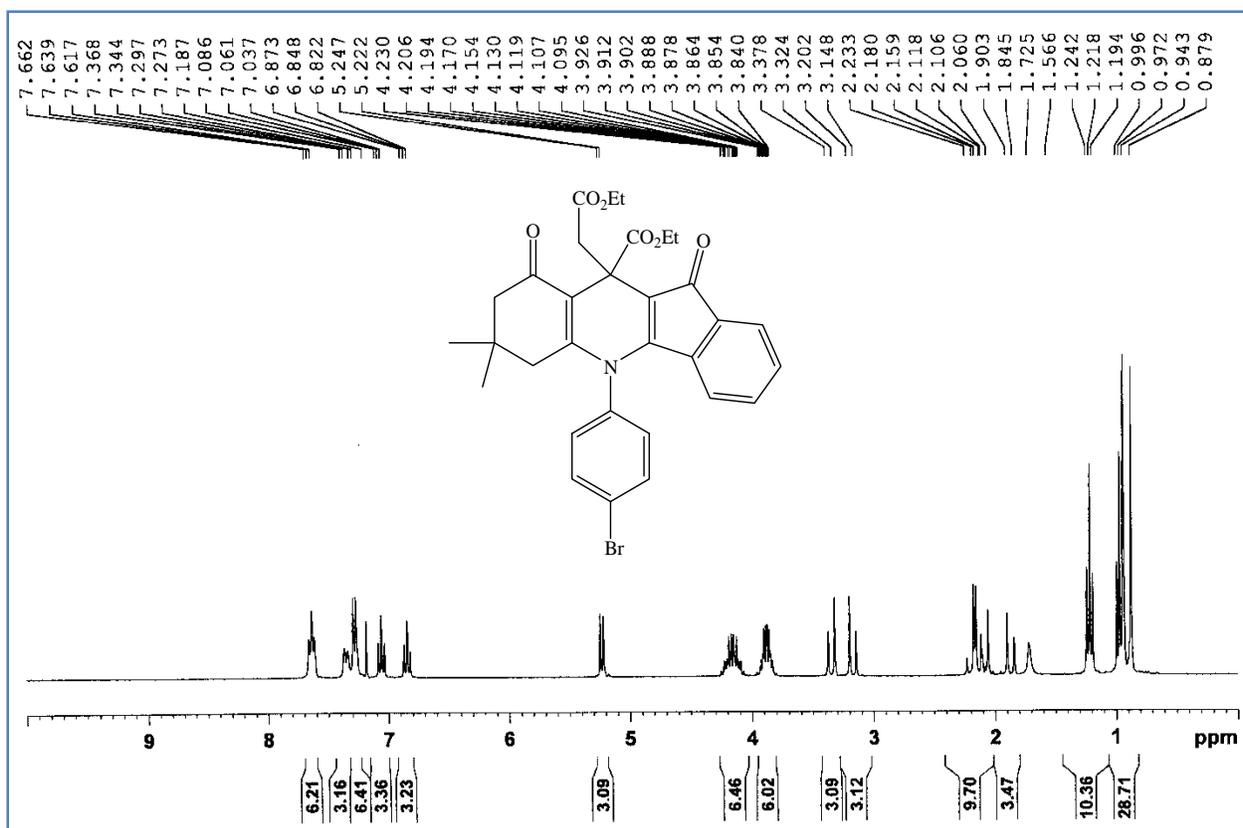
^{13}C NMR of compound **4p**



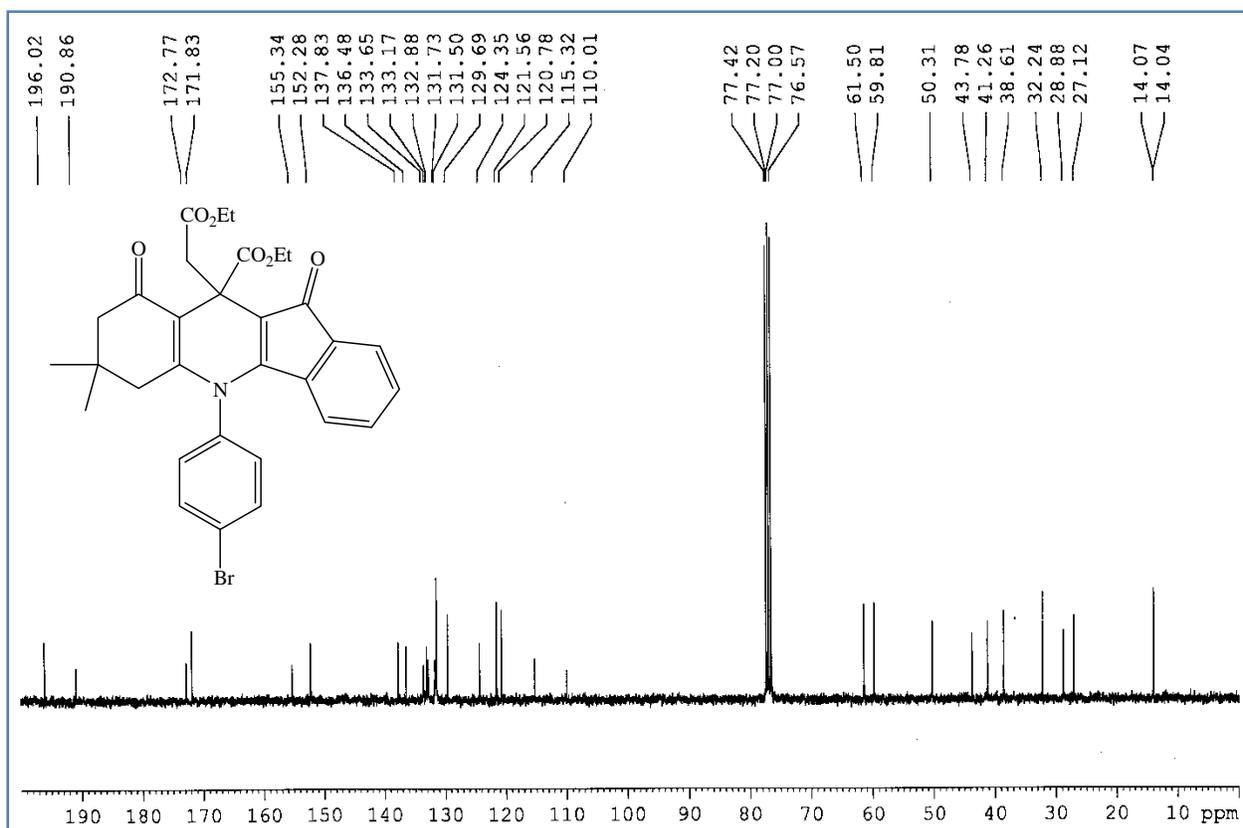
¹H NMR of compound 4q



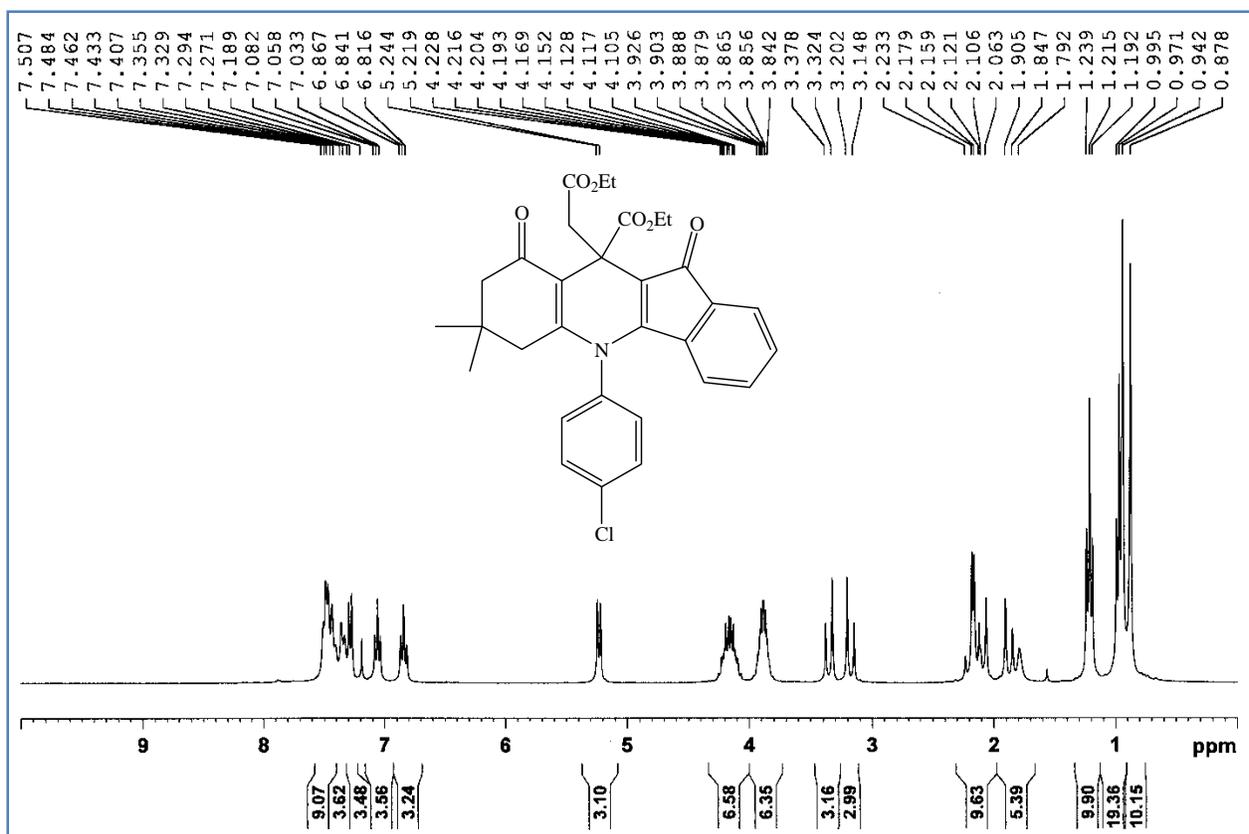
¹³C NMR of compound 4q



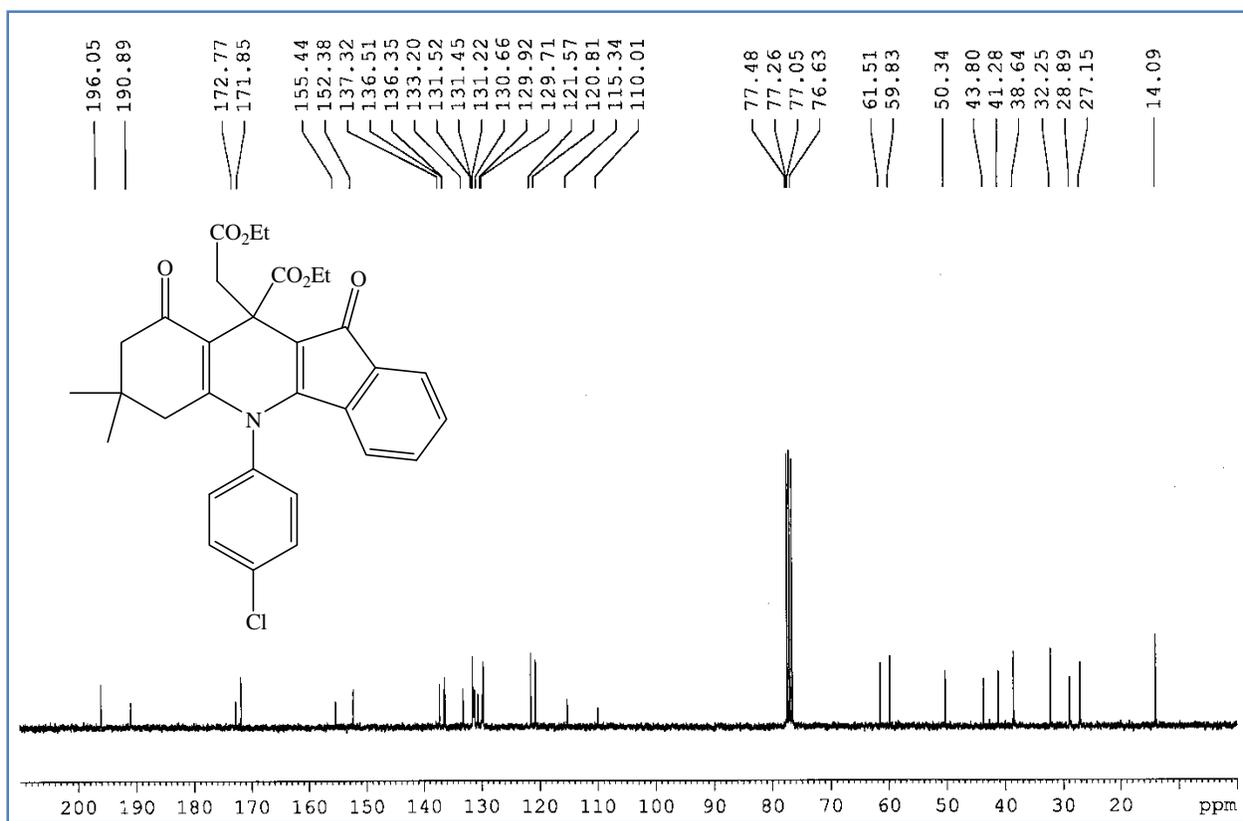
¹H NMR of compound 4r



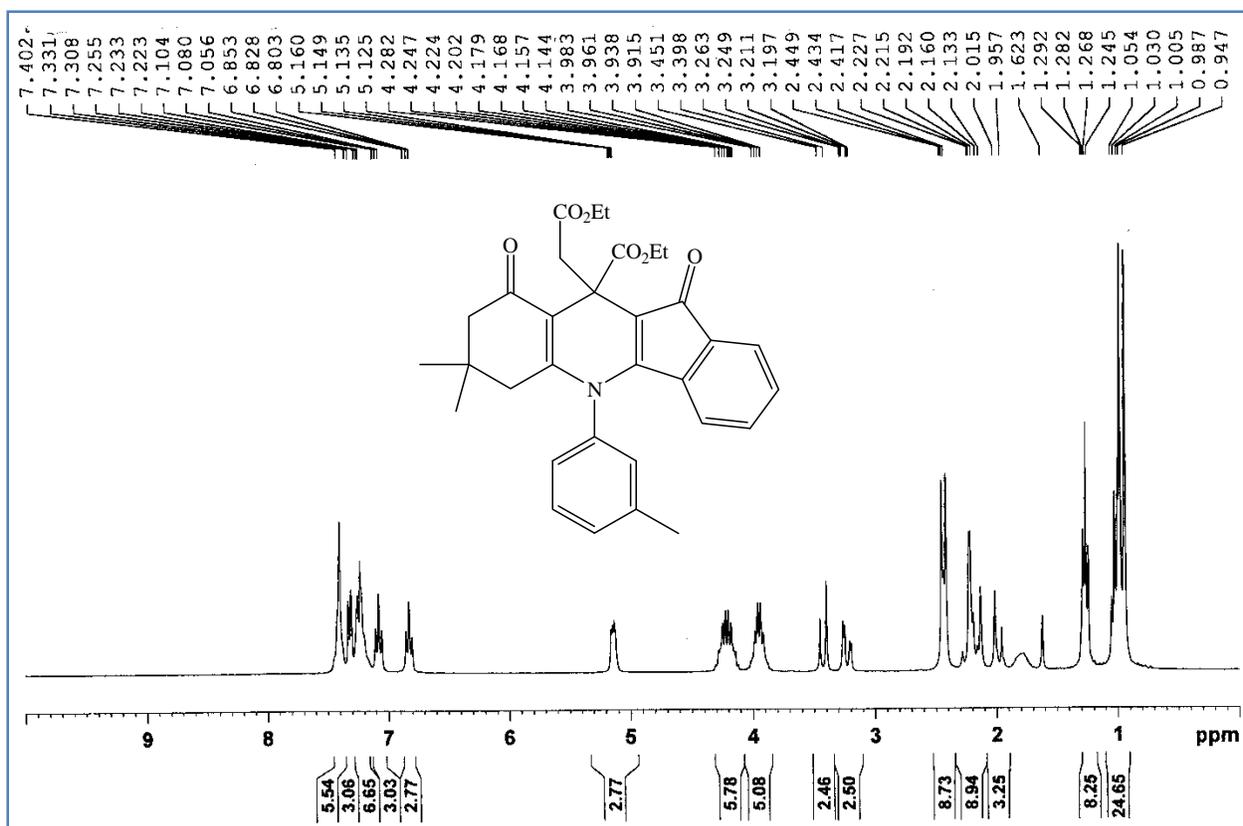
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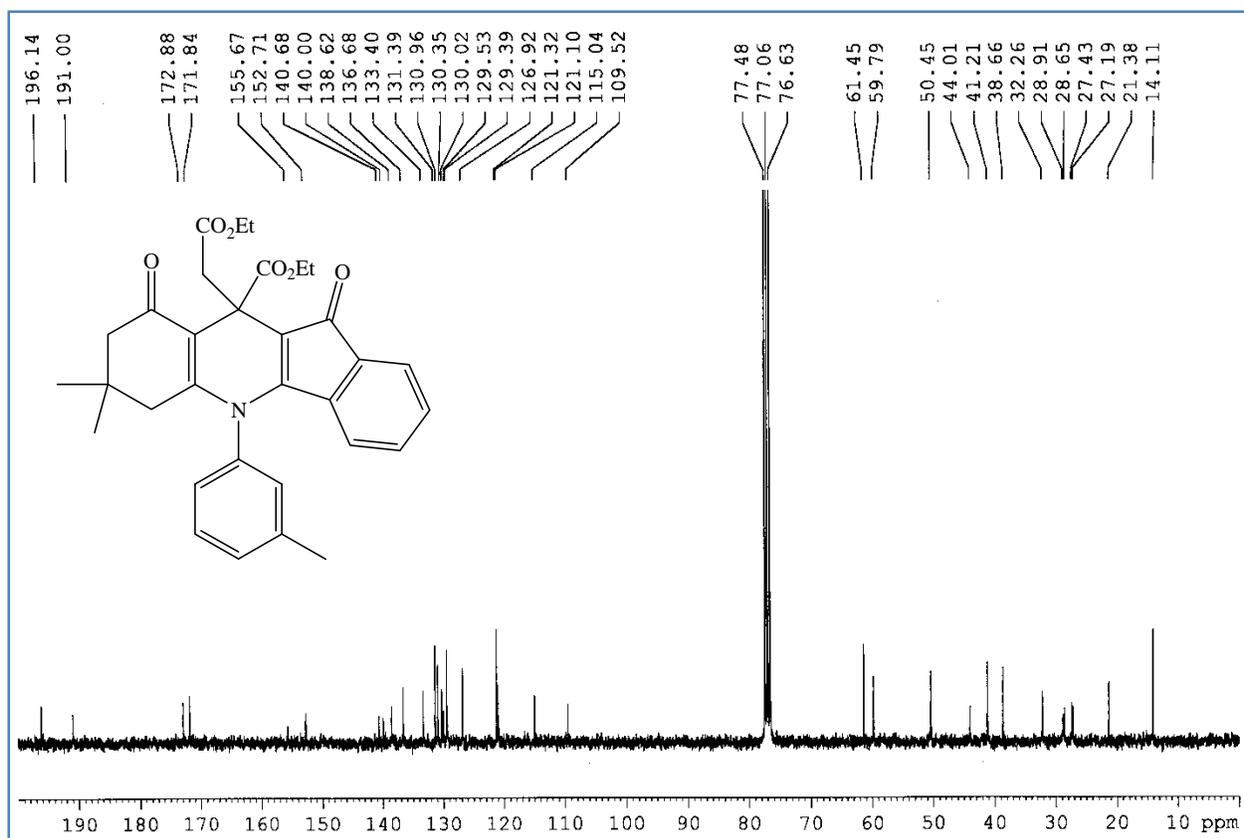
¹H NMR of compound 4s



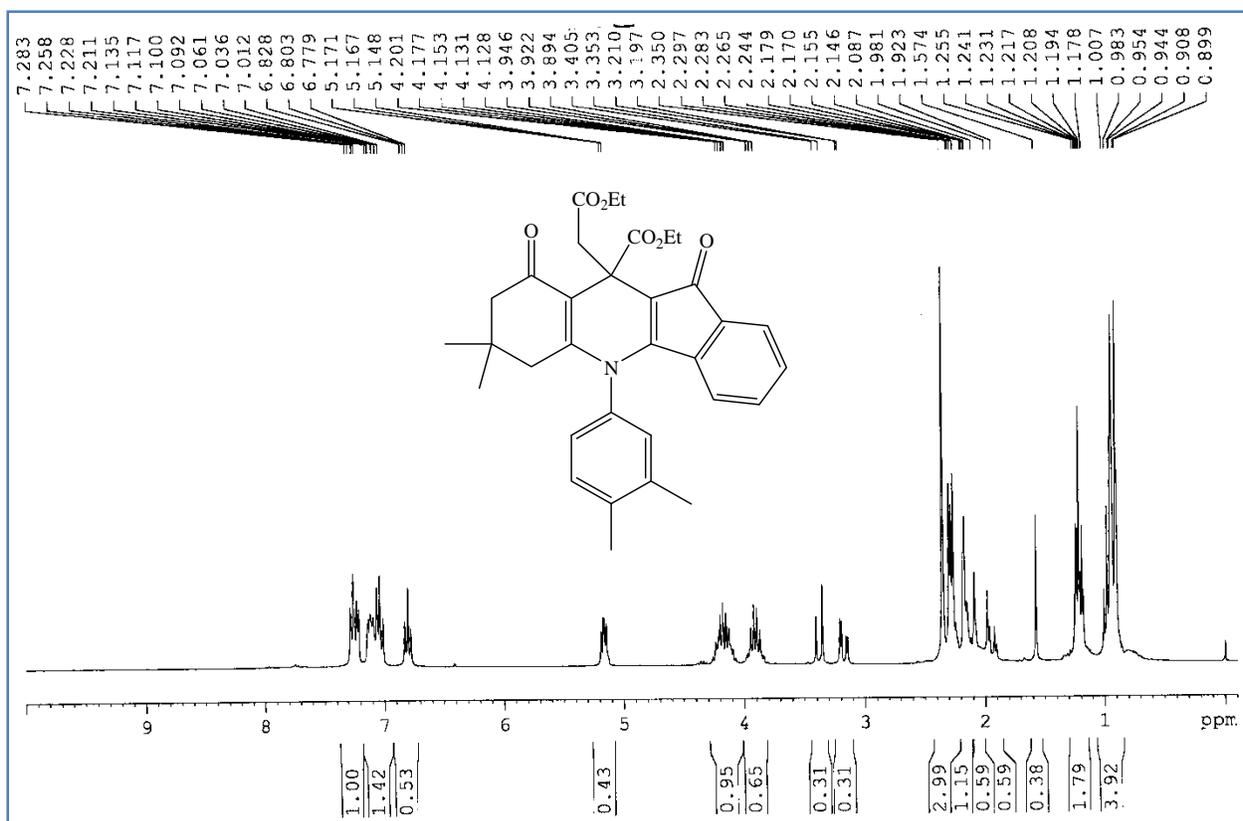
¹³C NMR of compound **4s**



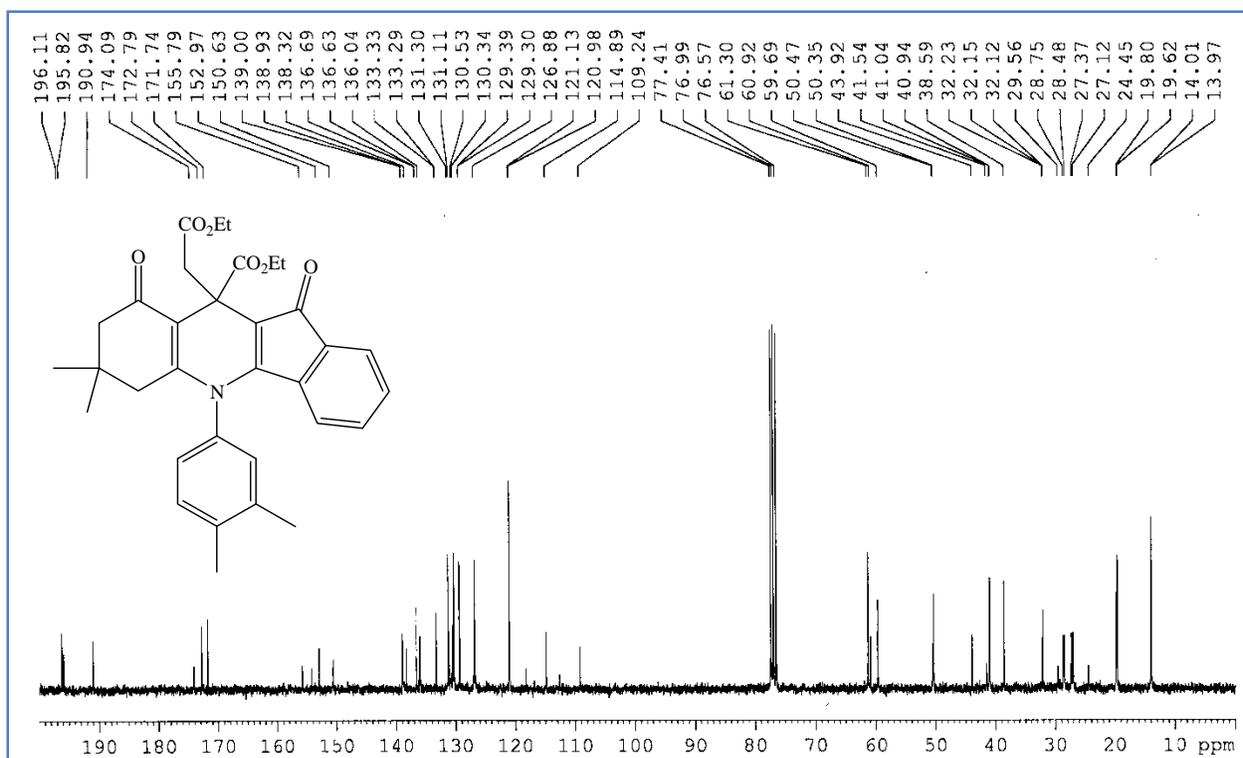
¹H NMR of compound 4t



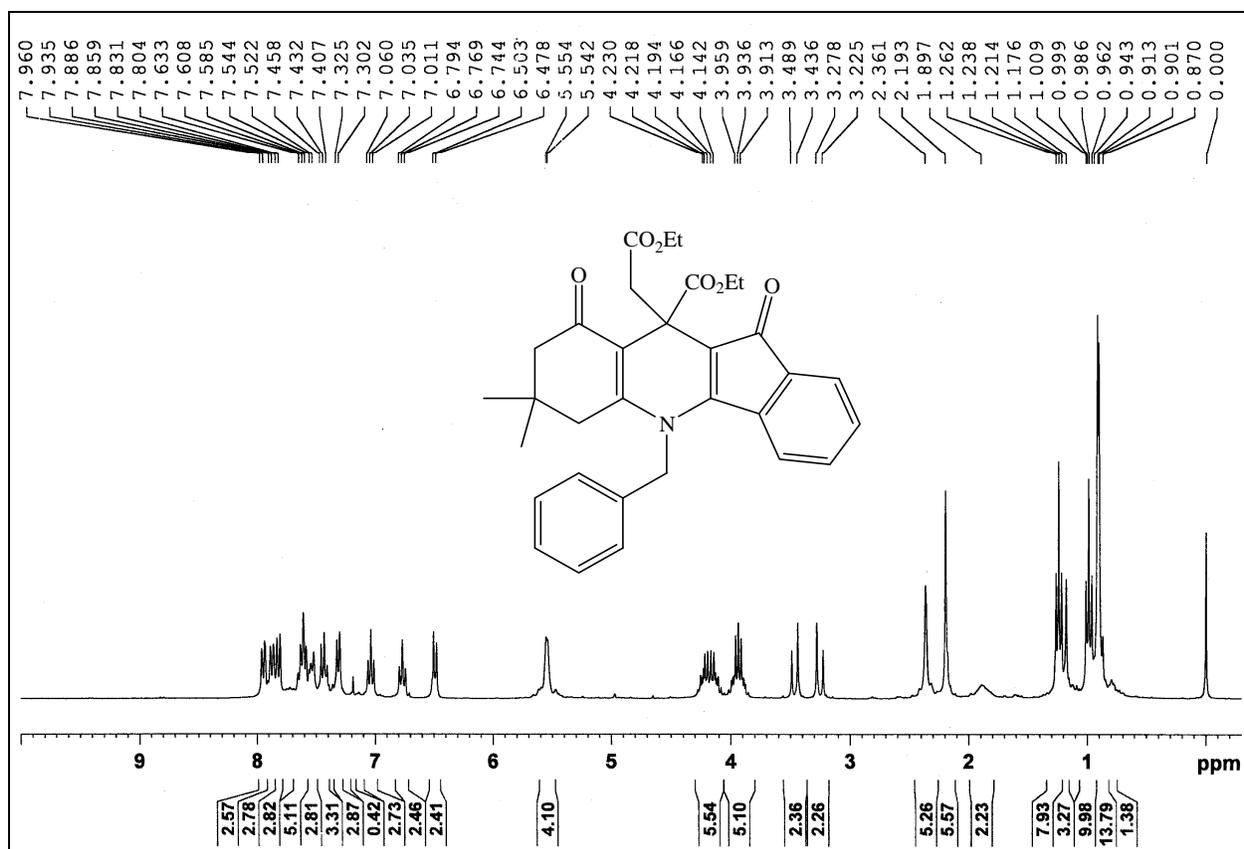
¹³C NMR of compound **4t**



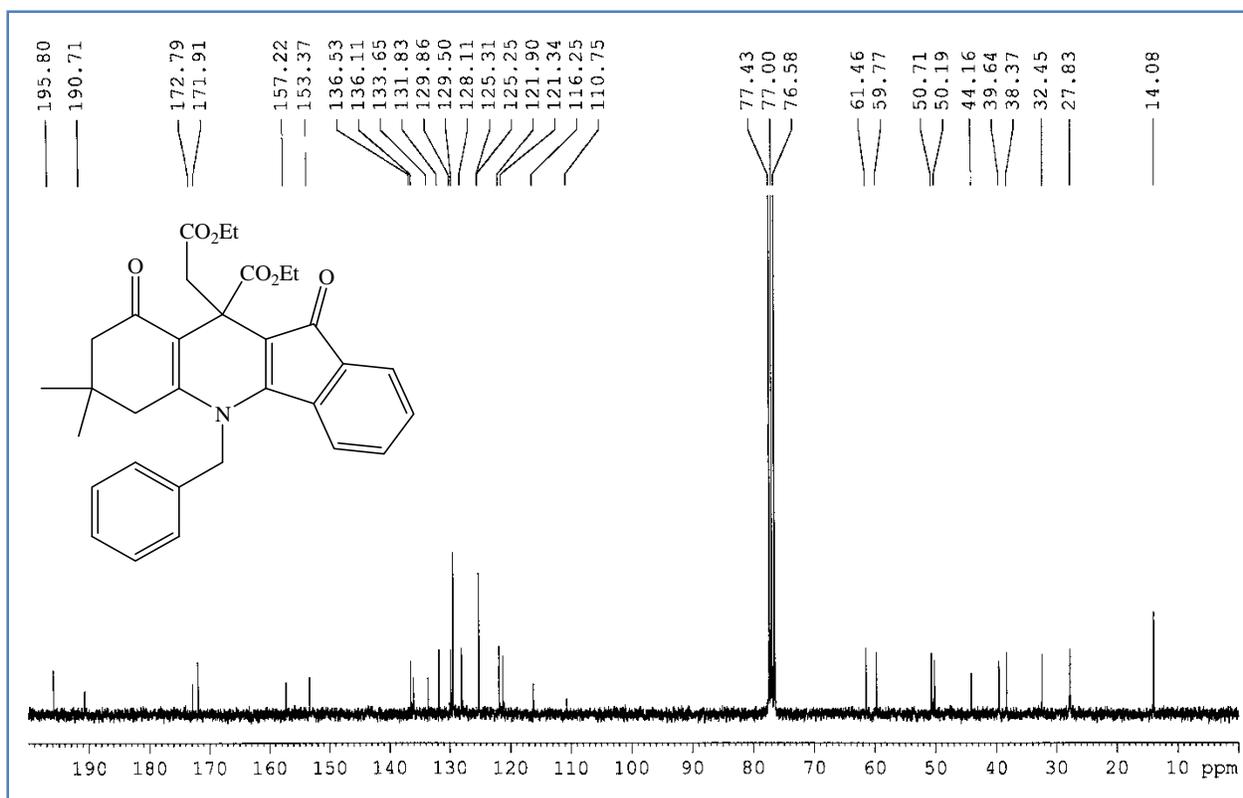
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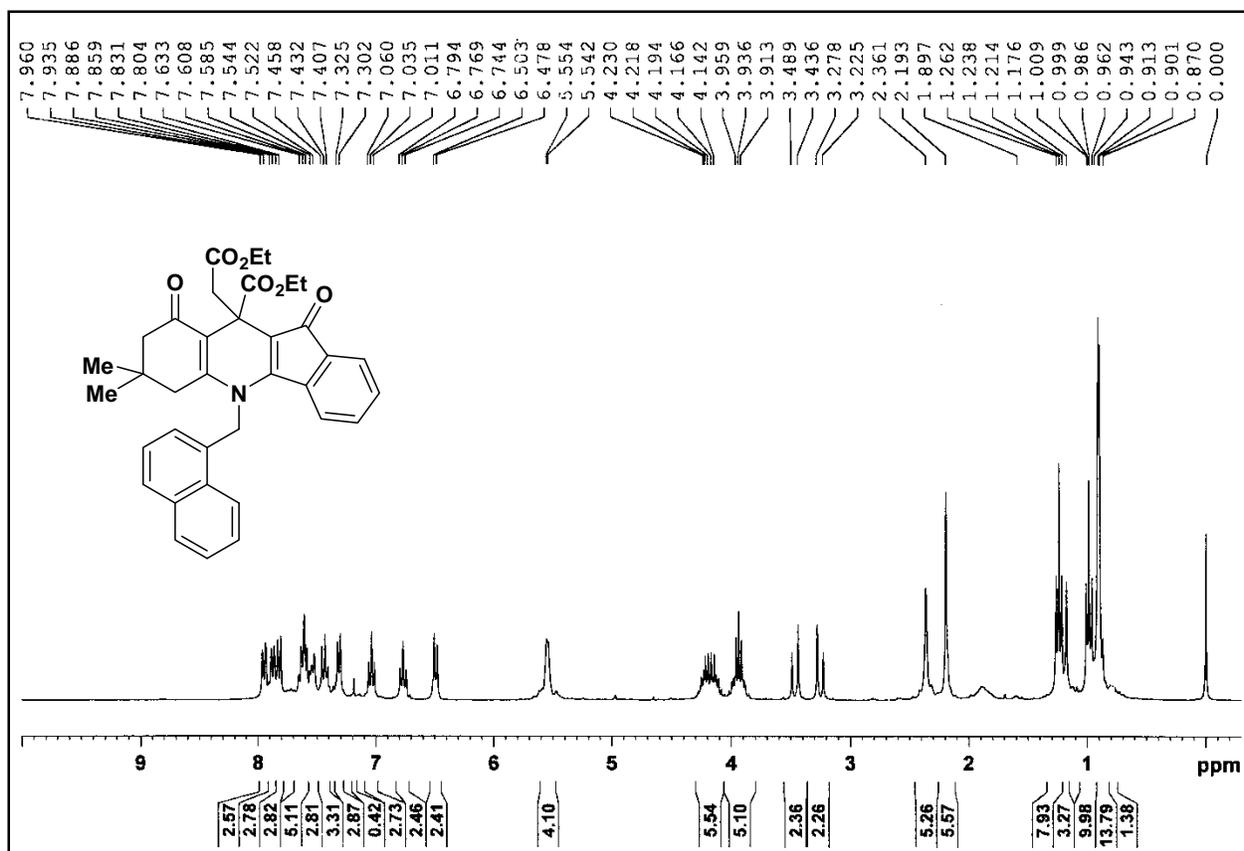
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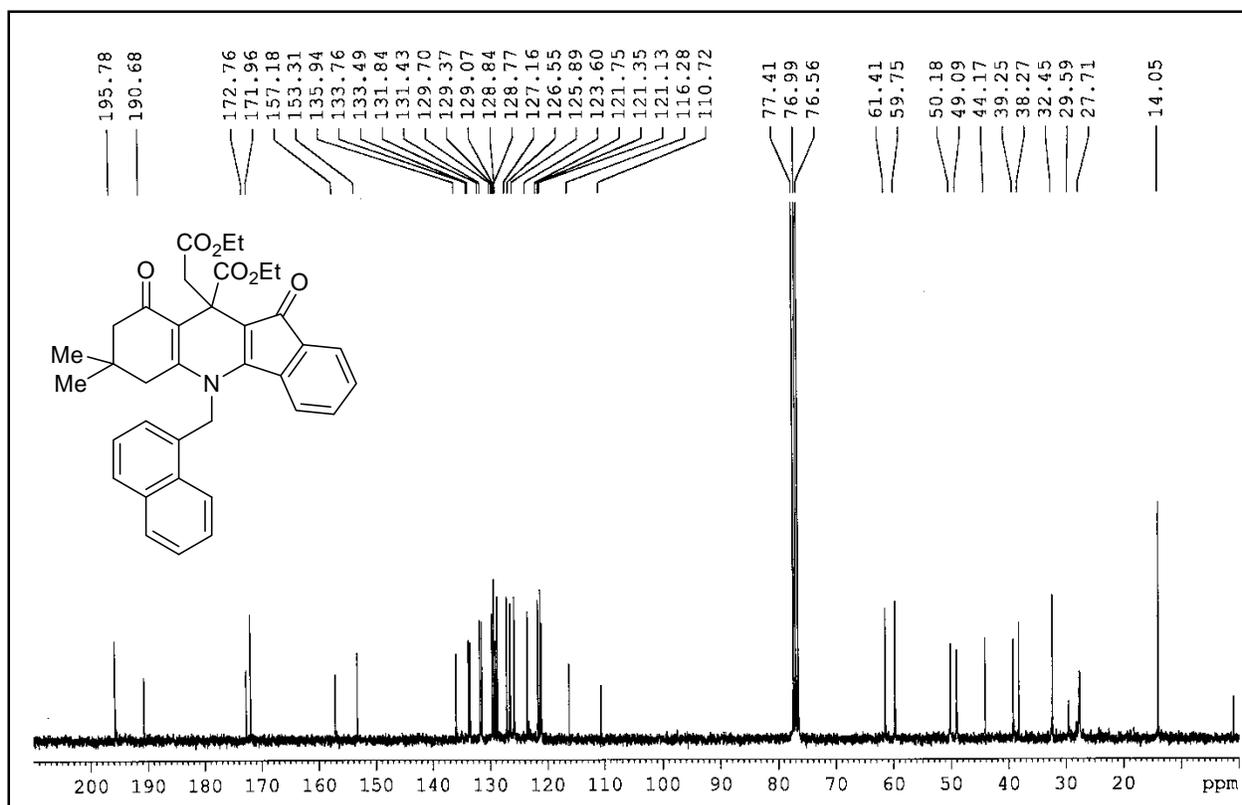
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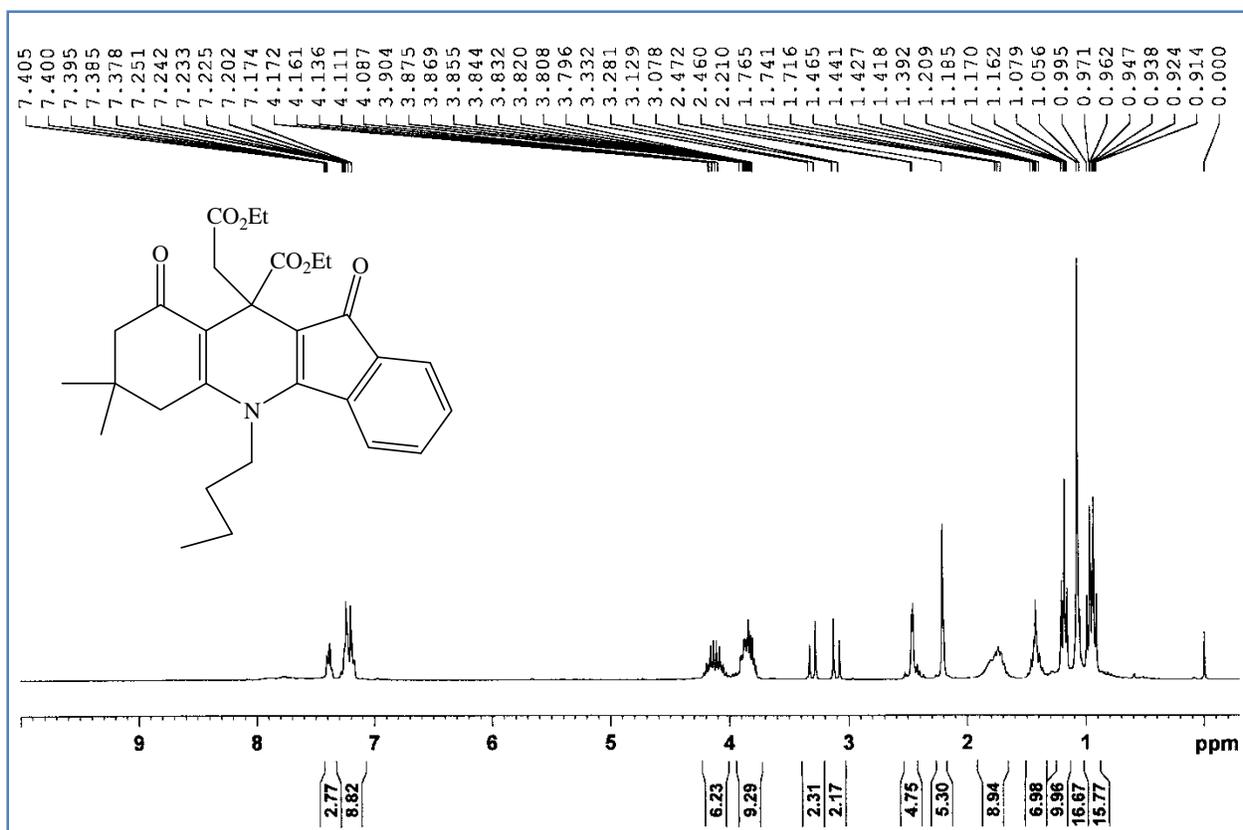
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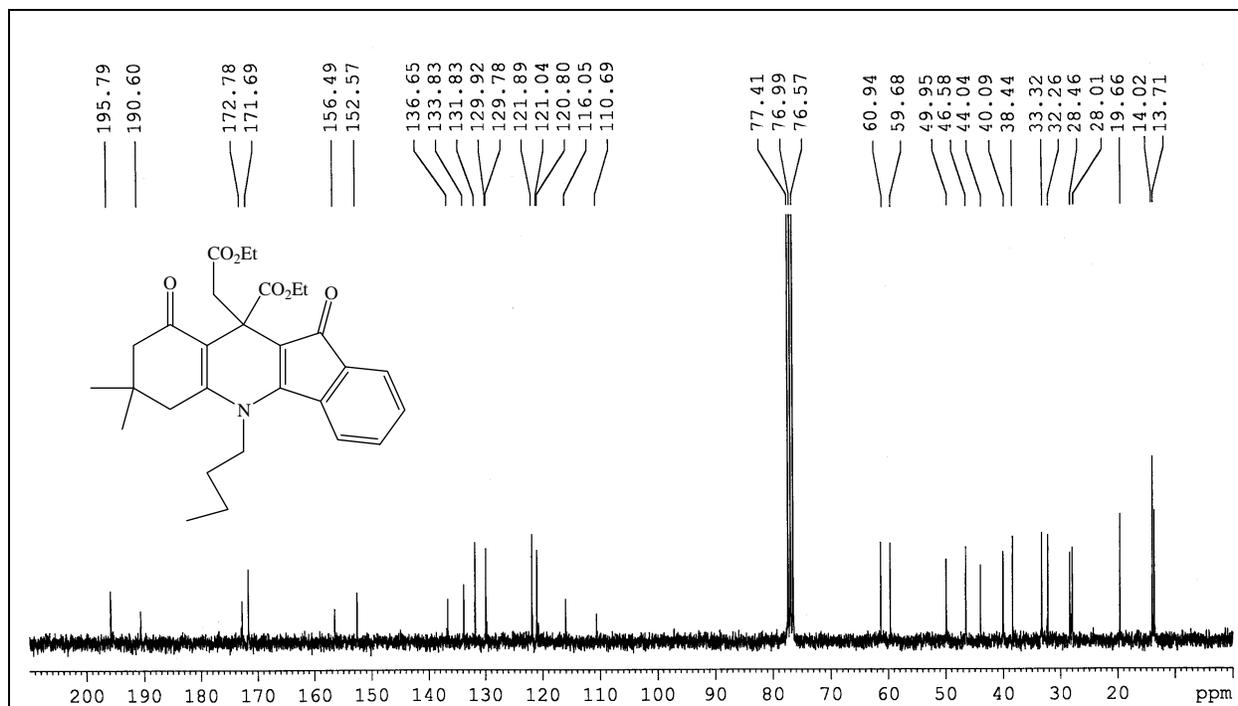
¹H NMR of compound **4W**



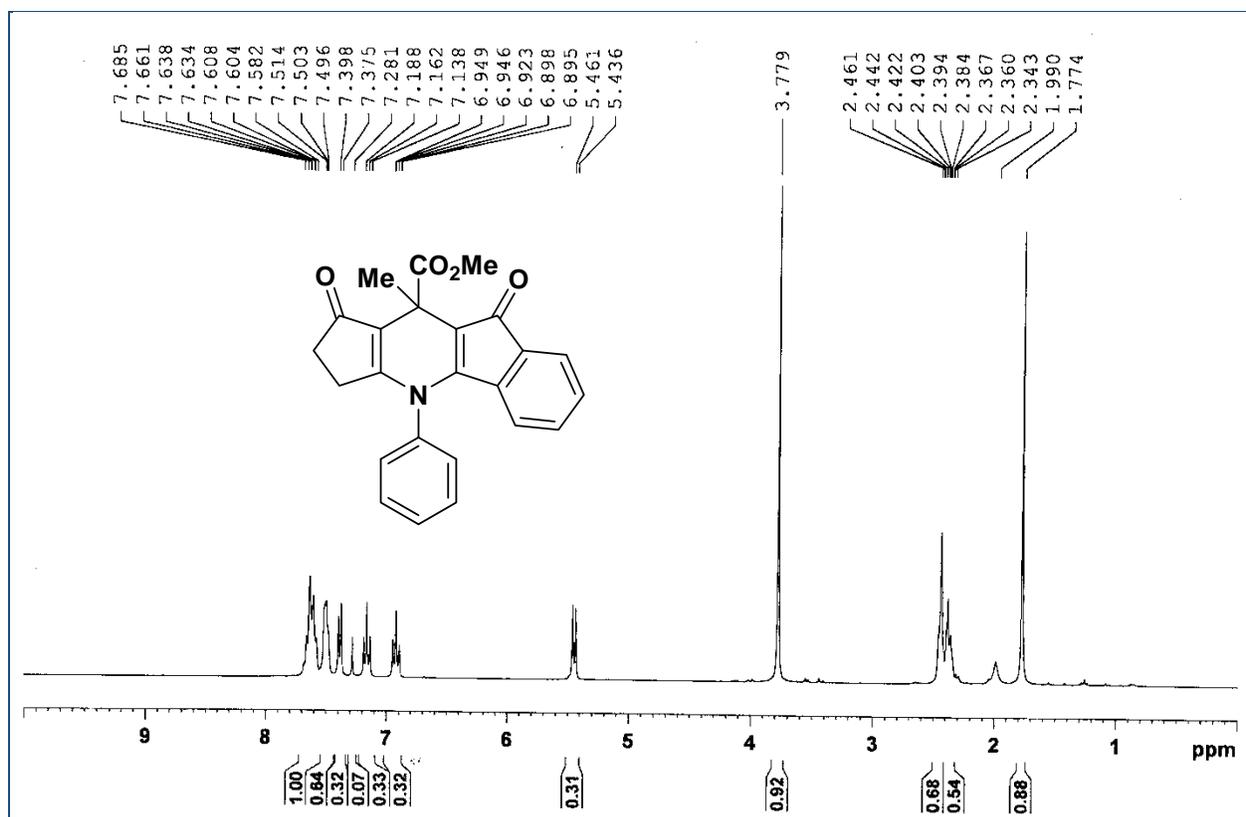
¹³C NMR of compound 4w



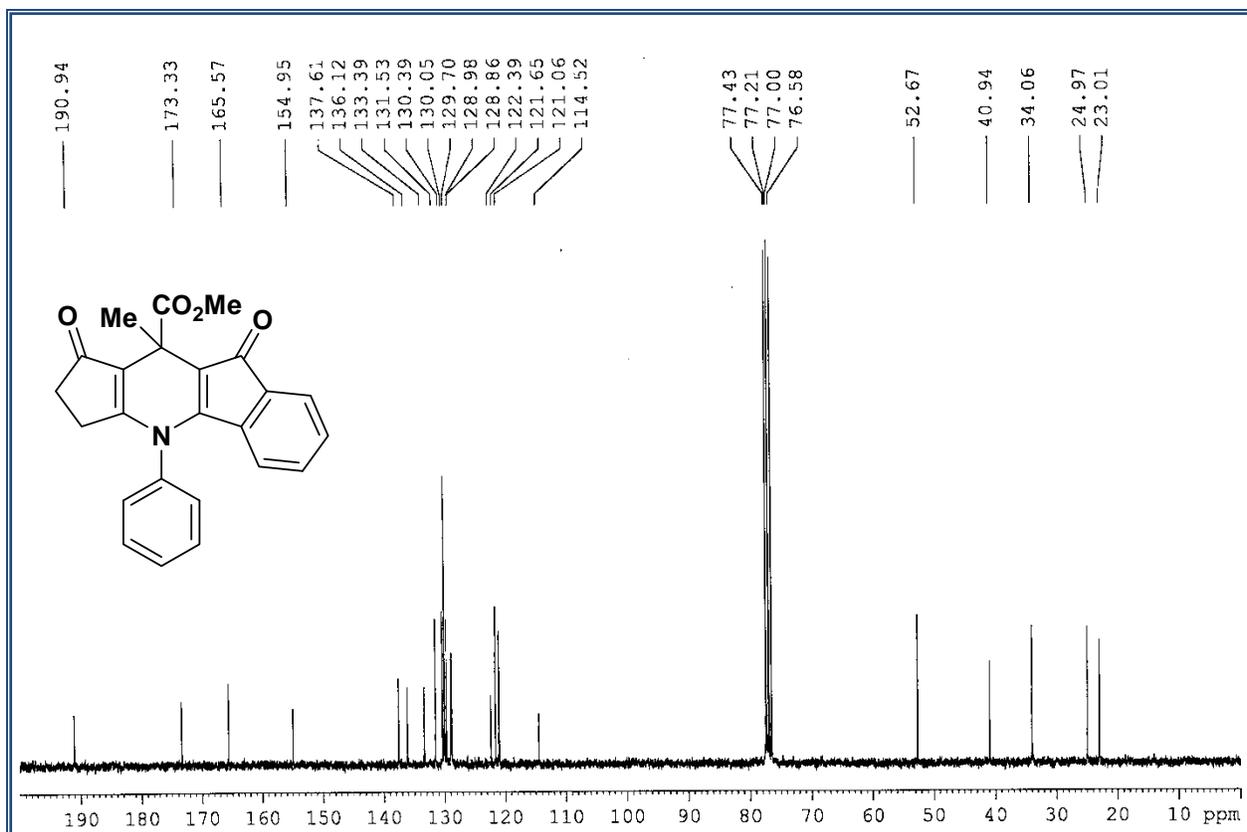
¹H NMR of compound 4x



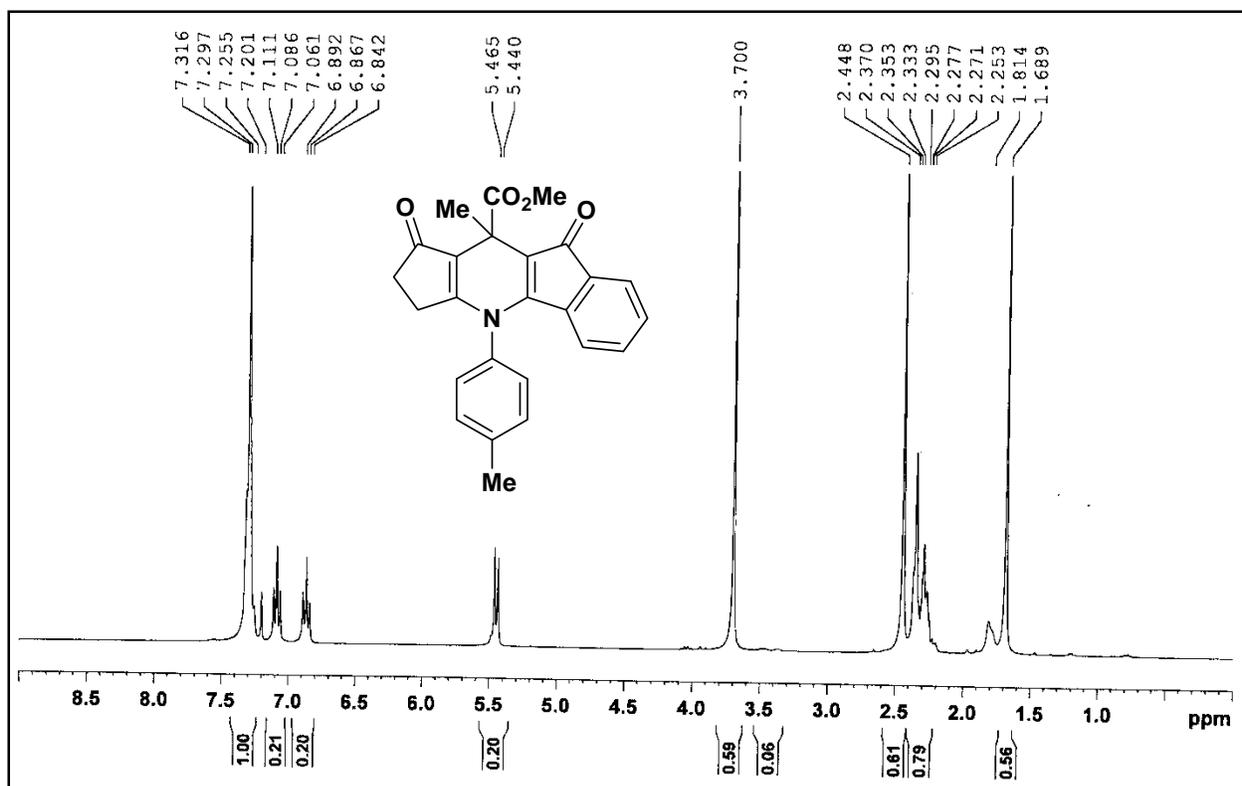
¹³C NMR of compound **4x**



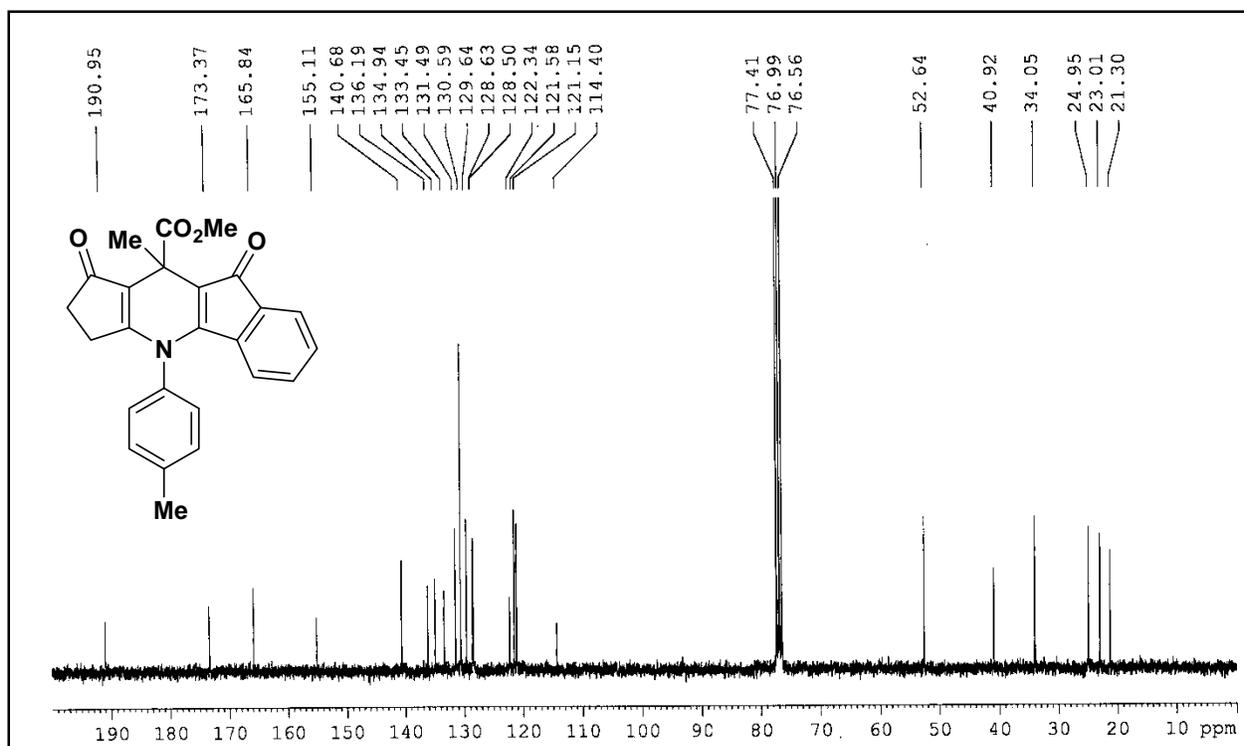
¹H NMR of compound **10a**



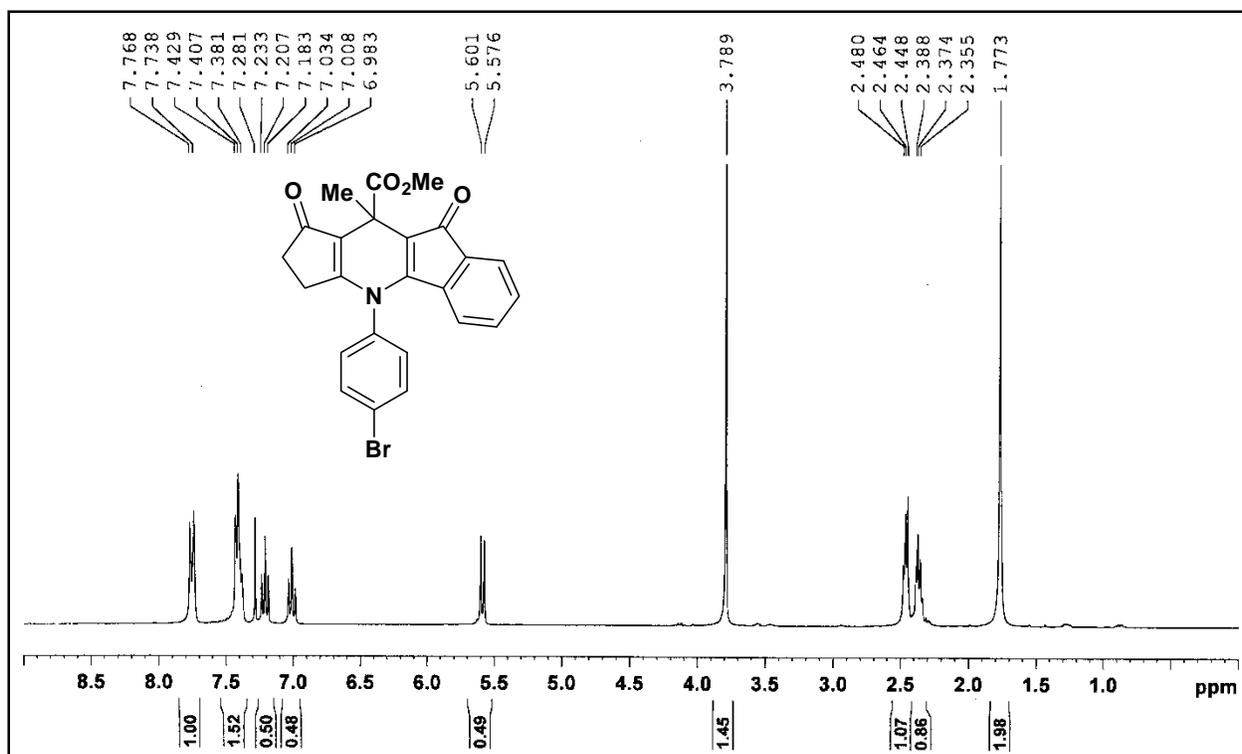
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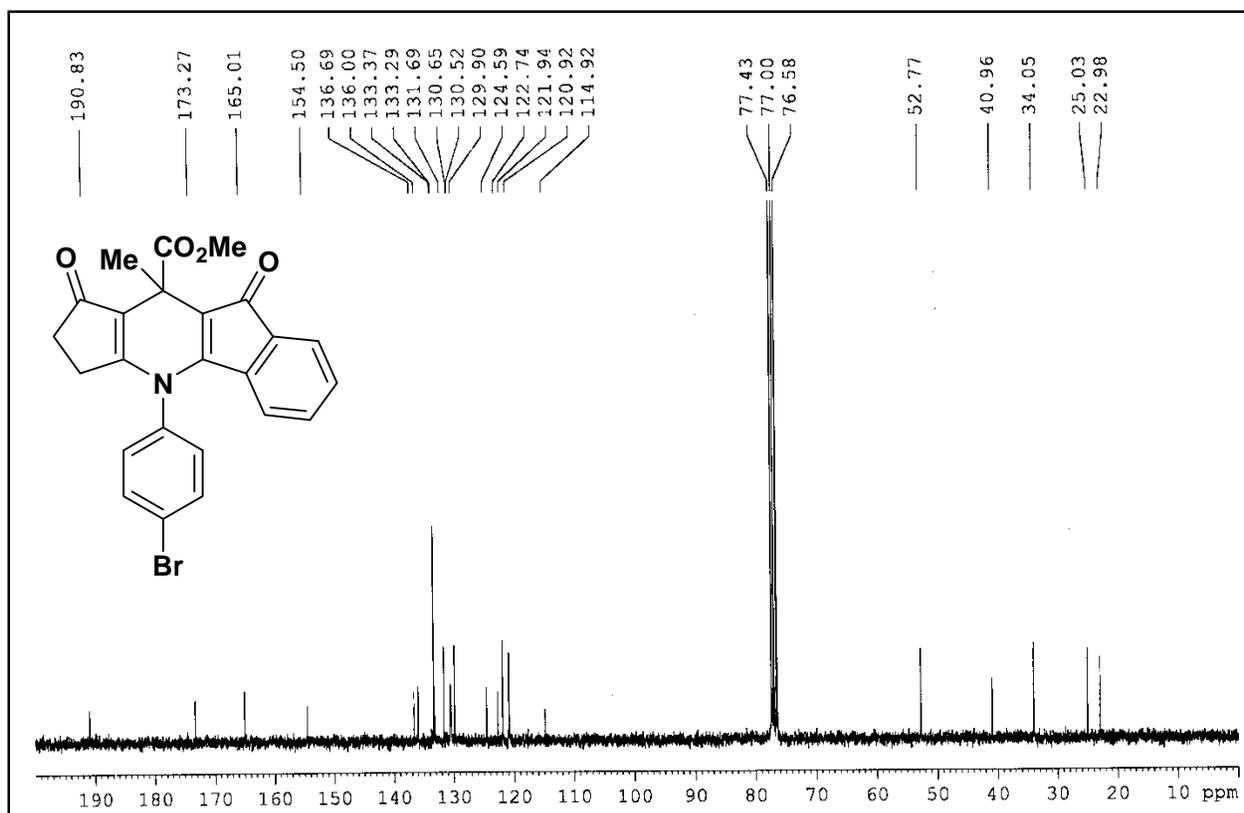
¹H NMR of compound **10b**



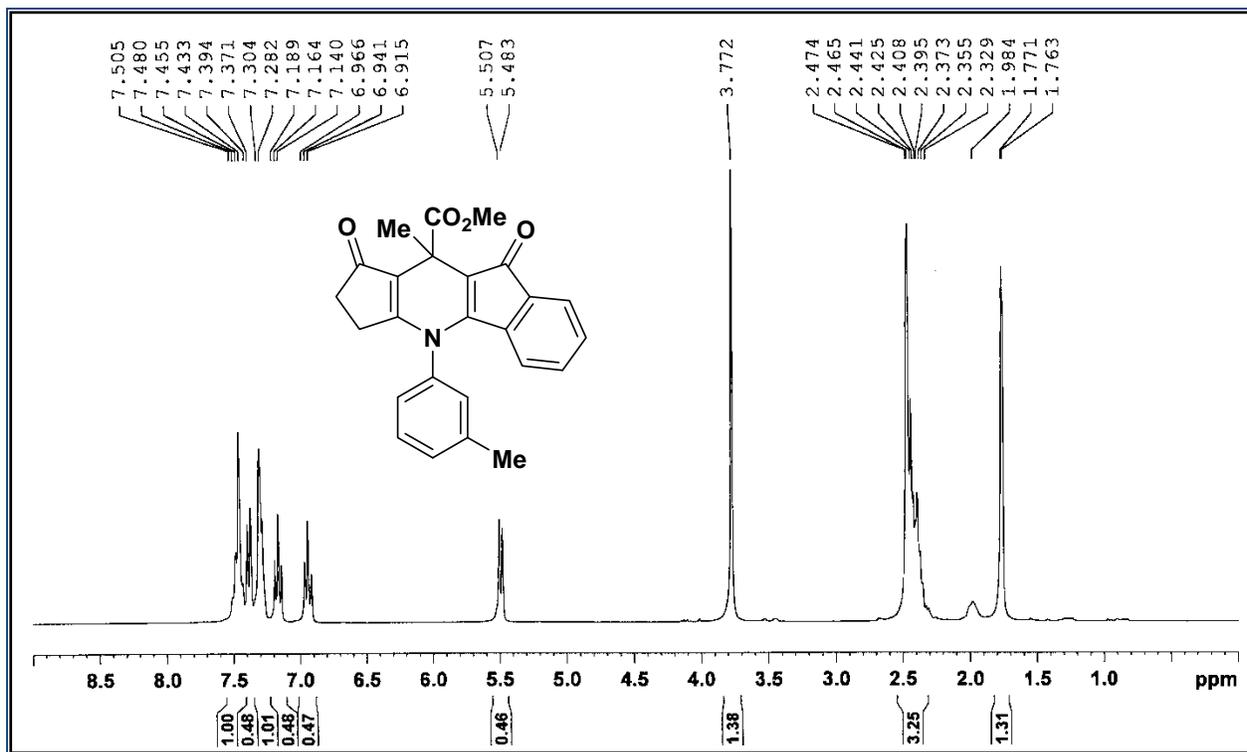
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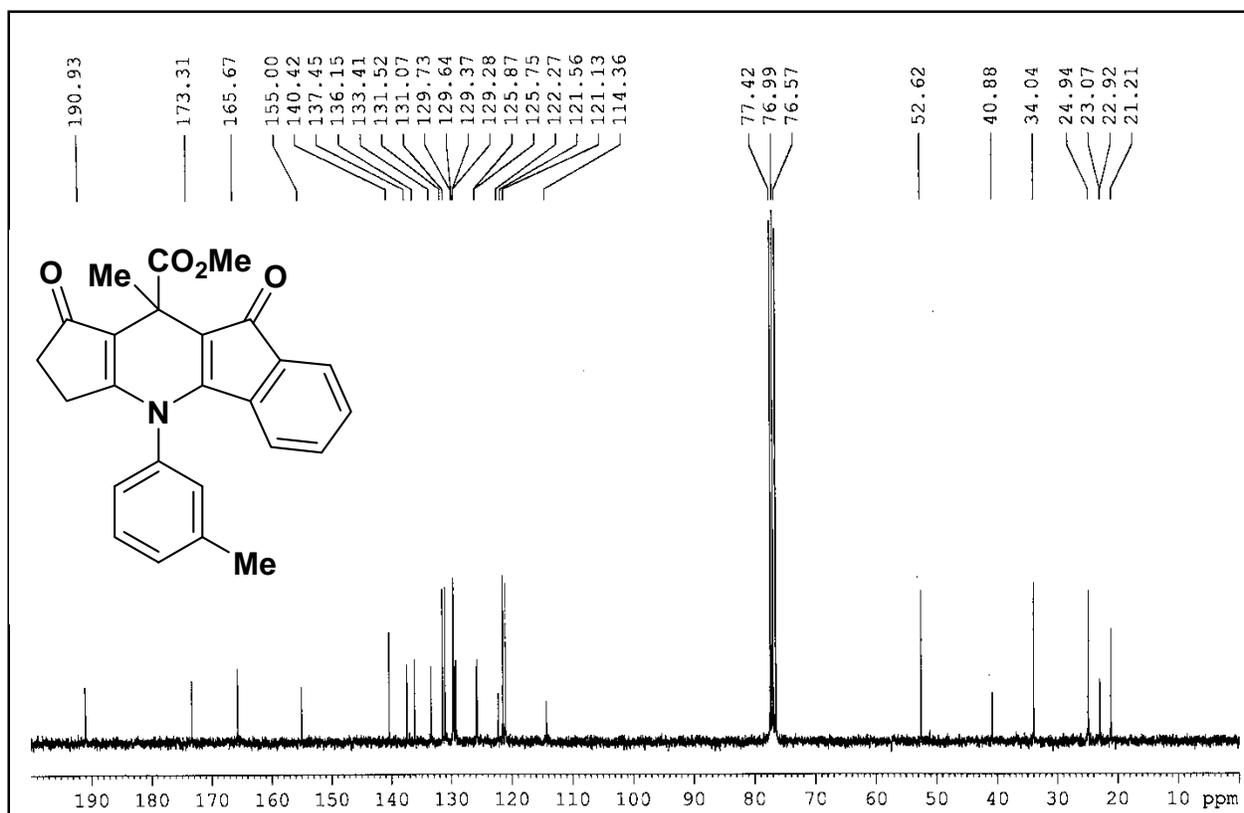
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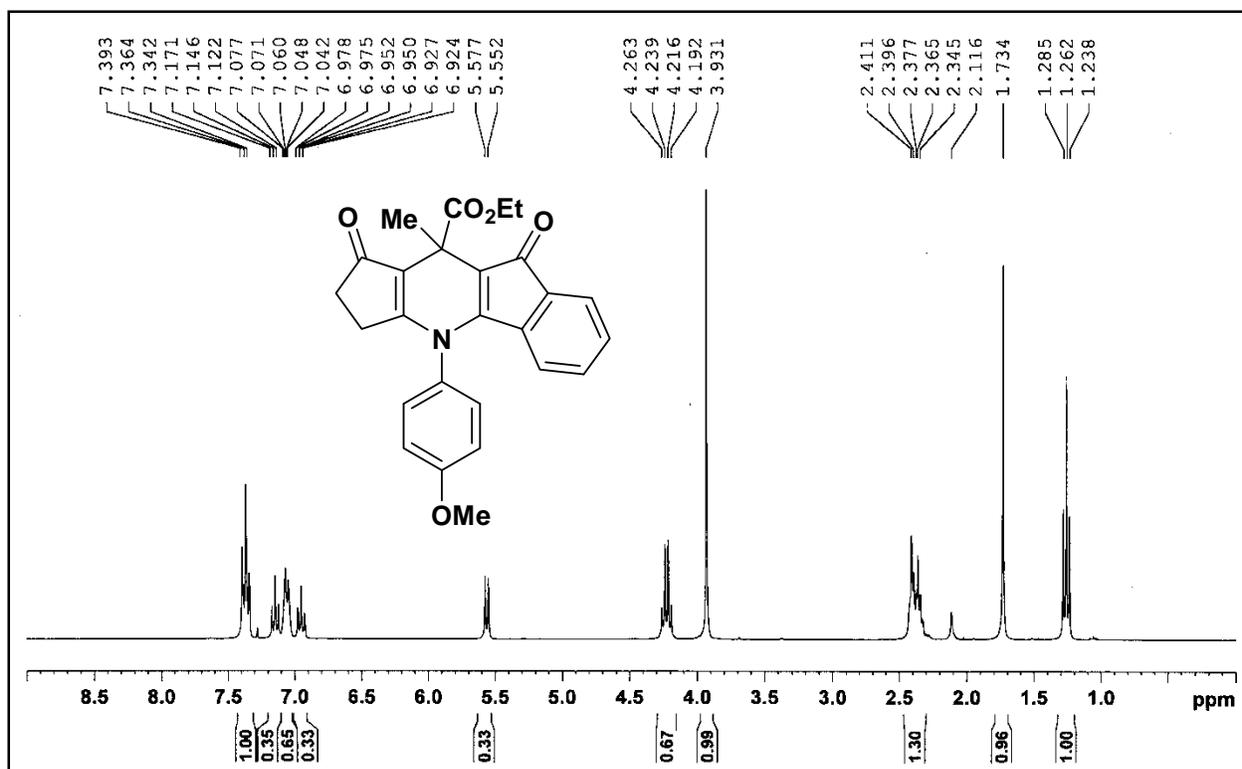
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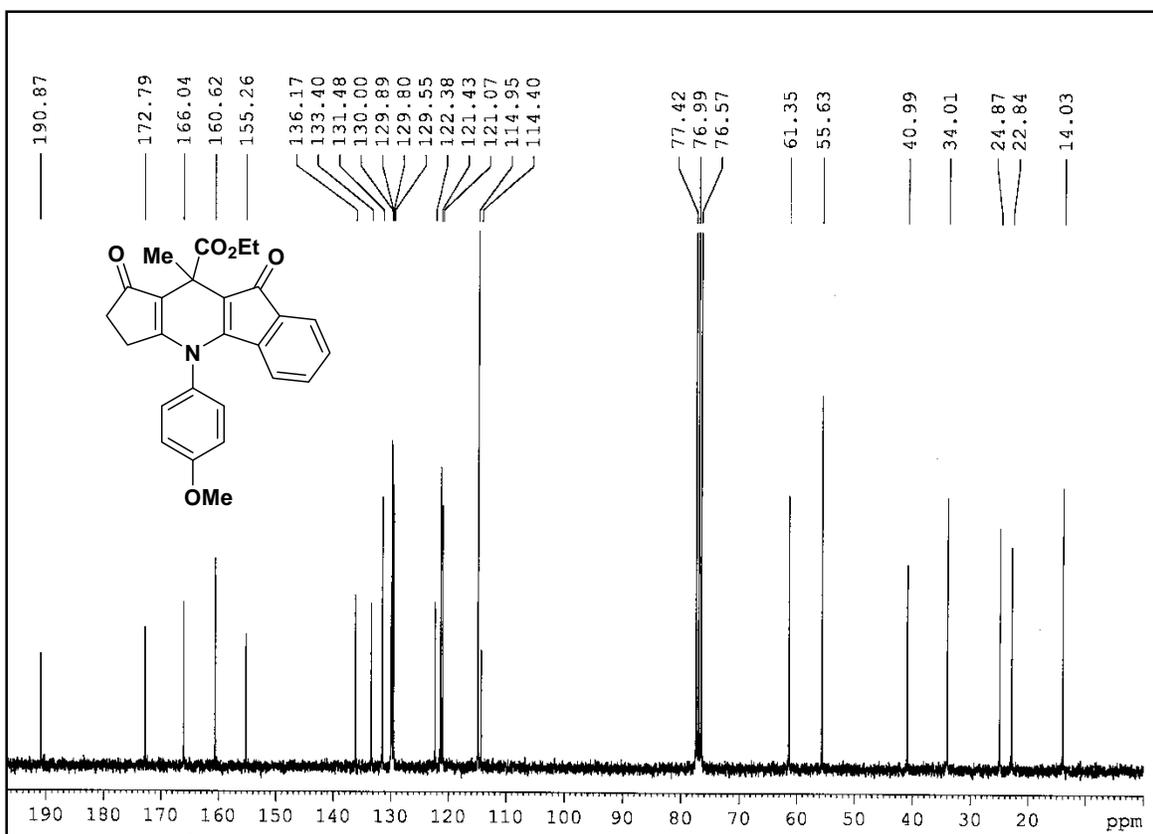
¹H NMR of compound **10d**



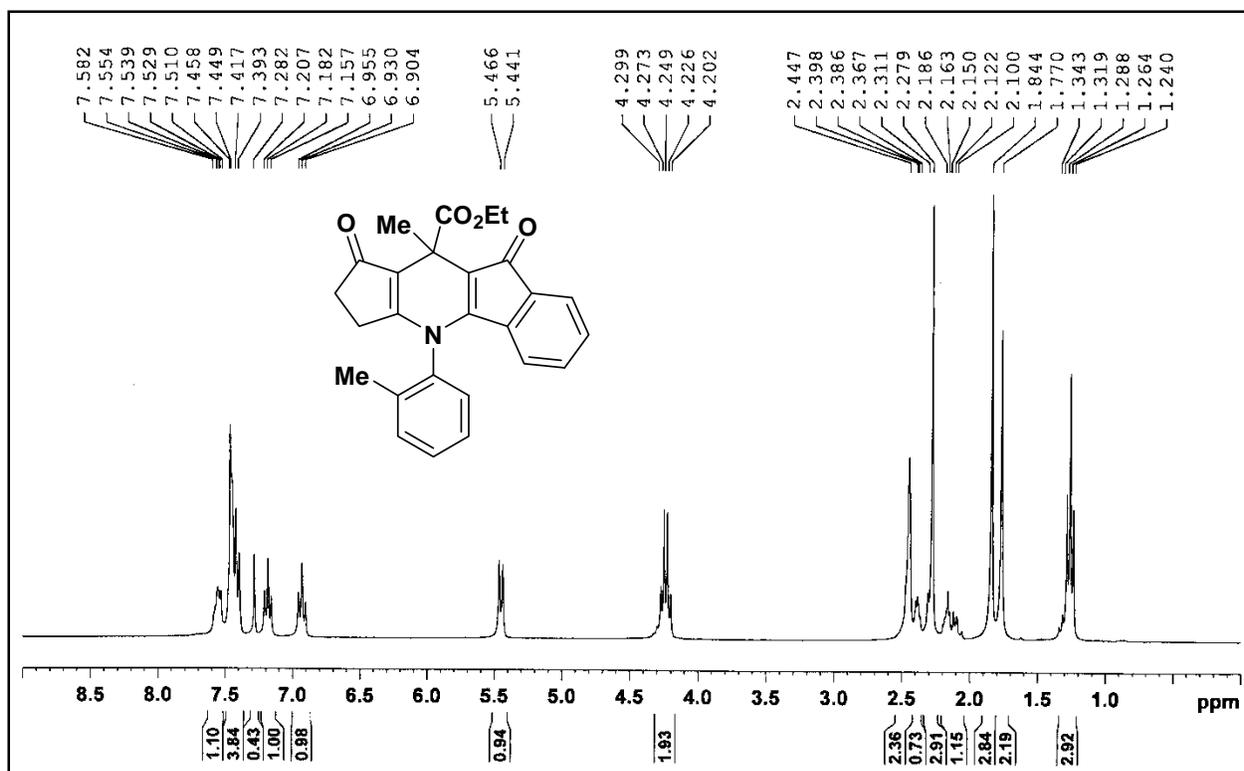
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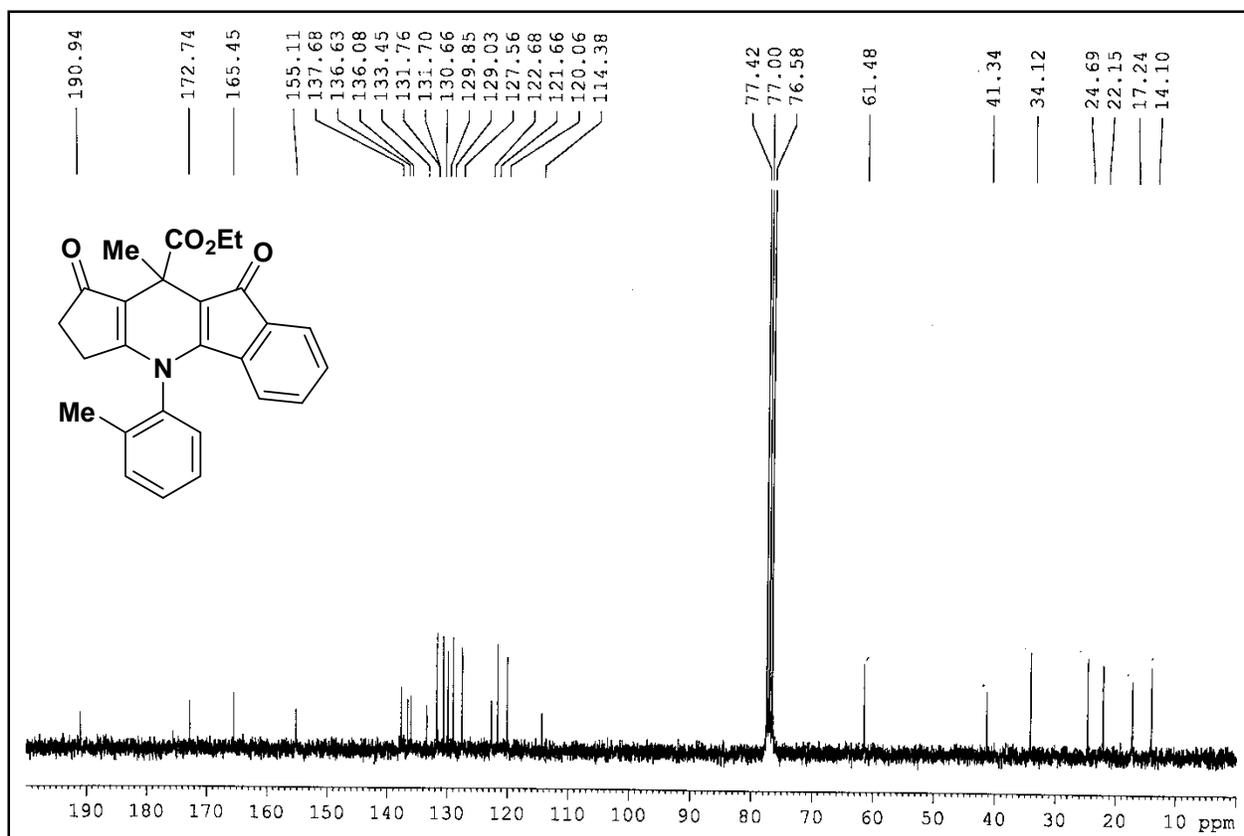
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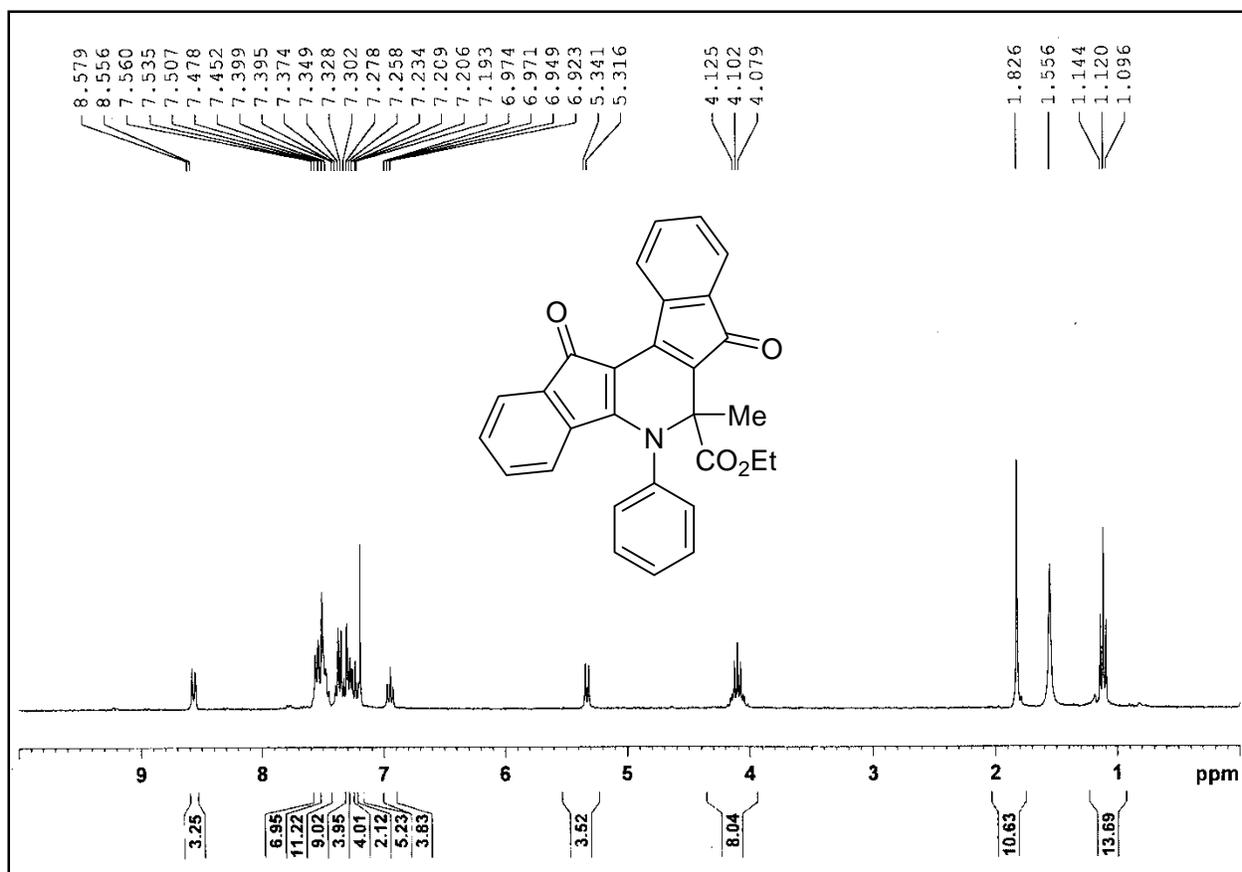
^{13}C NMR of compound **10e**



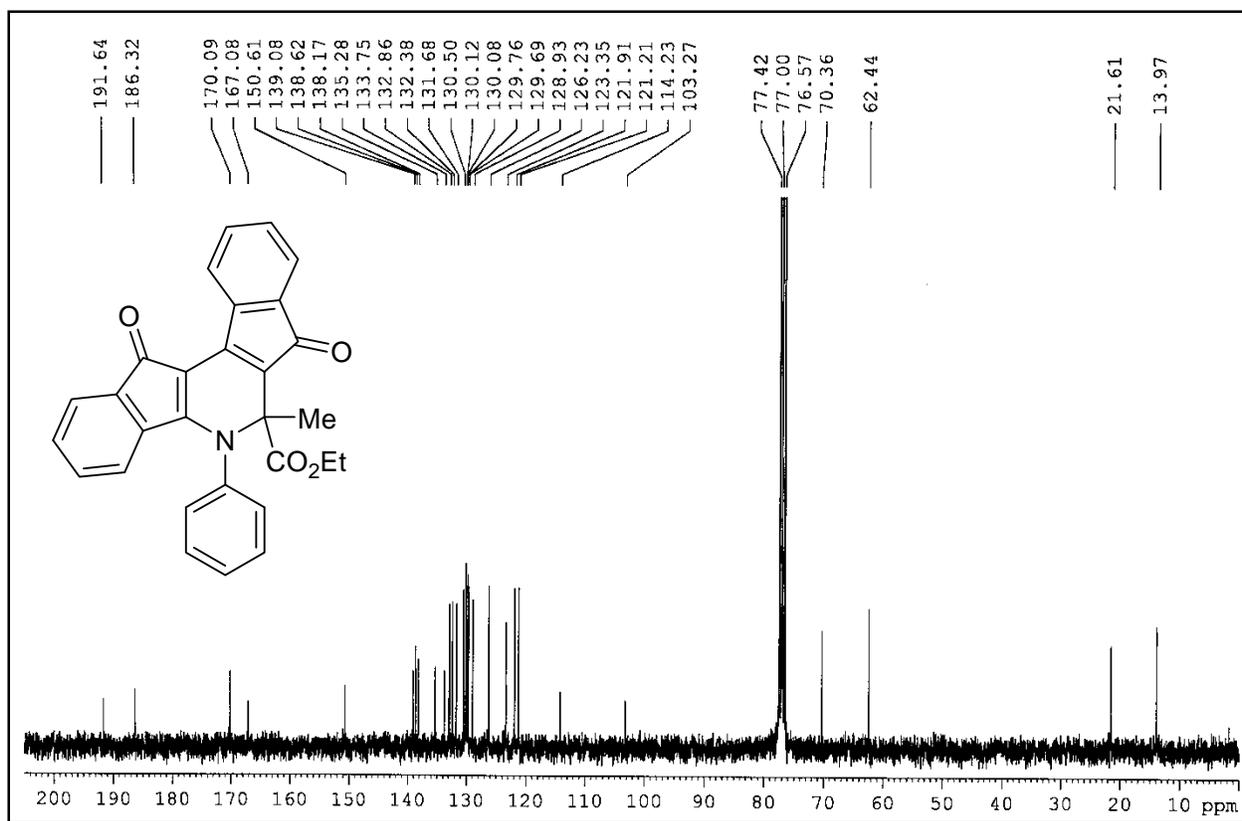
¹H NMR of compound 10f



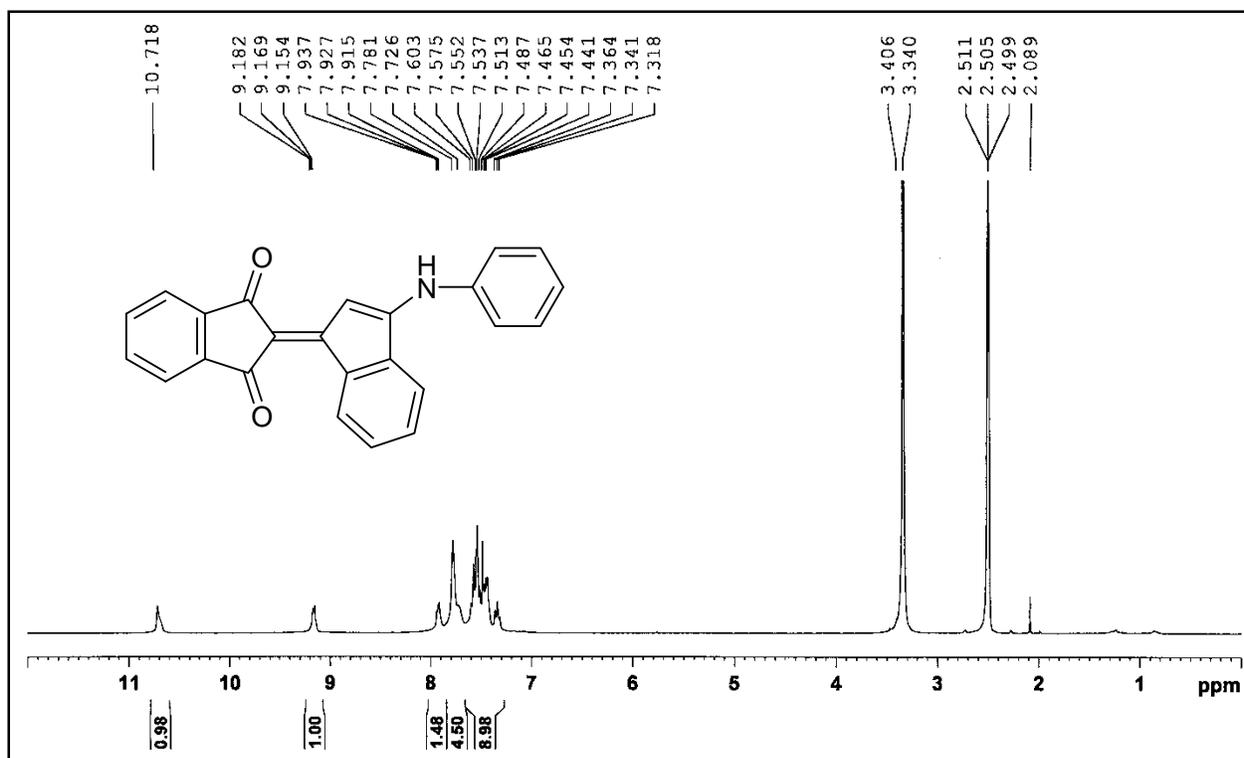
¹³C NMR of compound 10f



^1H NMR of compound 5



¹³C NMR of compound 5



¹H NMR of compound **6**

We are not able to take the ¹³C NMR of the compound (**6**) due to poor solubility in the NMR solvent.

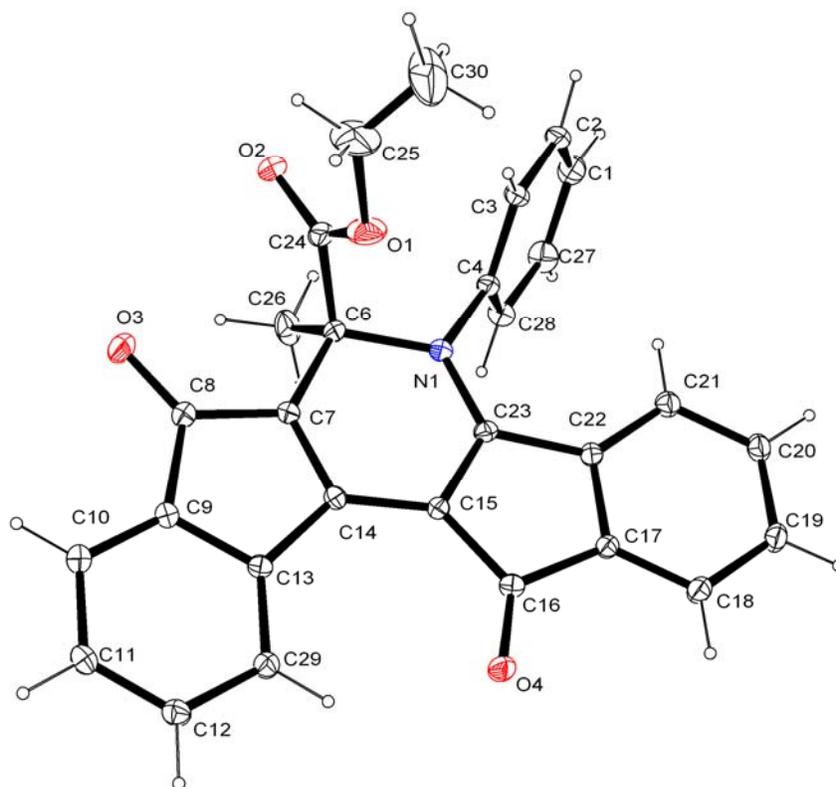


Figure 6: ORTEP plot of a single crystal of the 5,6,7,12-tetrahydro-6-methyl-7,12-dioxo-5-phenylindeno[1,2,3,2-bcd]pyridine-6-carboxylate (**5**) (CCDC 905877) showing the crystallographic numbering.