

Supplementary Material

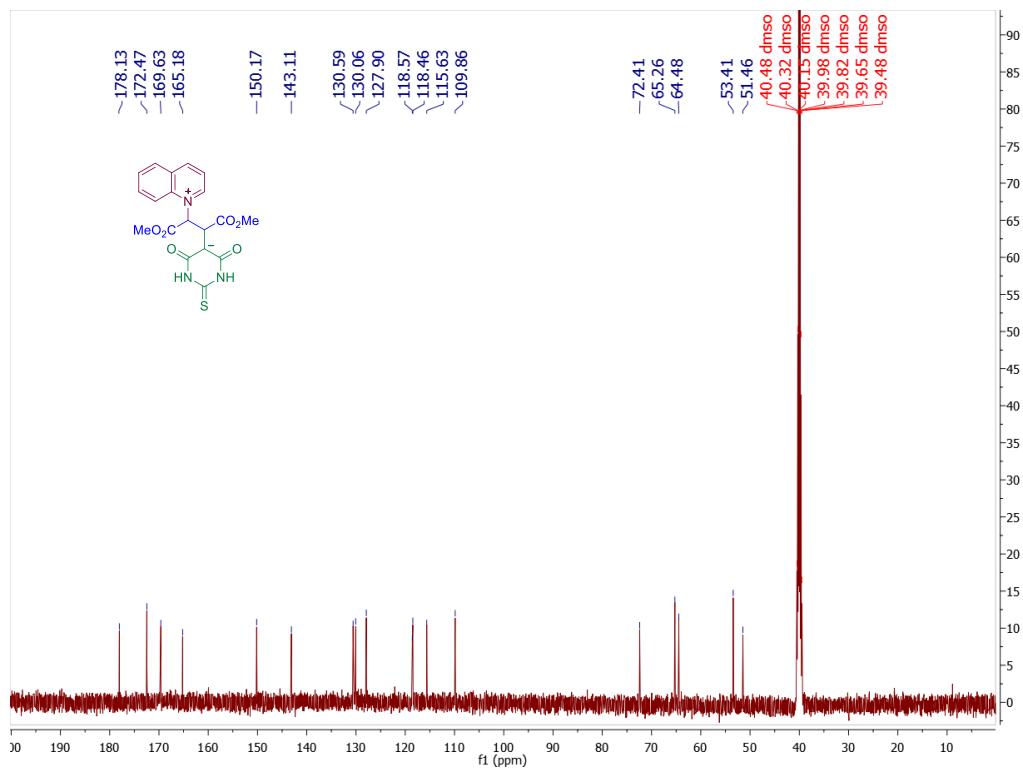
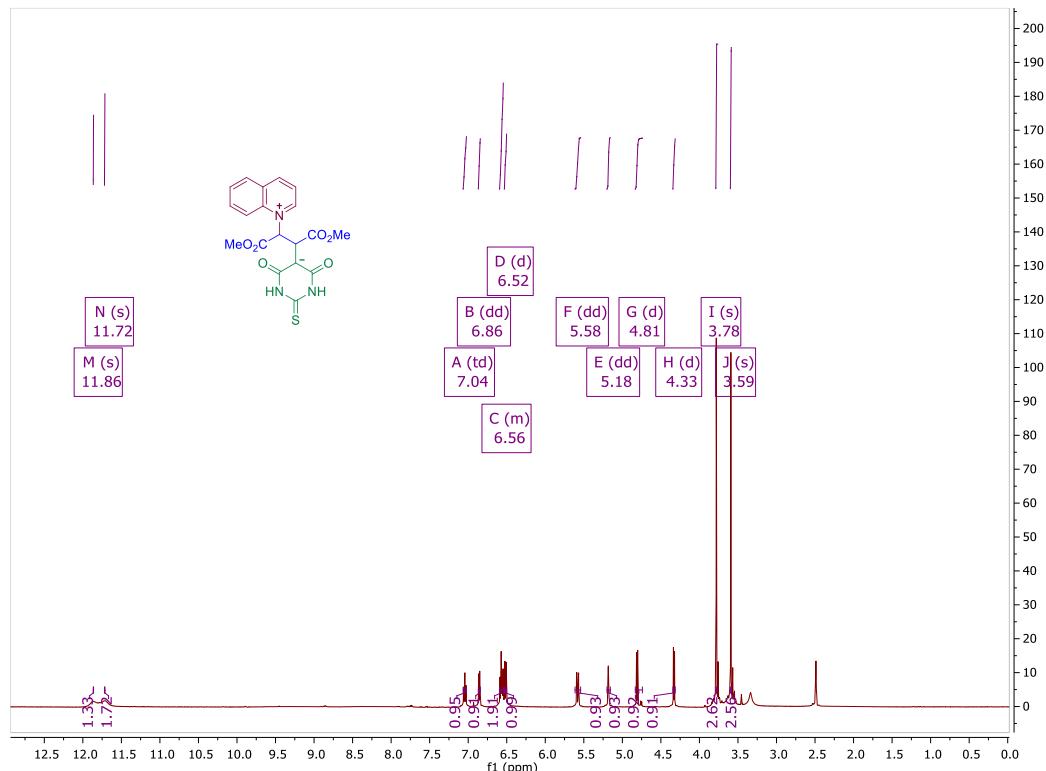
Formation of zwitterionic salts via via three-component reactions of barbituric/thiobarbituric acid, N-heterocyclic compounds and dialkyl acetylenedicarboxylates

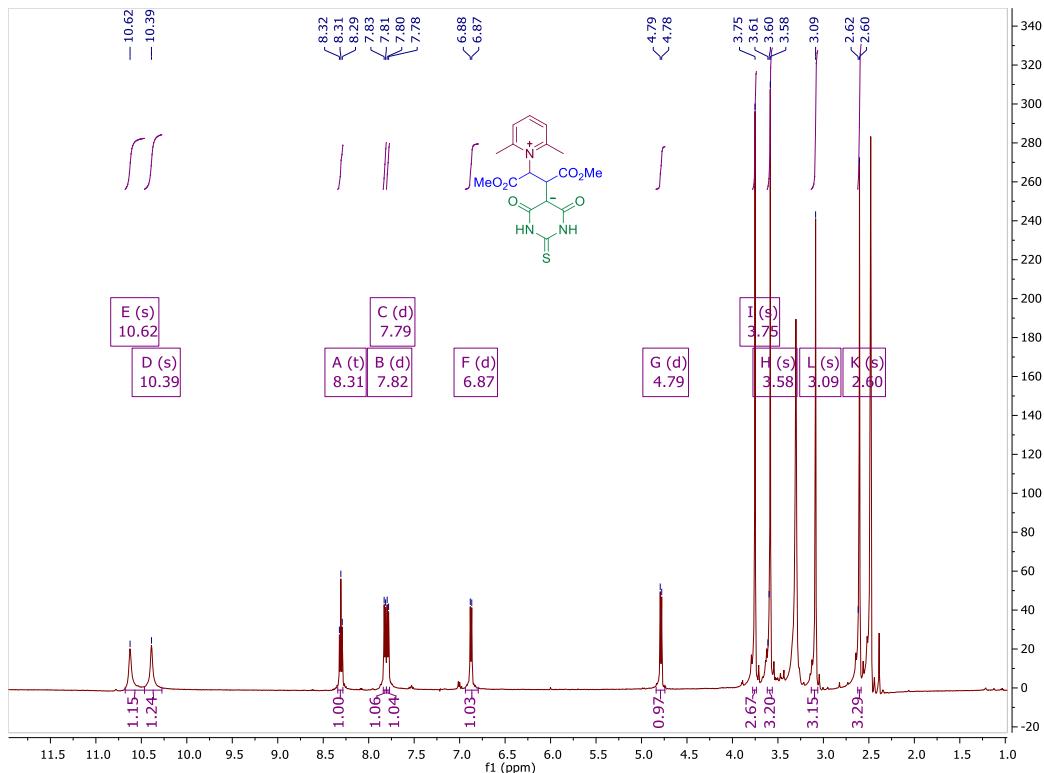
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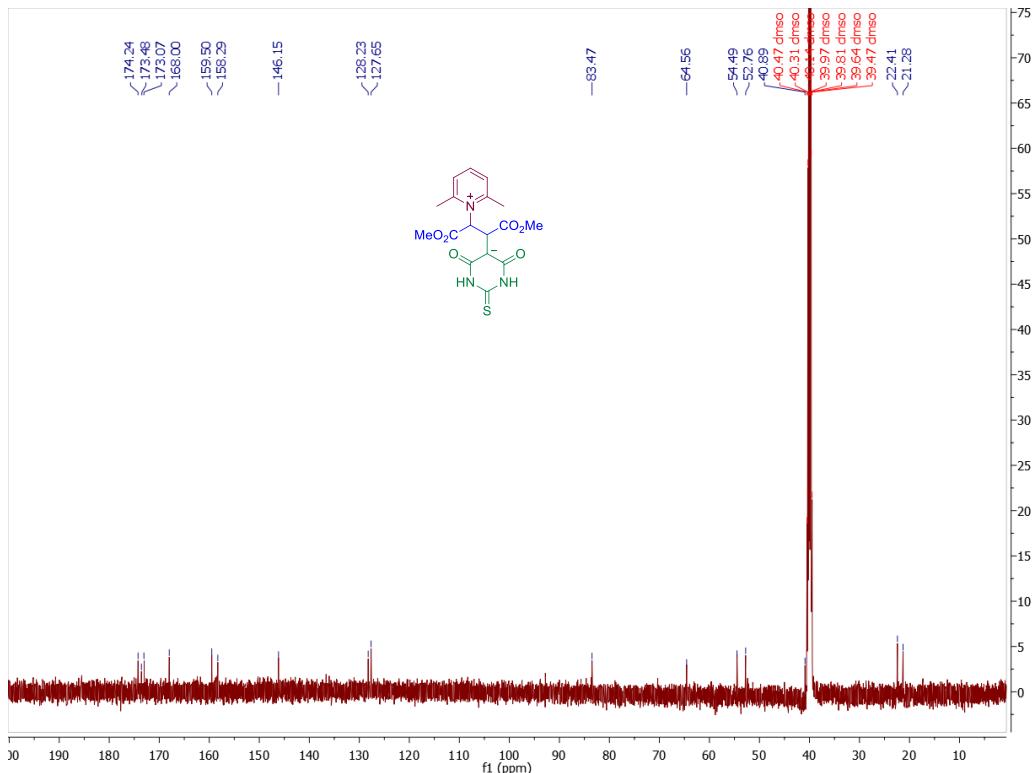
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1. ¹ H NMR and ¹³ C NMR spectra for compounds 4a-l	S2
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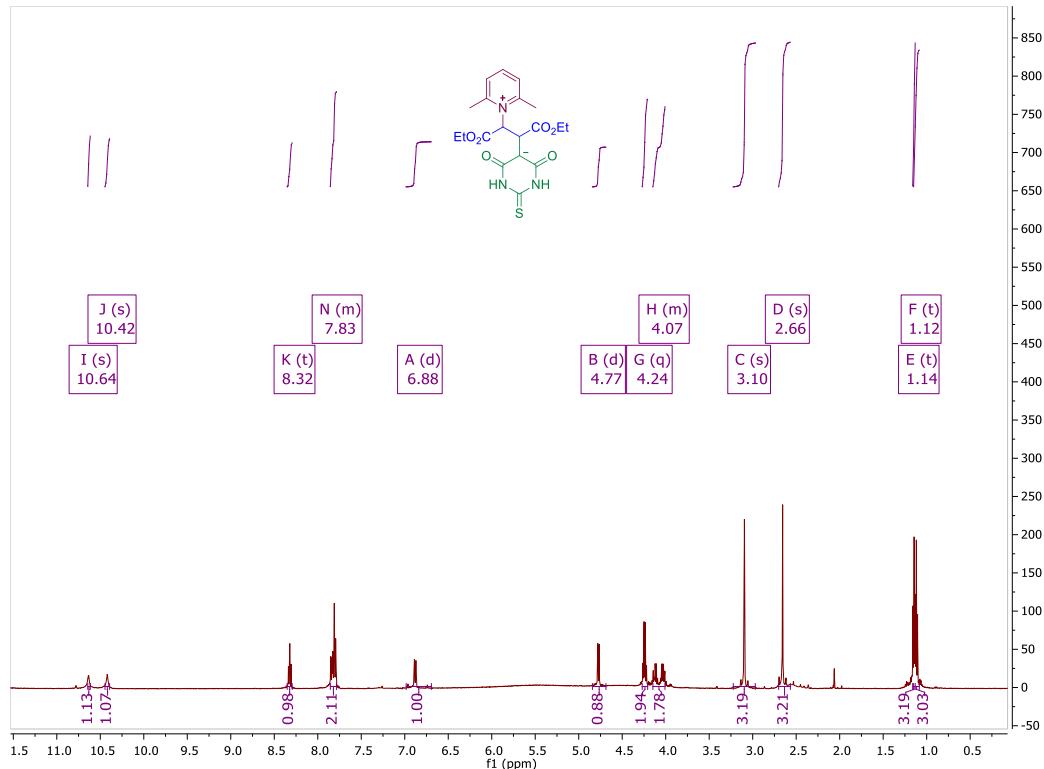




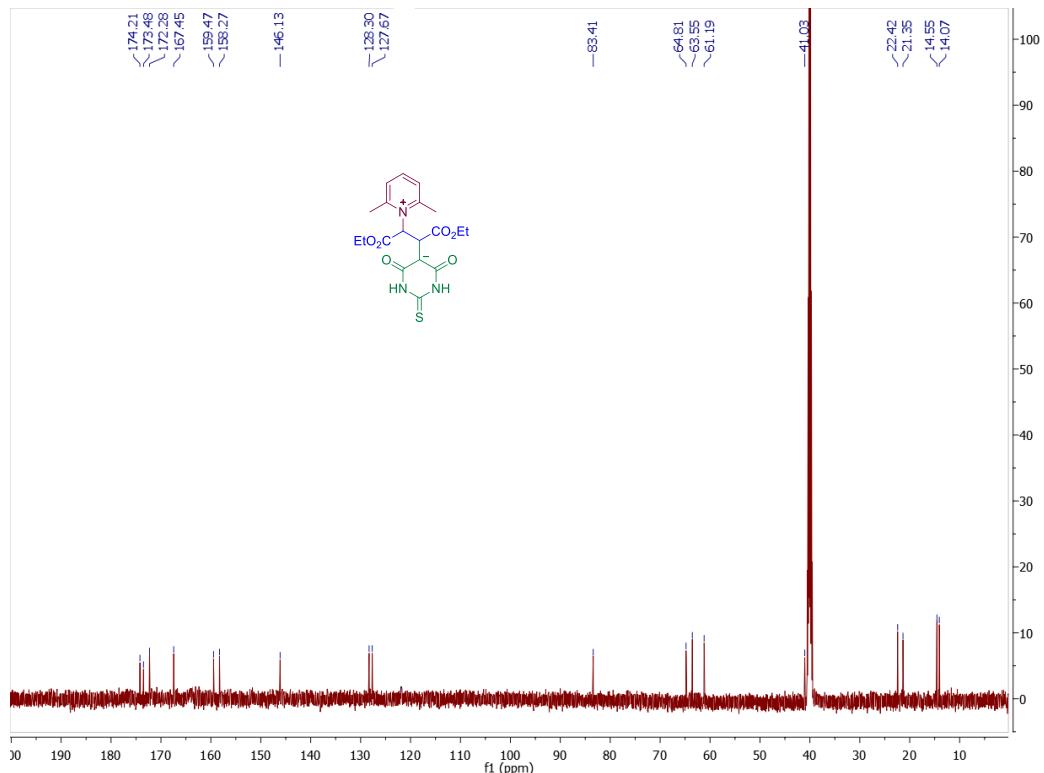
¹H NMR Spectrum (500 MHz, DMSO- d₆) of compound (4b):



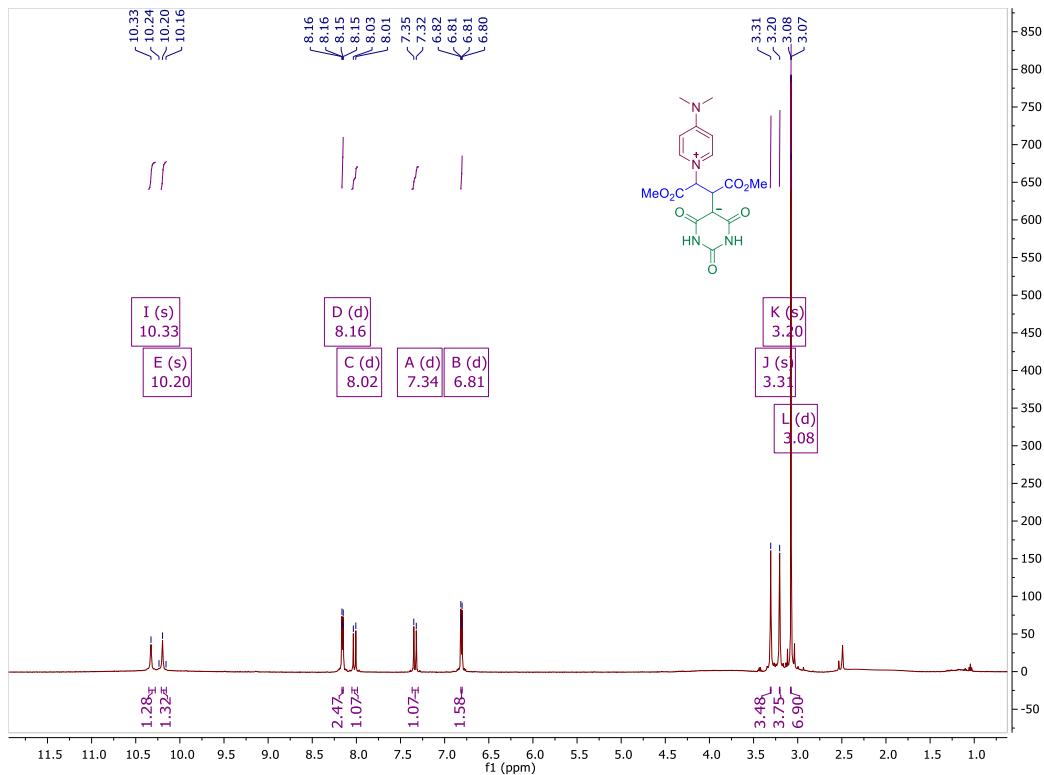
¹³C NMR (125 MHz, DMSO- d₆) spectrum of compound(4b):



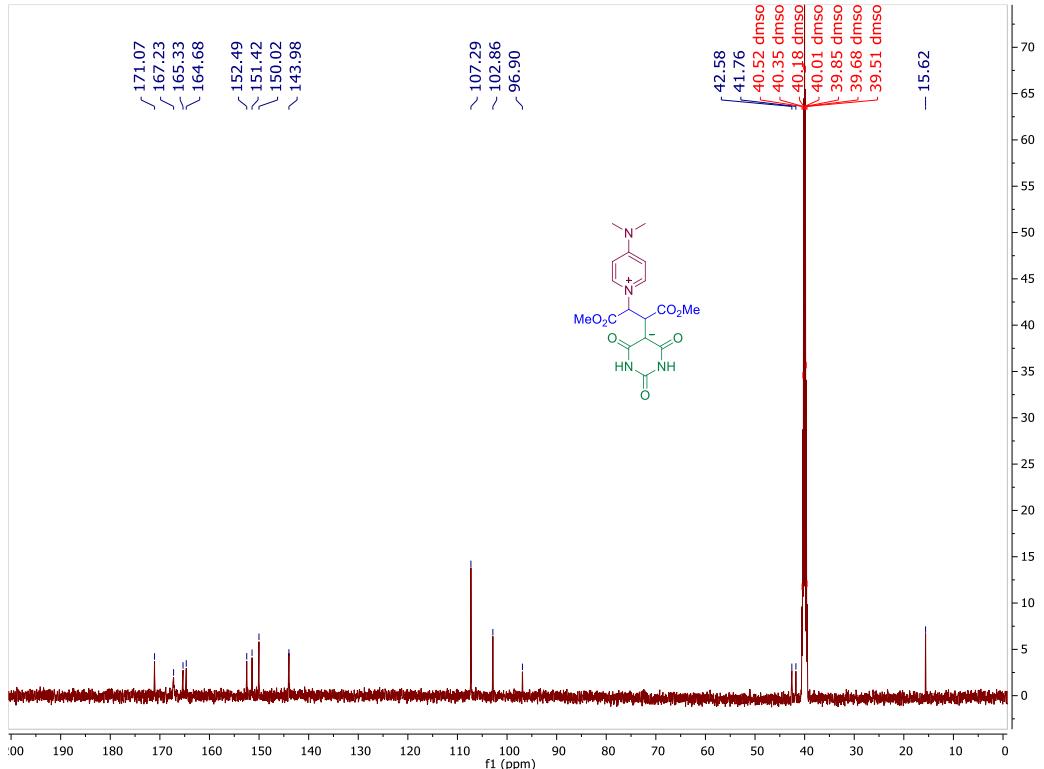
¹H NMR Spectrum (500 MHz, DMSO- d₆) of compound (4c):



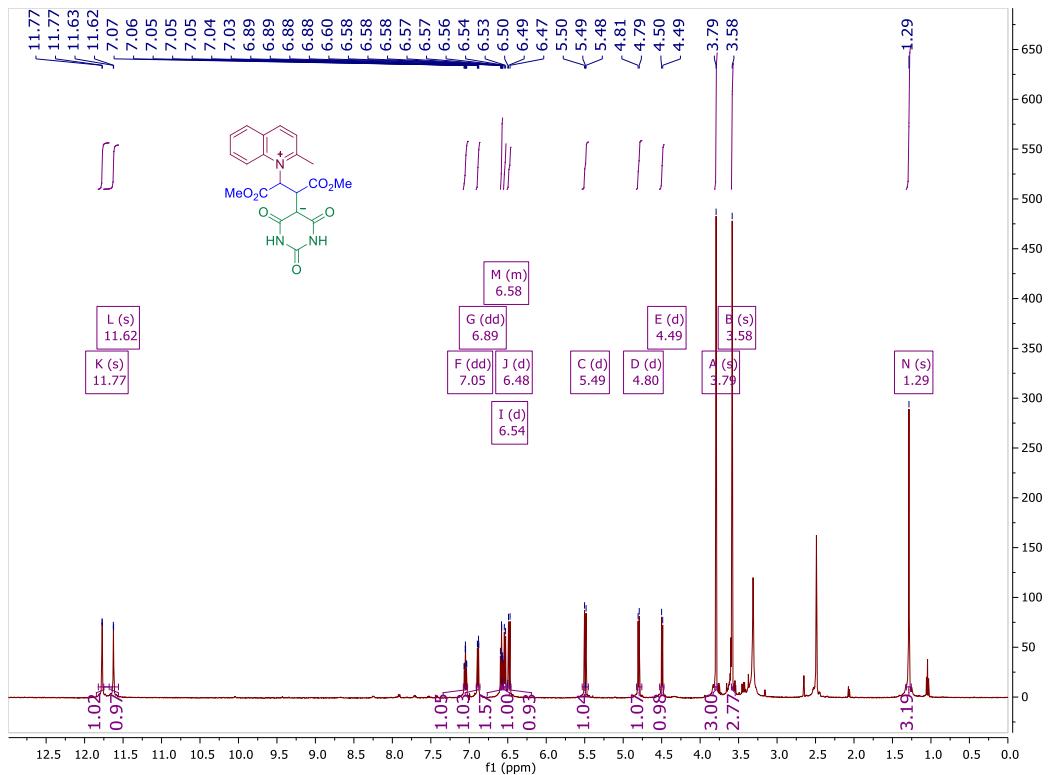
¹³C NMR (125 MHz, DMSO- d₆) spectrum of compound(4c):



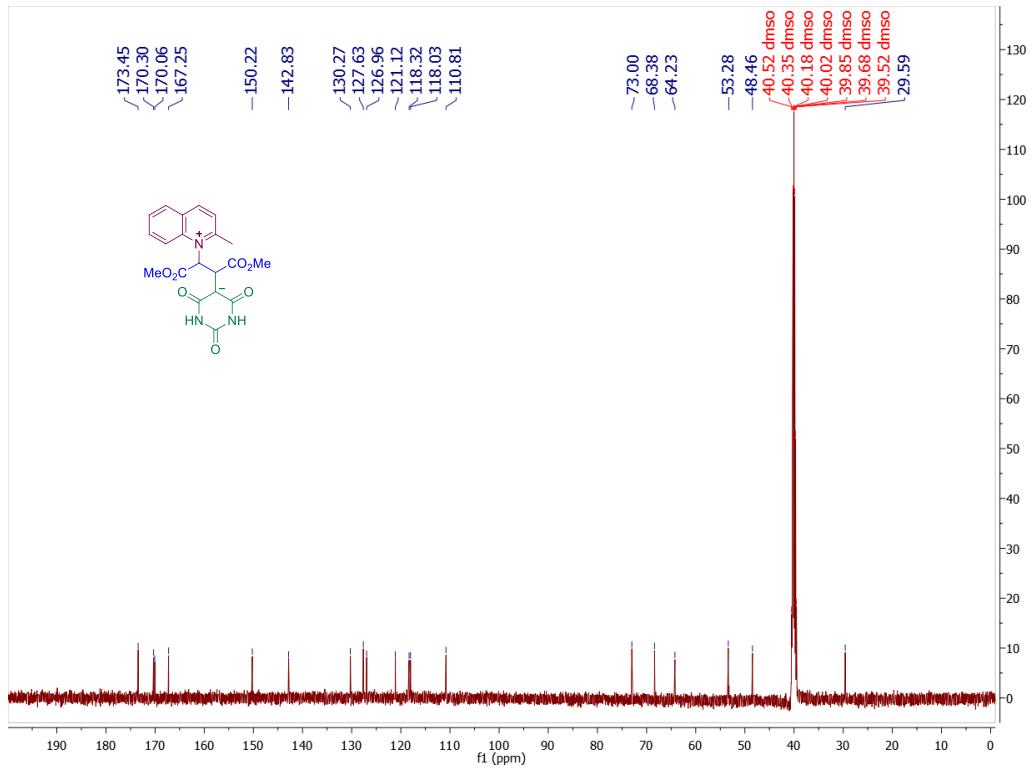
¹H NMR Spectrum (500 MHz, DMSO- d₆) of compound (4d):



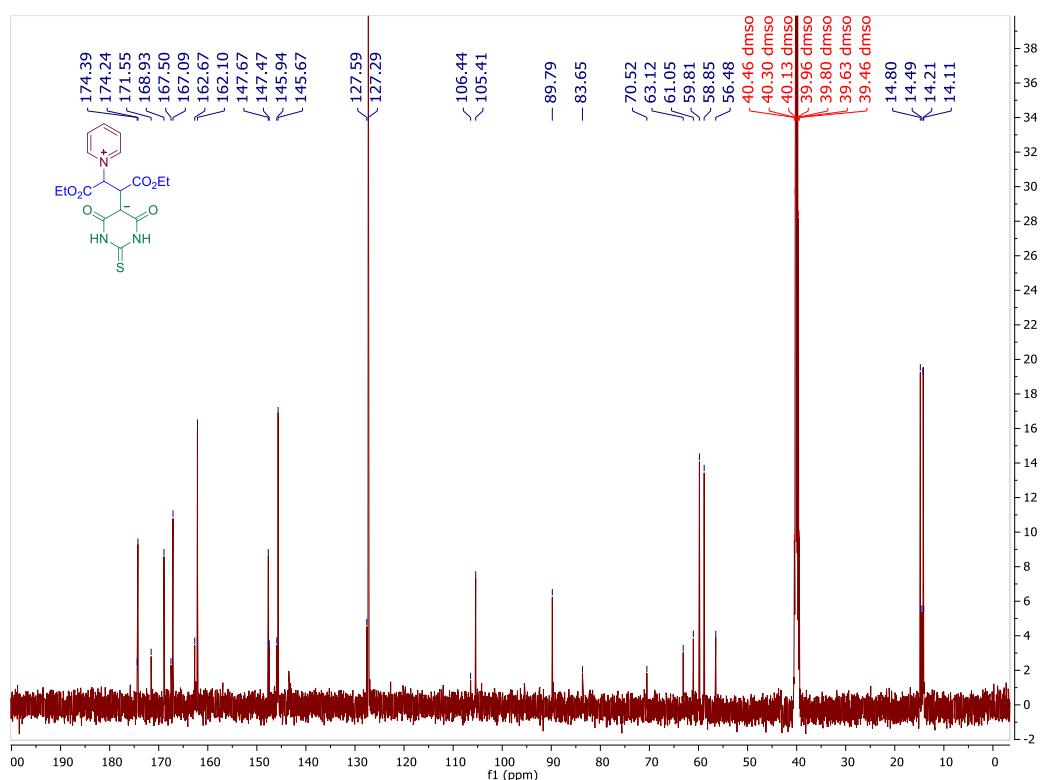
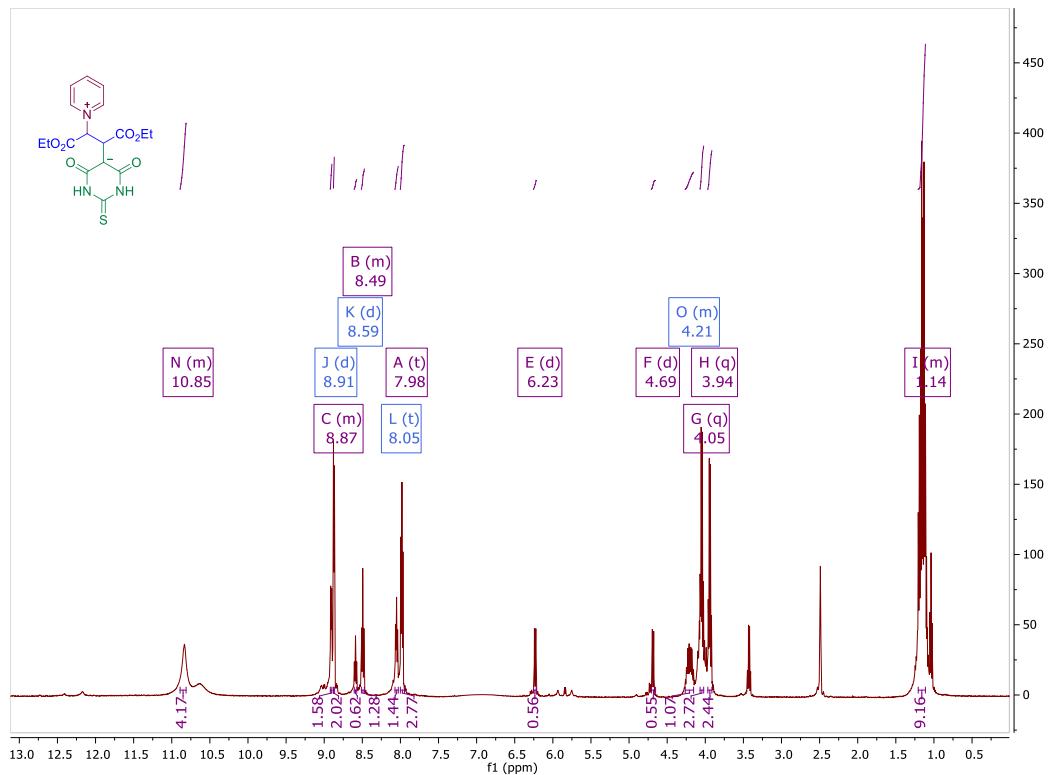
¹³C NMR (125 MHz, DMSO- d₆) spectrum of compound(4d)

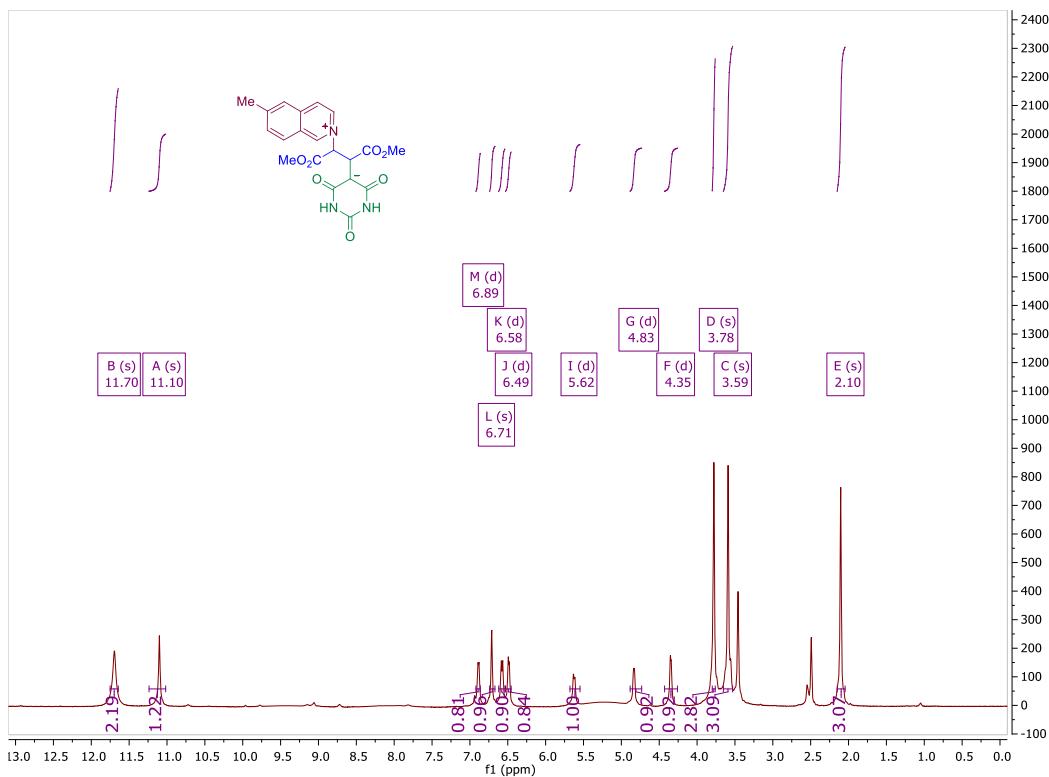
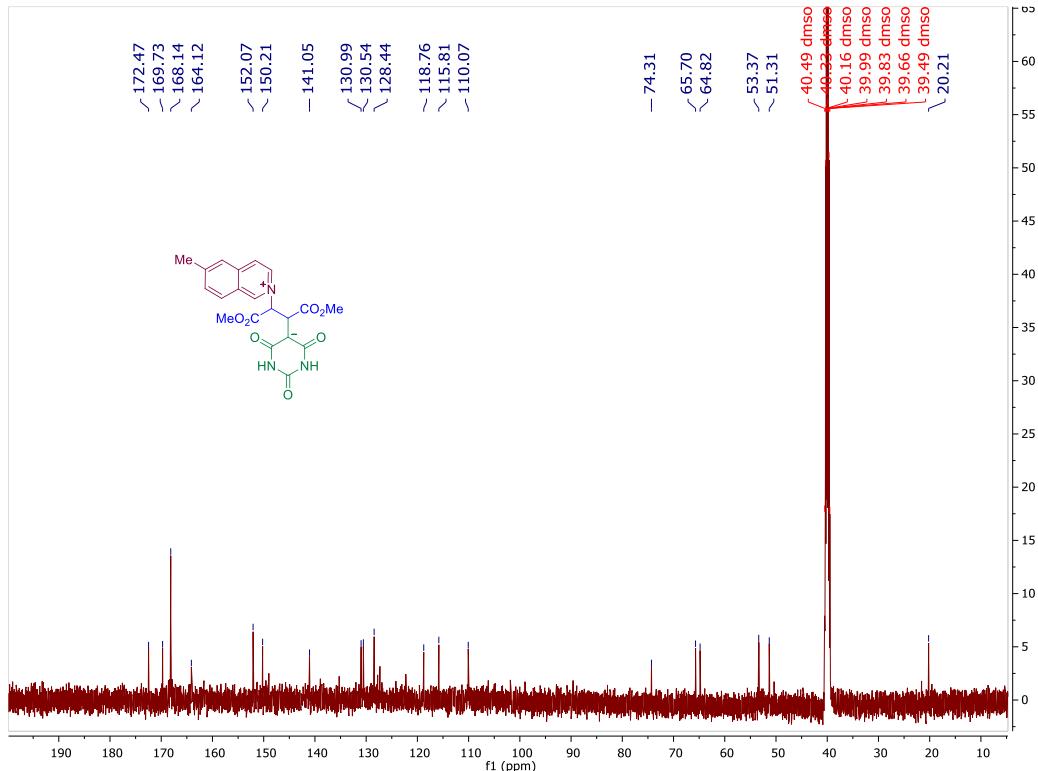


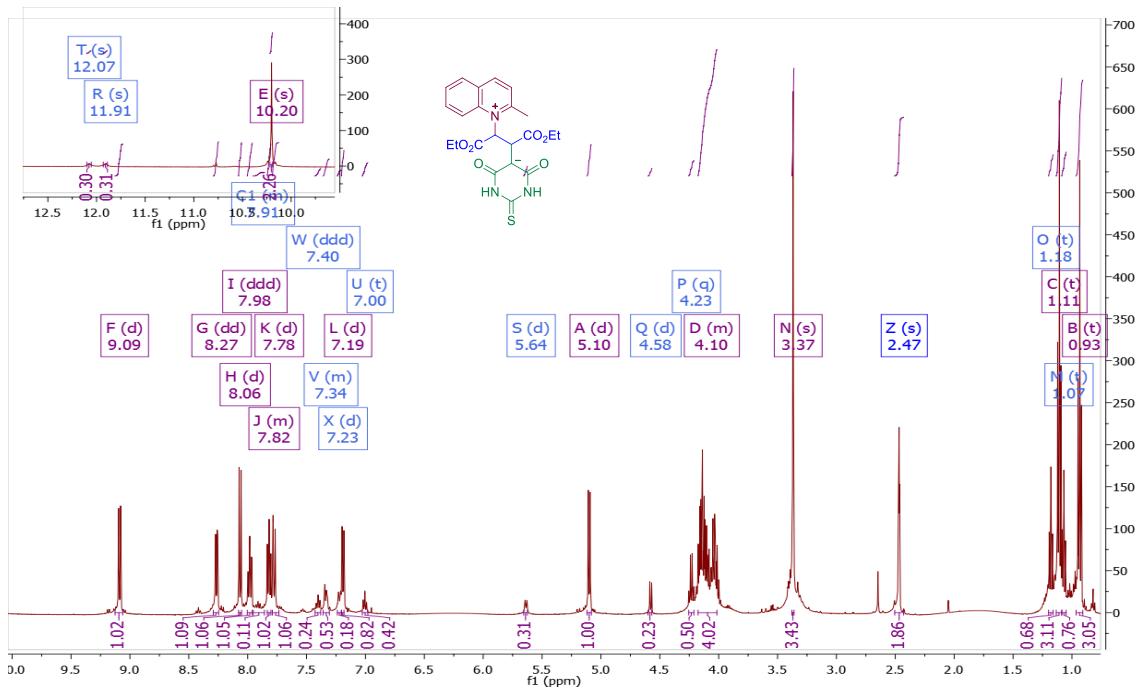
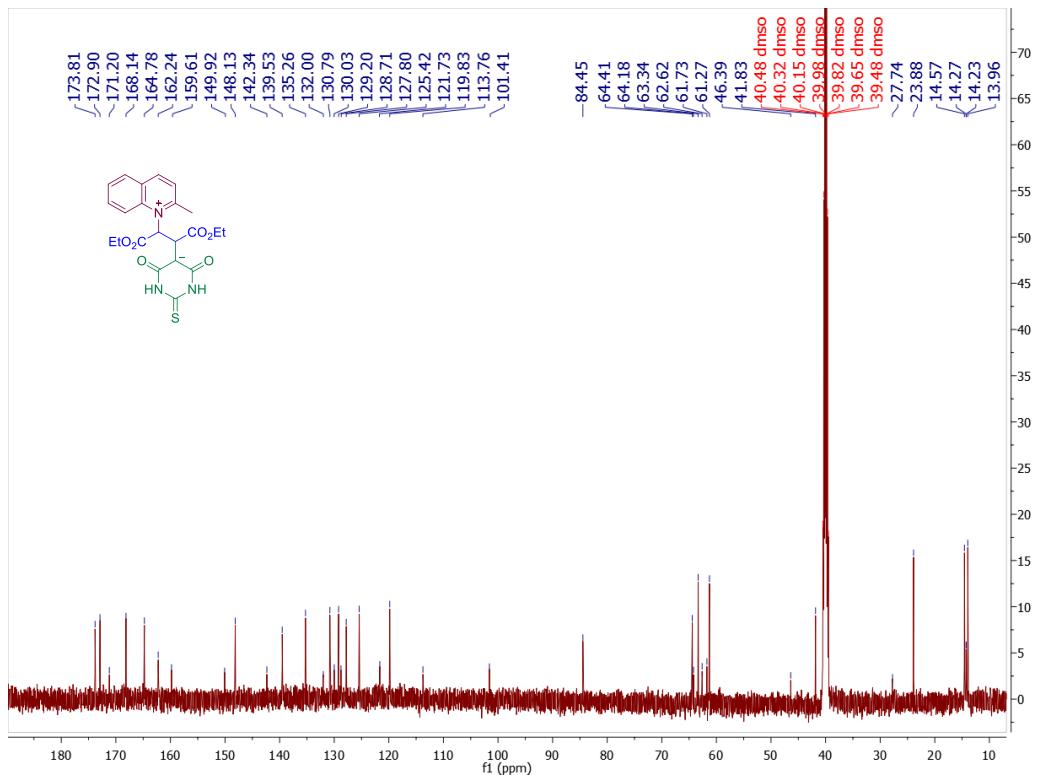
¹H NMR Spectrum (500 MHz, DMSO- d₆) of compound (4e):

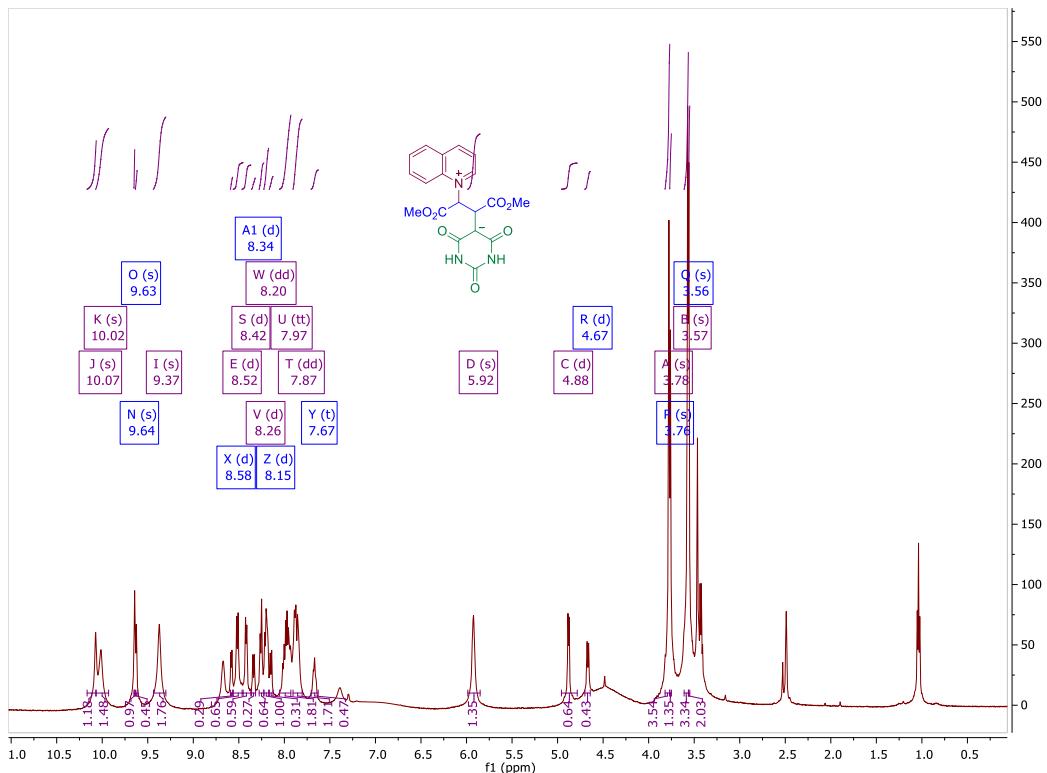


¹³C NMR (125 MHz, DMSO- d₆) spectrum of compound(4e):

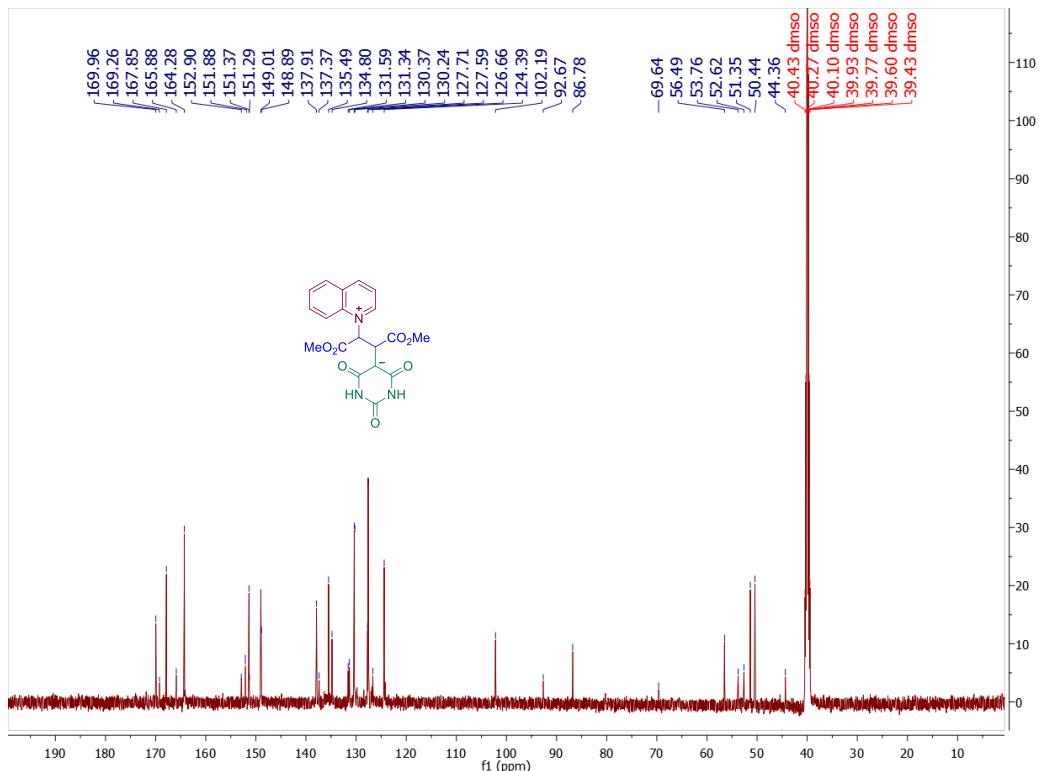


¹H NMR Spectrum (500 MHz, DMSO- d₆) of compound (4g):¹³C NMR (125 MHz, DMSO- d₆) spectrum of compound(4g):

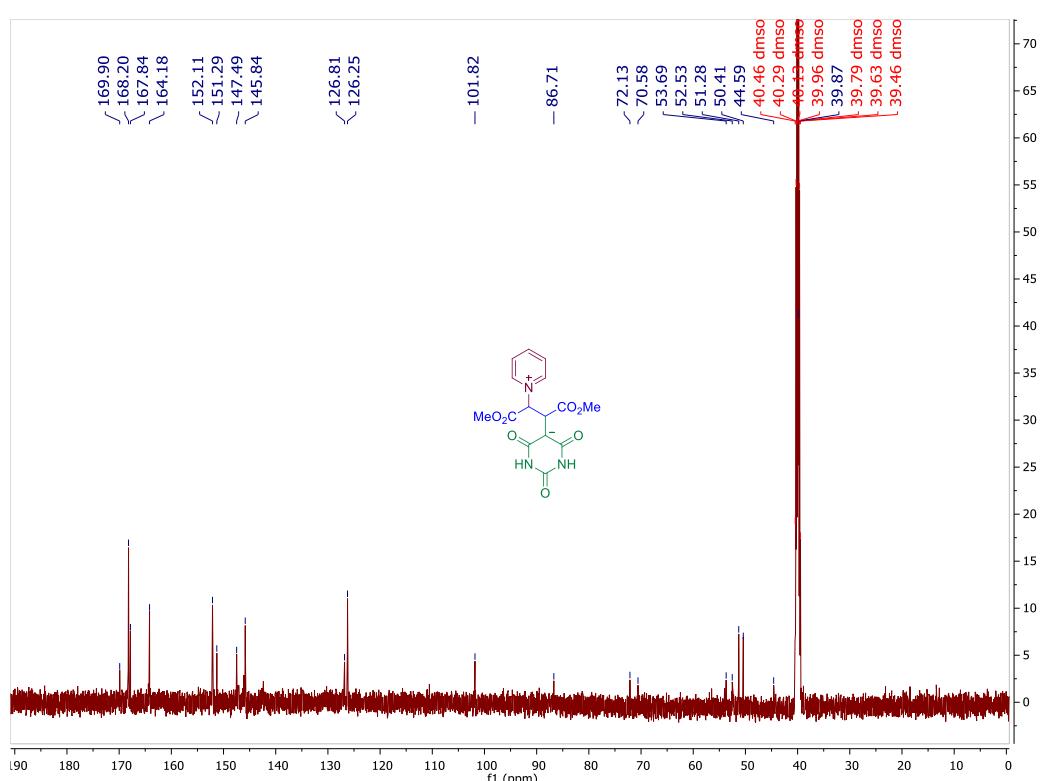
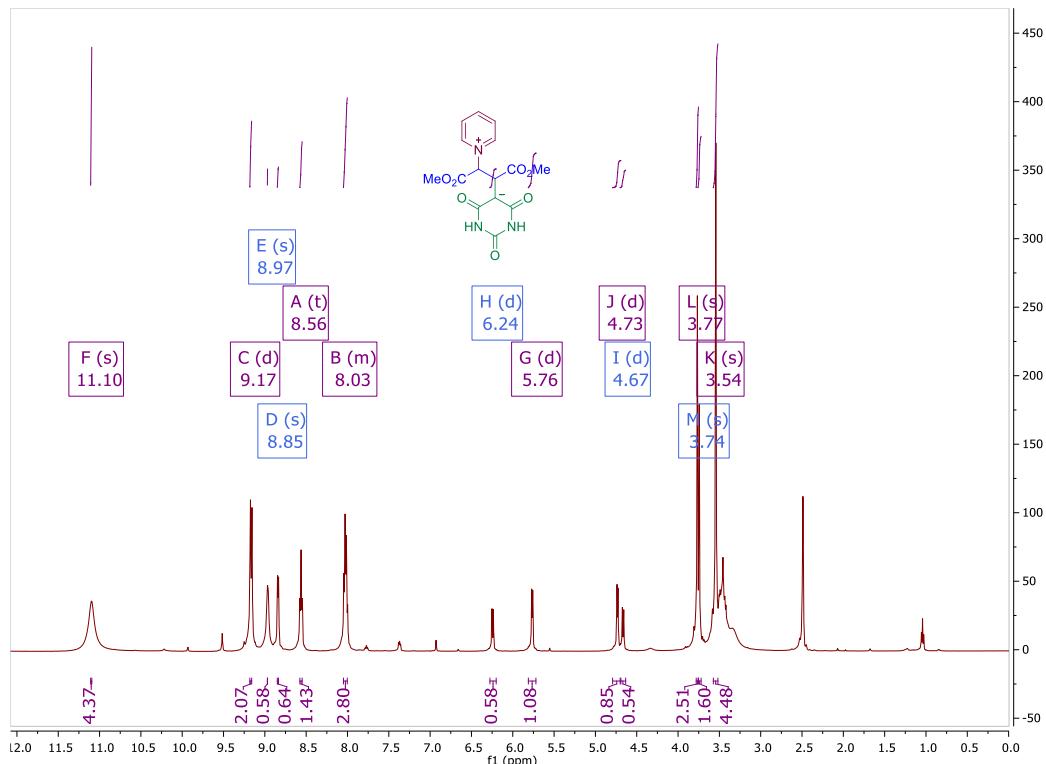
¹H NMR Spectrum (500 MHz, DMSO- d₆) of compound (4h):¹³C NMR (125 MHz, DMSO- d₆) spectrum of compound(4h):

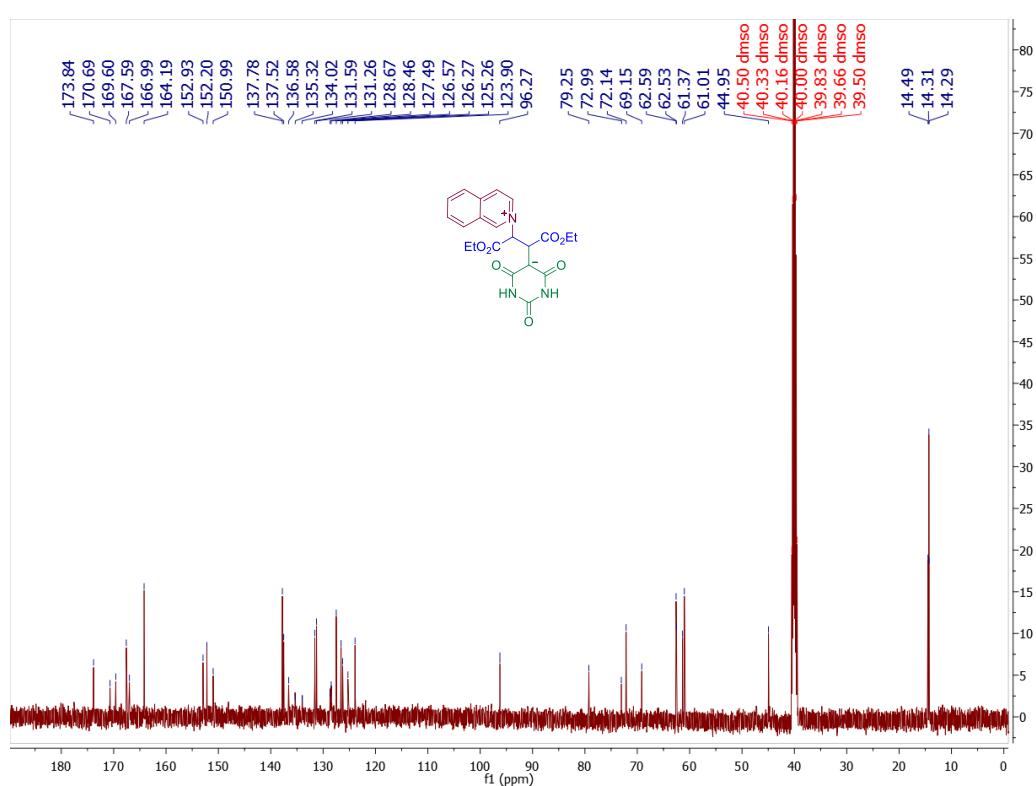
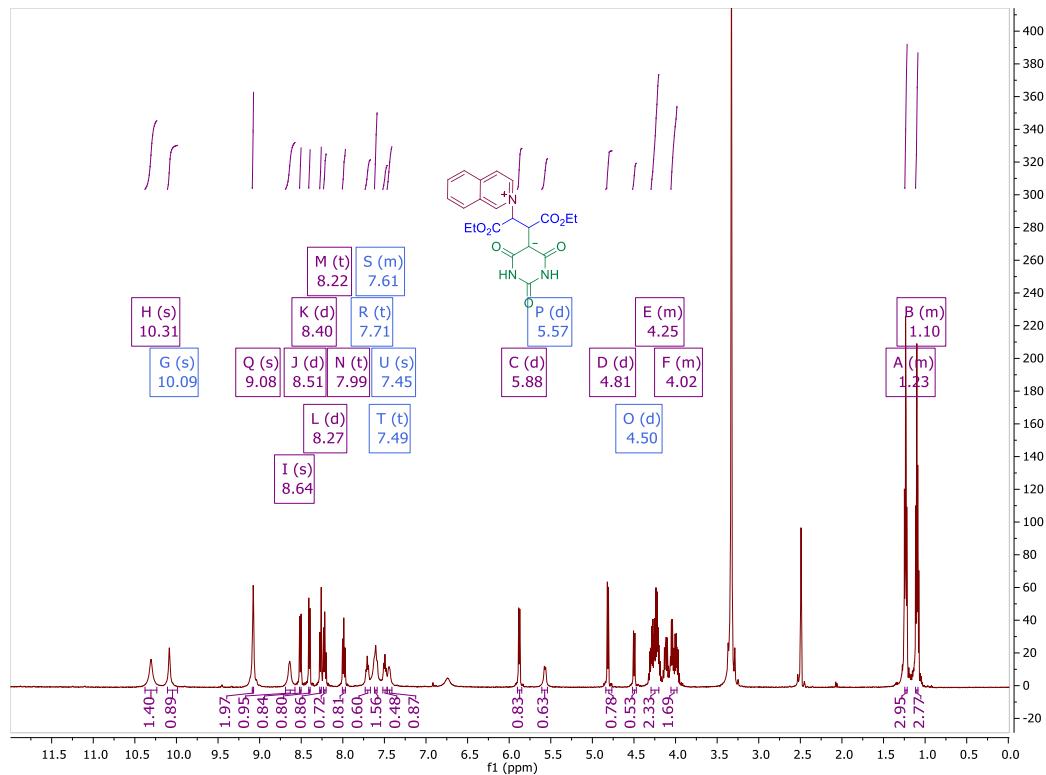


¹H NMR Spectrum (500 MHz, DMSO- d₆) of compound (4i):



¹³C NMR (125 MHz, DMSO- d₆) spectrum of compound(4i):



¹³C NMR (125 MHz, DMSO- d₆) spectrum of compound(4k)

