Supplementary Materials

Multicomponent Reactions Promoted by Ecocatalyst from Metal Hyperaccumulating Plant *Pluchea sagittalis*

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(a) (b)

Figure S1. *Pluchea sagittalis* leaves (a) dried and ground. (b) ashes after calcination.

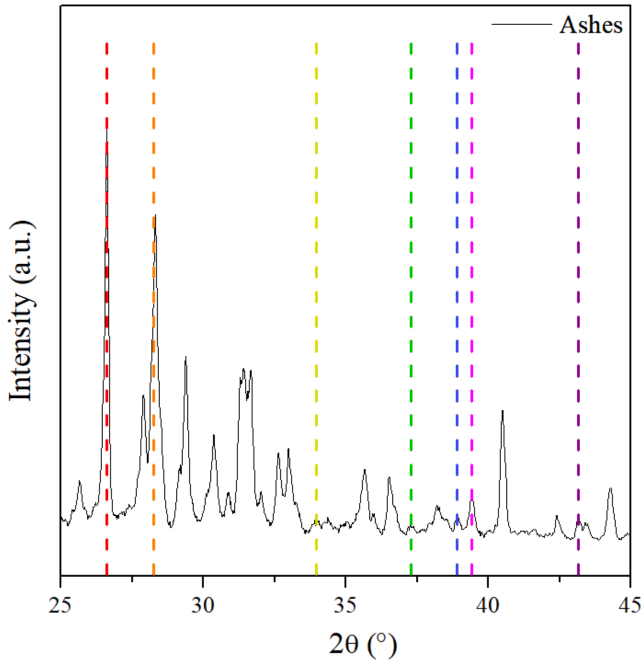

Figure S2. Enlarged ashes diffractogram between 25 to 45° 2Θ

Table S1. Metal concentrations (ICP-OES) in plants collected at a mining area on northern Brazil.

Sample	Ba (mg kg^{-1})	Ca (%)	Cd (mg kg^{-1})	Cr (mg kg^{-1})	Cu (mg kg^{-1})	Fe (%)	K (%)	Mg (%)	Na (mg kg^{-1})	Ni (mg kg^{-1})	Pb (mg kg^{-1})	S (mg kg^{-1})
C. pachystachya leaves	21.93	1.12	<0.015	<2.54	83.0	0.35	2.60	0.28	0.52	3.6	<0.49	0.47
C. pachystachya branches	5.19	0.72	<0.015	<2.54	374	0.39	1.69	0.39	0.01	52.5	<0.49	0.56
P. sagitallis leaves	1.39	1.53	<0.015	<2.54	567	1.0	2.84	0.50	0.42	31.4	<0.49	1.46
P. sagittalis flowers	4.64	1.00	<0.015	<2.54	174.1	0.55	0.48	0.51	0.05	49.8	<0.49	1.61
T. domingensis leaves	4.25	0.89	<0.015	<2.54	56.8	0.55	3.85	0.47	0.80	23.7	<0.49	0.25

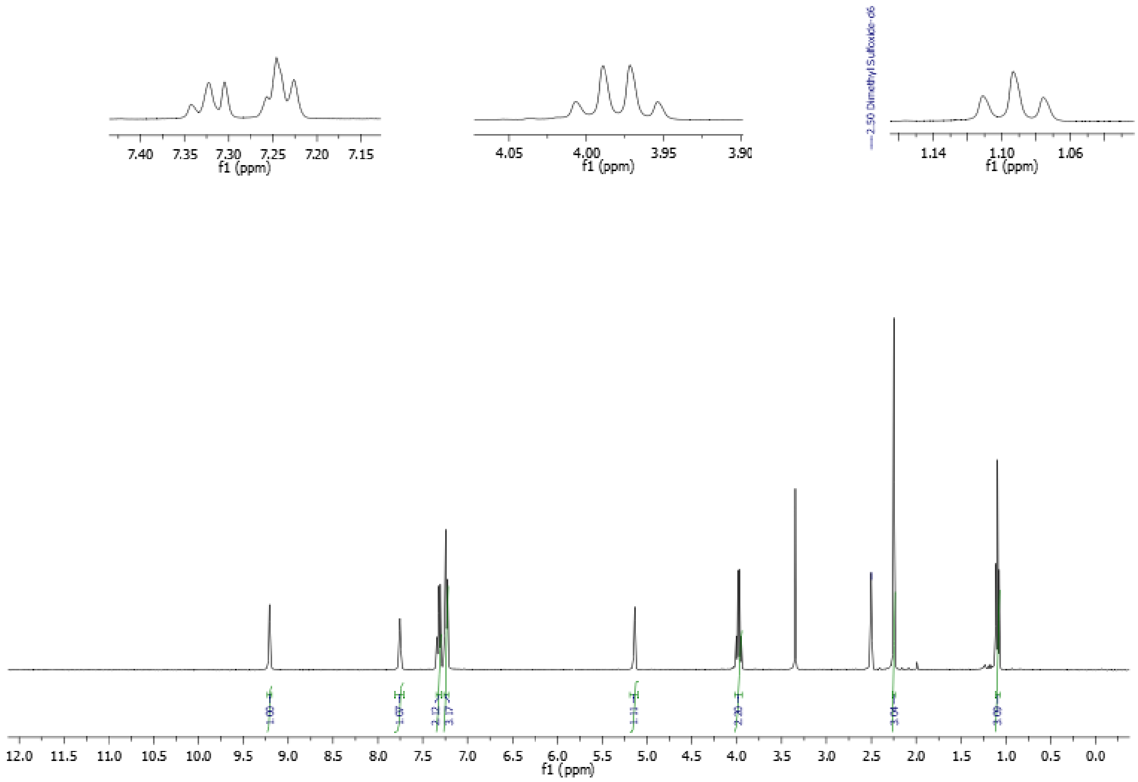

Figure S3. [1]H NMR (DMSO-*d*6) of compound **3a**.

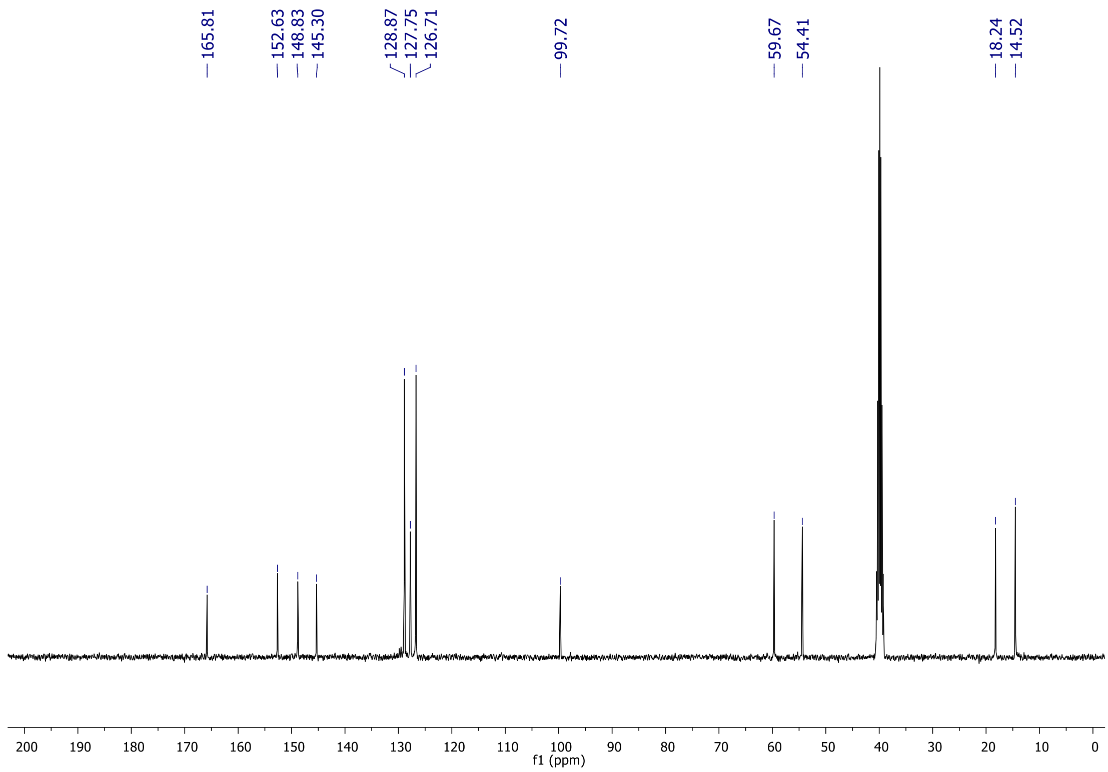

Figure S4. [13]C NMR (DMSO-*d*6) of compound **3a**.

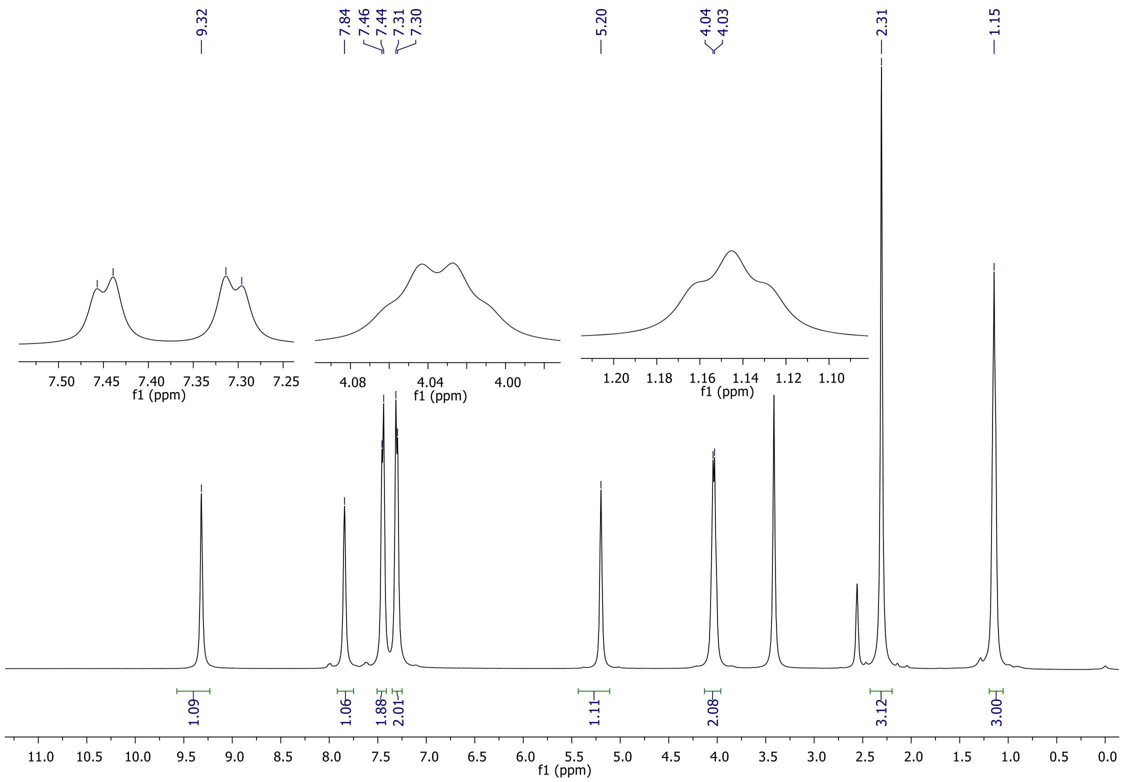

Figure S5. [1]H NMR (DMSO-*d*6) of compound **3b**.

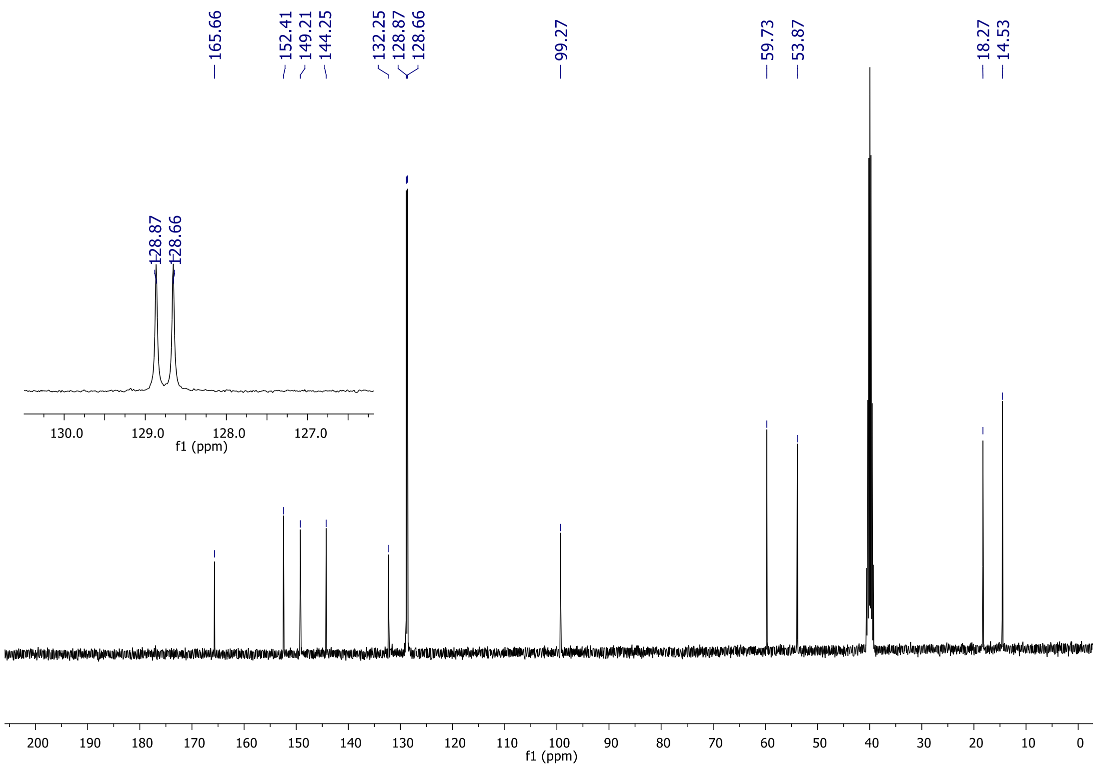

Figure S6. [13]C NMR (DMSO-*d*6) of compound **3b**.

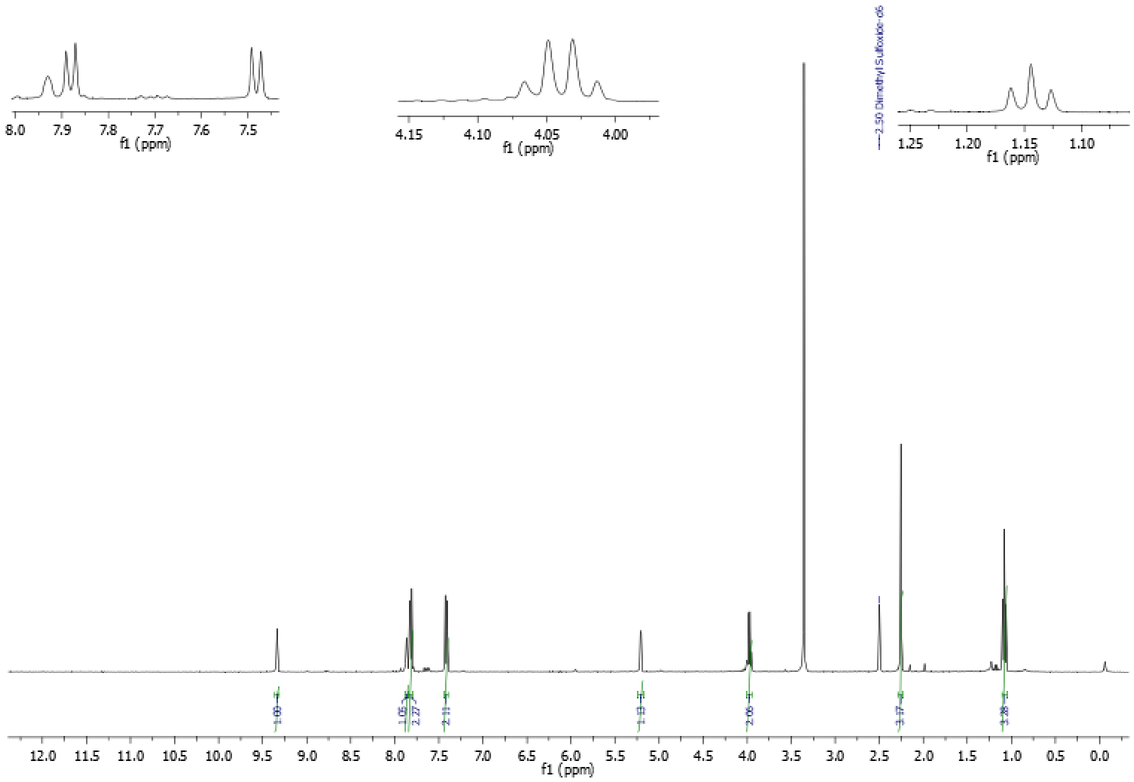

Figure S7. ^{1}H NMR (DMSO-*d*6) of compound **3c**.

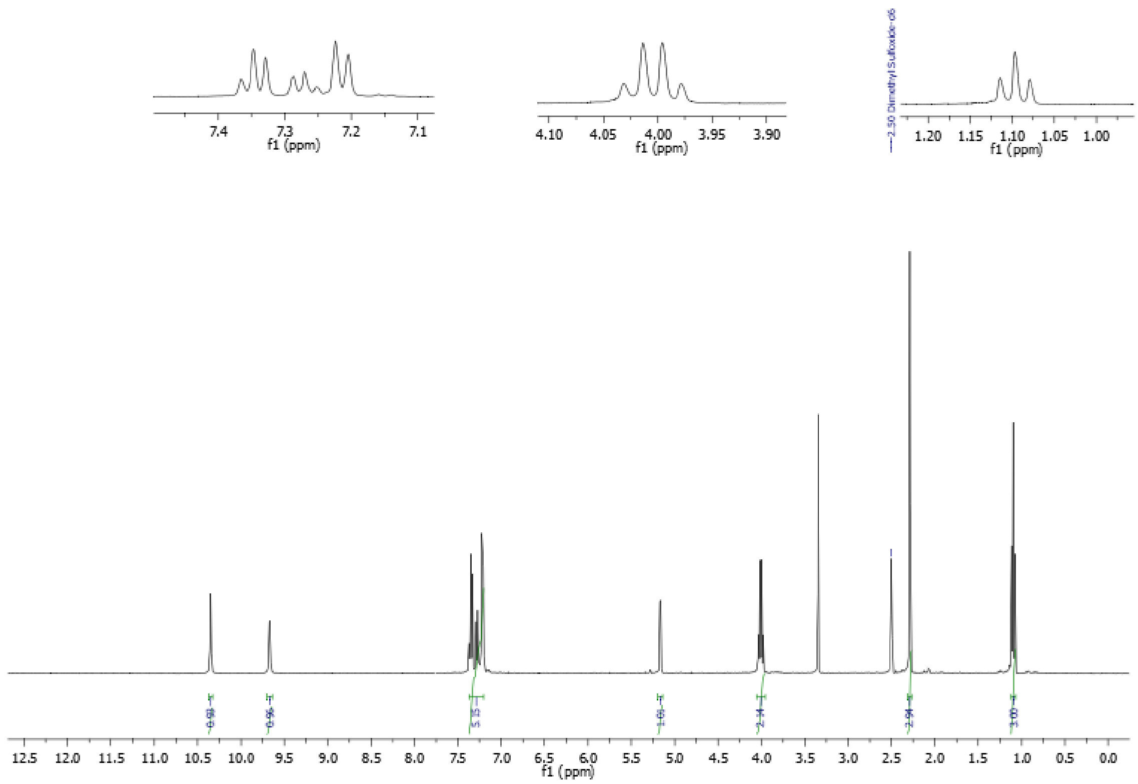

Figure S8. ^{1}H NMR (DMSO-*d*6) of compound **3d**.

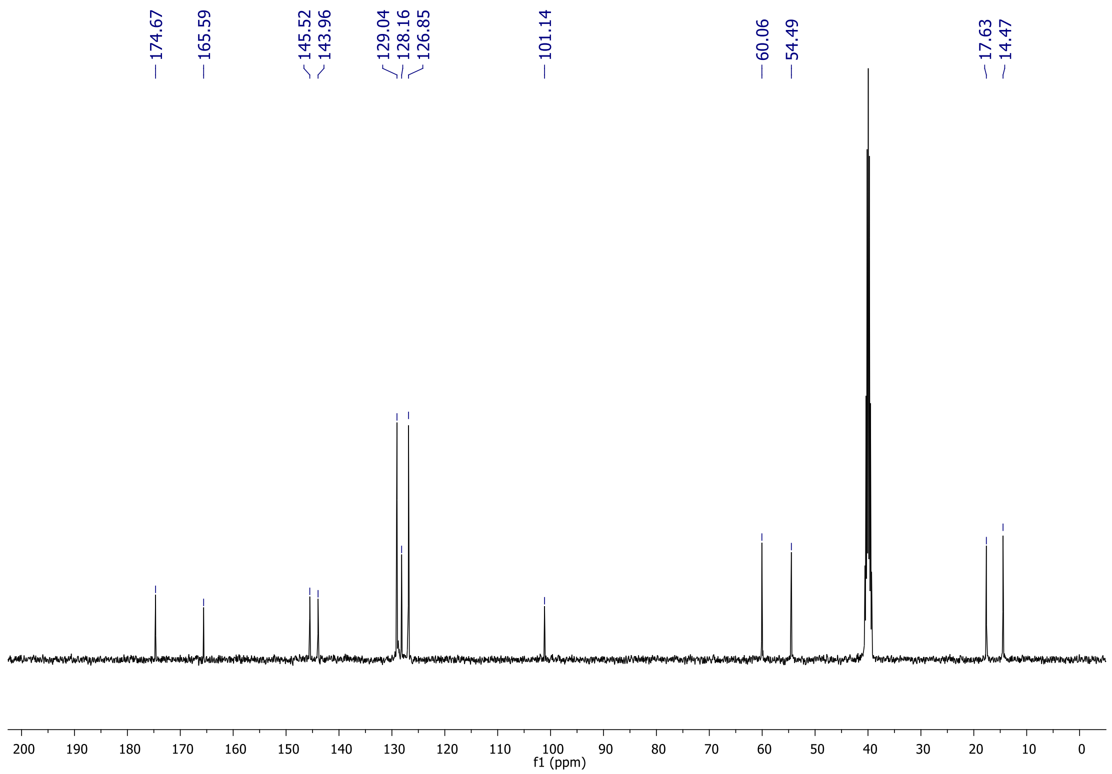

Figure S9. ^{13}C NMR (DMSO-*d*6) of compound **3d**.

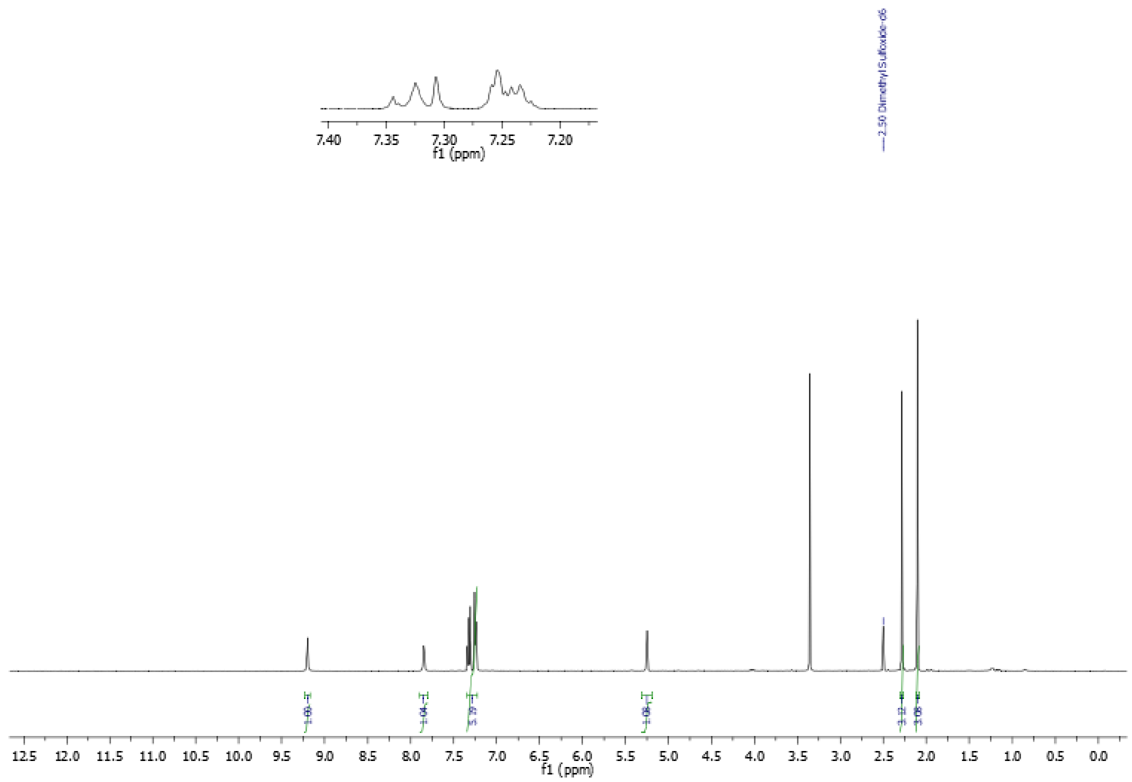

Figure. S10. ^{1}H NMR (DMSO-*d*6) of compound **3e**.

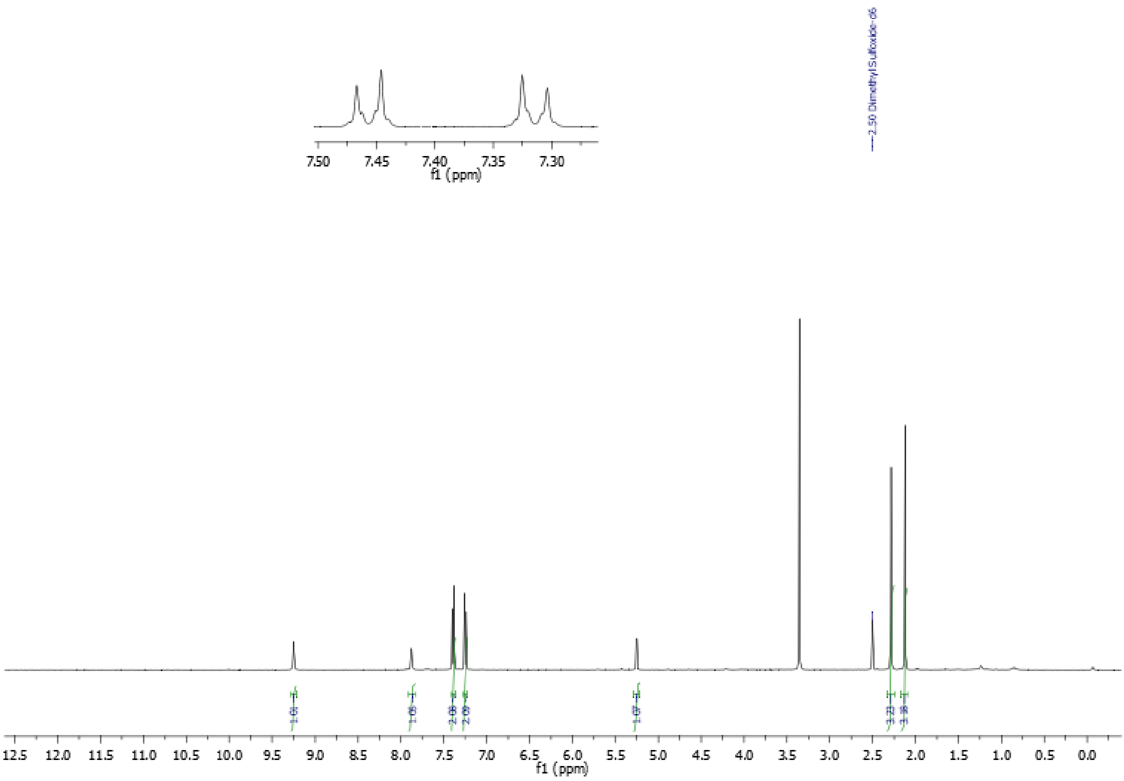

Figure S11. [1]H NMR (DMSO-*d6*) of compound **3f**.

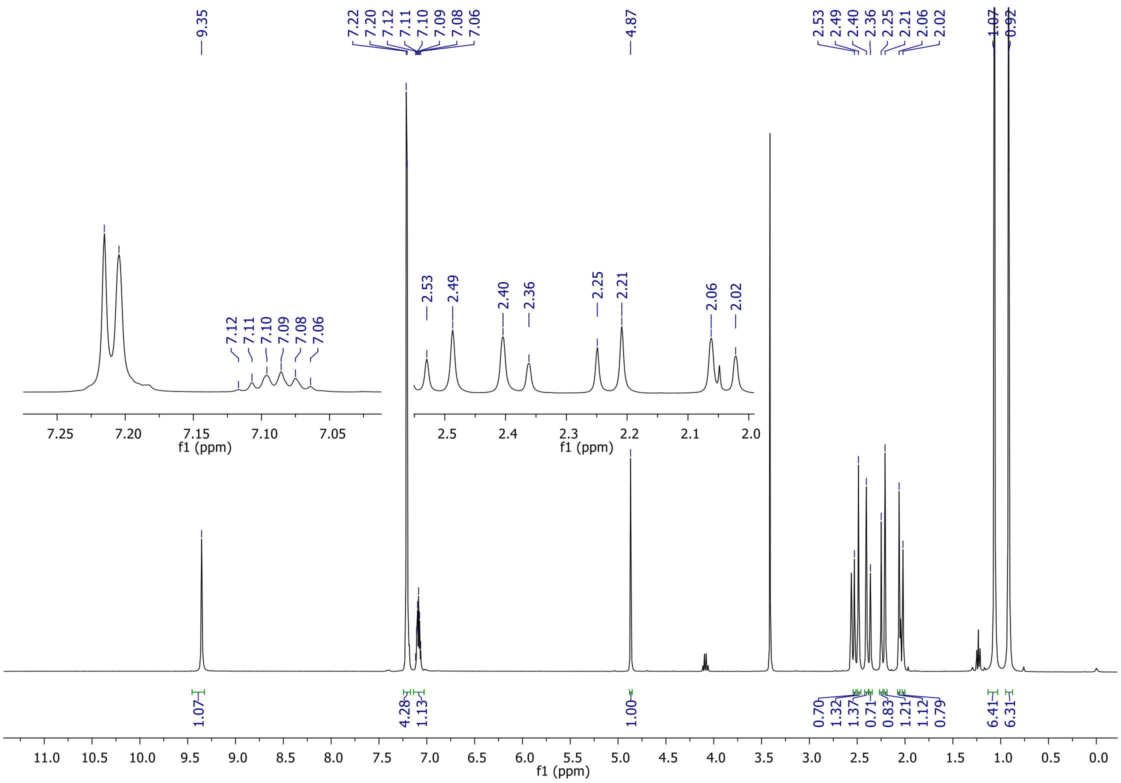

Figure S12. [1]H NMR (DMSO-*d6*) of compound **5a**.

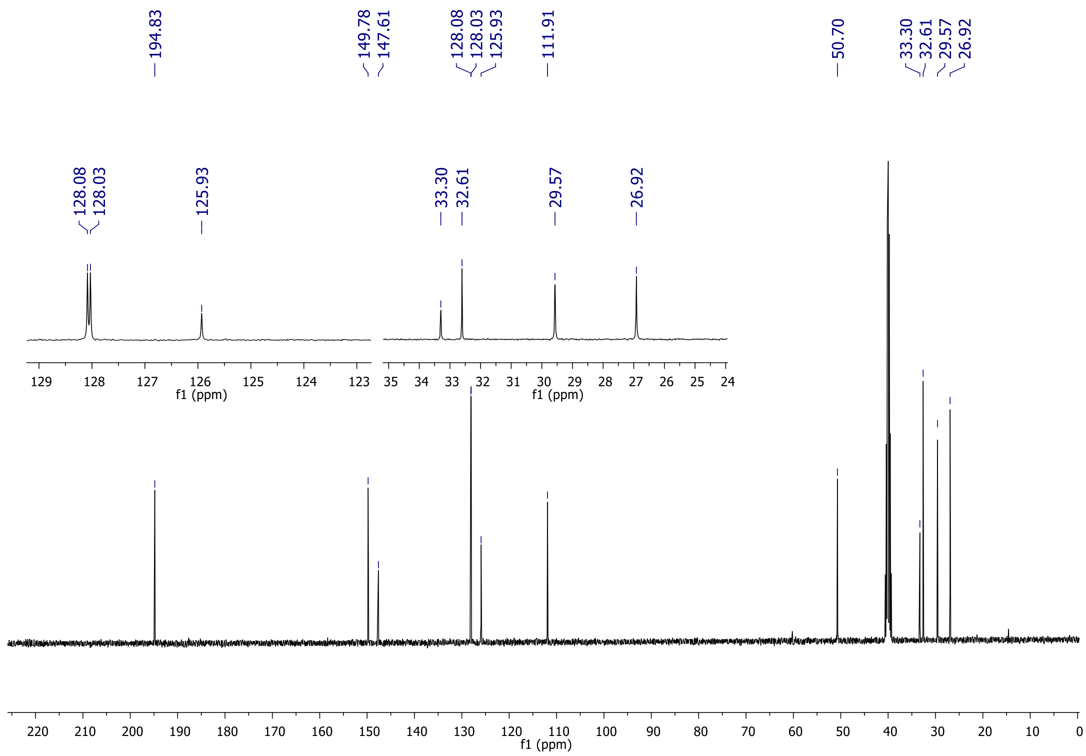

Figure S13. ^{13}C NMR (DMSO-*d6*) of compound **5a**.

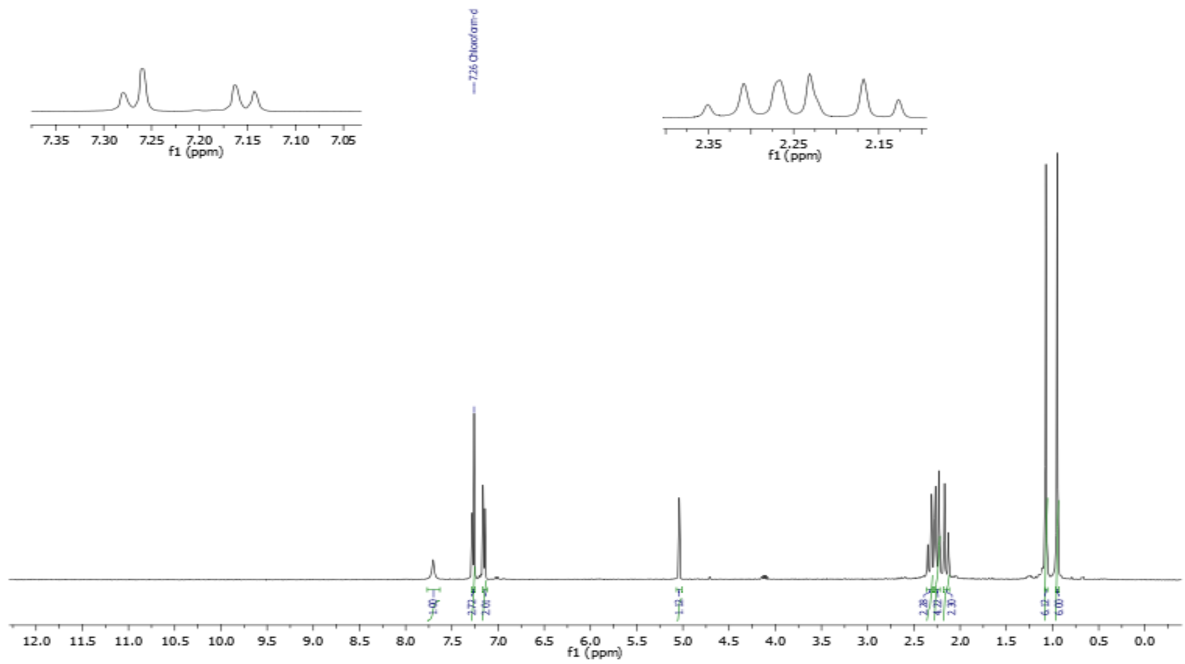

Figure S14. ^{1}H NMR ($CDCl_3$) of compound **5b**.

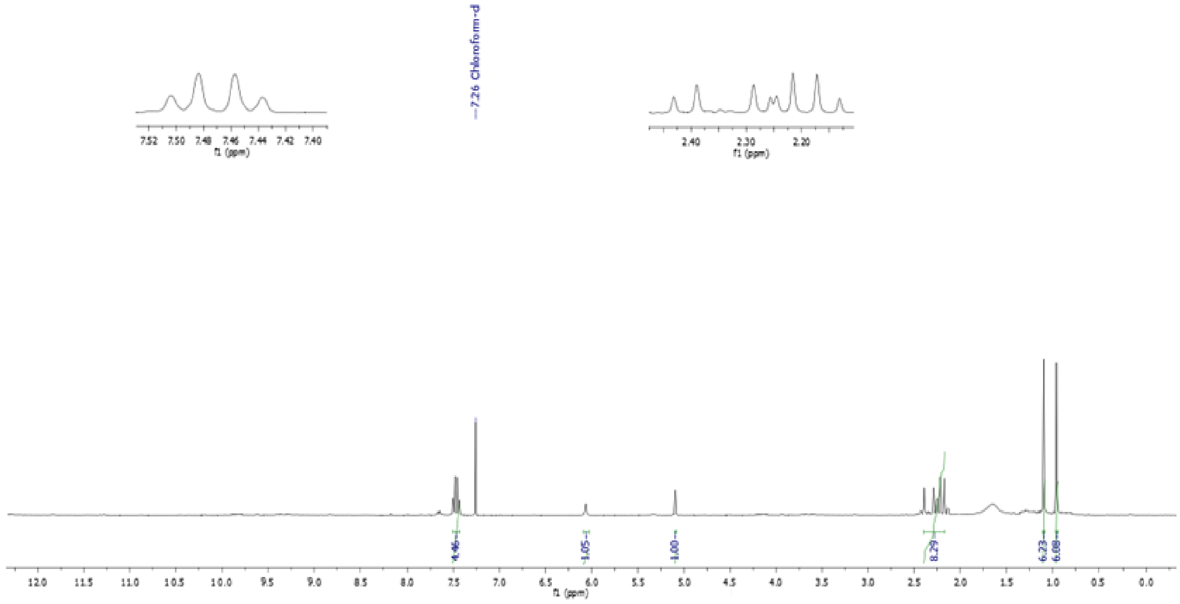

Figure S15. ^{1}H NMR ($CDCl_3$) of compound **5c**.

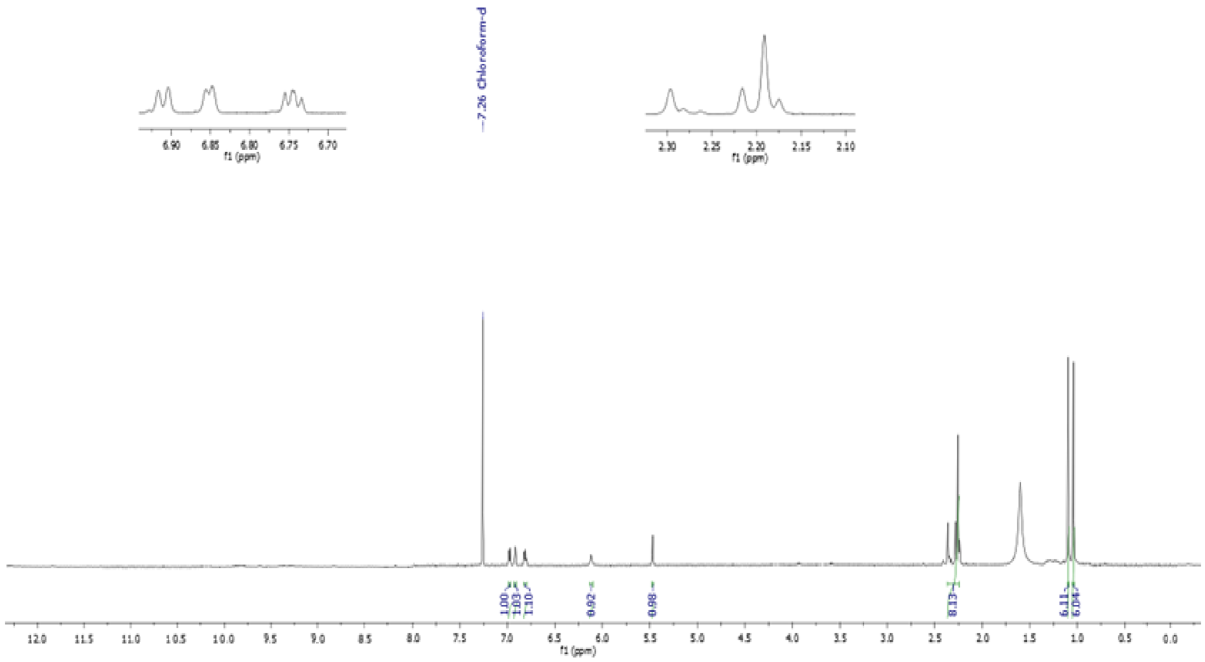

Figure S16. ^{1}H NMR ($CDCl_3$) of compound **5d**.

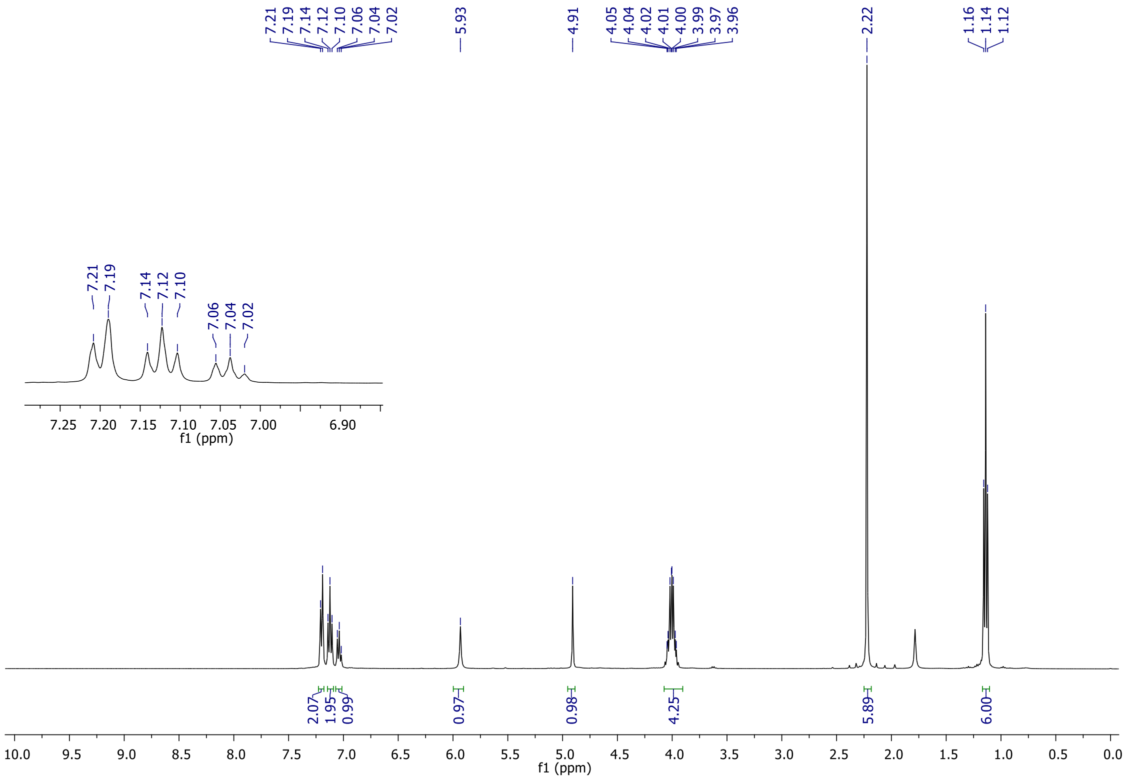

Figure S17. [1]H NMR ($CDCl_3$) of compound **5e**.

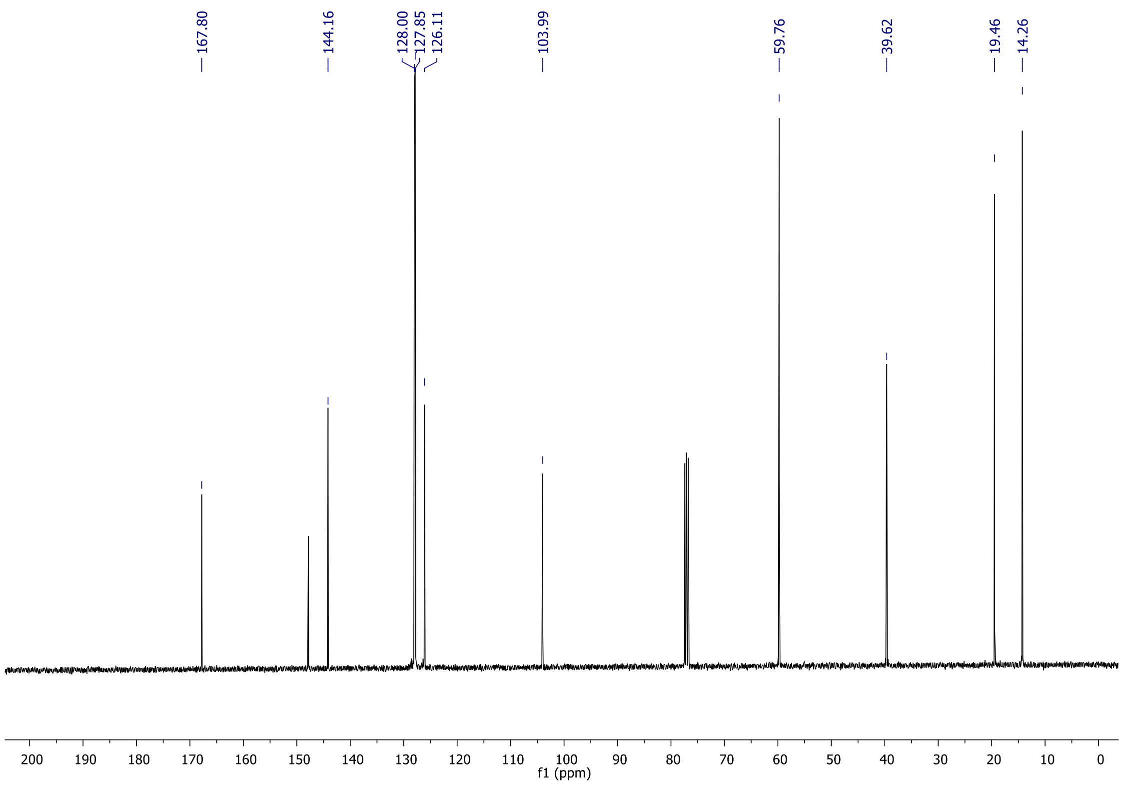

Figure S18. [13]C NMR ($CDCl_3$) of compound **5e**.

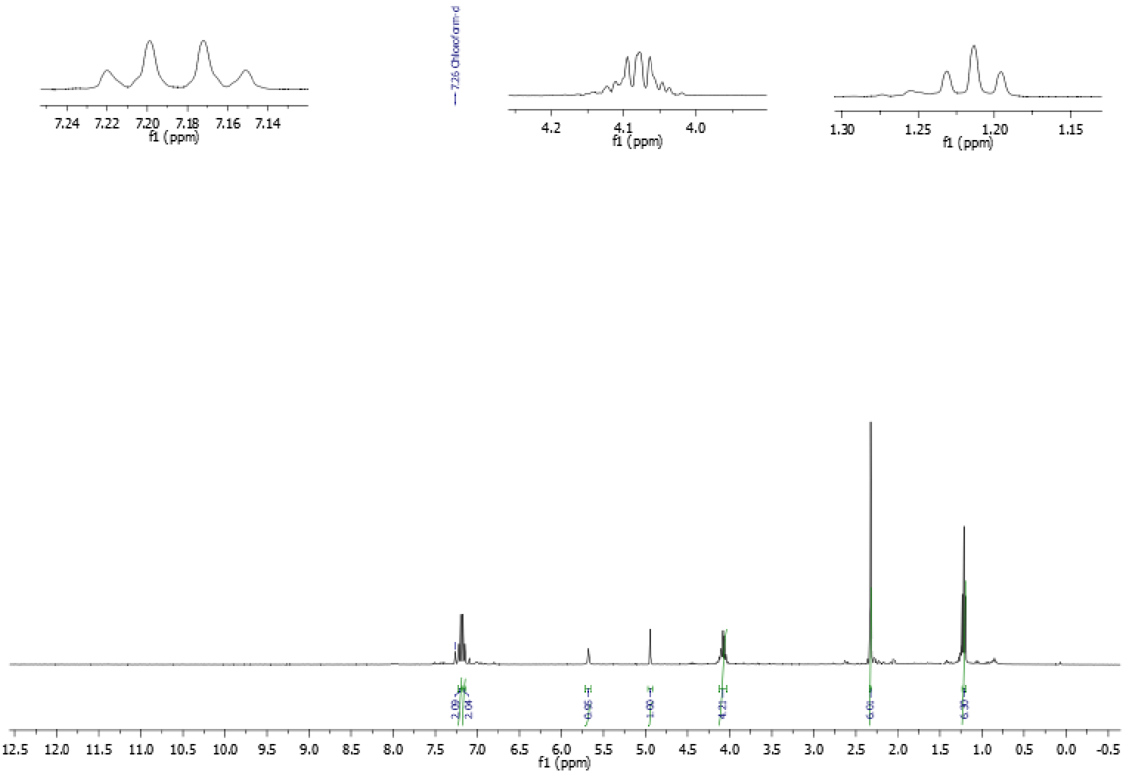

Figure S19. ^{1}H NMR ($CDCl_3$) of compound **5f**.