

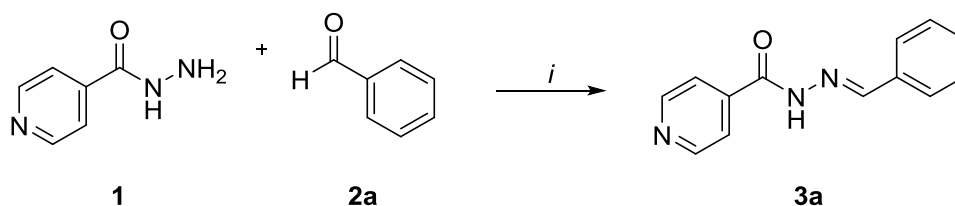
Supplementary Information

Synthesis, Inhibition of *Mycobacterium tuberculosis* Enoyl-acyl Carrier Protein Reductase and Antimycobacterial Activity of Novel Pentacyanoferrate(II)-isonicotinoylhydrazones

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entry	Solvent	AcOH / mol%	Yield / %
1	H ₂ O	0	5
2	H ₂ O	2.5	32
3	H ₂ O	5	58
4	H ₂ O	10	59
5	H ₂ O	20	64
6	H ₂ O	30	73
7	EtOH	0	0
8	EtOH	2.5	65
9	EtOH	5	86
10	EtOH	10	95
11	EtOH	20	81
12	EtOH	30	88

Conditions for reaction: *i* = AcOH,)), 15 min.

Scheme S1. Optimization of ultrasound protocol.

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[#]These authors contributed equally to this work.

¹H NMR spectra of compounds **3a-e** and **4a-e**

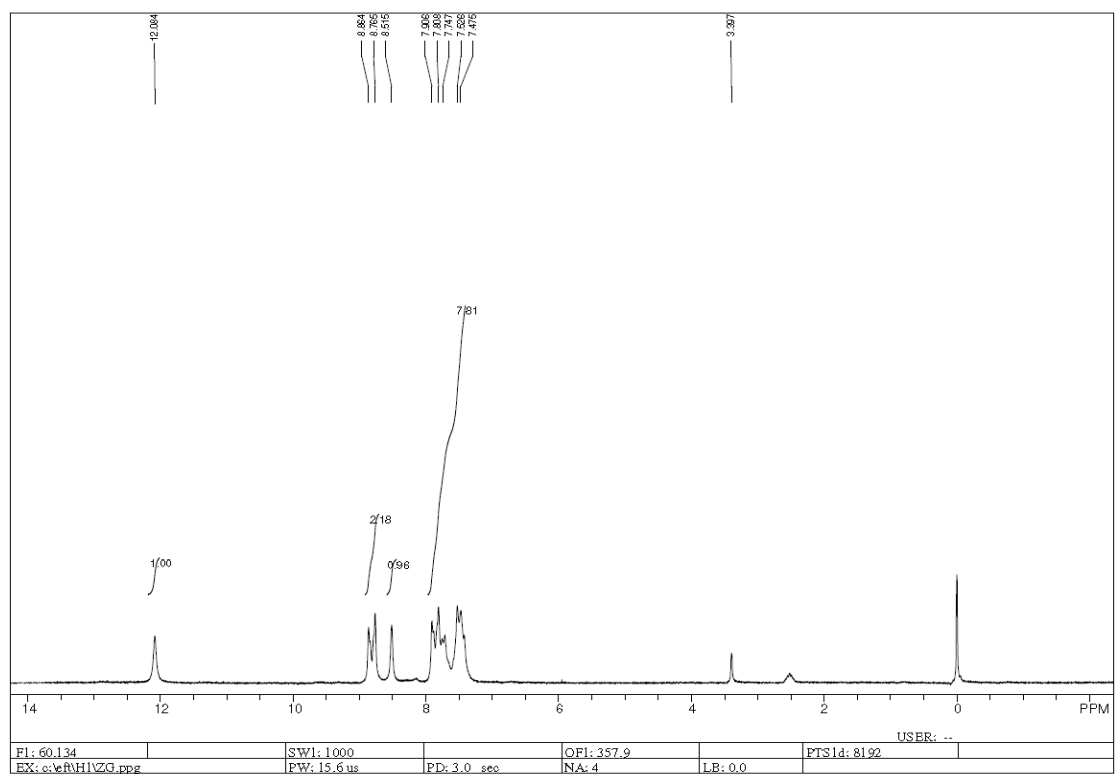


Figure S1. ¹H NMR spectrum (60 MHz, DMSO-*d*₆) of compound **3a**.

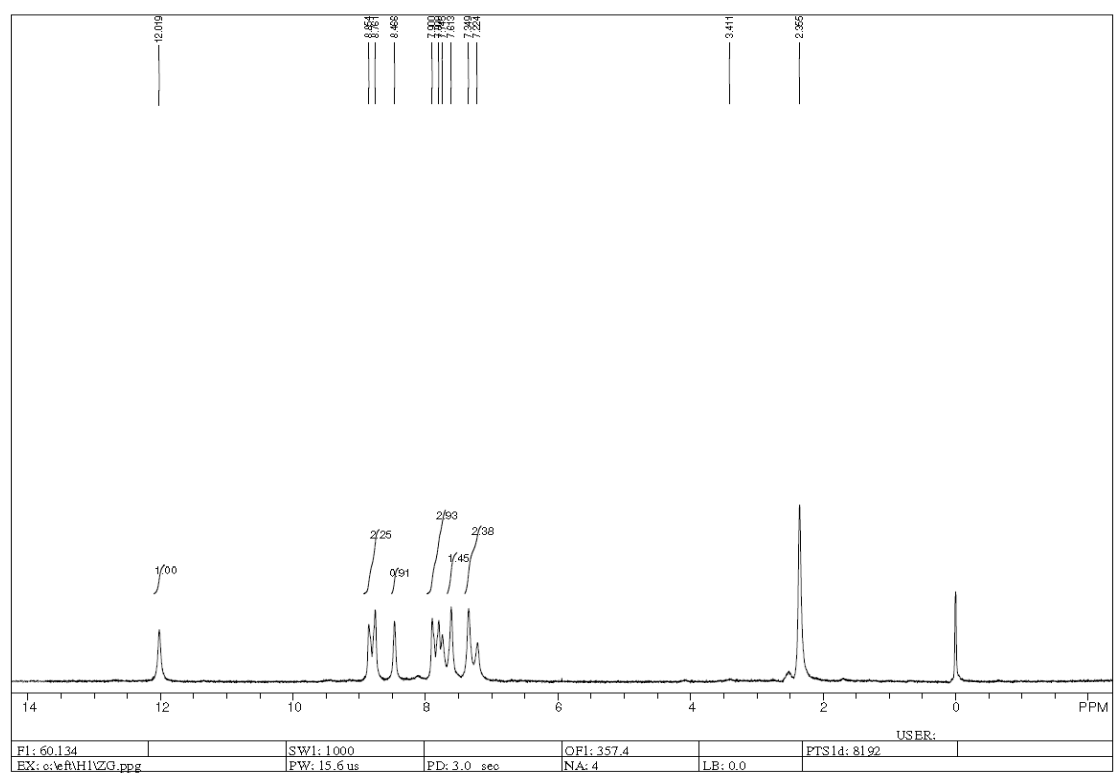


Figure S2. ¹H NMR spectrum (60 MHz, DMSO-*d*₆) of compound **3b**.

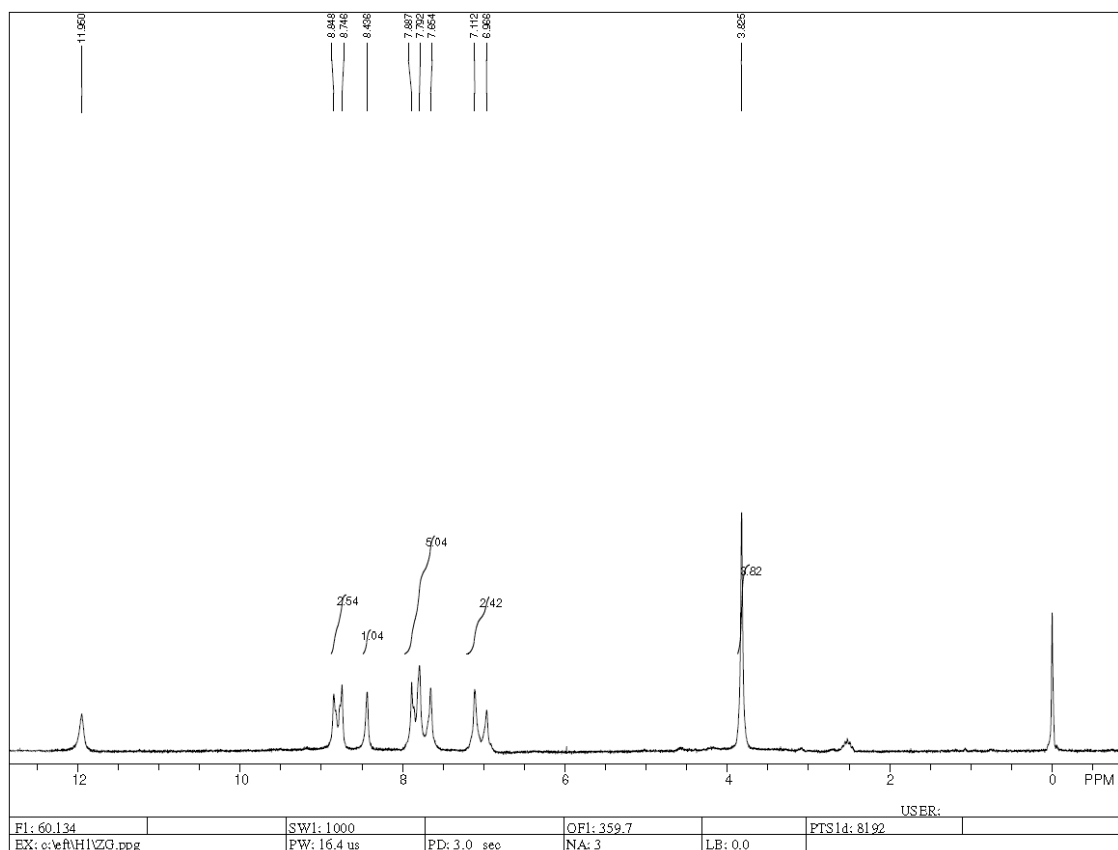


Figure S3. ^1H NMR spectrum (60 MHz, $\text{DMSO}-d_6$) of compound **3c**.

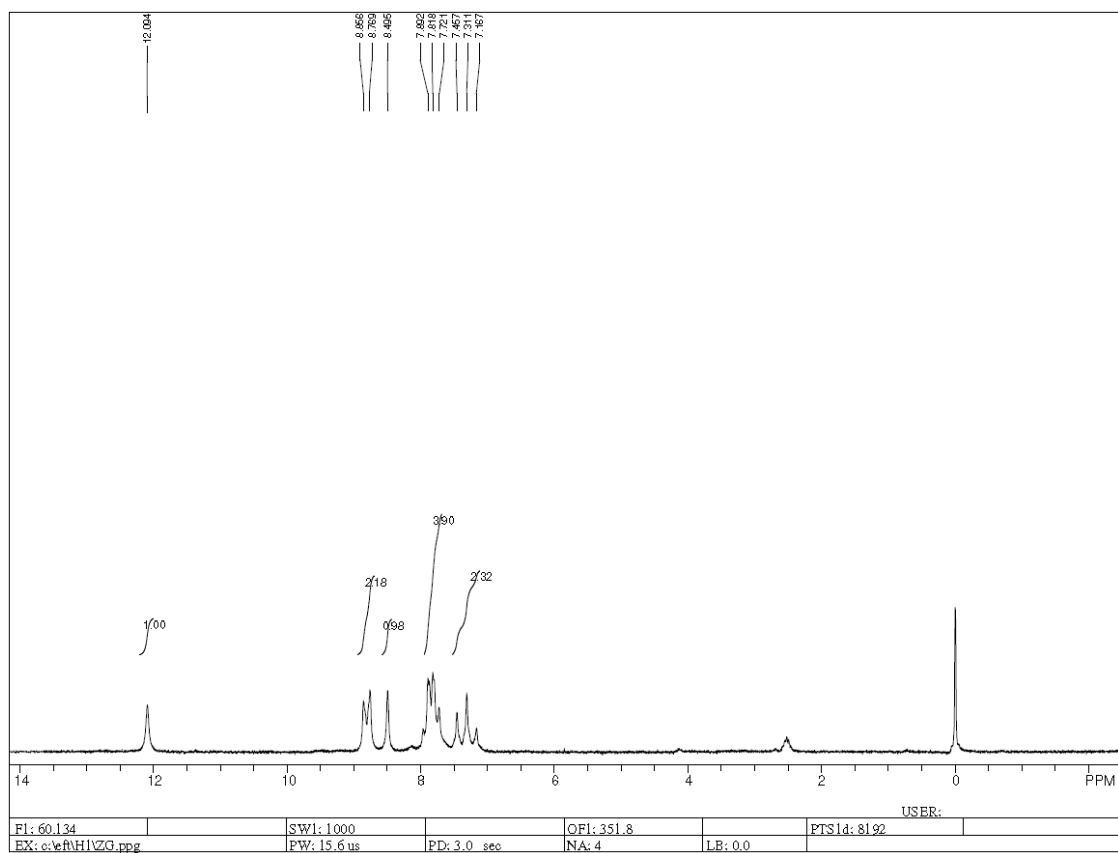


Figure S4. ^1H NMR spectrum (60 MHz, $\text{DMSO}-d_6$) of compound **3d**.

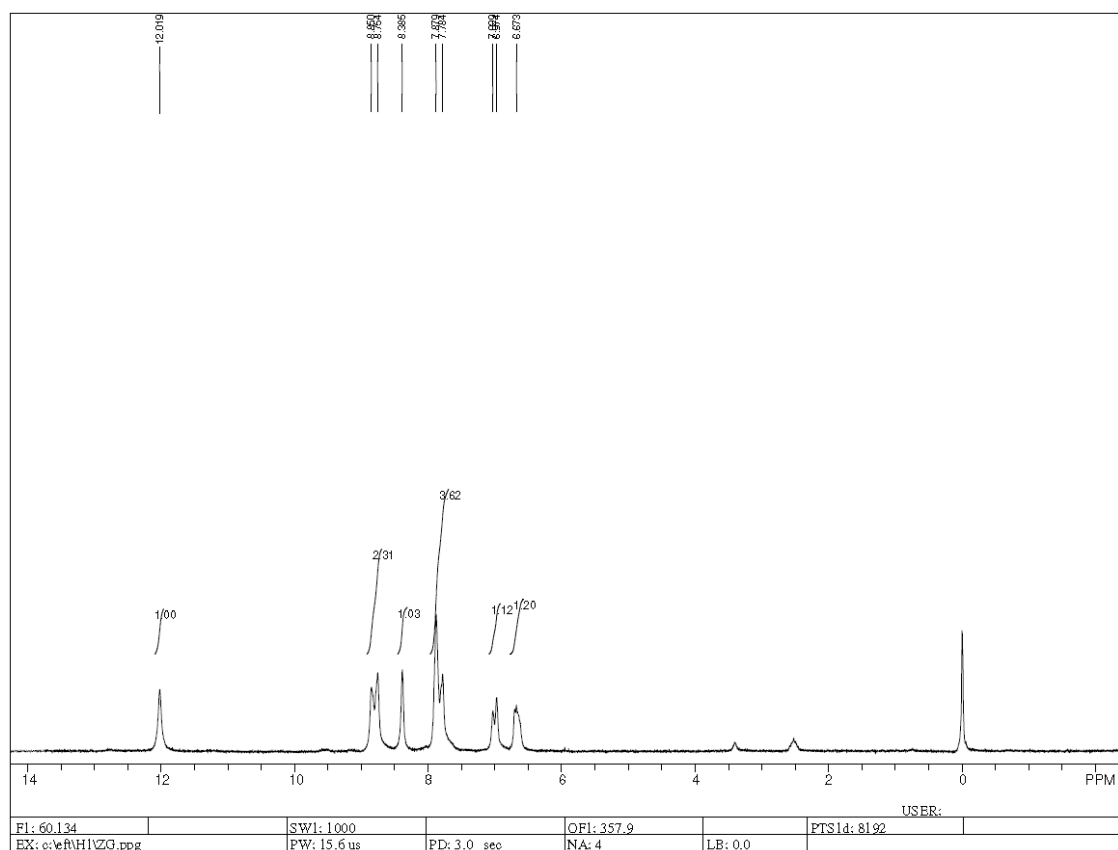


Figure S5. ^1H NMR spectrum (60 MHz, $\text{DMSO-}d_6$) of compound **3e**.

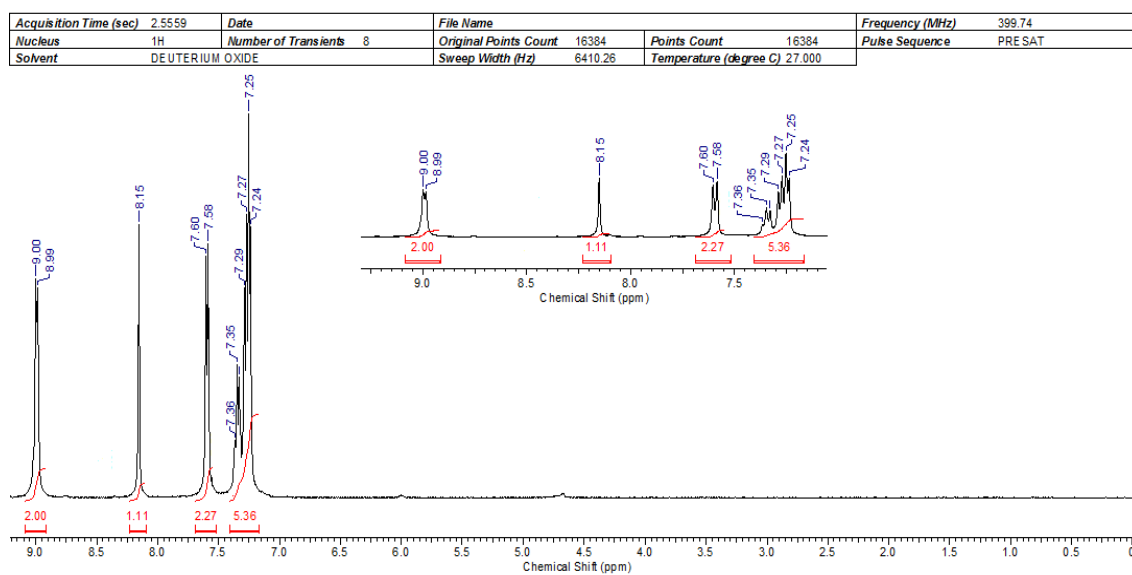


Figure S6. ^1H NMR spectrum (400 MHz, D_2O) of compound **4a**.

Acquisition Time (sec)	2.5559	Date		File Name		Frequency (MHz)	399.74
Nucleus	¹ H	Number of Transients	8	Original Points Count	16384	Points Count	16384
Solvent	DEUTERIUM OXIDE			Sweep Width (Hz)	6410.26	Temperature (degree C)	25.000
						Pulse Sequence	PRESAT

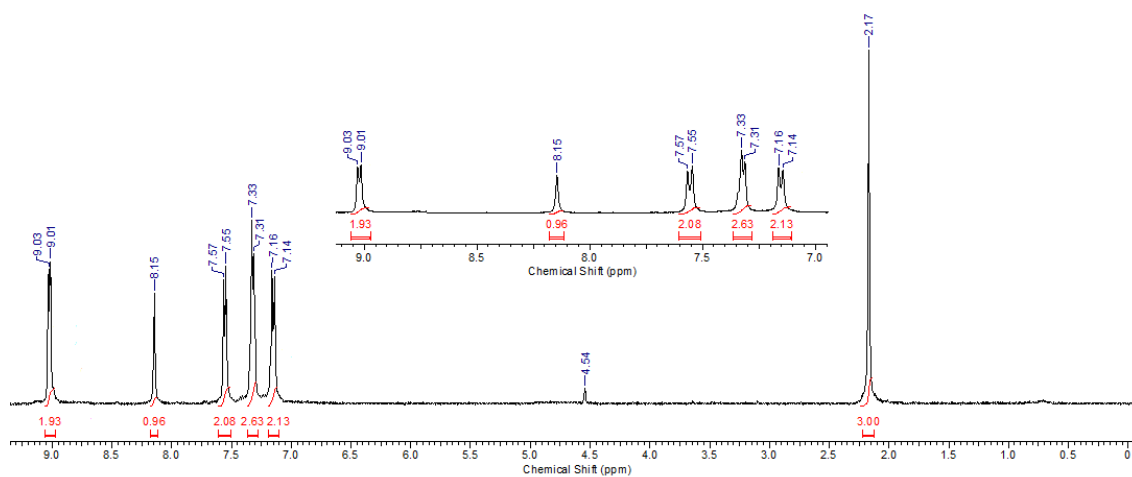


Figure S7. ¹H NMR spectrum (400 MHz, D₂O) of compound **4b**.

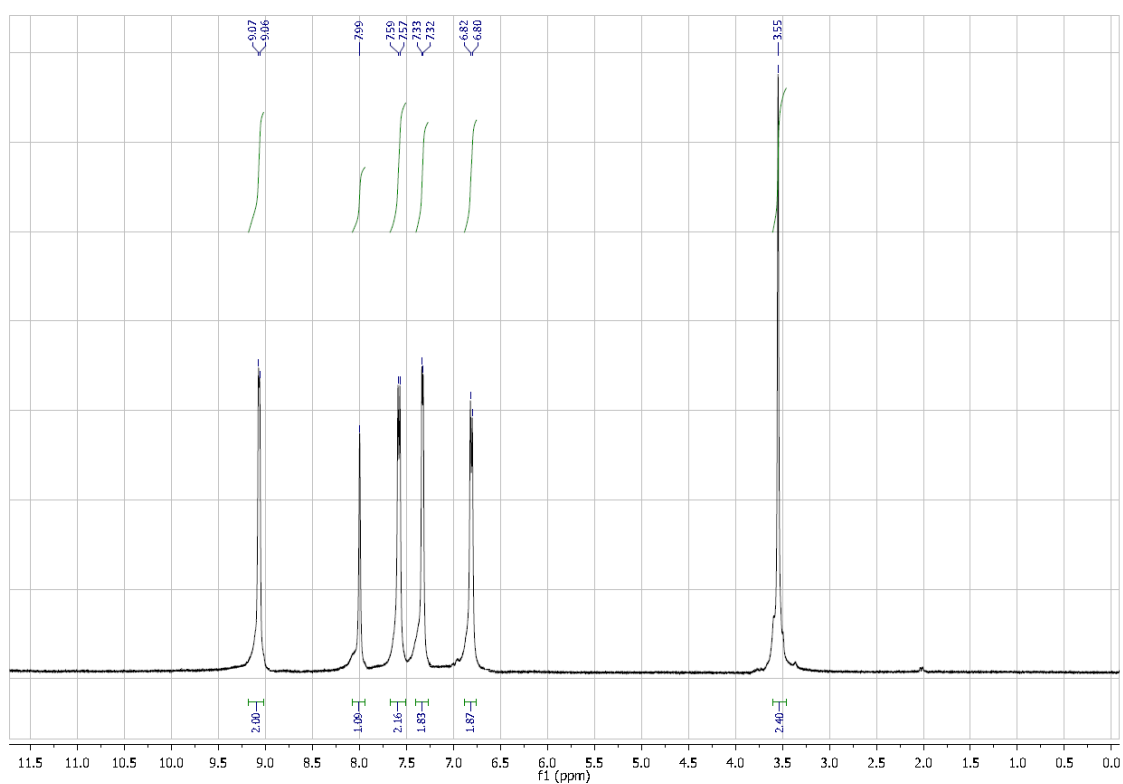


Figure S8. ¹H NMR spectrum (400 MHz, D₂O) of compound **4c**.

Acquisition Time (sec)	2.5559	Date	File Name		Frequency (MHz)	399.74	
Nucleus	¹ H	Number of Transients	8	Original Points Count	16384	Points Count	16384
Solvent	DEUTERIUM OXIDE			Sweep Width (Hz)	6410.26	Temperature (degree C)	25.000
						Pulse Sequence	PRE SAT

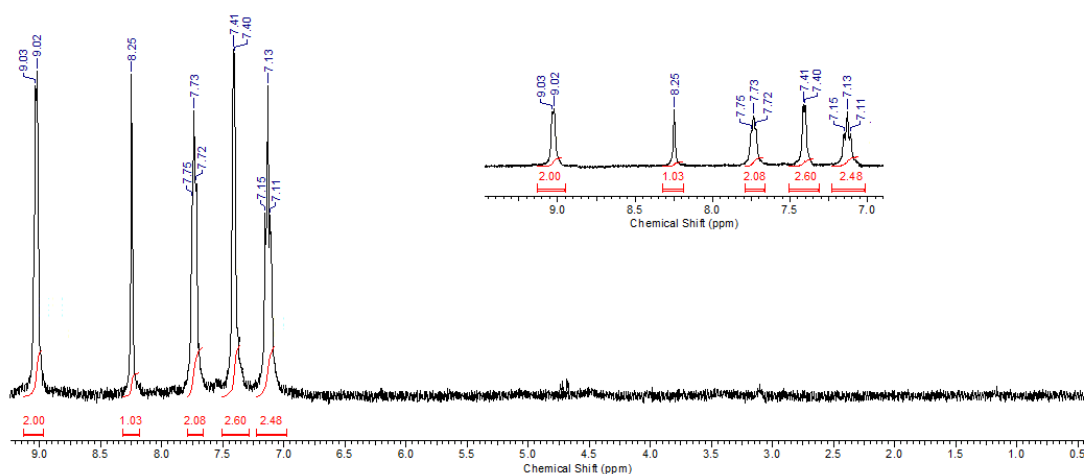


Figure S9. ¹H NMR spectrum (400 MHz, D₂O) of compound **4d**.

Acquisition Time (sec)	2.5559	Date	File Name		Frequency (MHz)	399.74	
Nucleus	¹ H	Number of Transients	8	Original Points Count	16384	Points Count	16384
Solvent	DEUTERIUM OXIDE			Sweep Width (Hz)	6410.26	Temperature (degree C)	25.000
						Pulse Sequence	PRE SAT

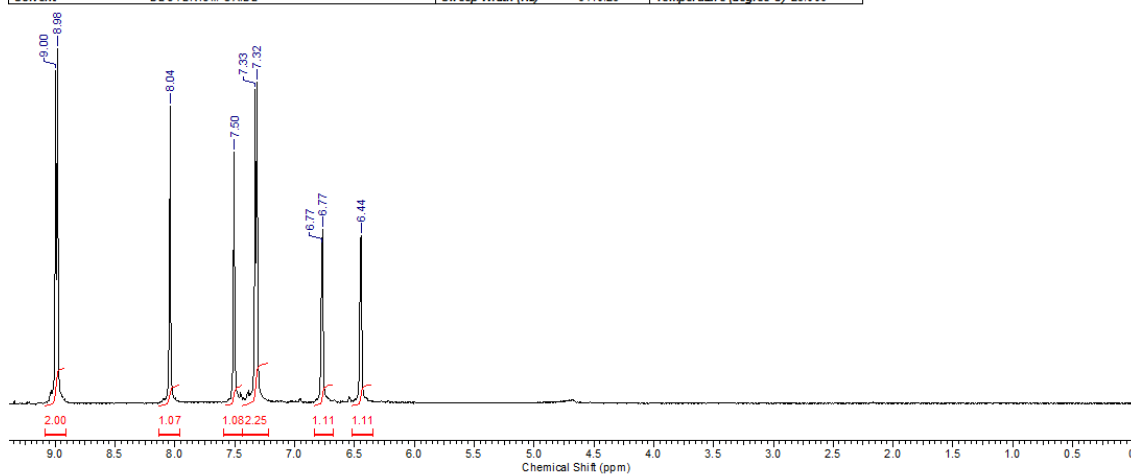


Figure S10. ¹H NMR spectrum (400 MHz, D₂O) of compound **4e**.

^{13}C NMR spectra of compounds **3a-e** and **4c** (most active compound)

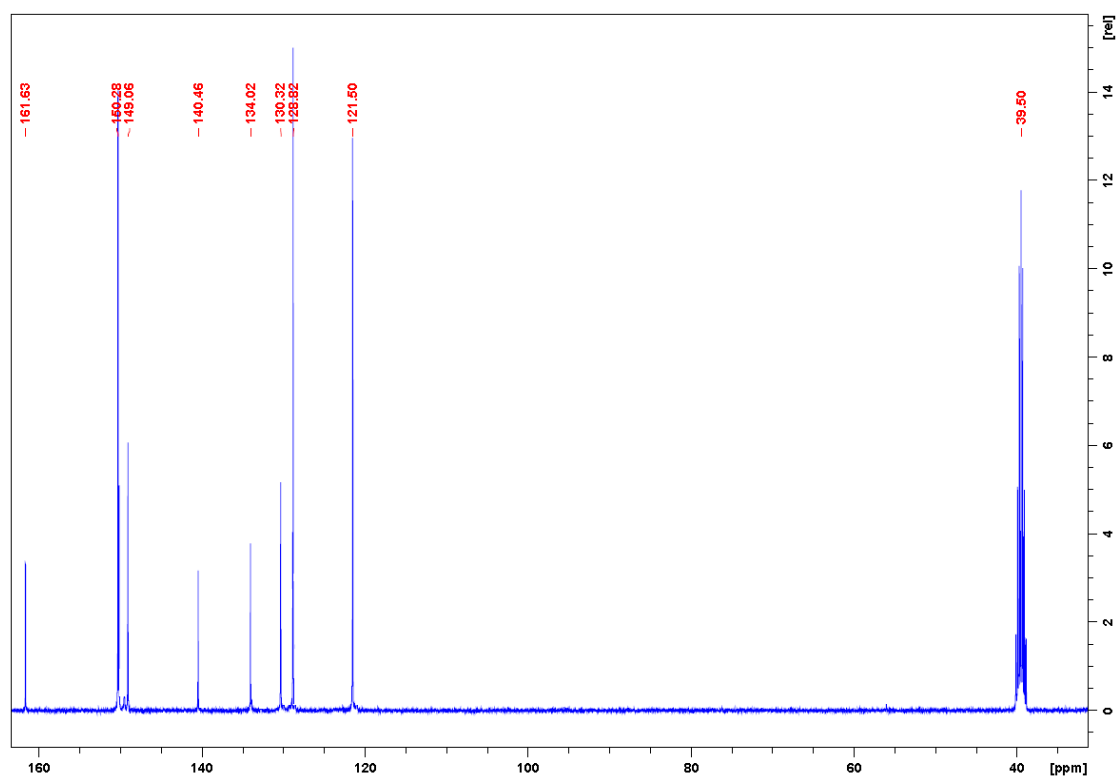


Figure S11. ^{13}C NMR spectrum (100 MHz, $\text{DMSO-}d_6$) of compound **3a**.

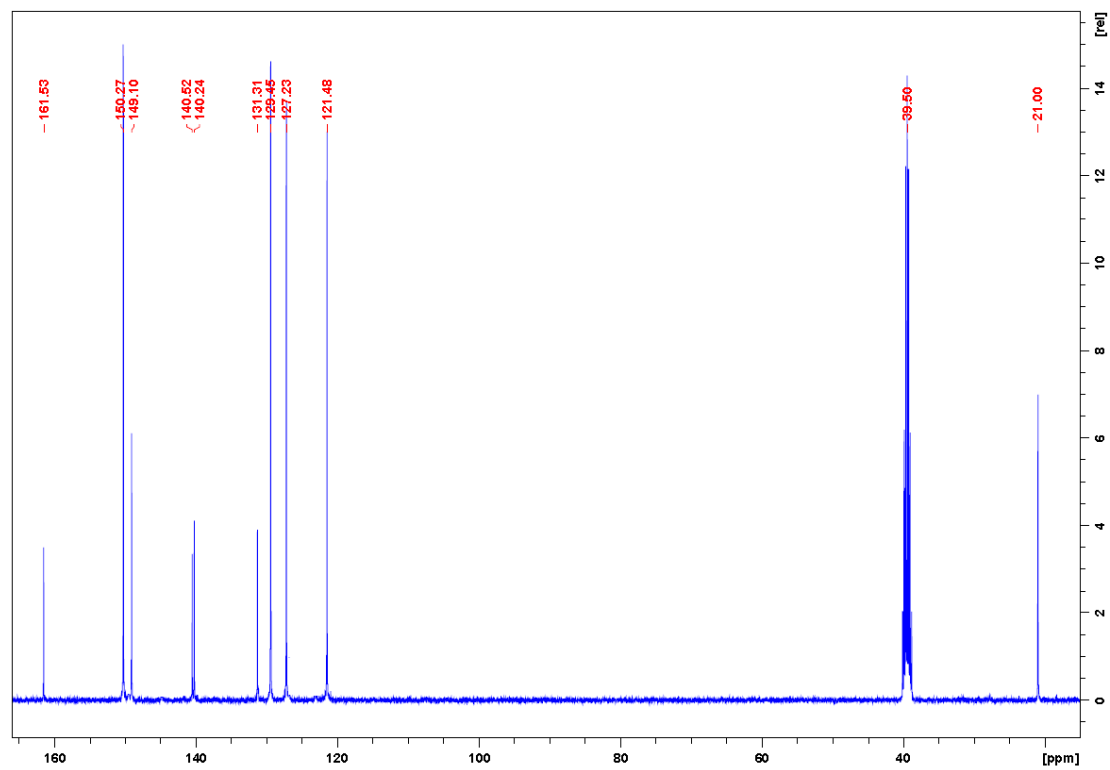


Figure S12. ^{13}C NMR spectrum (100 MHz, $\text{DMSO-}d_6$) of compound **3b**.

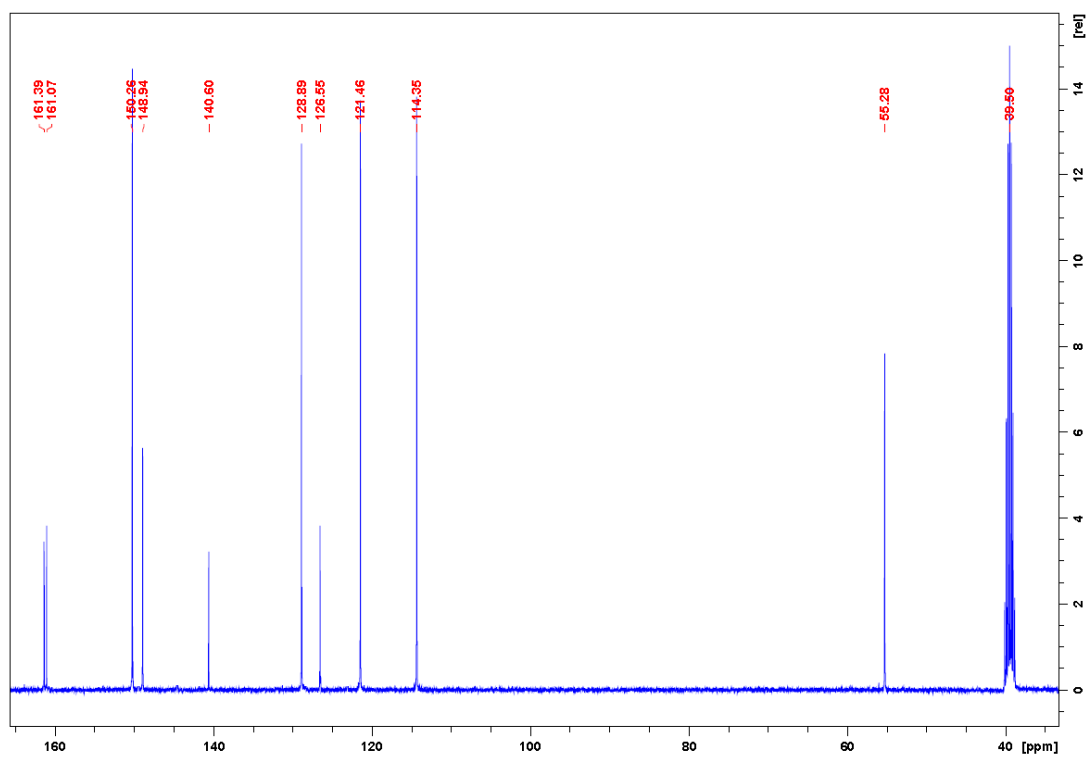


Figure S13. ^{13}C NMR spectrum (100 MHz, $\text{DMSO-}d_6$) of compound **3c**.

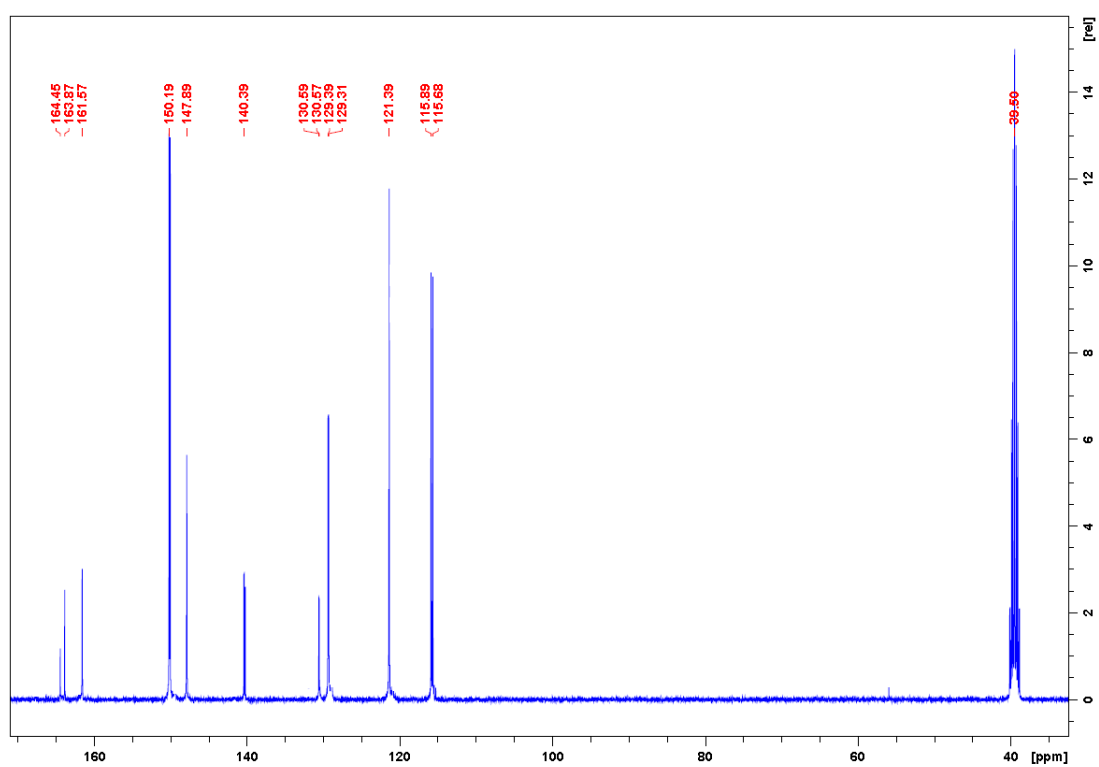


Figure S14. ^{13}C NMR spectrum (100 MHz, $\text{DMSO-}d_6$) of compound **3d**.

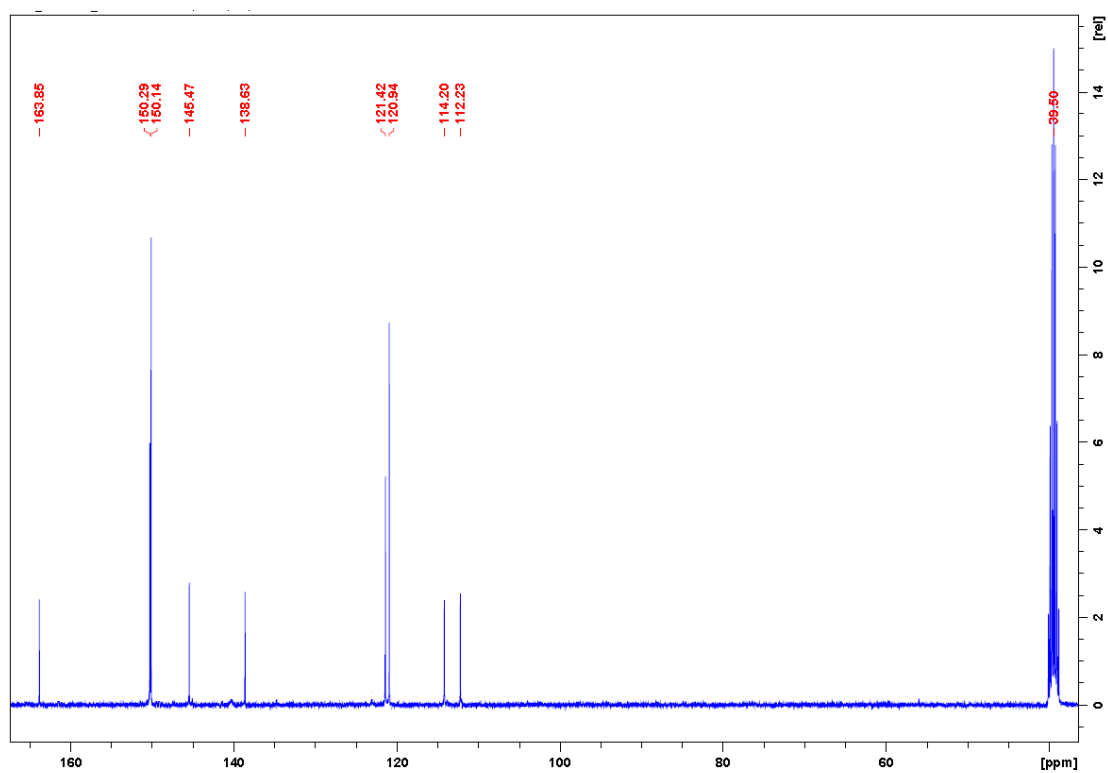


Figure S15. ^{13}C NMR spectrum (100 MHz, $\text{DMSO-}d_6$) of compound **3e**.

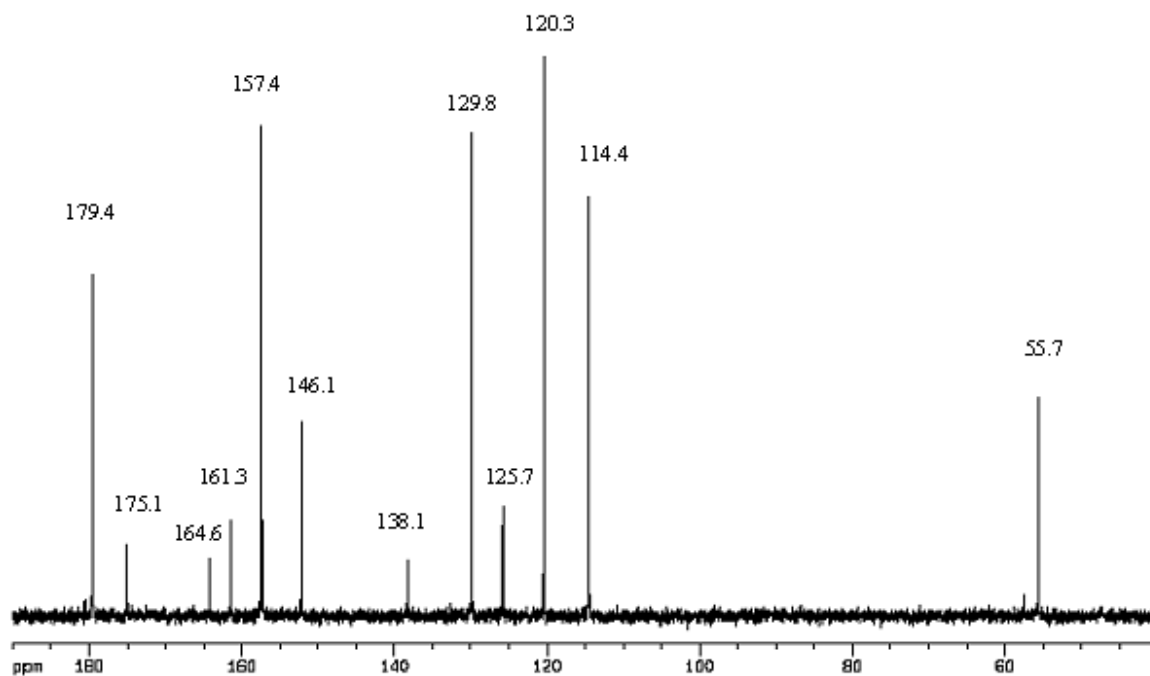


Figure S16. ^{13}C NMR spectrum (100 MHz, D_2O) of compound **4c**.