

Supplementary Materials

Ultrasound-Assisted Synthesis and *In-Silico* Modeling of Methanesulfonyl-Piperazine-Based Dithiocarbamates as Potential Anticancer, Thrombolytic, and Hemolytic Structural Motifs

Freeha Hafeez ¹, Ameer Fawad Zahoor ^{1,*}, Azhar Rasul ², Asim Mansha ¹, Razia Noreen ³, Zohaib Raza ⁴, Kulsoom Ghulam Ali ¹, Ali Irfan ¹ and Gamal A. El-Hiti ^{5,*}

¹ Department of Chemistry, Government College University Faisalabad, Faisalabad 38000, Pakistan; fariha5882@gmail.com (F.H.); mansha.asim@gmail.com (A.M.); kulsoom_gcu@yahoo.com (K.G.A.); raialiirfan@gmail.com (A.I.)

² Department of Zoology, Government College University Faisalabad, Faisalabad 38000, Pakistan; drazharasul@gmail.com

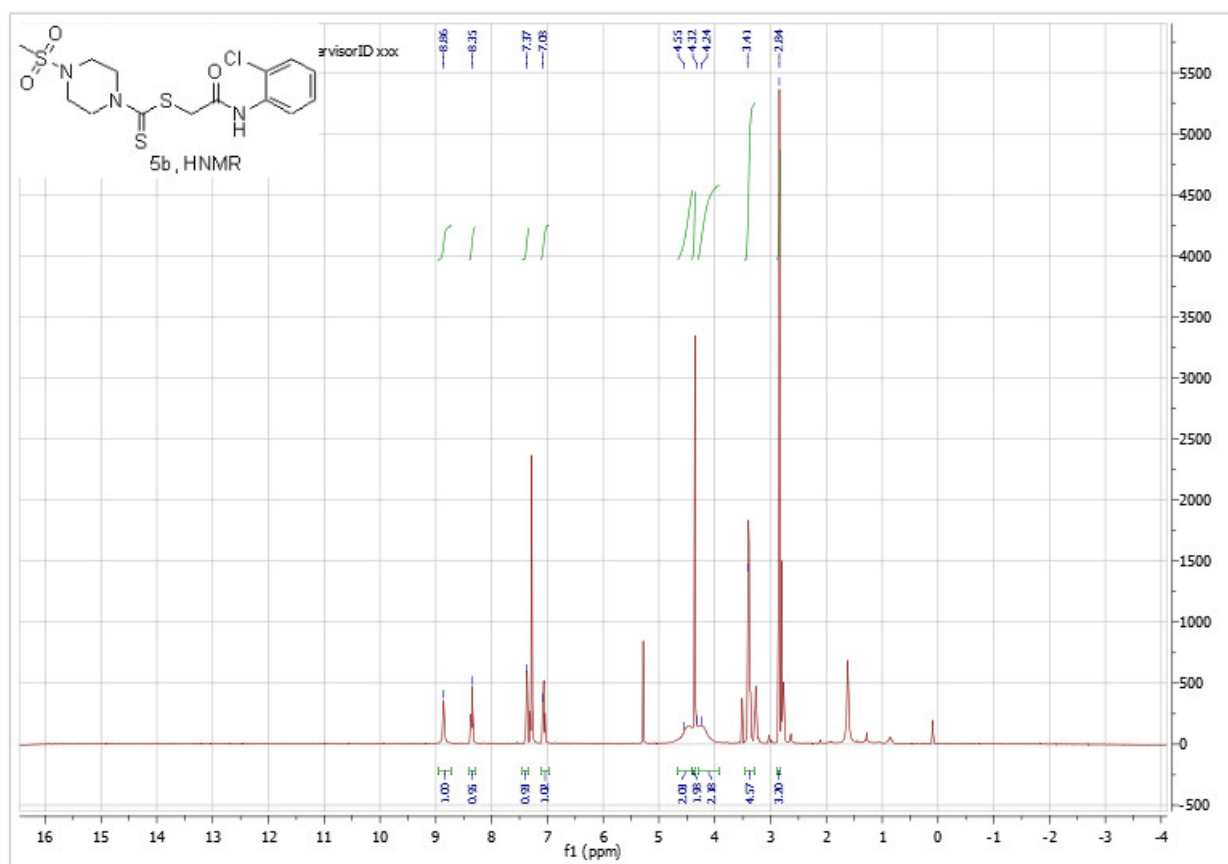
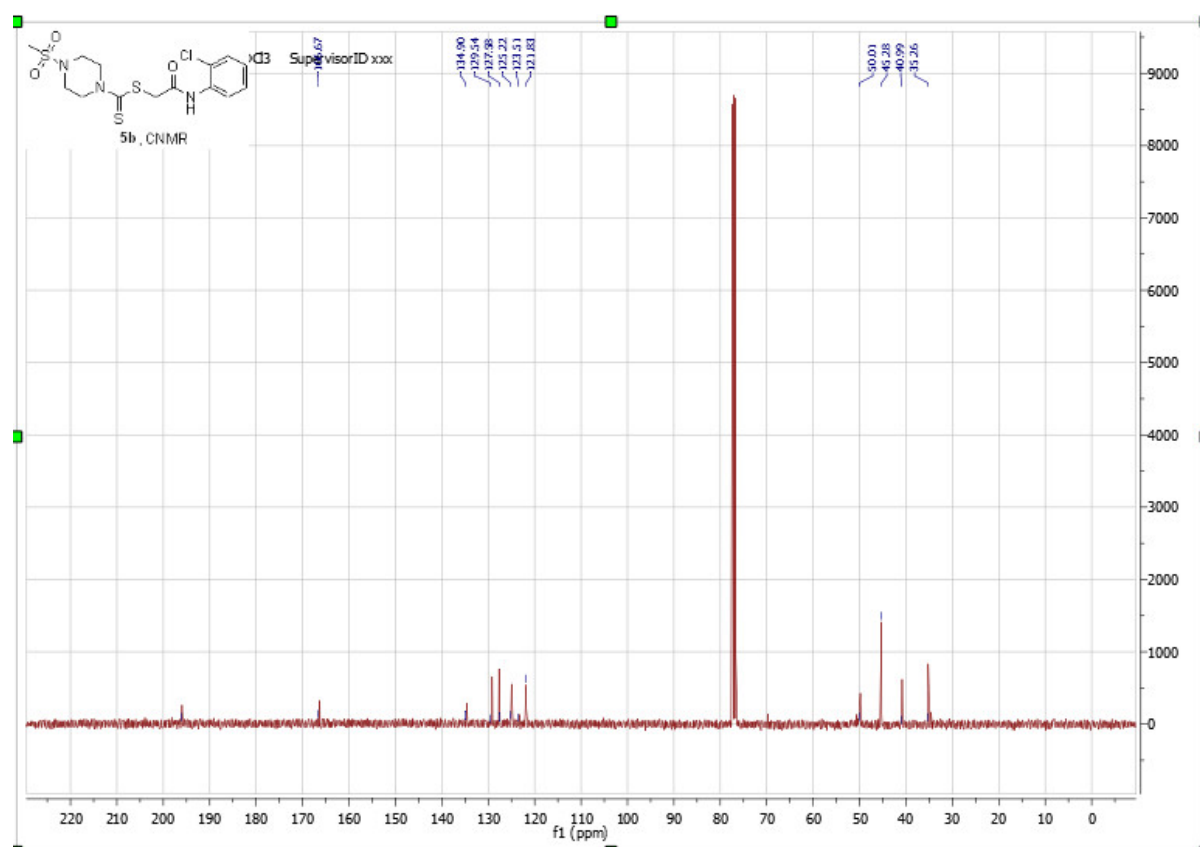
³ Department of Biochemistry, Government College University Faisalabad, Faisalabad 38000, Pakistan; razianoreen@hotmail.com

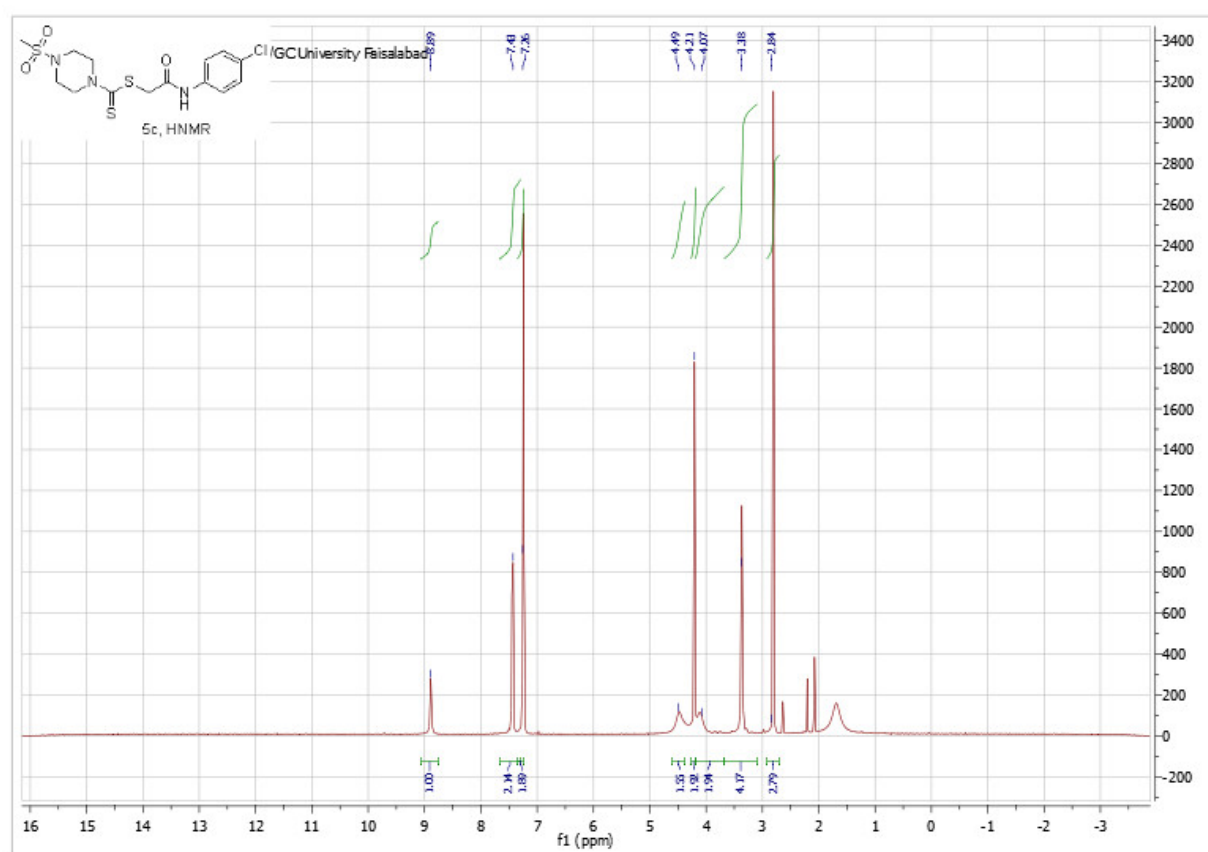
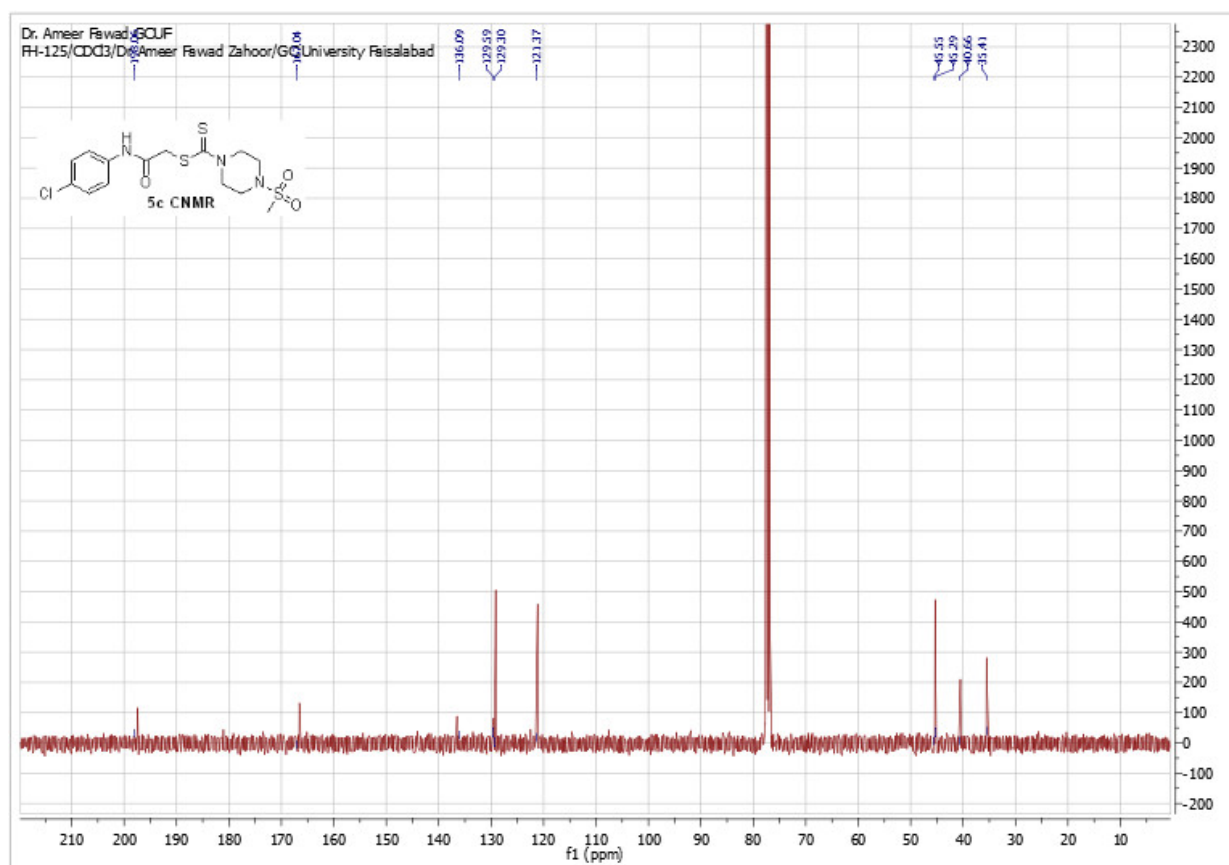
⁴ Department of Pharmacology, Government College University Faisalabad, Faisalabad 38000, Pakistan; zuhaib.raza@live.com

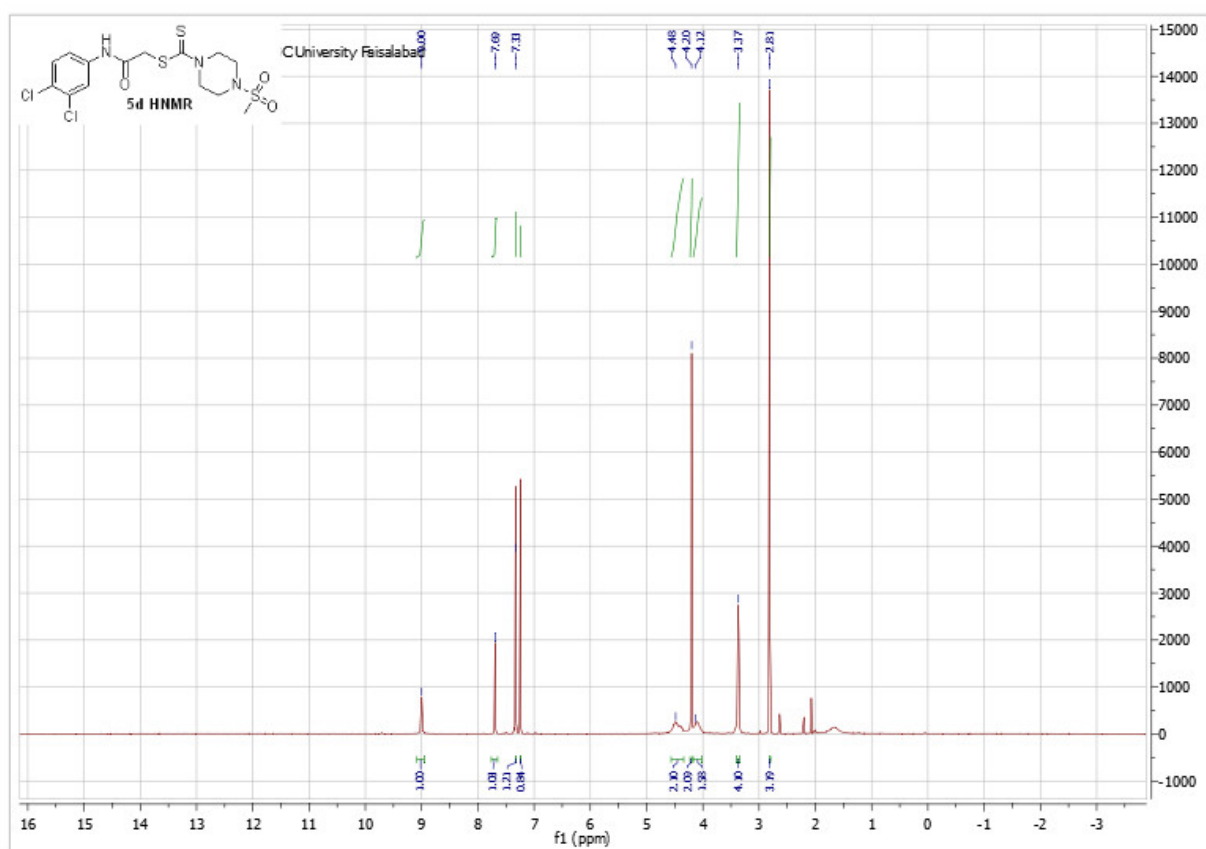
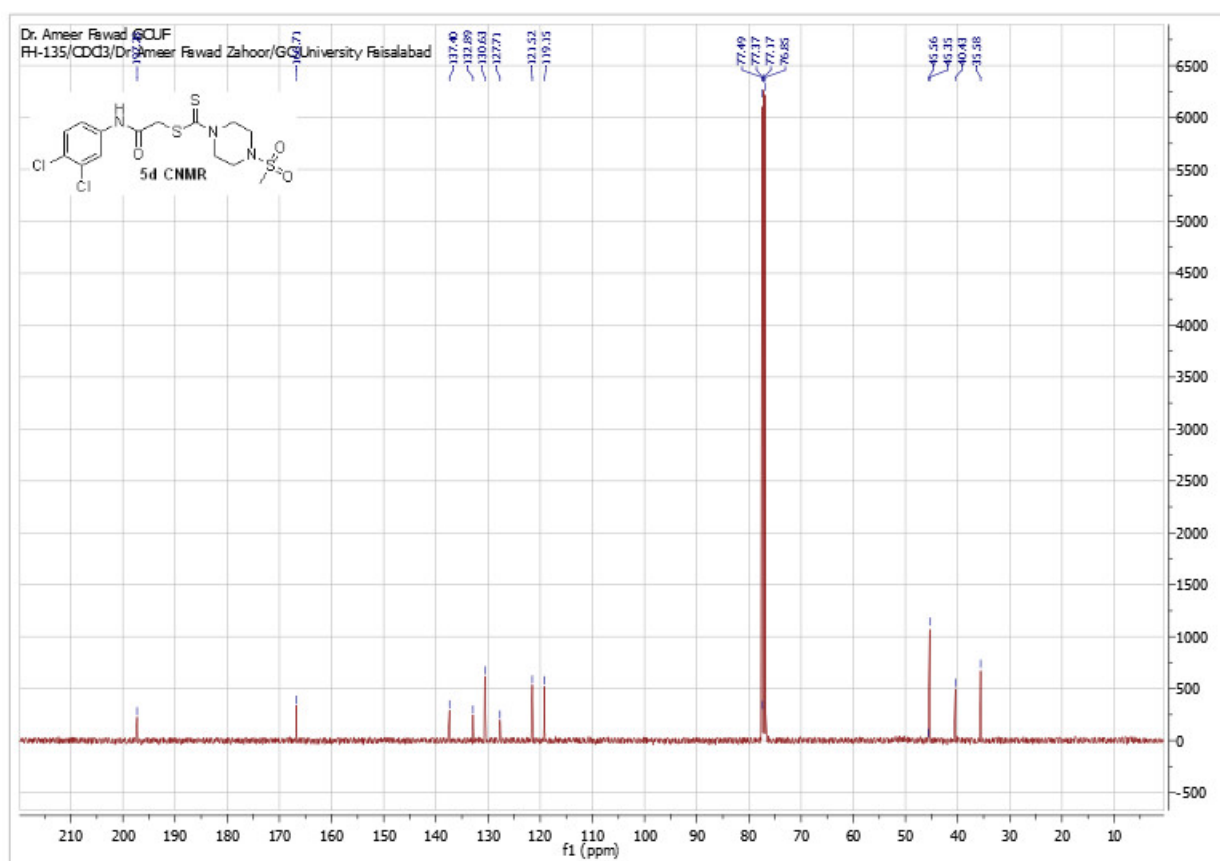
⁵ Cornea Research Chair, Department of Optometry, College of Applied Medical Sciences, King Saud University, Riyadh 11433, Saudi Arabia

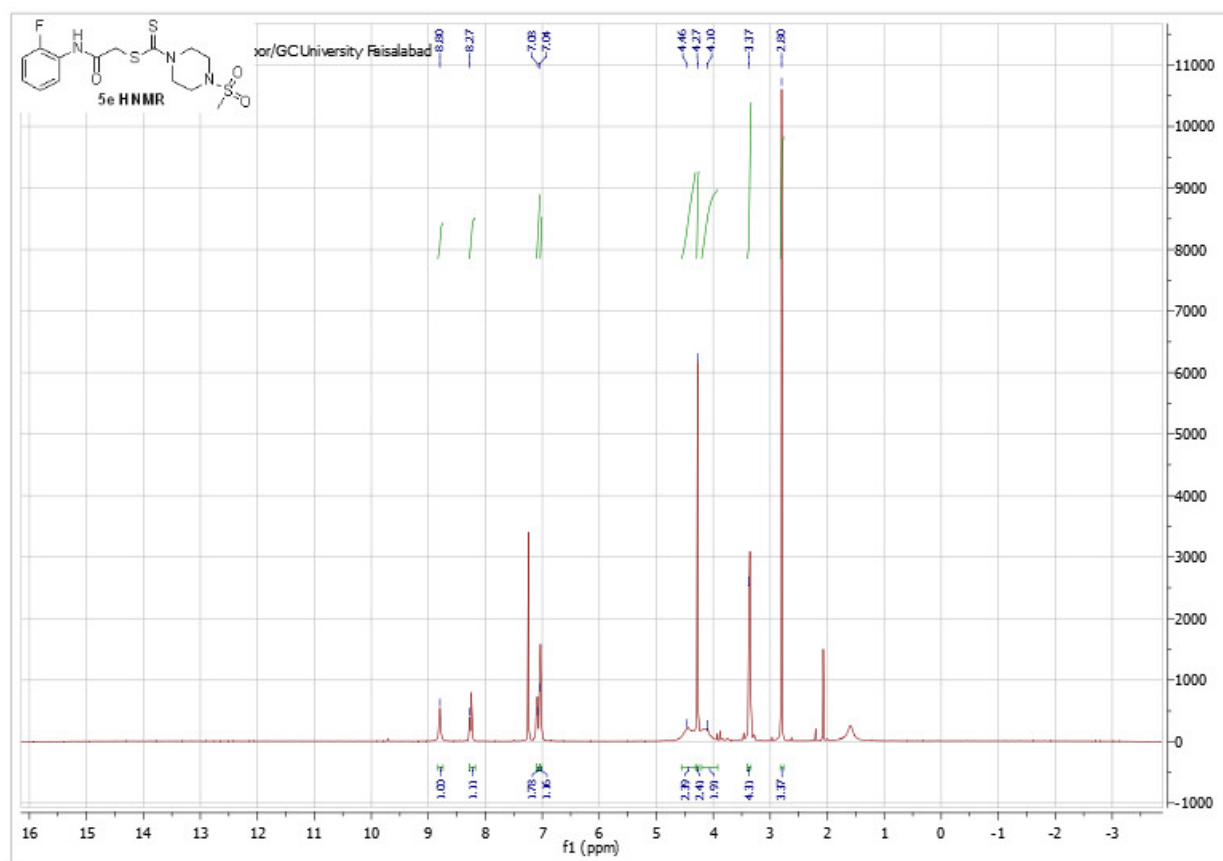
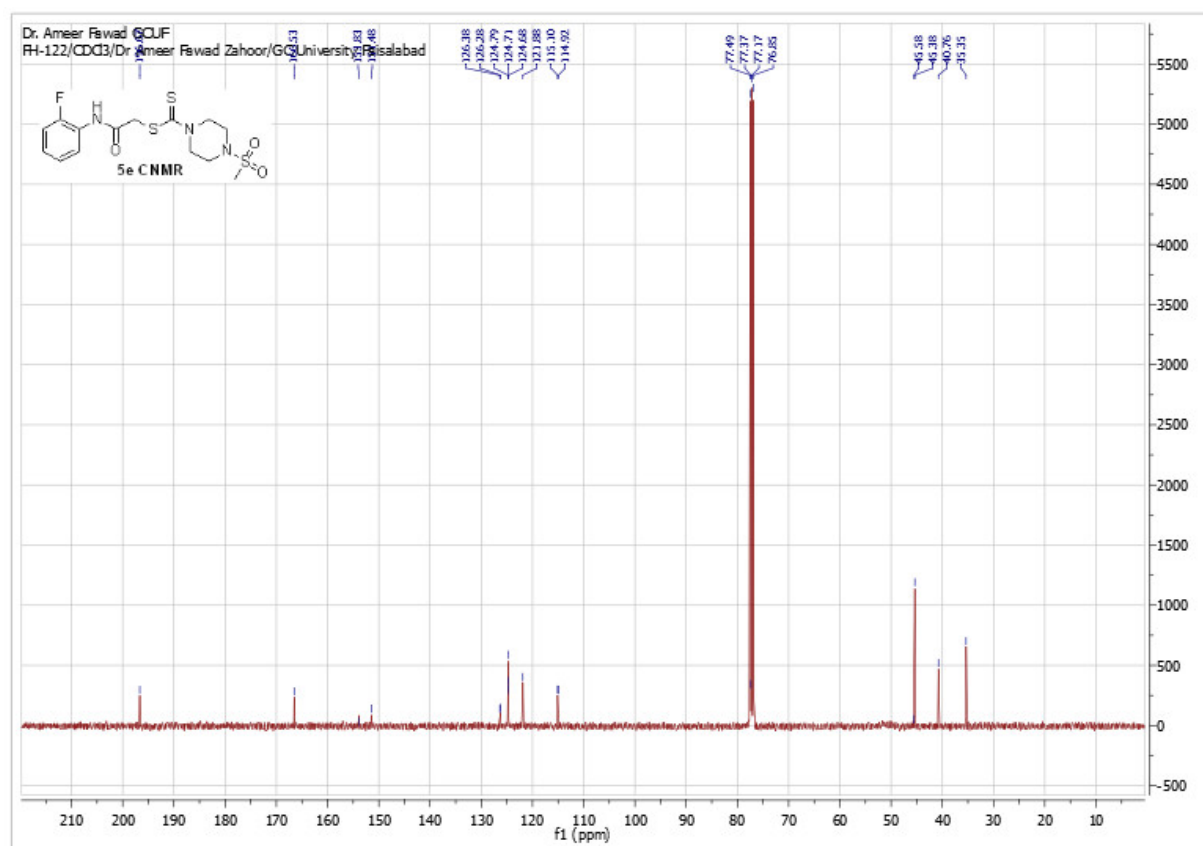
* Correspondence: fawad.zahoor@gcu.edu.pk (A.F.Z.); gelhiti@ksu.edu.sa (G.A.E.-H.); Tel.: +966-114693778 (G.A.E.-H.); Fax: +966-114693536 (G.A.E.-H.)

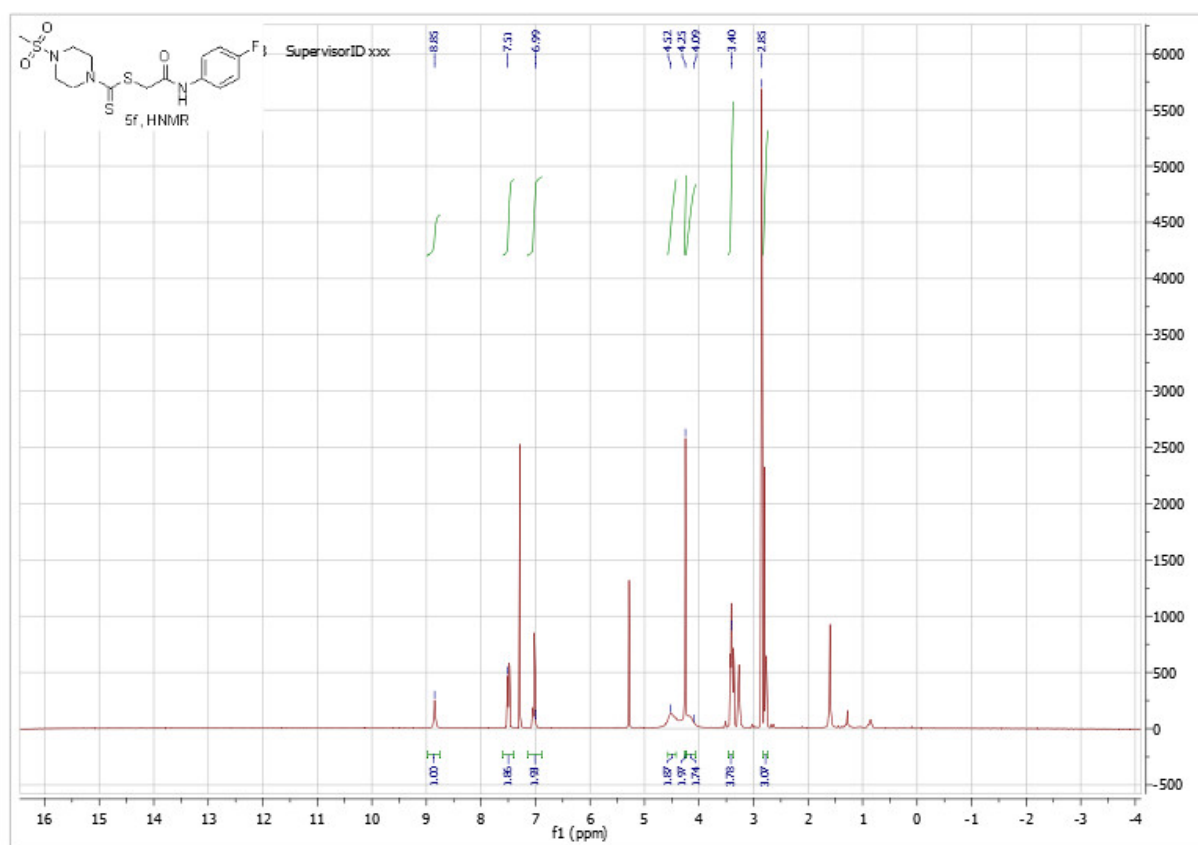
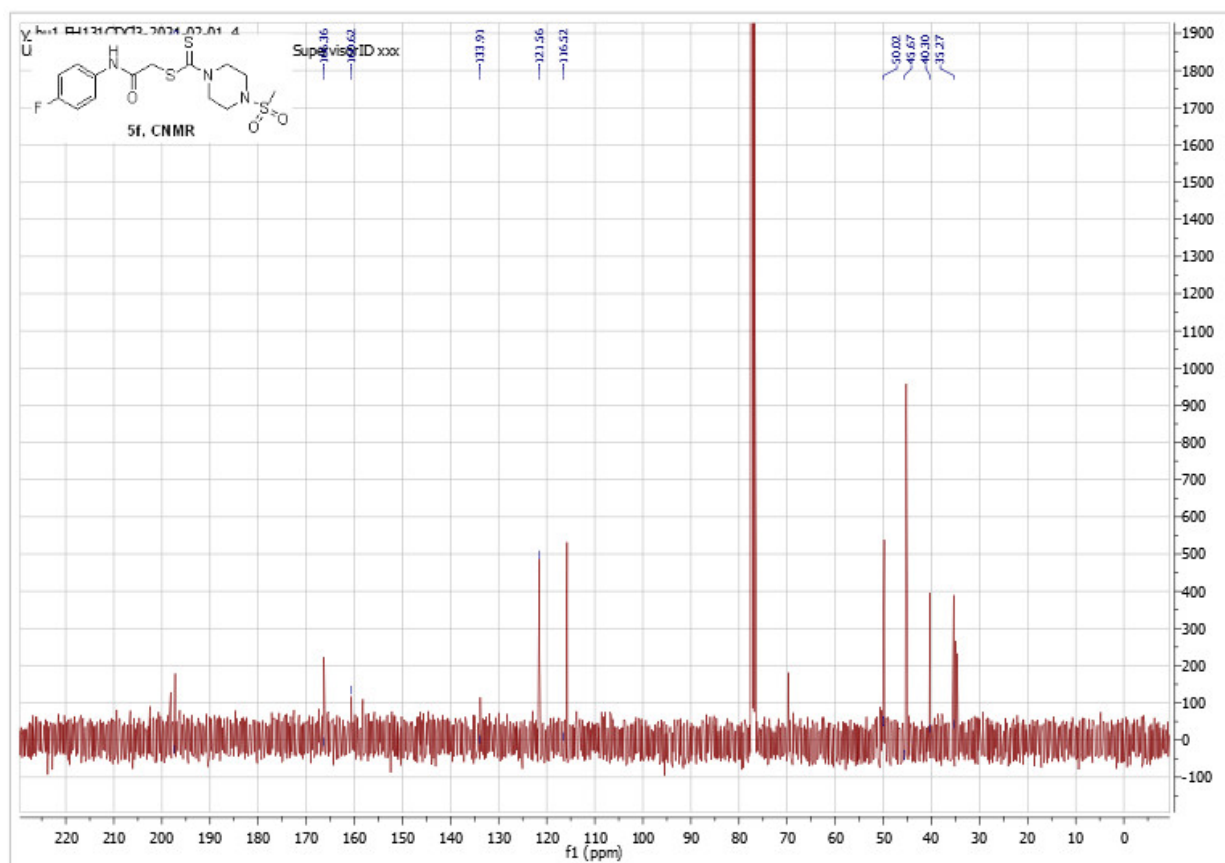


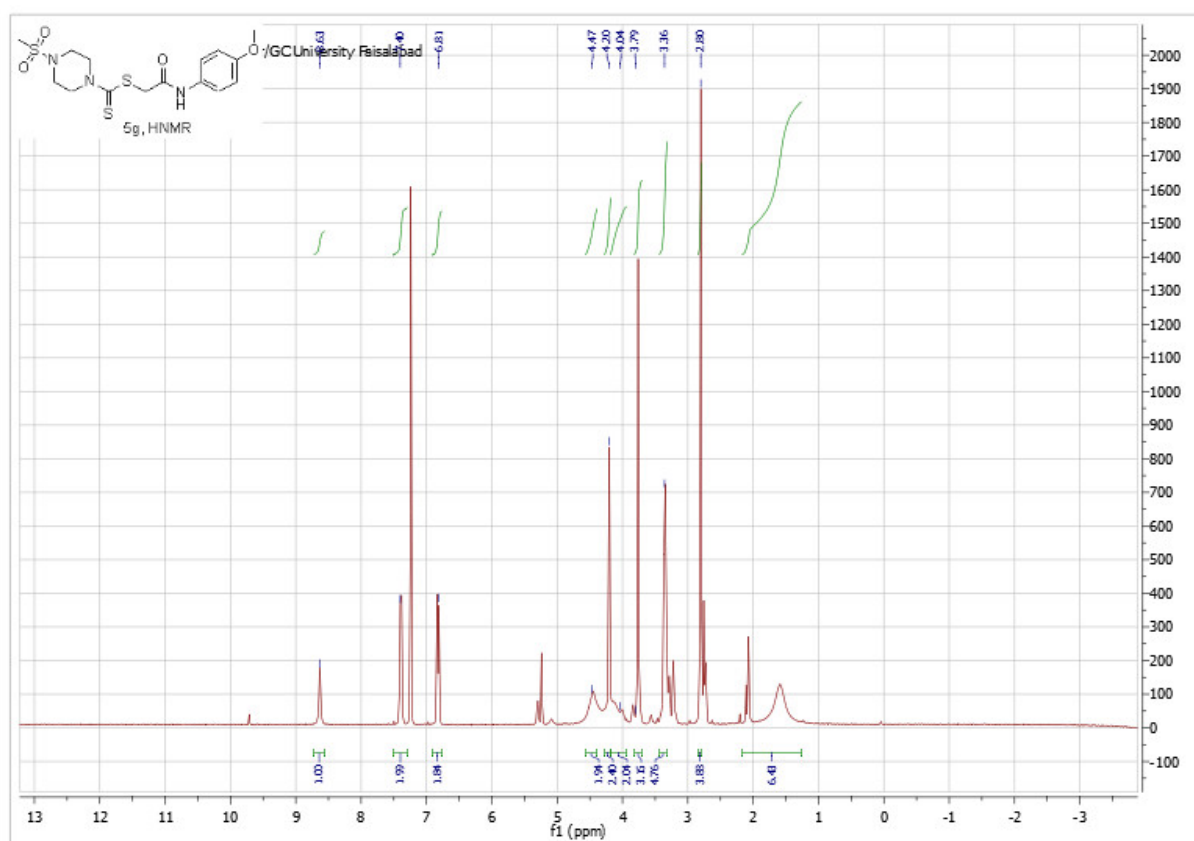
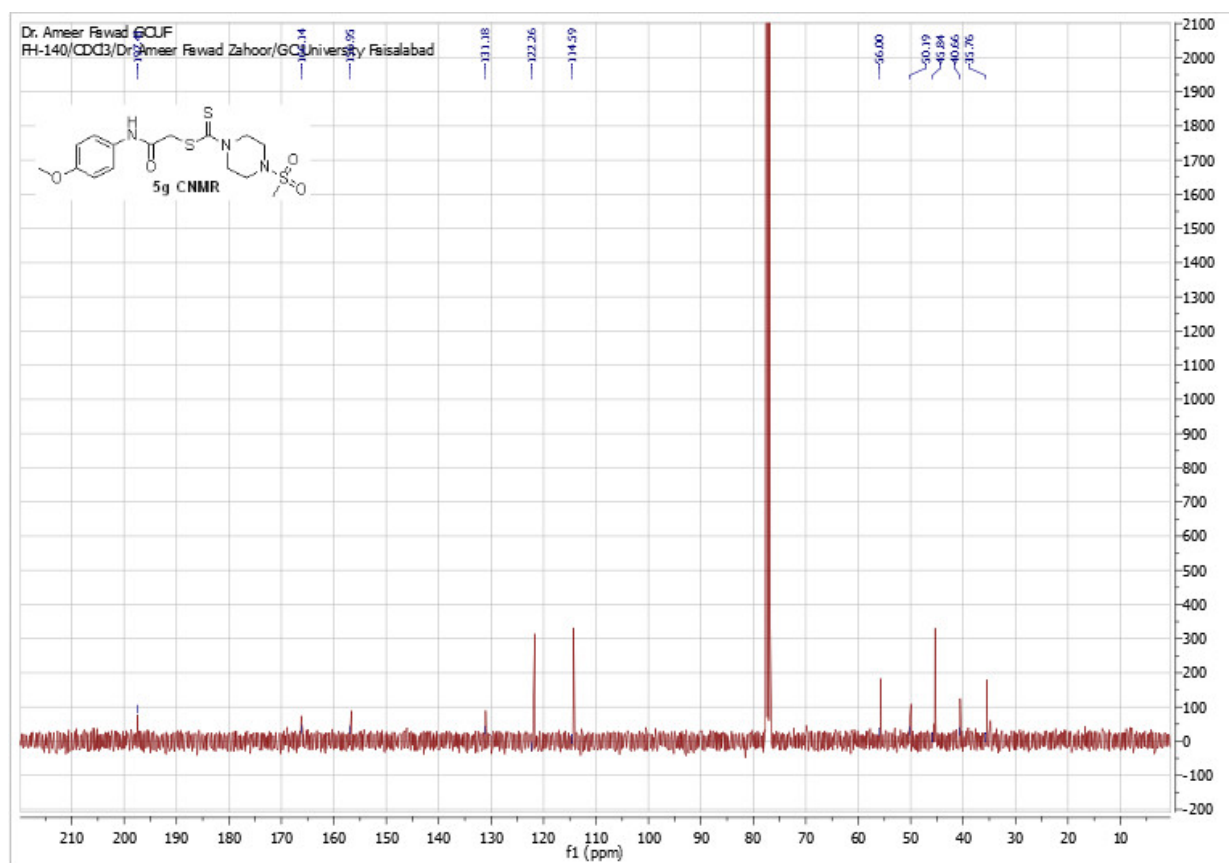
Figure S3. ¹H NMR of compound 5b.Figure S4. ¹³C NMR of compound 5b.

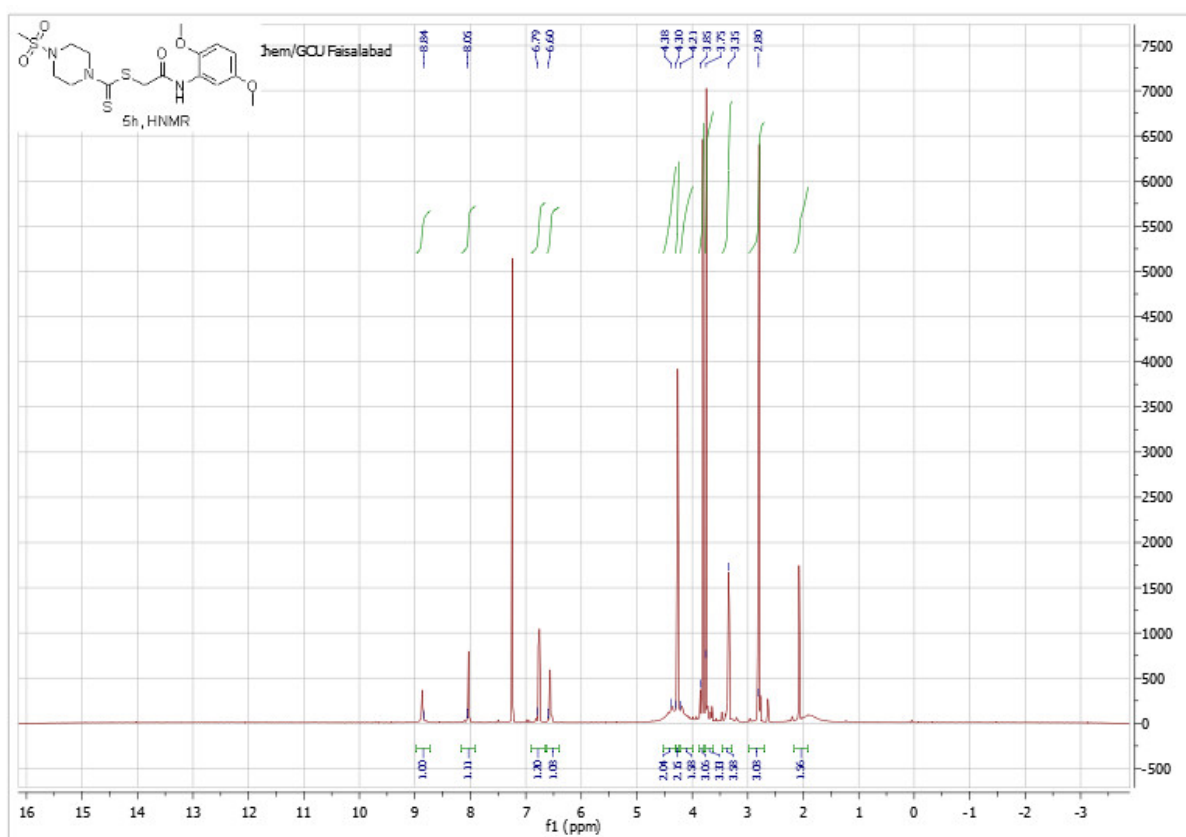
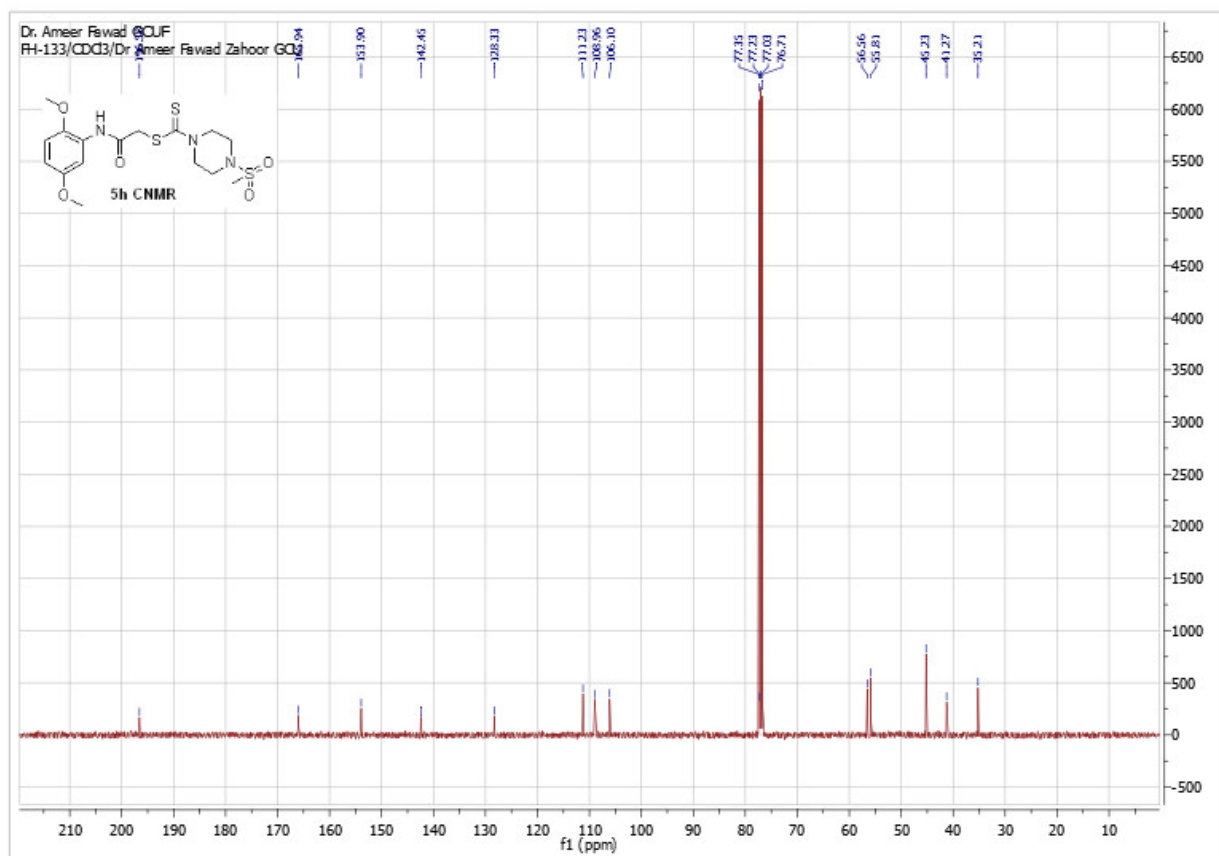
Figure S5. ¹H NMR of compound 5c.Figure S6. ¹³C NMR of compound 5c.

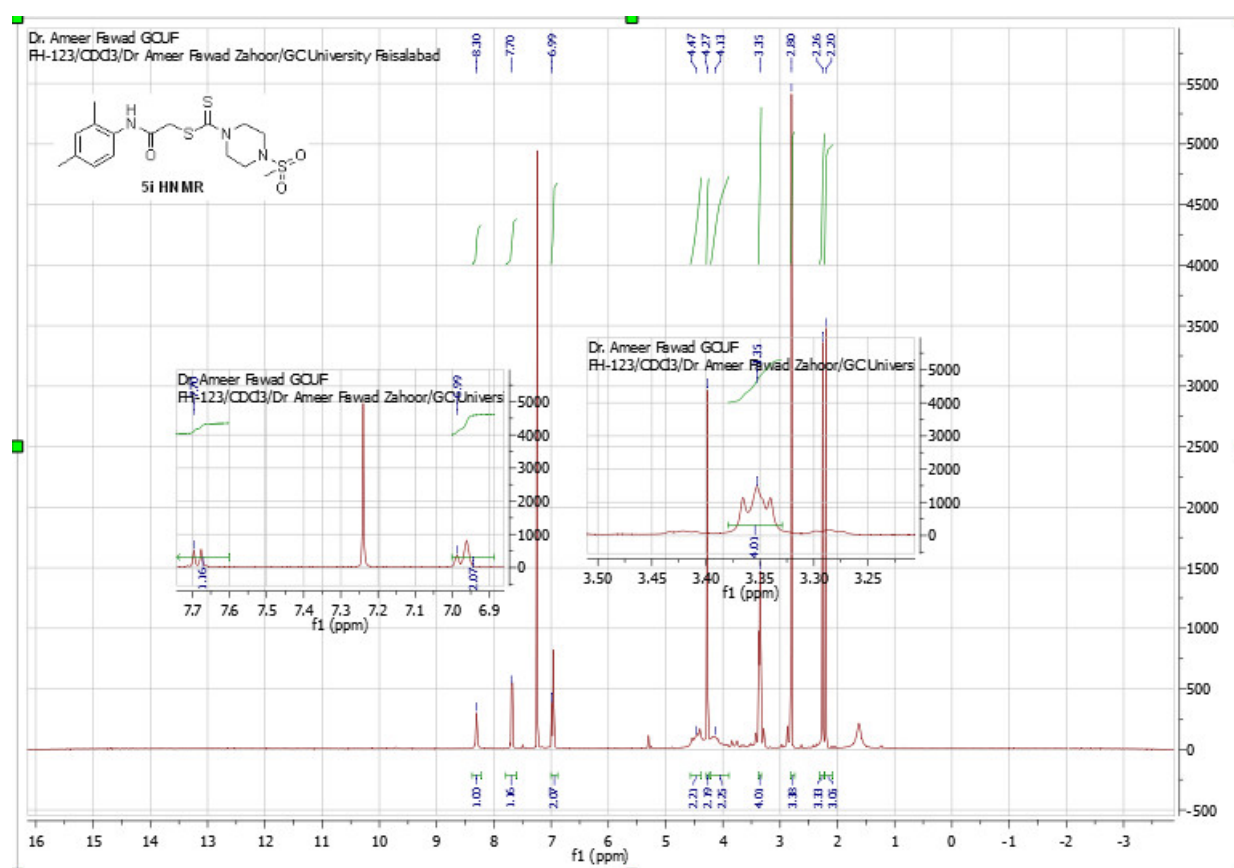
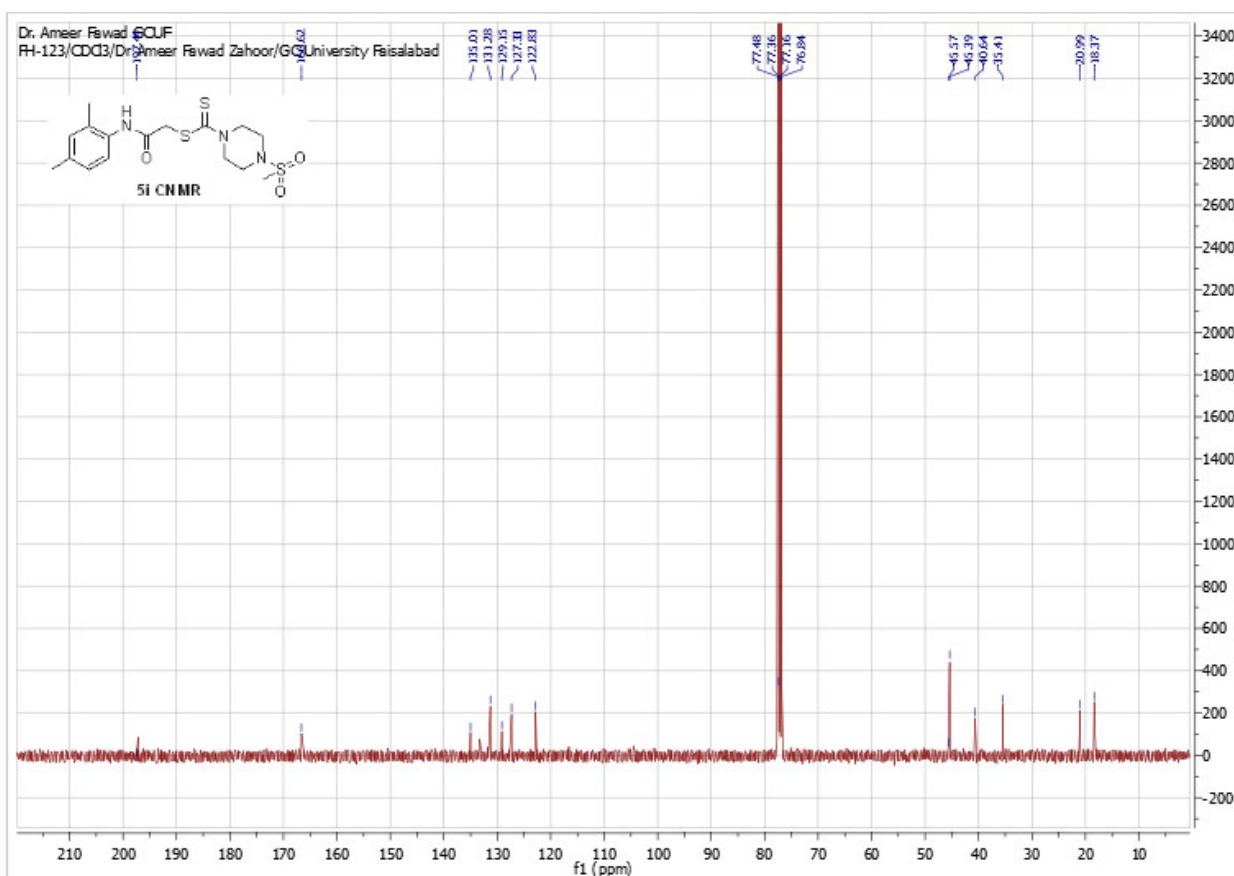
Figure S7: ¹H NMR of compound 5d.Figure S8: ¹³C NMR of compound 5d.

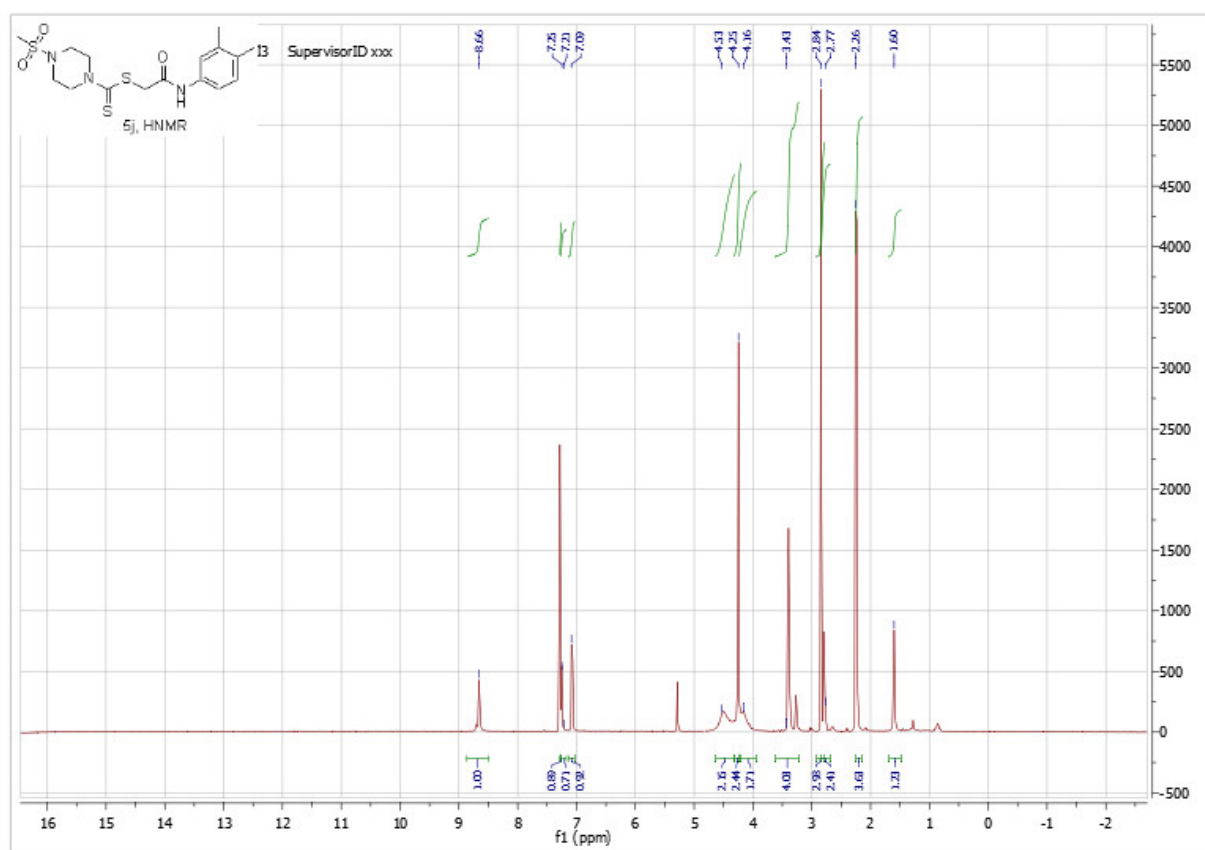
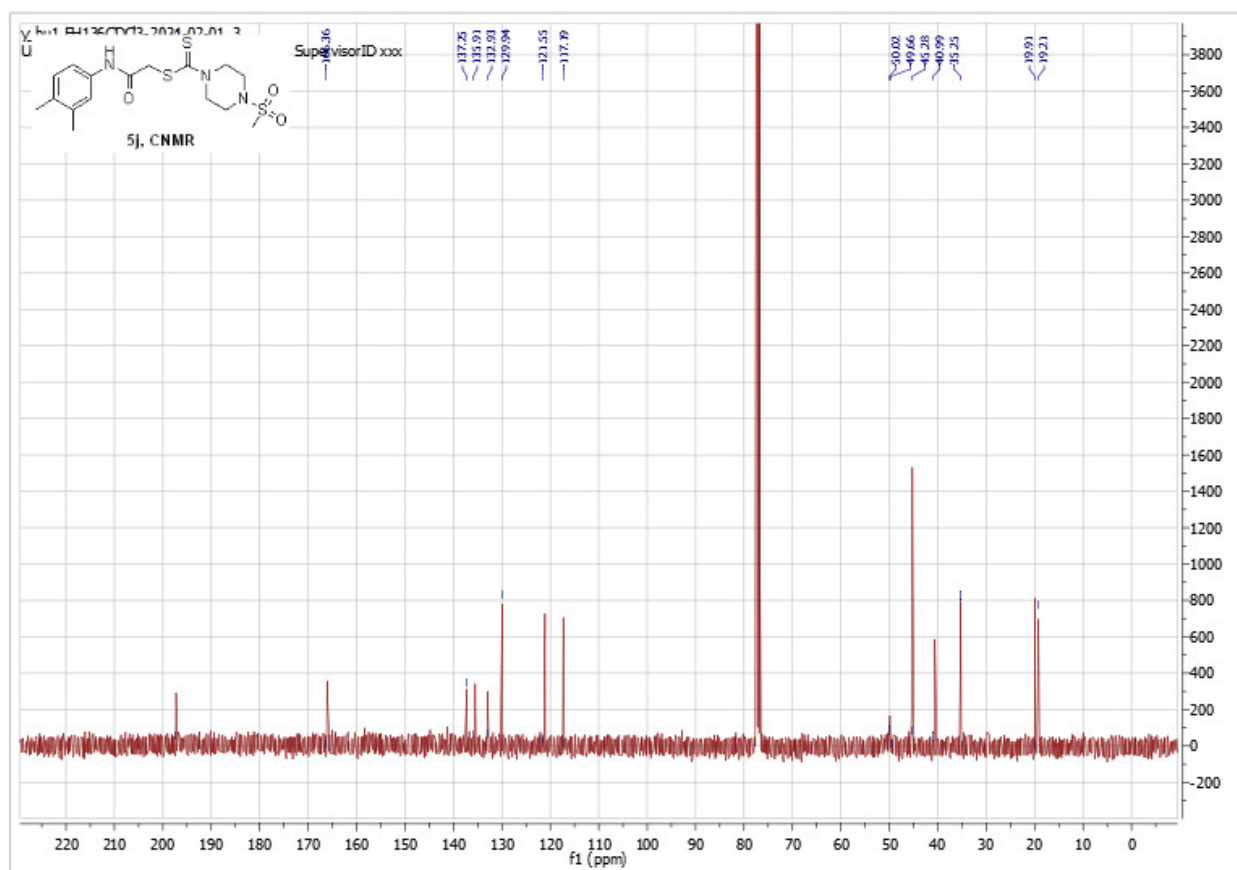
Figure S9. ¹H NMR of compound 5e.Figure S10. ¹³C NMR of compound 5e.

Figure S11. ¹H NMR of compound 5f.Figure S12. ¹³C NMR of compound 5f.

Figure S13. ¹H NMR of compound 5g.Figure S14. ¹³C NMR of compound 5g.

Figure S15. ¹H NMR of compound 5h.Figure S16. ¹³C NMR of compound 5h.

Figure S17. ¹H NMR of compound 5i.Figure S18. ¹³C NMR of compound 5i.

Figure S19. ¹H NMR of compound 5j.Figure S20. ¹³C NMR of compound 5j.