

## **Supporting information file for manuscript**

### **Design, Synthesis and Structural Characterization of Thioflavones and Thioflavonols as Potential Tyrosinase Inhibitors: In Vitro and In Silico Studies**

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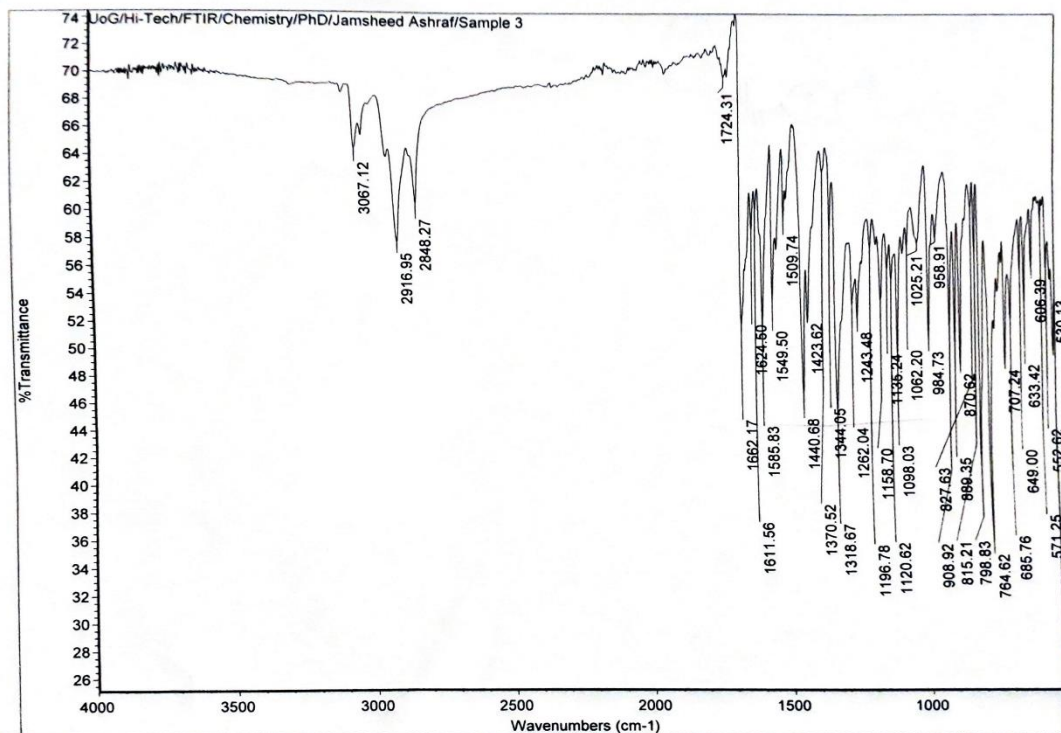


Figure S3. FTIR Spectrum of Compound 2c

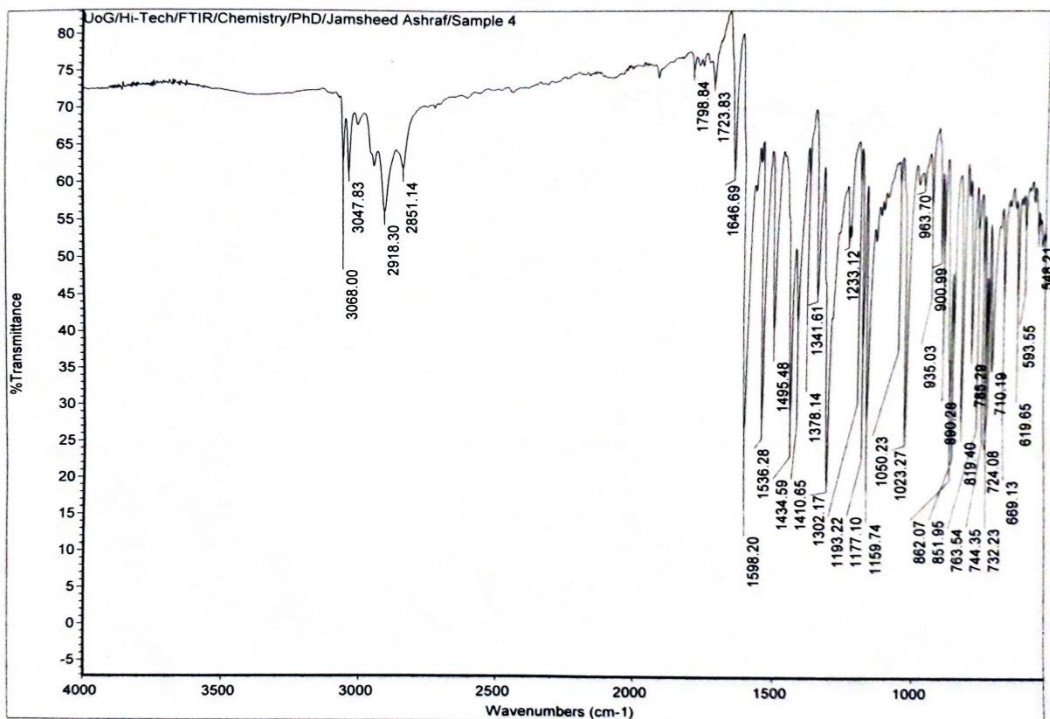


Figure S4. FTIR Spectrum of Compound 2d

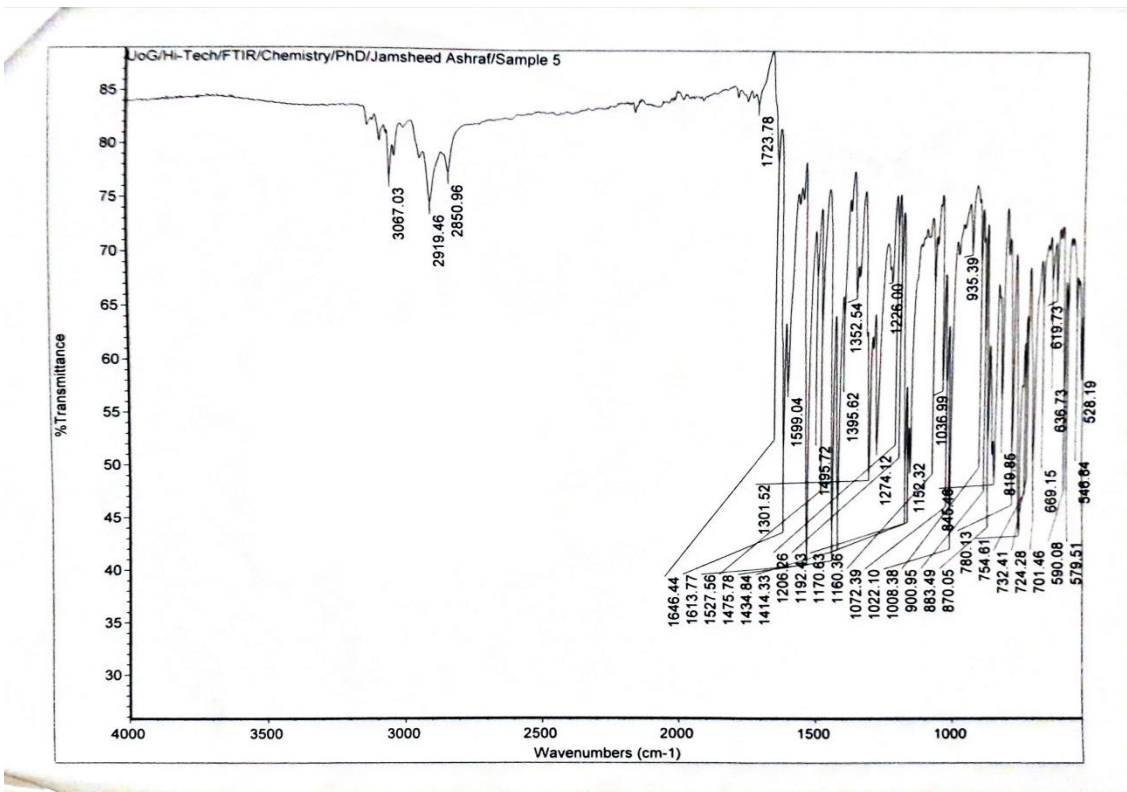


Figure S5. FTIR Spectrum of Compound 2e

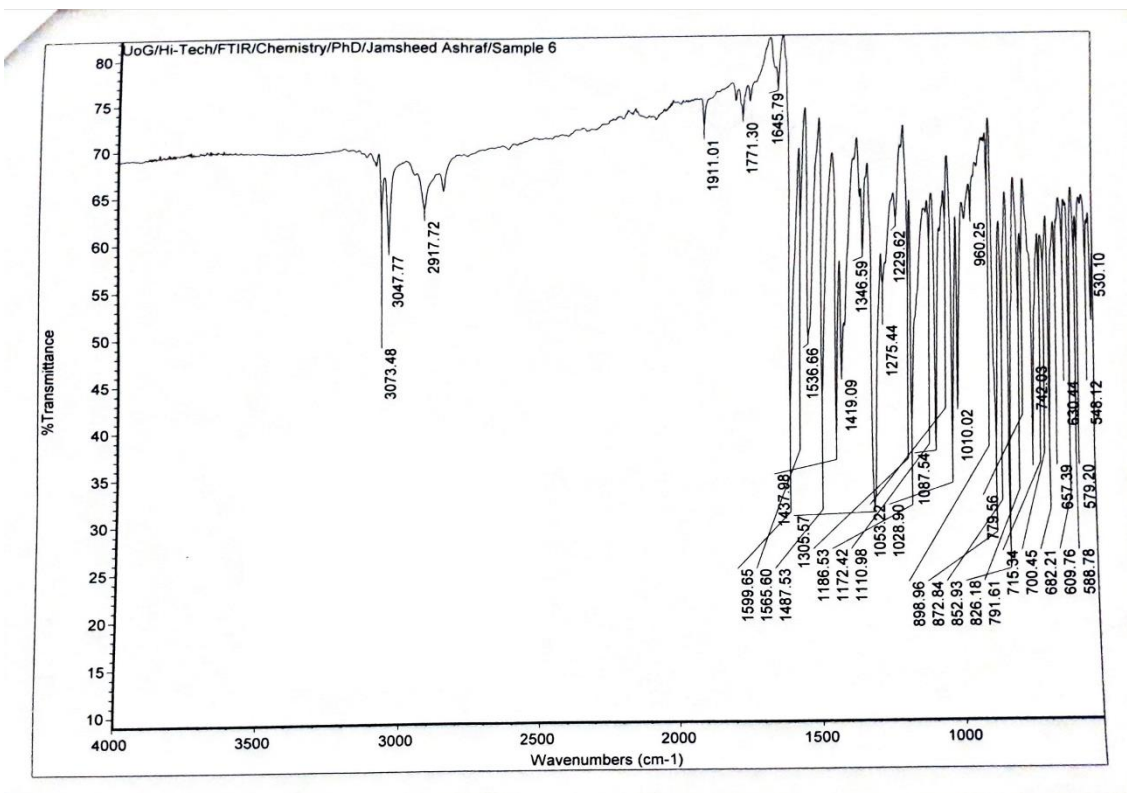


Figure S6. FTIR Spectrum of Compound 2f



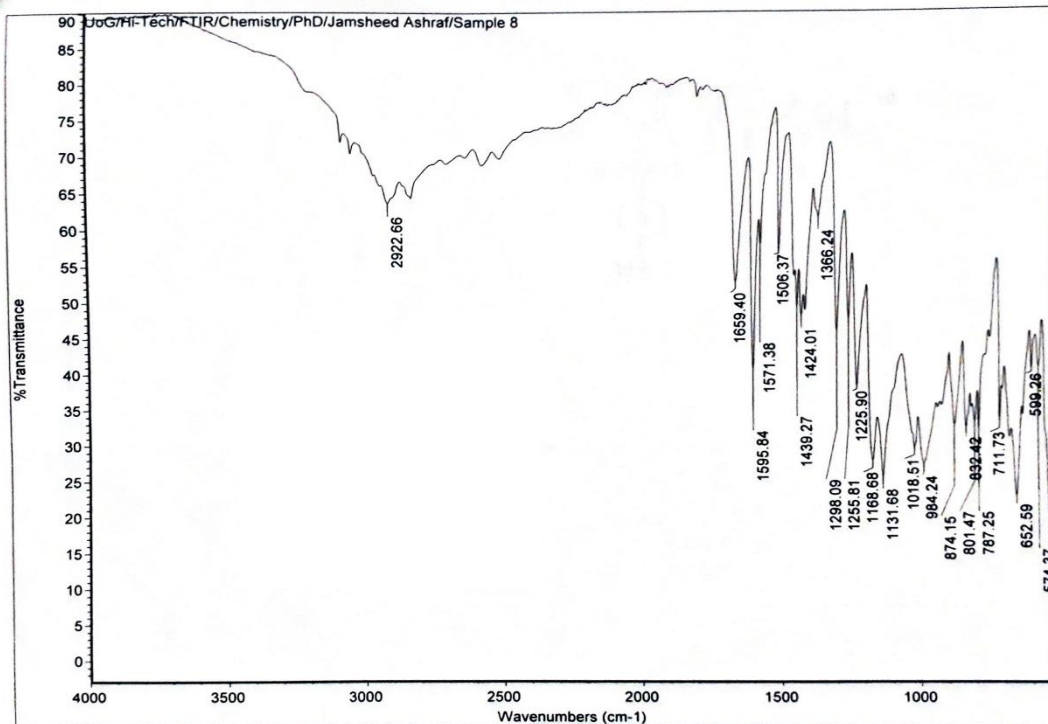


Figure S7. FTIR Spectrum of Compound 2g

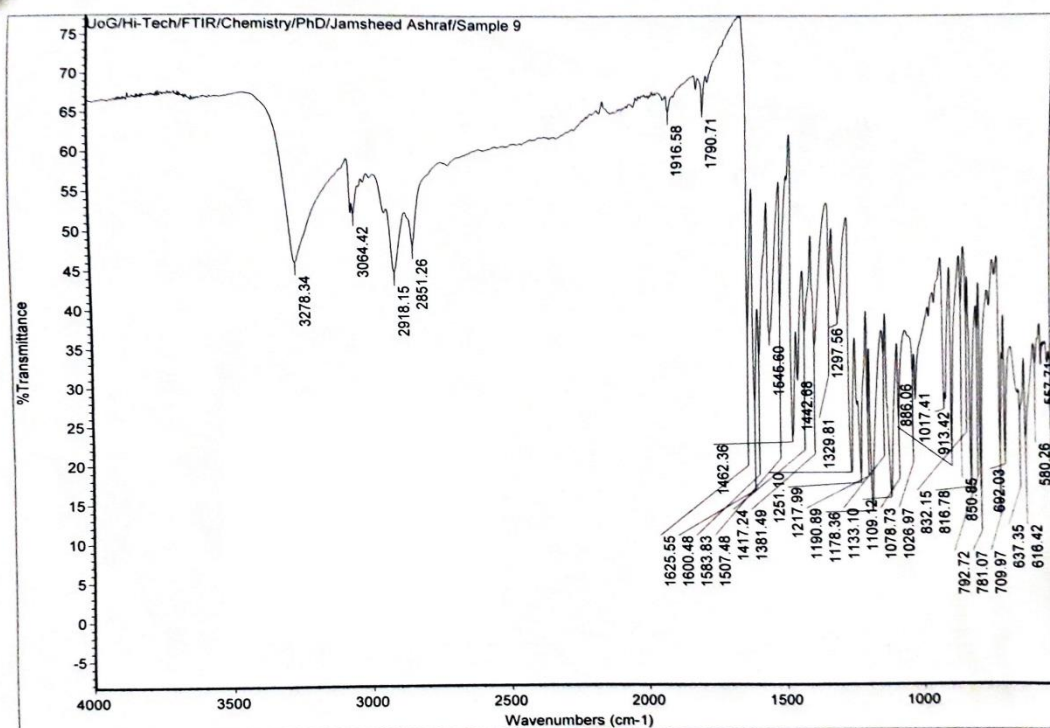


Figure S8. FTIR Spectrum of Compound 2h

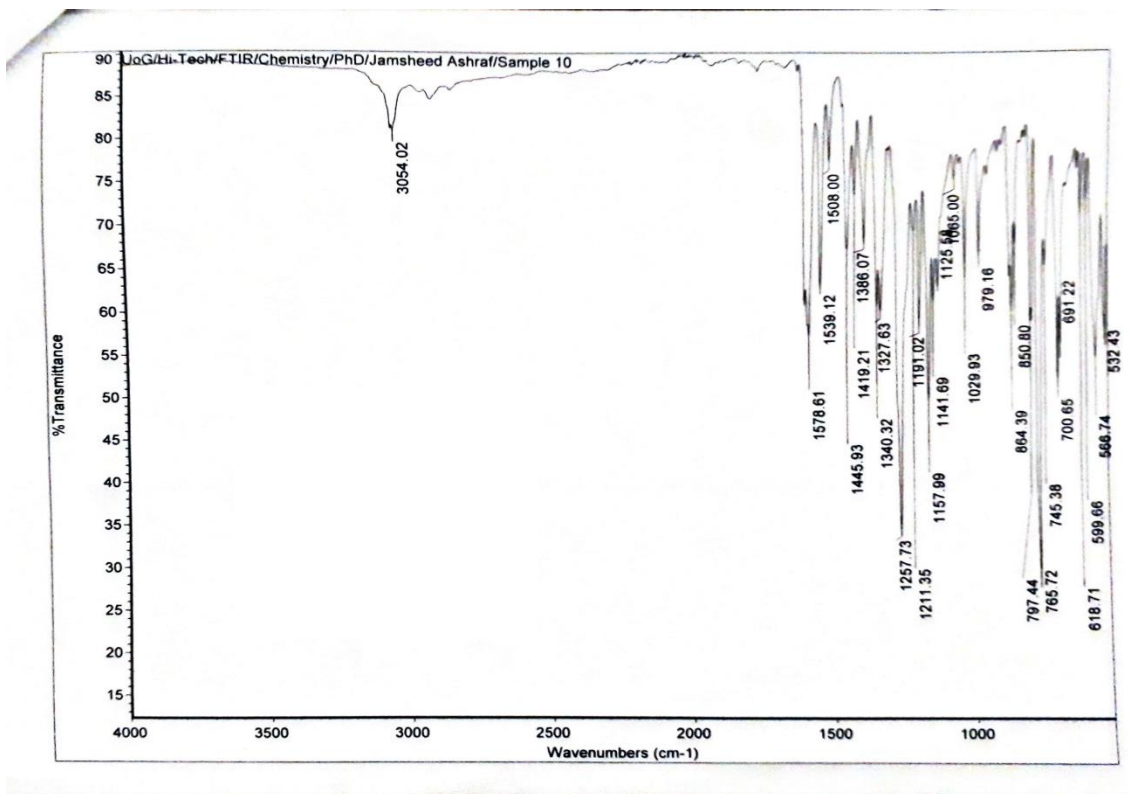


Figure S9. FTIR Spectrum of Compound 2i

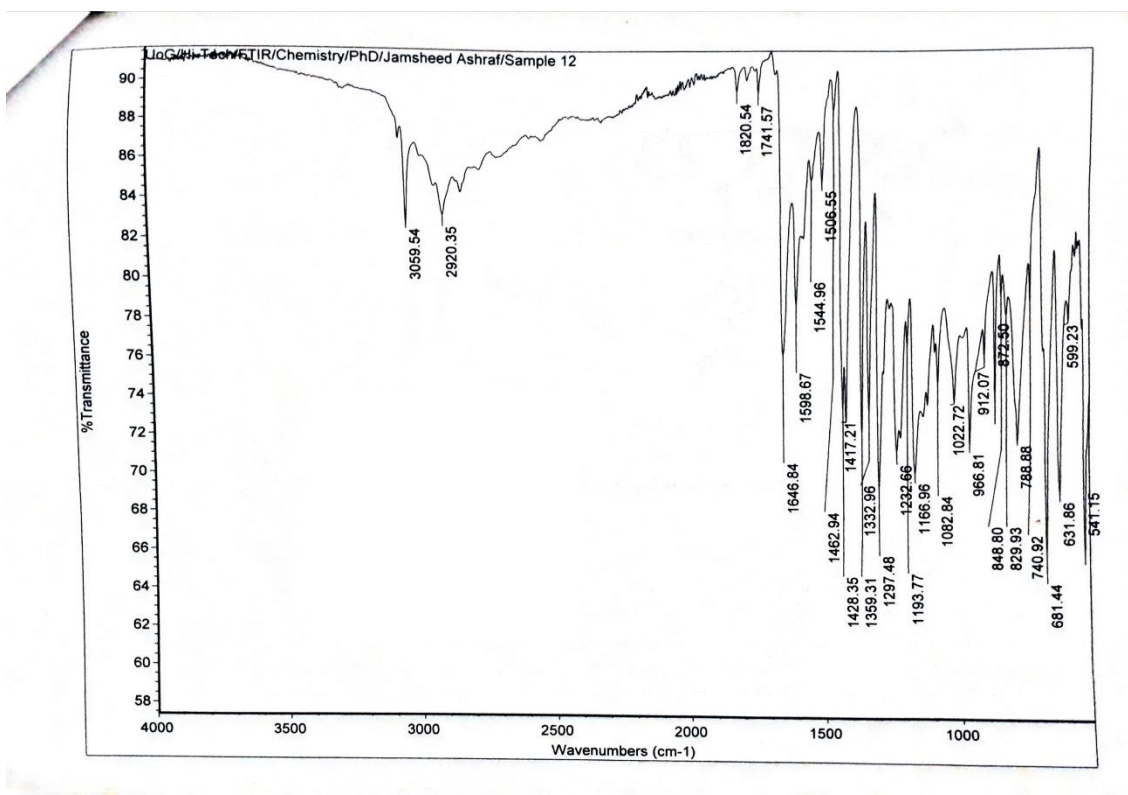


Figure S10. FTIR Spectrum of Compound 2j

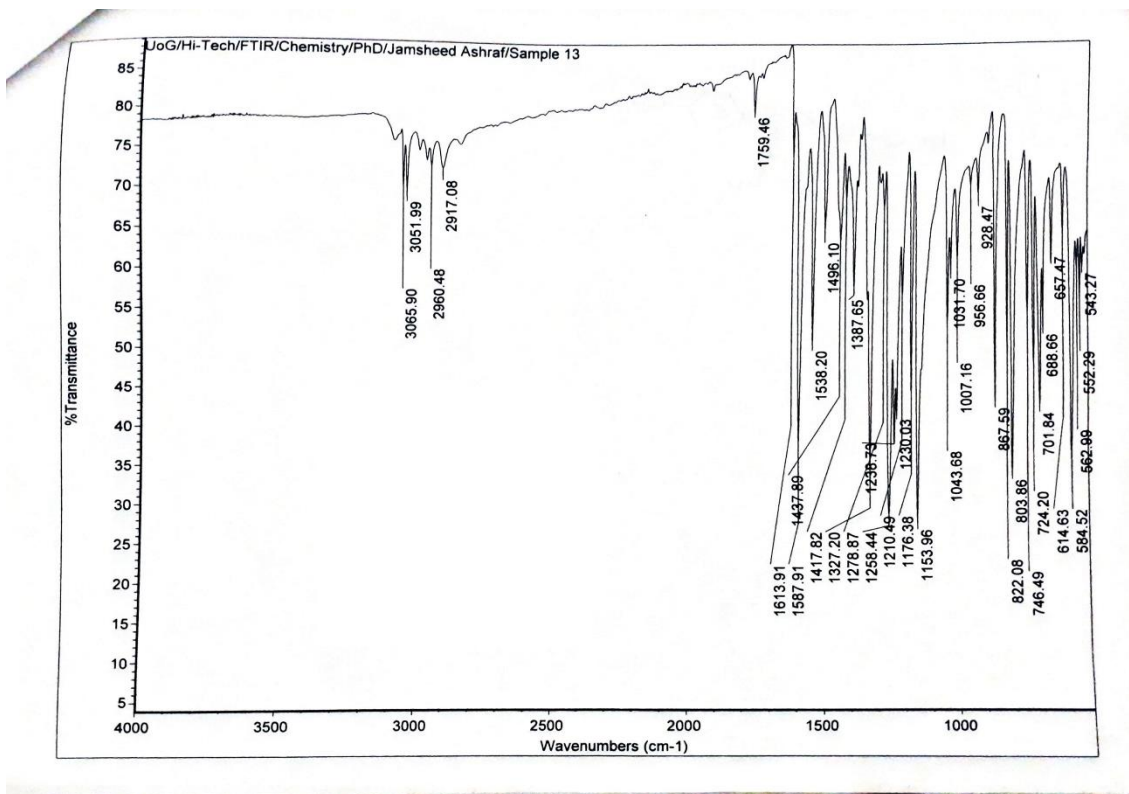


Figure S11. FTIR Spectrum of Compound 2k

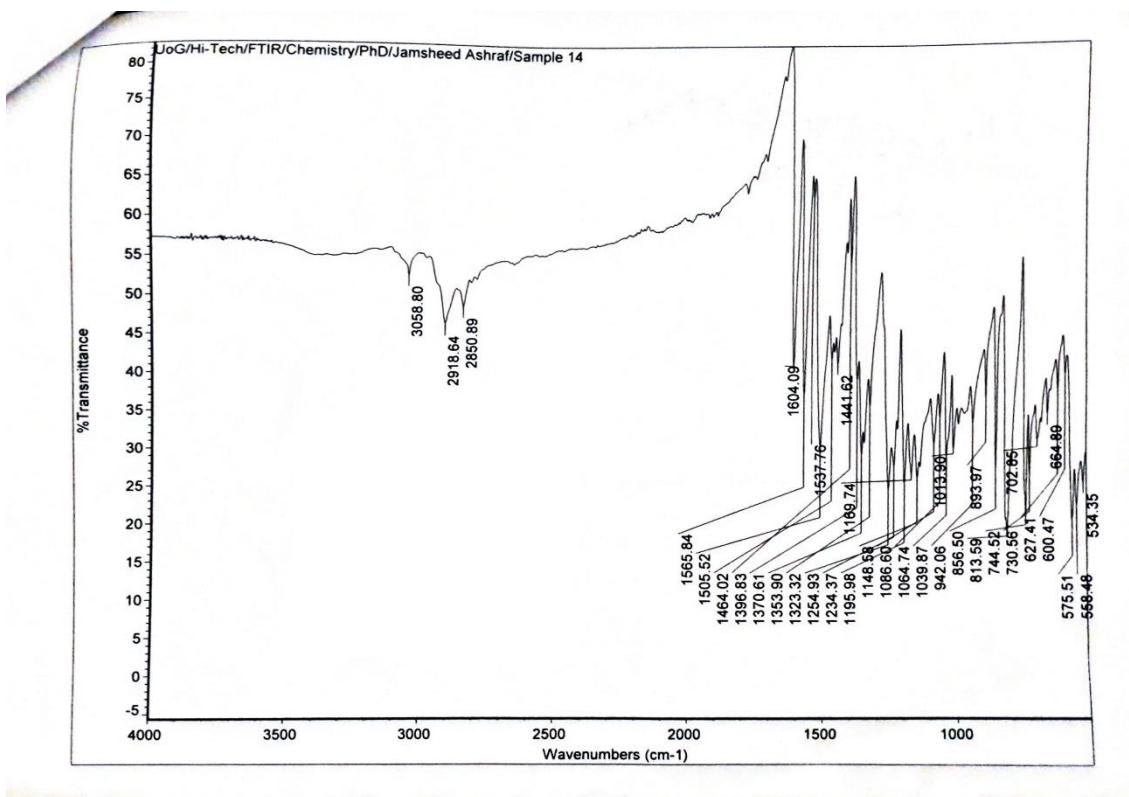


Figure S12. FTIR Spectrum of Compound 2l

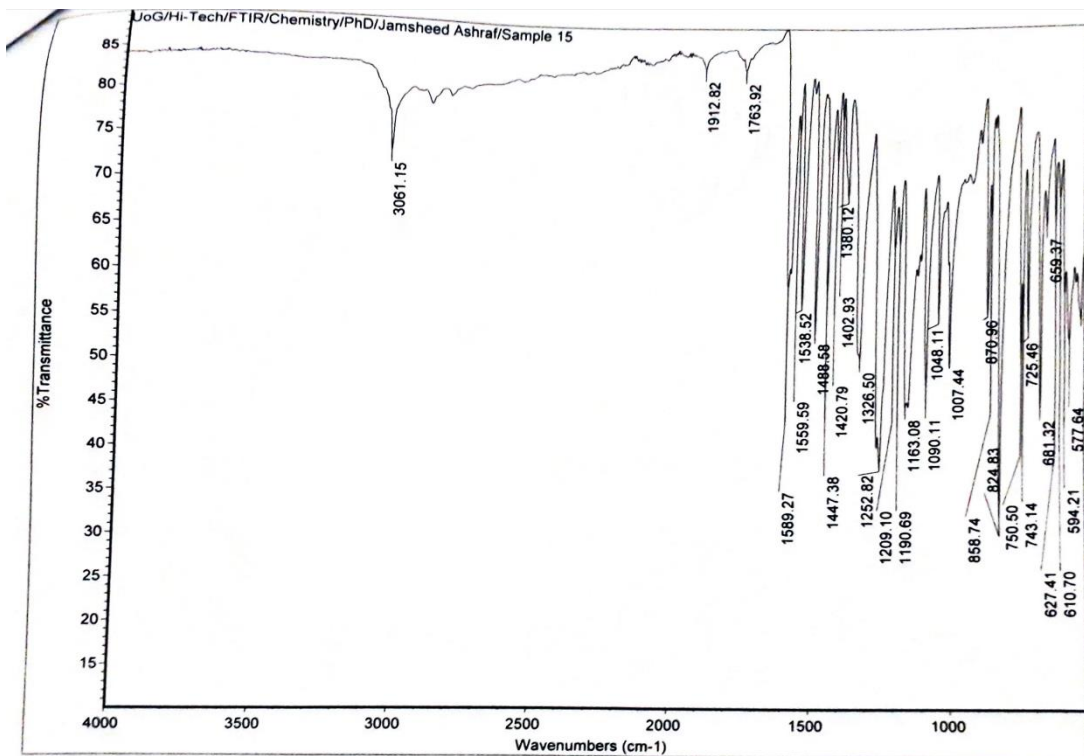


Figure S13. FTIR Spectrum of Compound 2m

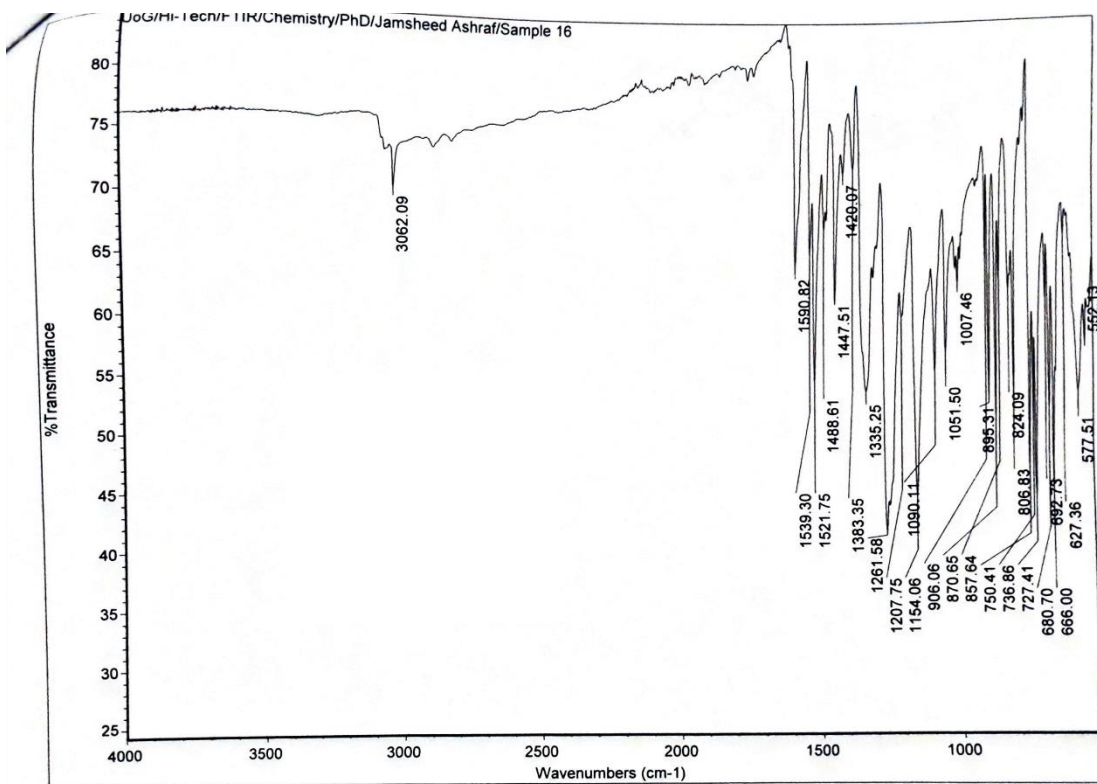


Figure S14. FTIR Spectrum of Compound 2n



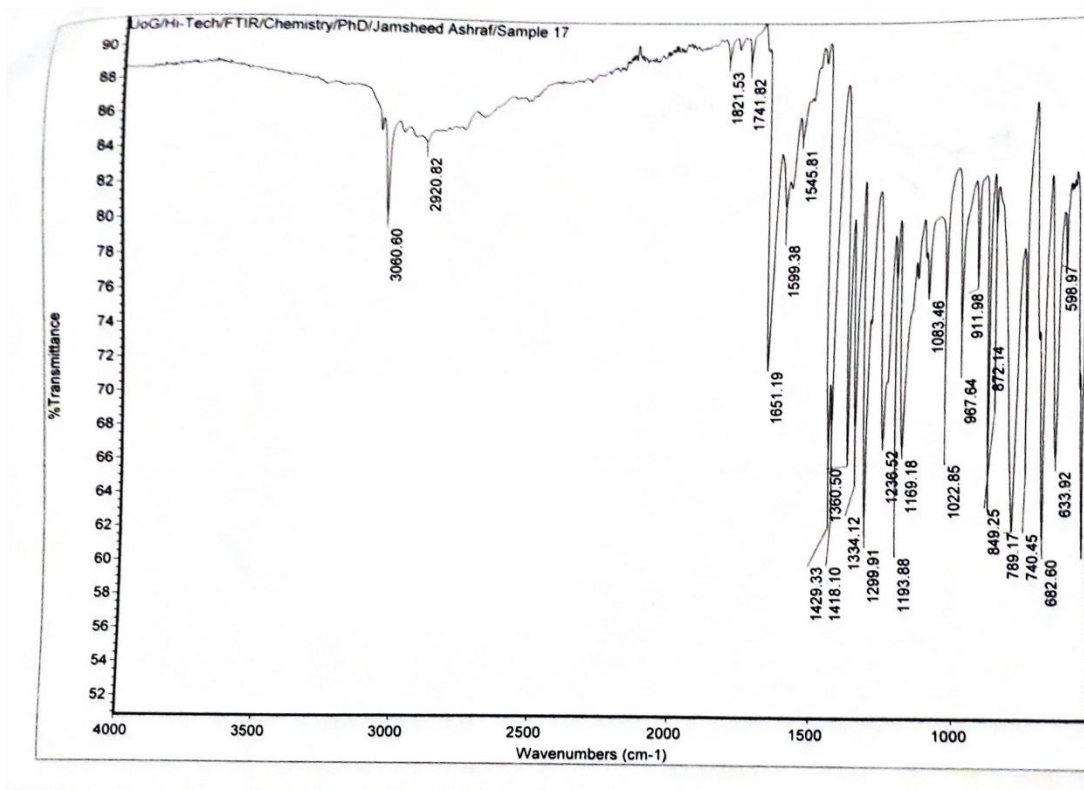


Figure S15. FTIR Spectrum of Compound 2o

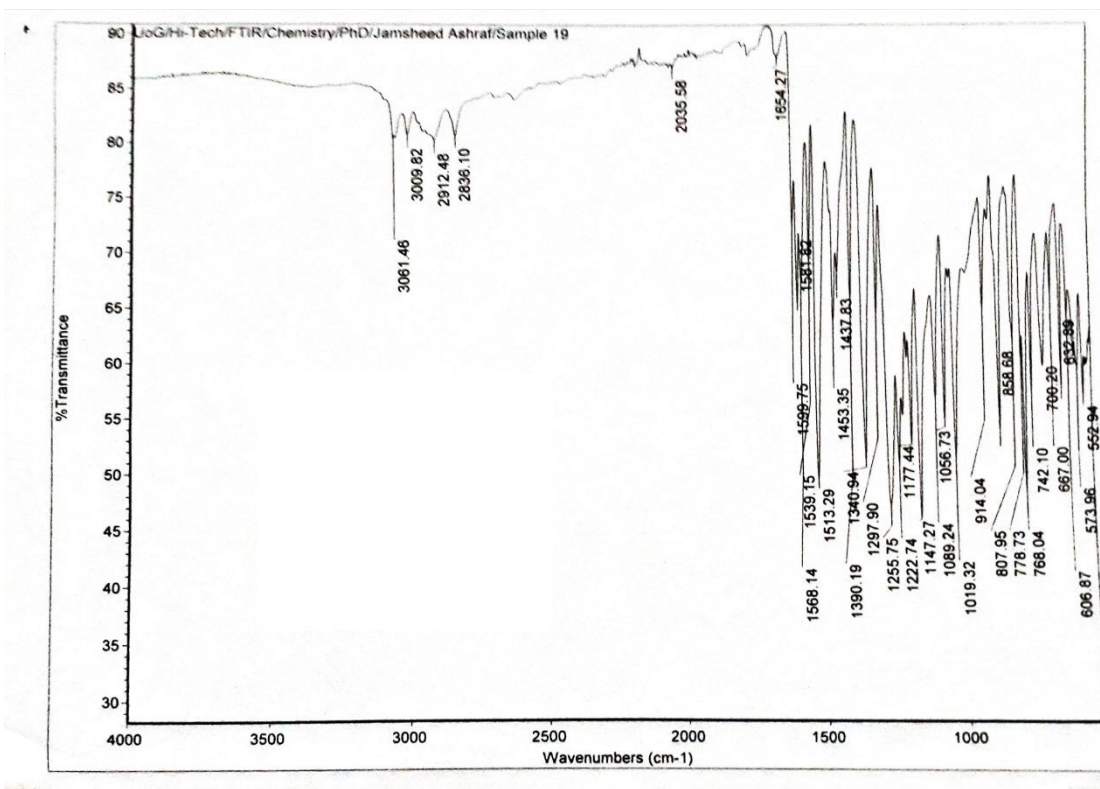


Figure S16. FTIR Spectrum of Compound 2p

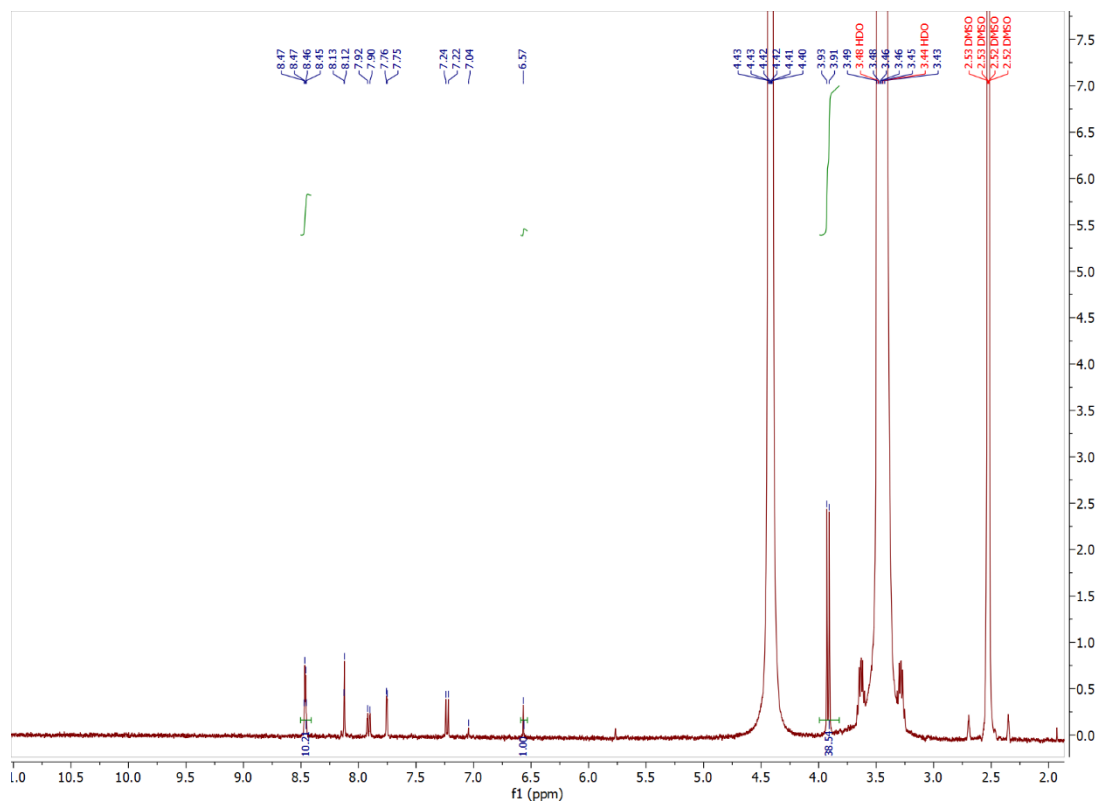


Figure S17. <sup>1</sup>H NMR Spectrum (400 MHz, DMSO) (Compound 2a)

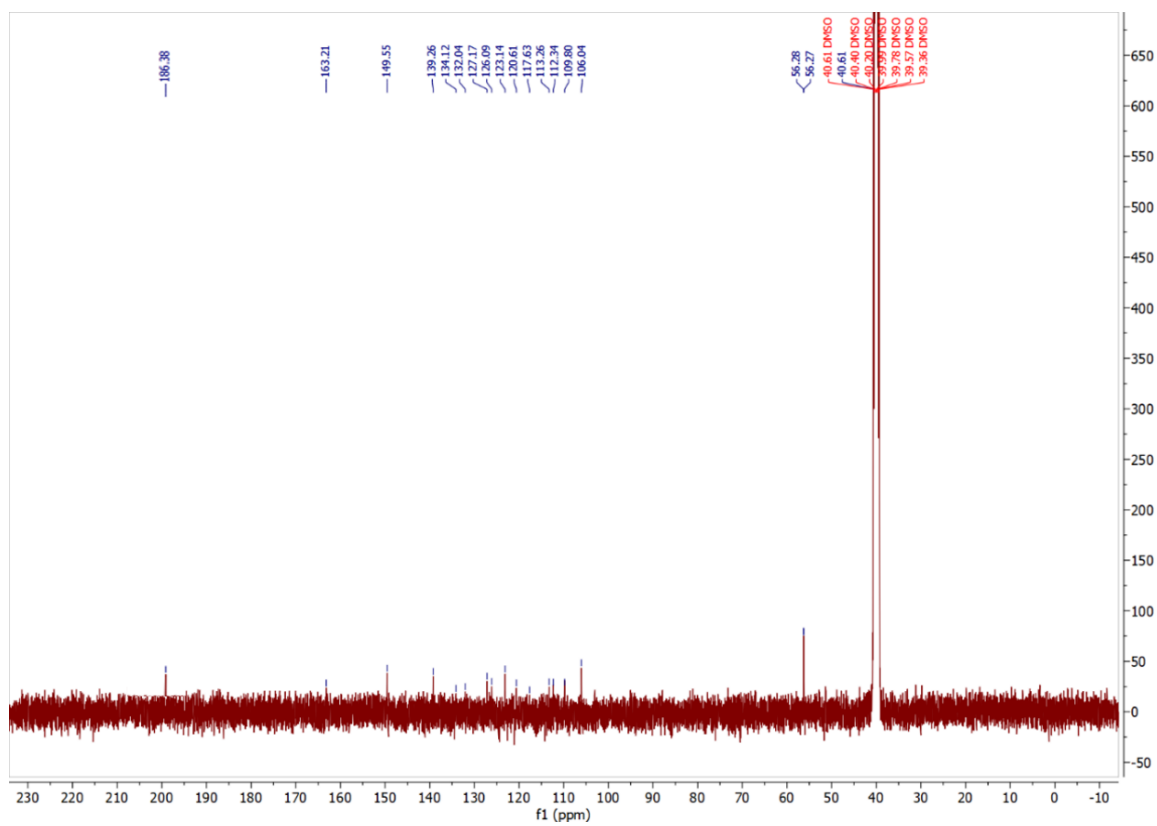


Figure S18. <sup>13</sup>C NMR Spectrum (101 MHz, DMSO) (Compound 2a)

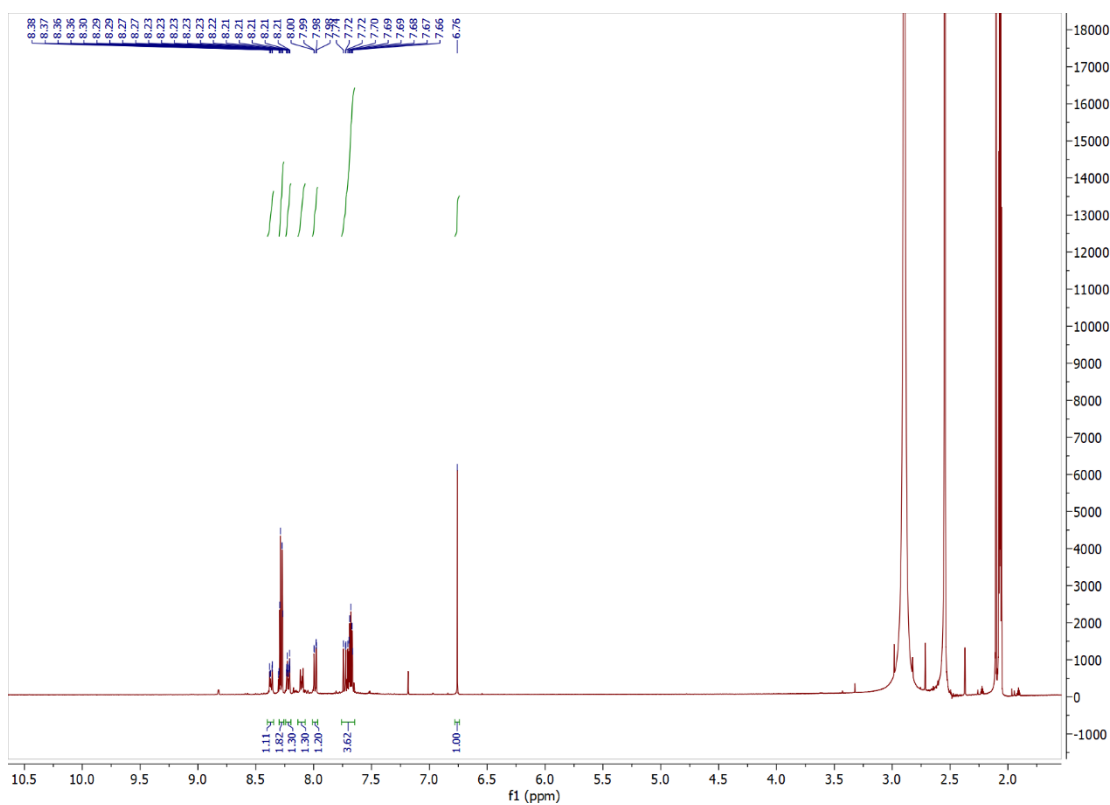


Figure S19.  $^1\text{H}$  NMR Spectrum (400 MHz, DMSO) (Compound 2c)

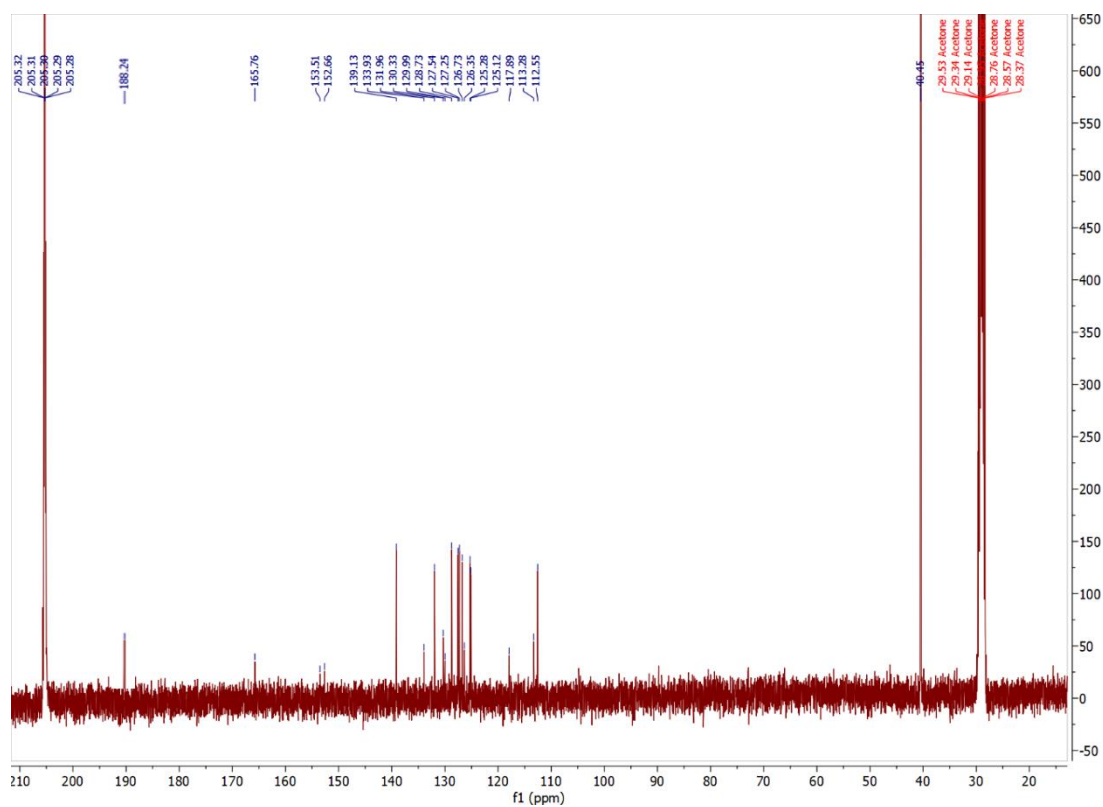


Figure S20.  $^{13}\text{C}$  NMR Spectrum (101 MHz, DMSO) (Compound 2c)

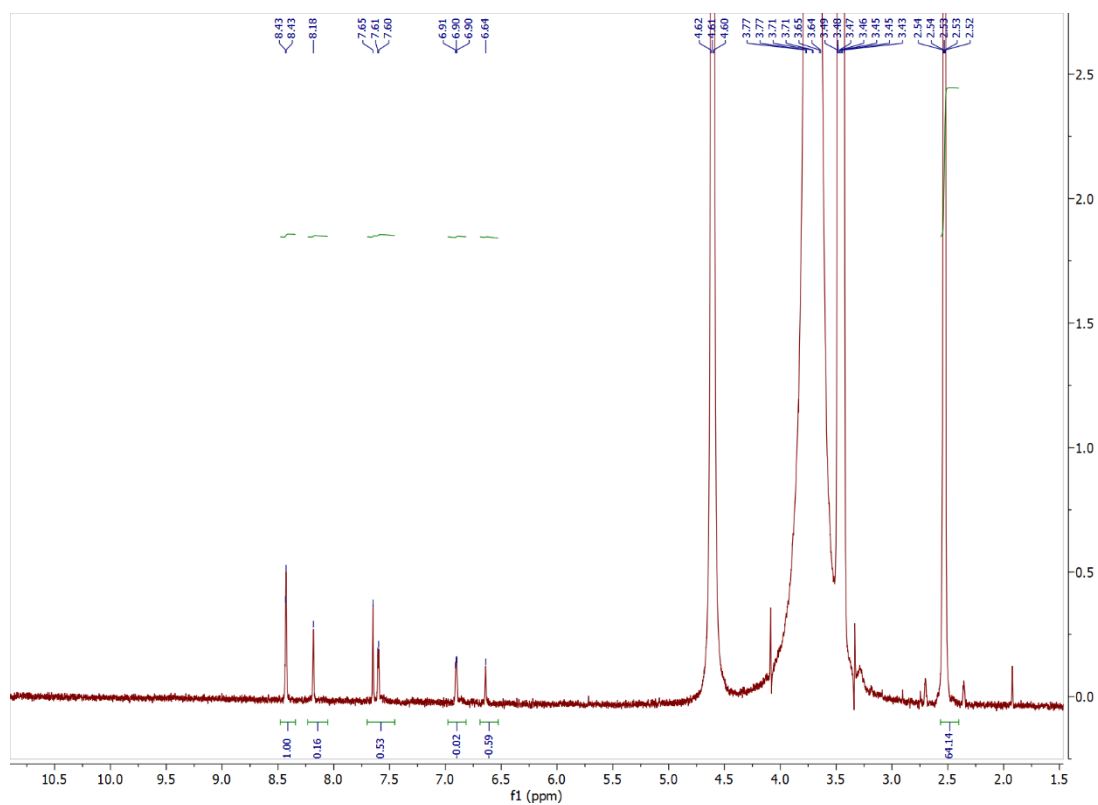


Figure S21. <sup>1</sup>H NMR Spectrum (400 MHz, DMSO) (Compound 2d)

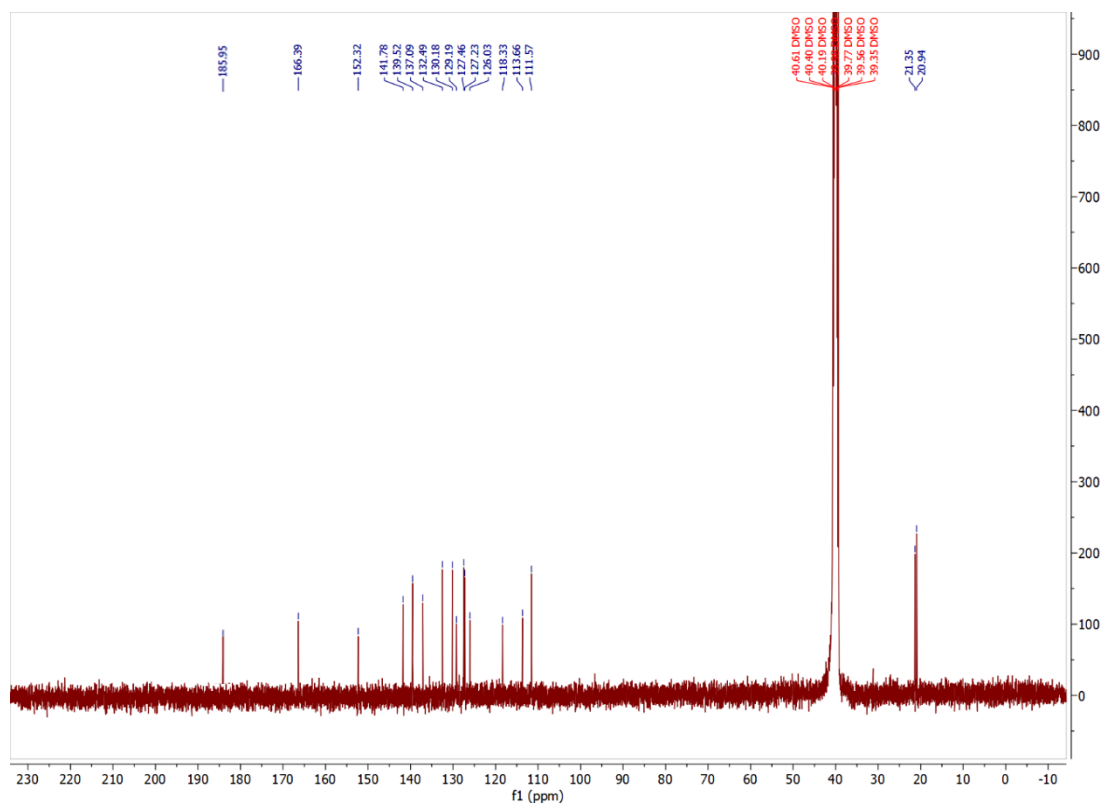


Figure S22. <sup>13</sup>C NMR Spectrum (101 MHz, DMSO) (Compound 2d)



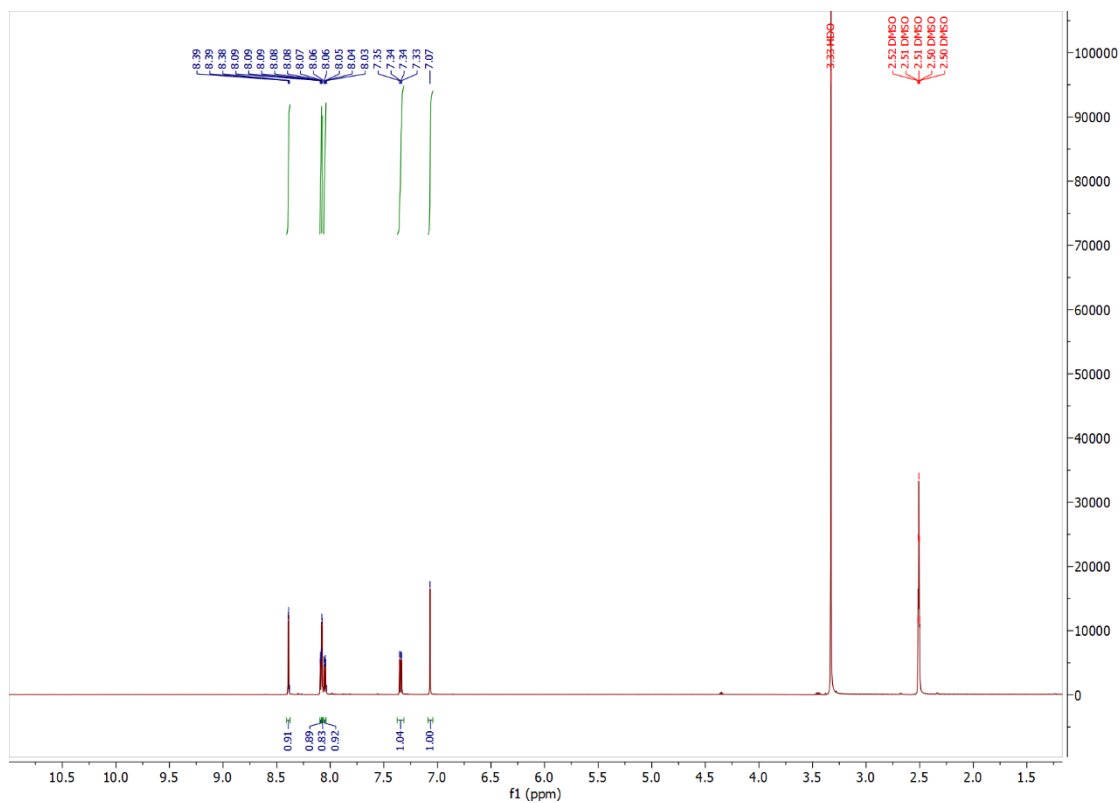


Figure S23.  $^1\text{H}$  NMR Spectrum (400 MHz, DMSO) (Compound 2f)

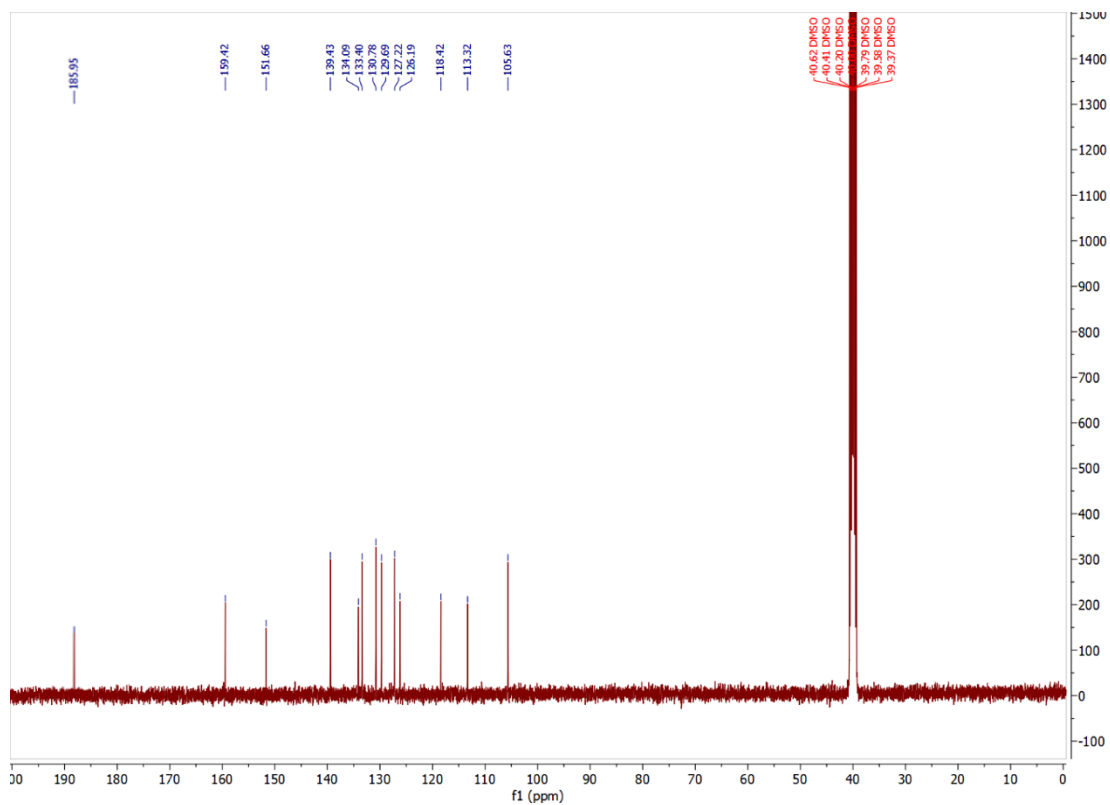


Figure S24.  $^{13}\text{C}$  NMR Spectrum (101 MHz, DMSO) (Compound 2f)

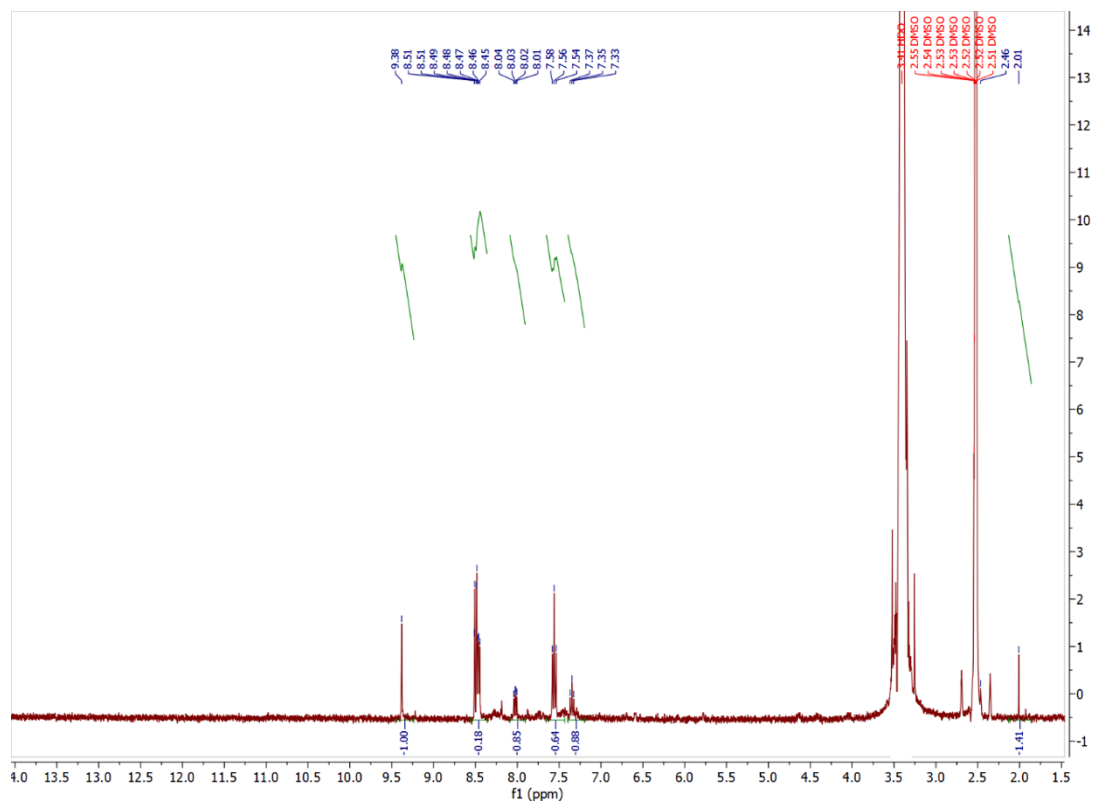


Figure S25.  $^1\text{H}$  NMR Spectrum (400 MHz, DMSO) (Compound 2h)

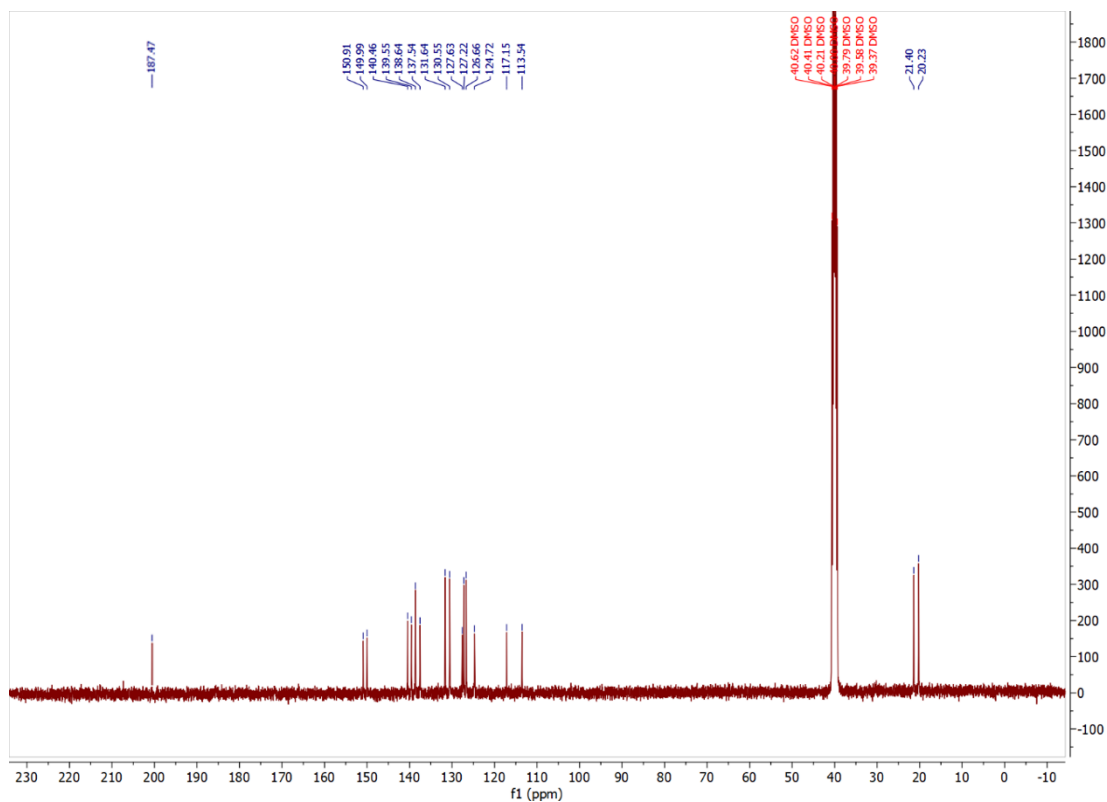


Figure S26.  $^{13}\text{C}$  NMR Spectrum (101 MHz, DMSO) (Compound 2h)



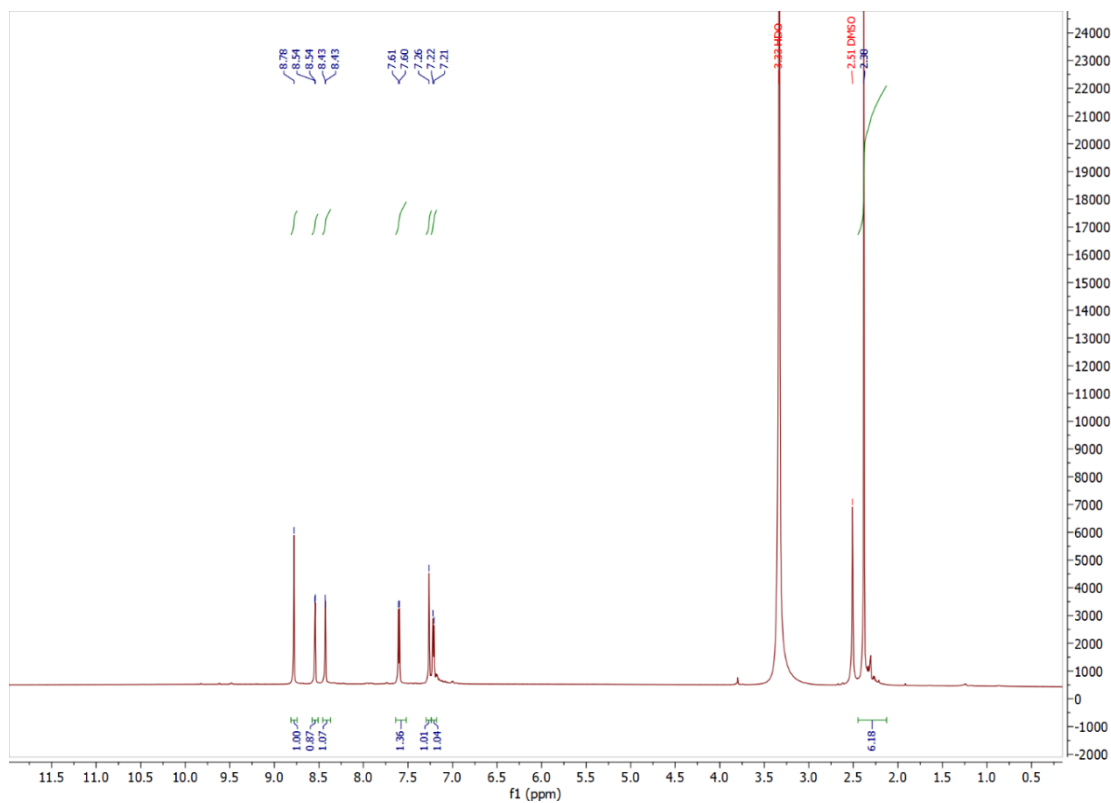


Figure S29. <sup>1</sup>H NMR Spectrum (400 MHz, DMSO) (Compound 2k)

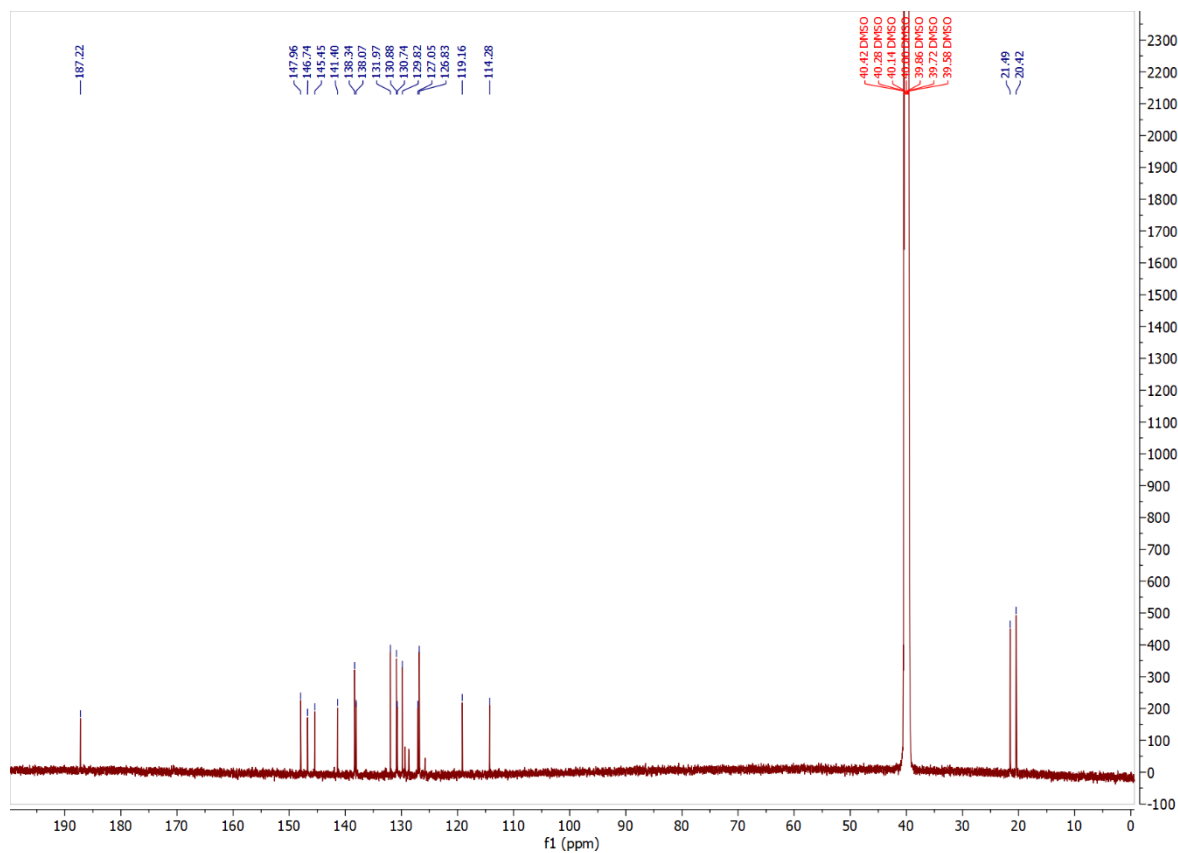


Figure S30. <sup>13</sup>C NMR Spectrum (101 MHz, DMSO) (Compound 2k)



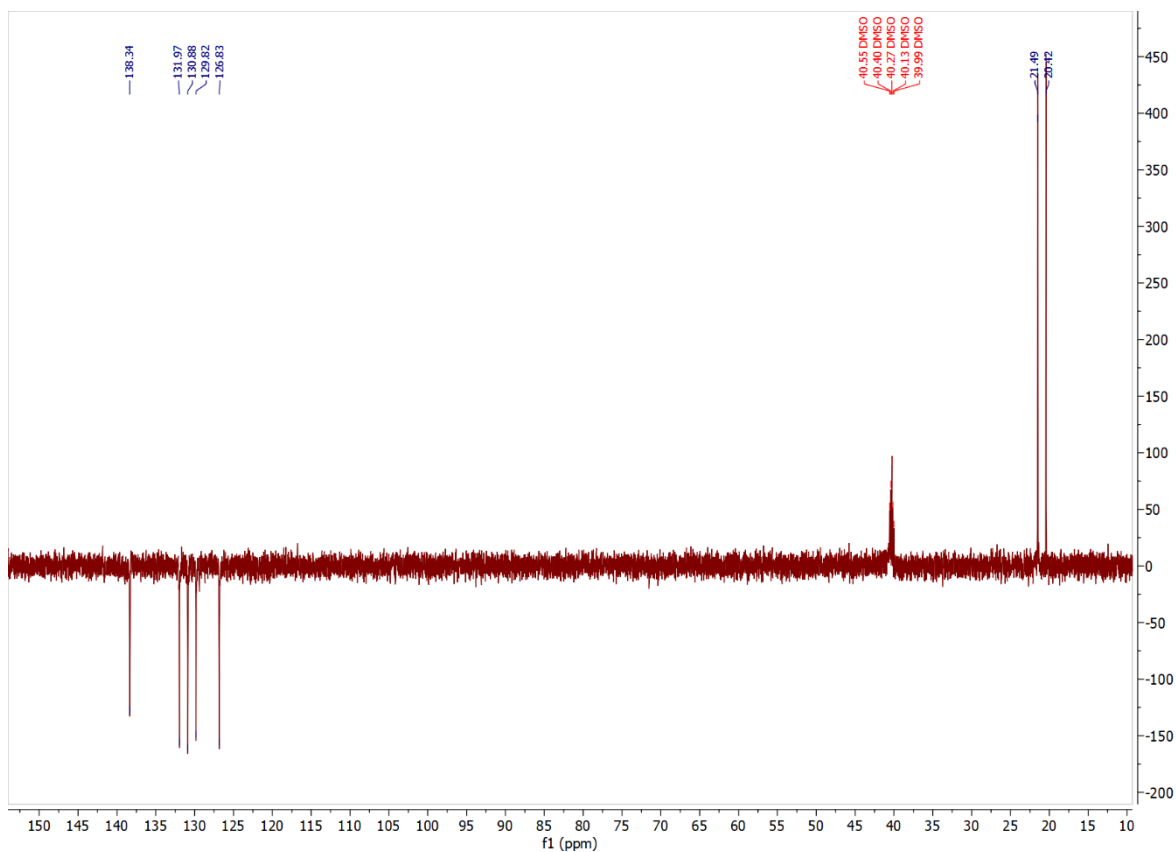


Figure S31. DEPT NMR Spectrum (101 MHz, DMSO) (Compound 2k)

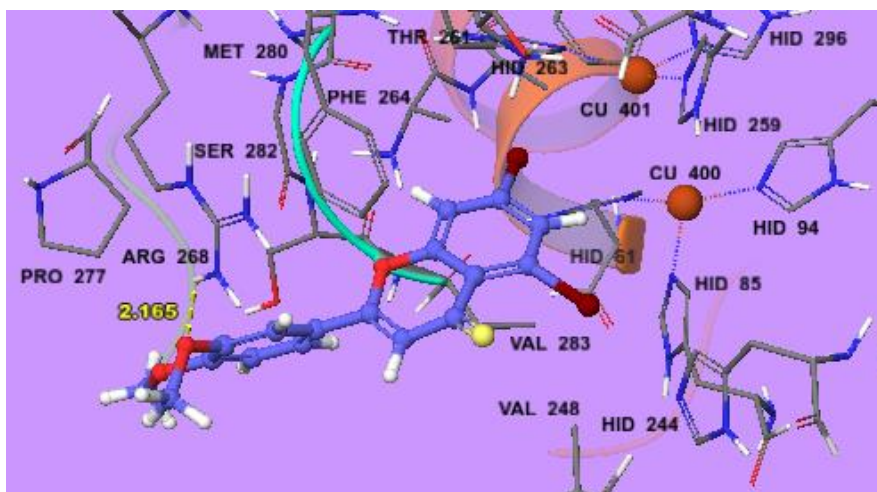


Figure S32. Docking Image of Compound 2a

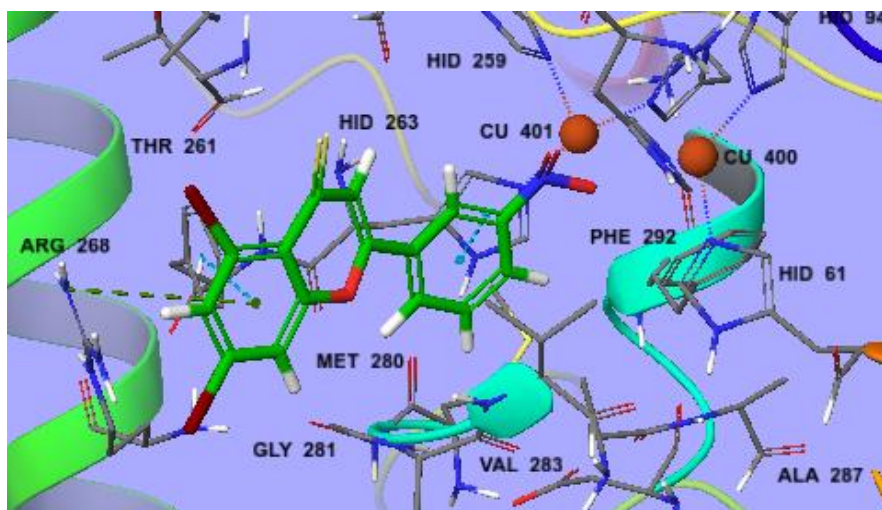


Figure S33. Docking Image of Compound 2b

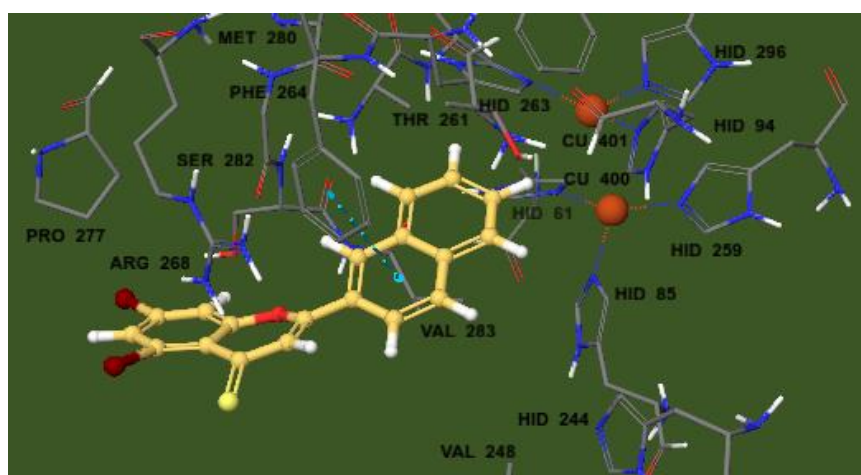


Figure S34. Docking Image of Compound 2c

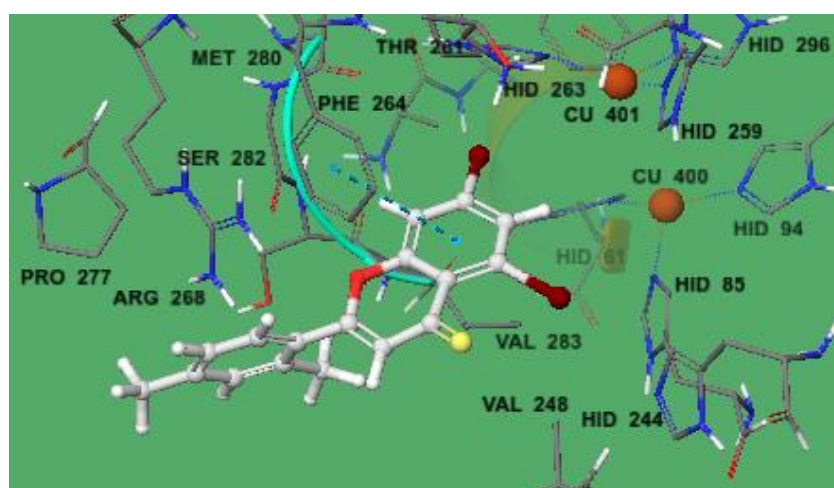
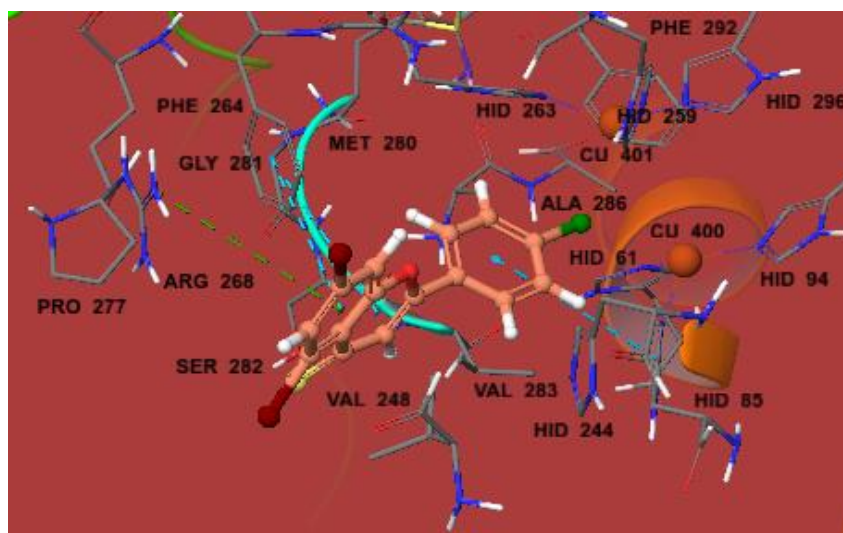
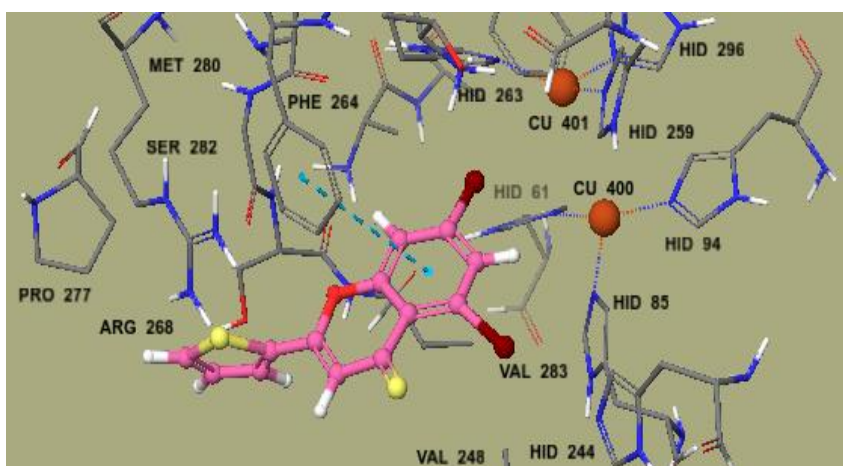


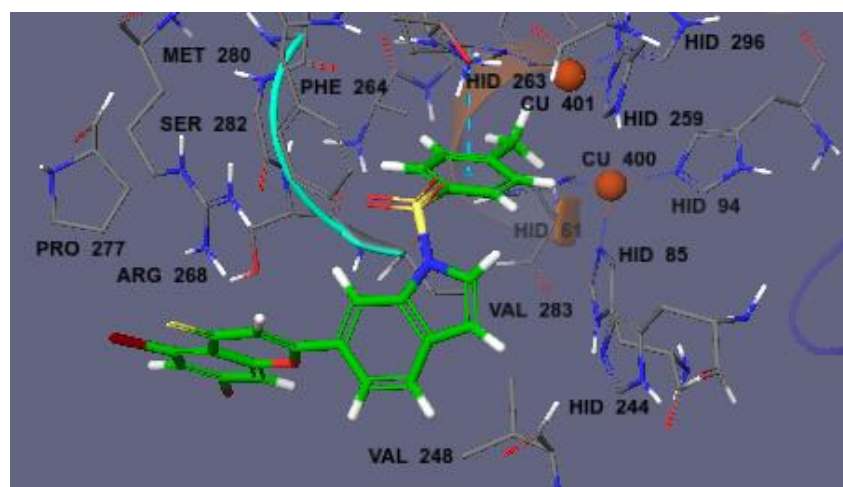
Figure S35. Docking Image of Compound 2d



**Figure S36. Docking Image of Compound 2e**



**Figure S37. Docking Image of Compound 2f**



**Figure S38. Docking Image of Compound 2g**



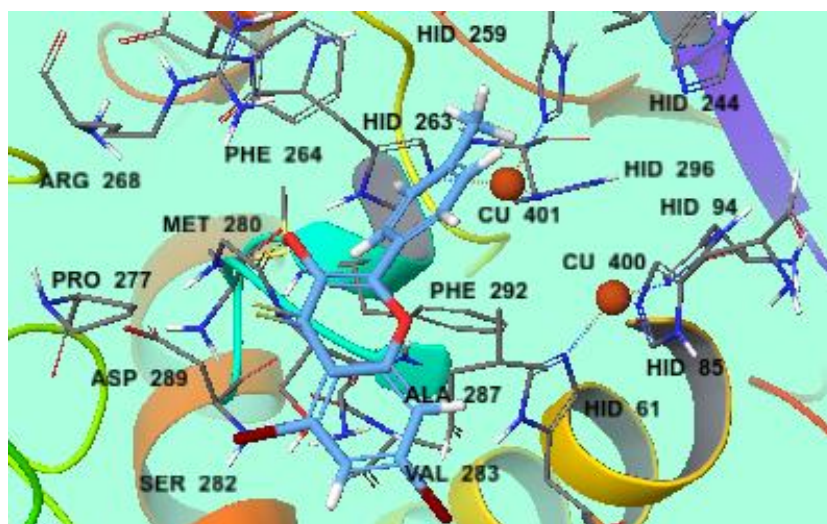


Figure S39. Docking Image of Compound 2h

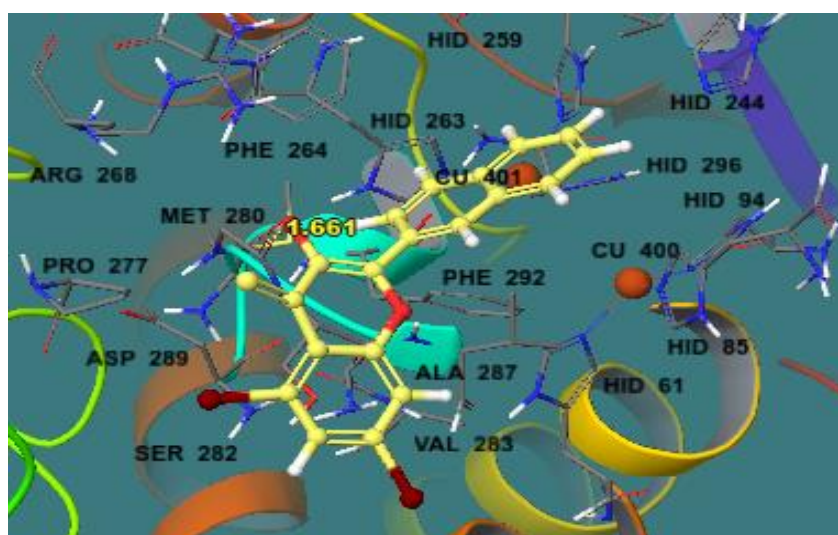


Figure S40. Docking Image of Compound 2i

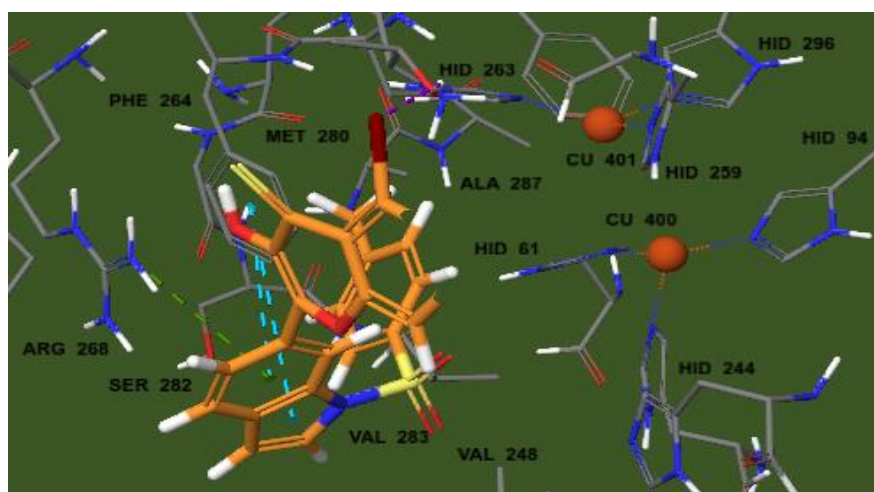


Figure S41. Docking Image of Compound 2j



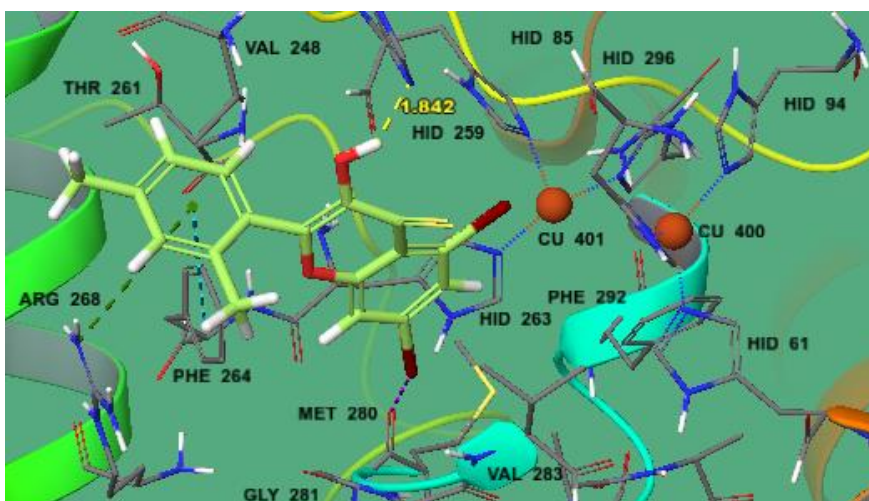


Figure S42. Docking Image of Compound 2k

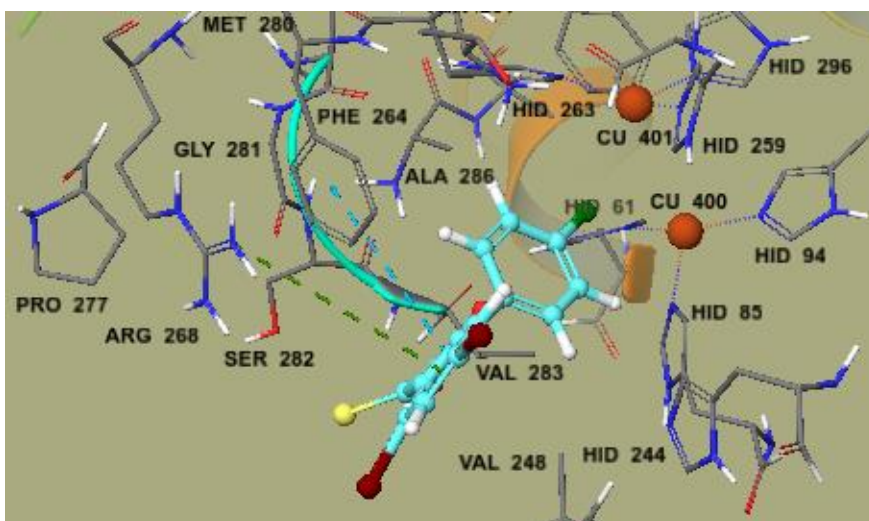


Figure S43. Docking Image of Compound 2l

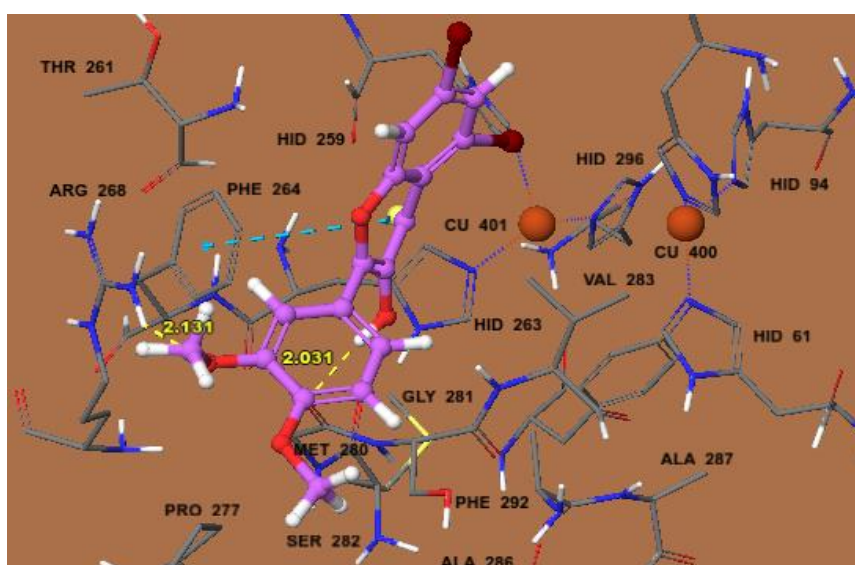


Figure S44. Docking Image of Compound 2p

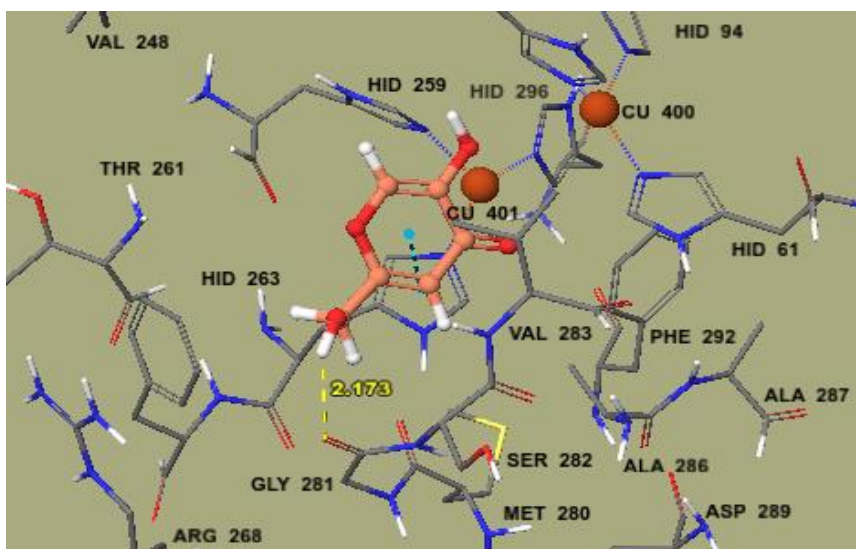


Figure S45. Docking Image of Kojic Acid