

## *Supplementary Information*

# New Schiff base and potent antimalarial, antioxidant, antidiabetic ternary complexes

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## **LIST OF SUPPORTING INFORMATION**

**Fig. SI-1.** IR Spectrum of Schiff base ligand (S<sub>3</sub>)

**Fig. SI-2.** IR Spectrum of Fe(III) complex

**Fig. SI-3.** IR Spectrum of Co(II) complex

**Fig. SI-4.** IR Spectrum of Ni(II) complex

**Fig. SI-5.** IR Spectrum of Cu(II) complex

**Fig. SI-6.** IR Spectrum of Zn (II) complex

**Fig. SI-7.** Electronic spectrum of Schiff base Ligand (S<sub>3</sub>)

**Fig. SI-8.** Electronic spectrum of Fe(III) Complex

**Fig. SI-9.** Electronic spectrum of Co(II) Complex

**Fig. SI-10.** Electronic spectrum of Ni(II) Complex

**Fig. SI-11.** Electronic spectrum of Cu(II) Complex

**Fig. SI-12.** Electronic spectrum of Zn(II) Complex

**Fig. SI-13.** <sup>1</sup>H NMR spectrum of Schiff base ligand (S<sub>3</sub>)

**Fig. SI-14.** <sup>13</sup>C NMR spectrum of Schiff base ligand (S<sub>3</sub>)

**Fig. SI-15.** Mass spectrum of Schiff base ligand (S<sub>3</sub>)

**Fig. SI-16.** Mass spectrum of Co(II) complex

**Fig. SI-17.** TGA/DTA Curves of Fe(III)

**Fig. SI-18.** TGA/DTA curves of Co(II) complex

**Fig. SI-19.** TGA/DTA curves of Ni(II) complex

**Fig. SI-20.** TGA/DTA curves of Cu(II) complex

**Fig. SI-21.** TGA/DTA curves of Zn(II) complex

**Fig. SI-22.** Powder XRD of Fe(III) complex

**Fig. SI-23.** Powder XRD of Co(II) complex

**Fig. SI-24.** Powder XRD of Ni(II) complex

**Fig. SI-25.** Powder XRD of Cu(II) complex

**Fig. SI-26.** Powder XRD of Zn(II) complex



## IR Spectra

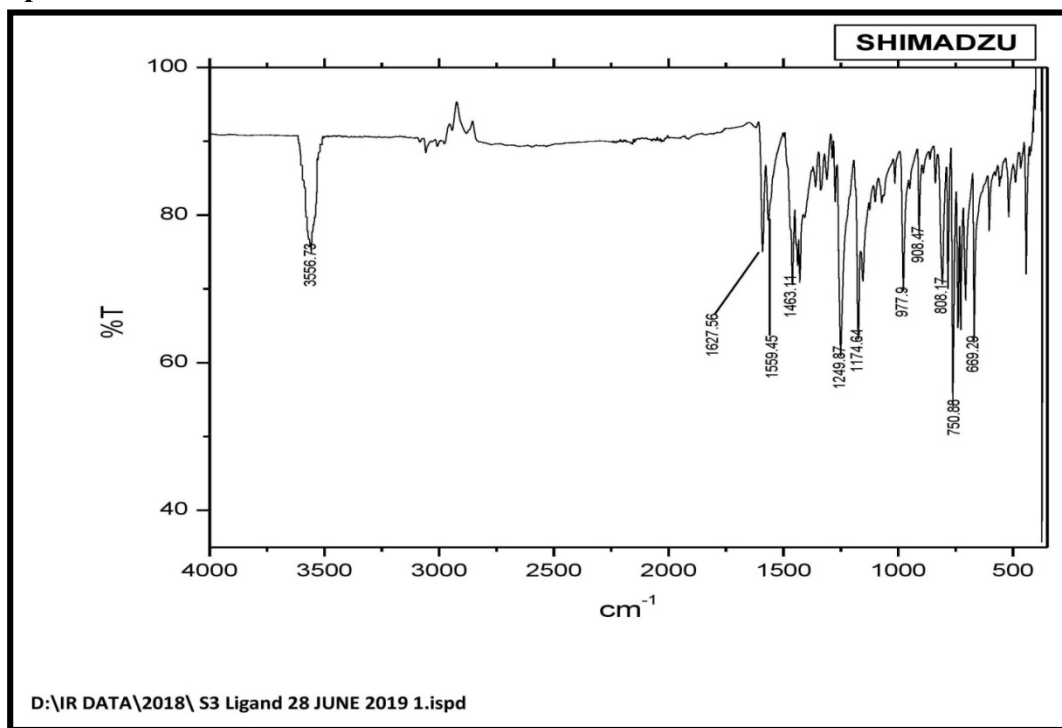


Fig. SI-1. IR spectrum of Schiff base Ligand (S<sub>3</sub>)

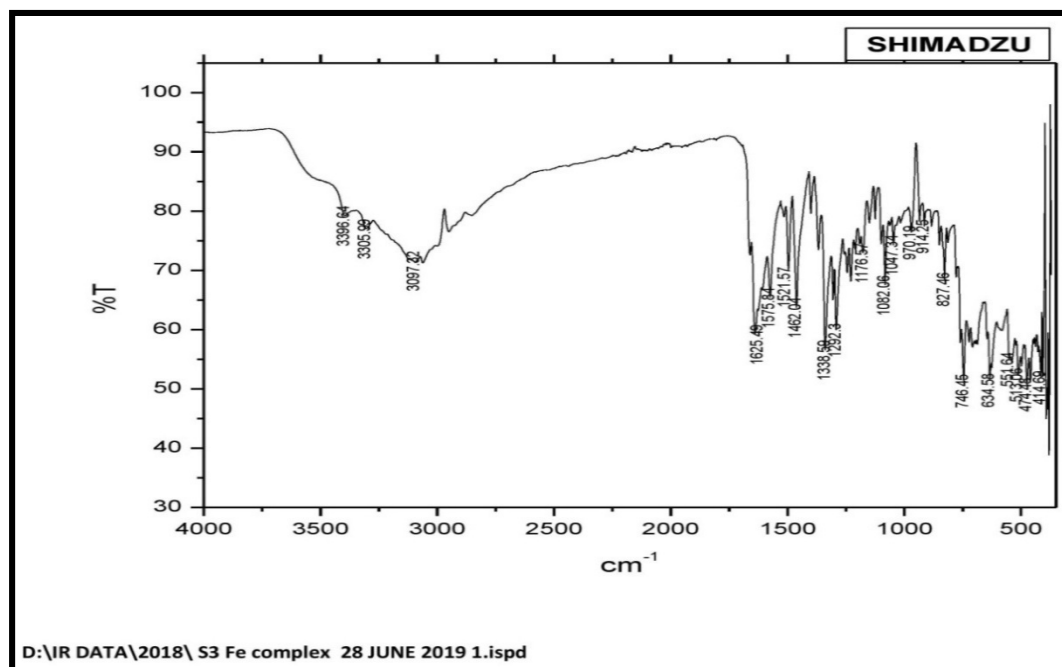


Fig. SI-2. IR spectrum of Fe(III) Complex

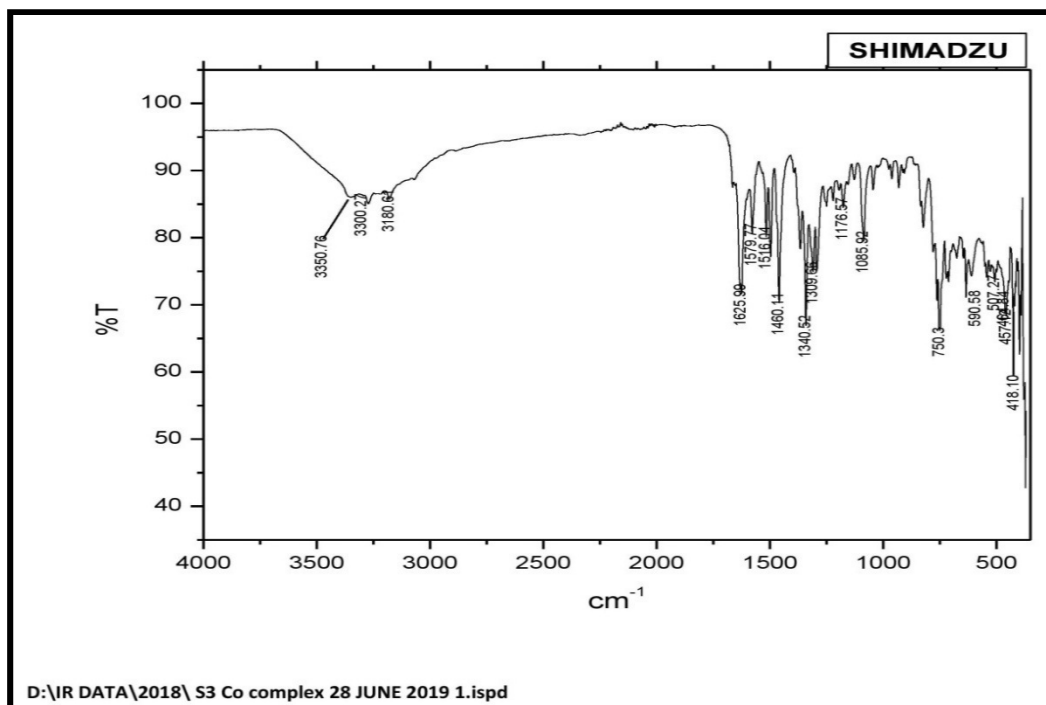


Fig. SI-3. IR spectrum of Co(II) Complex

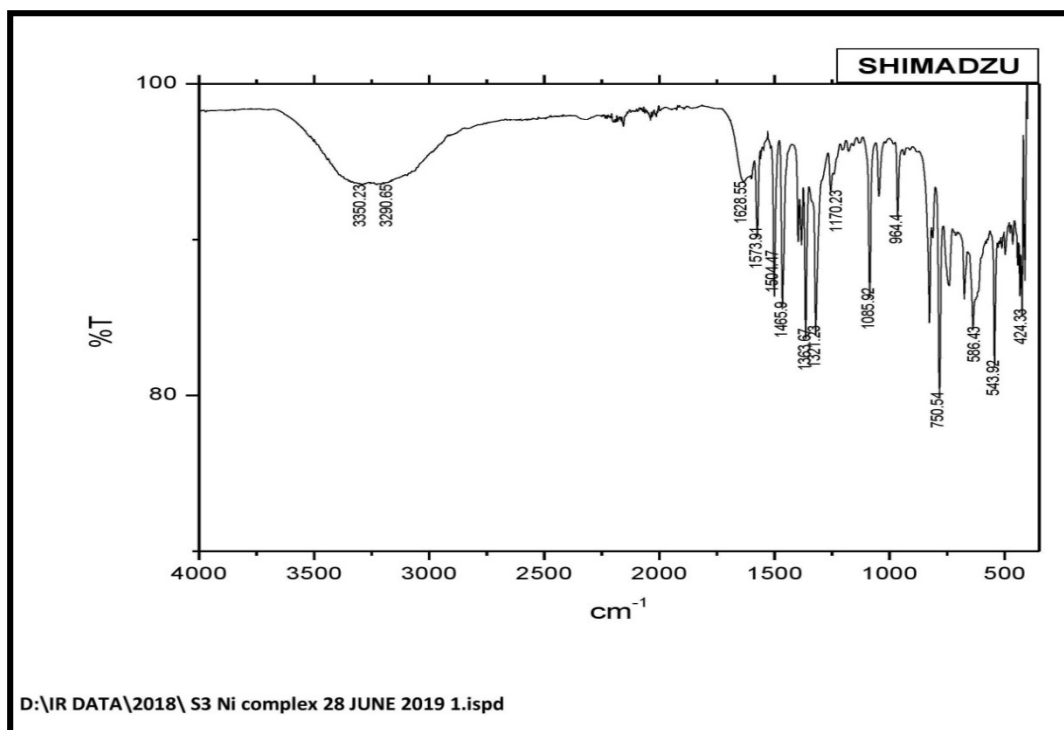


Fig. SI-4. IR spectrum of Ni(II) Complex

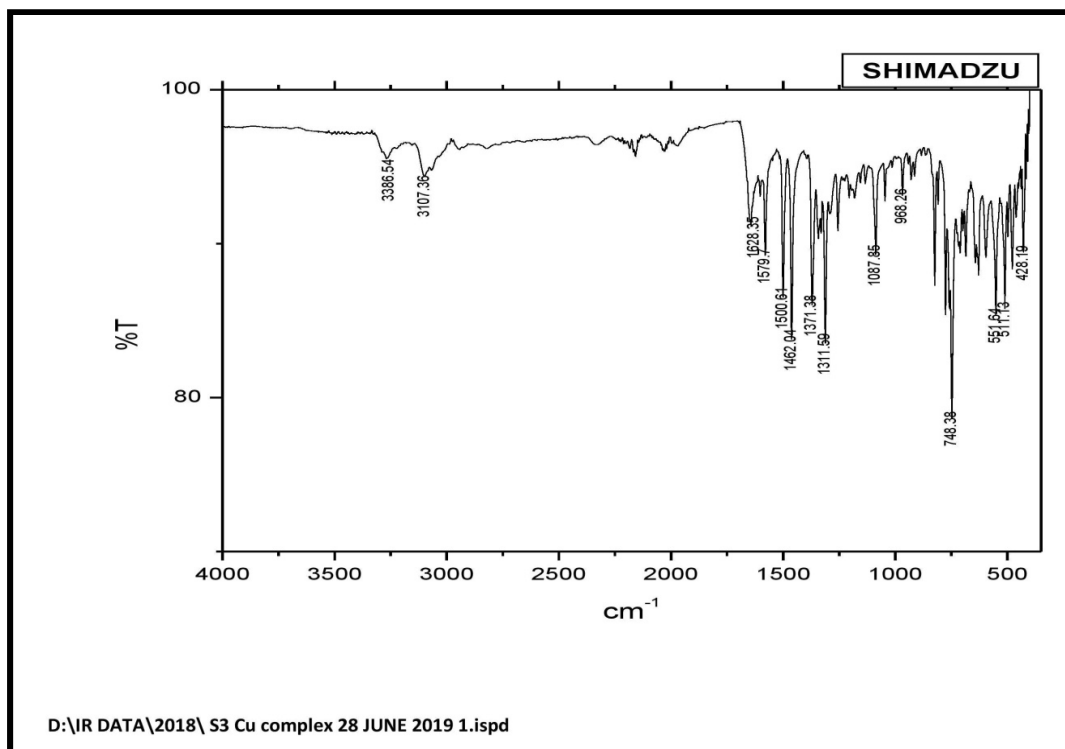


Fig. SI-5. IR spectrum of Cu(II) Complex

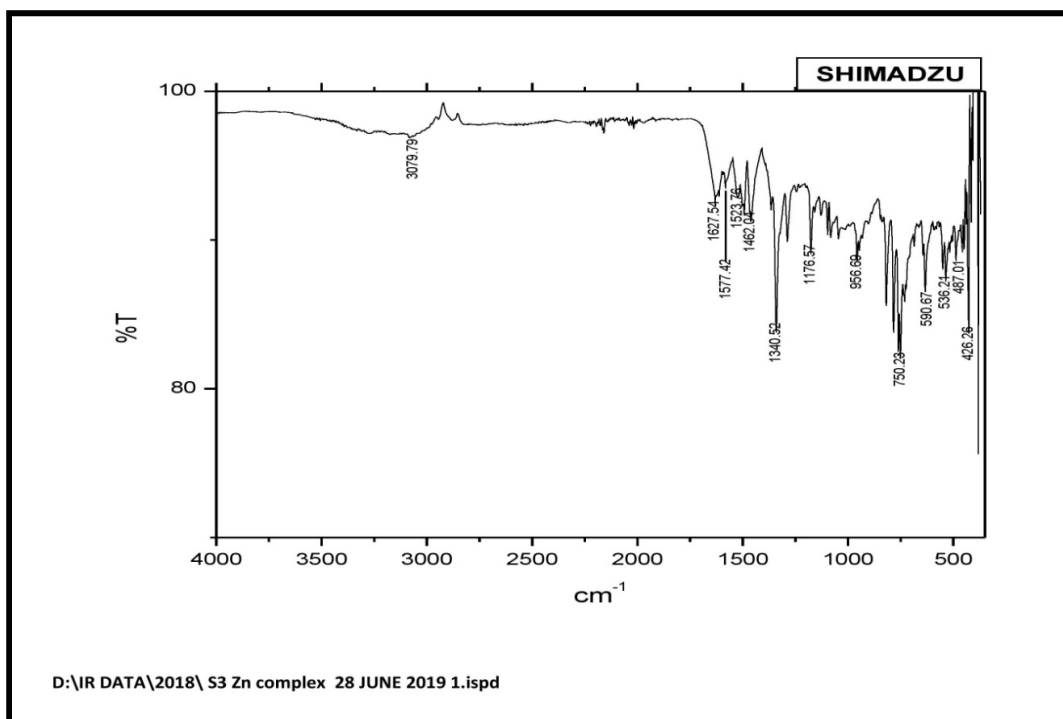
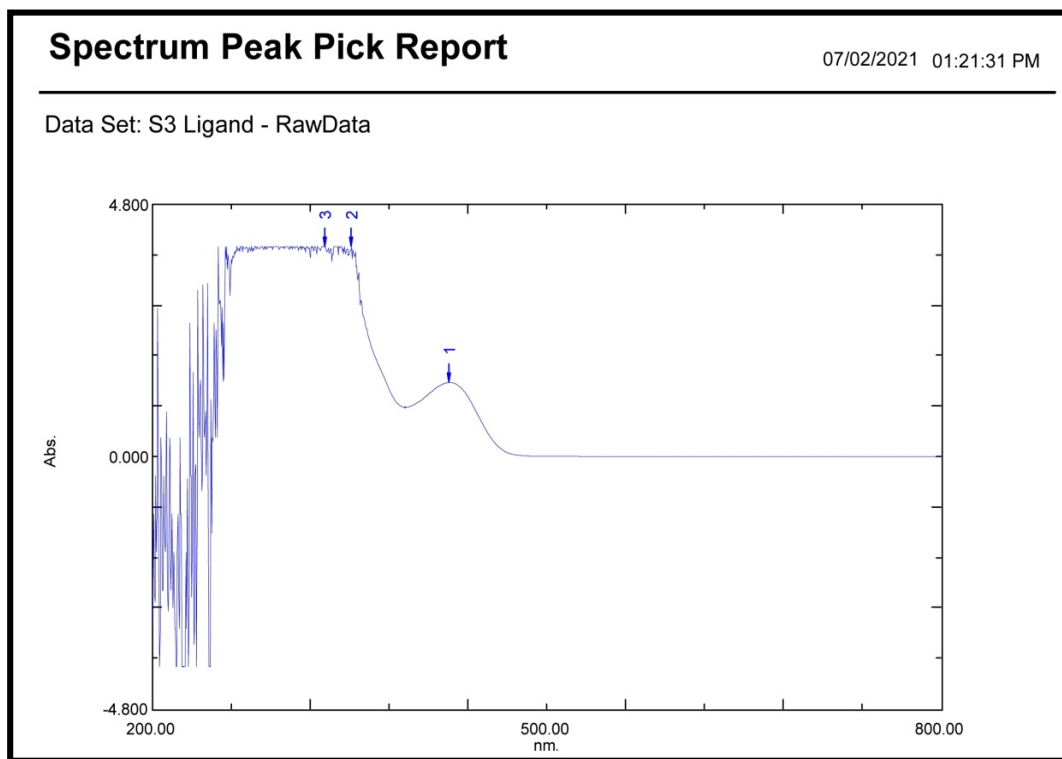
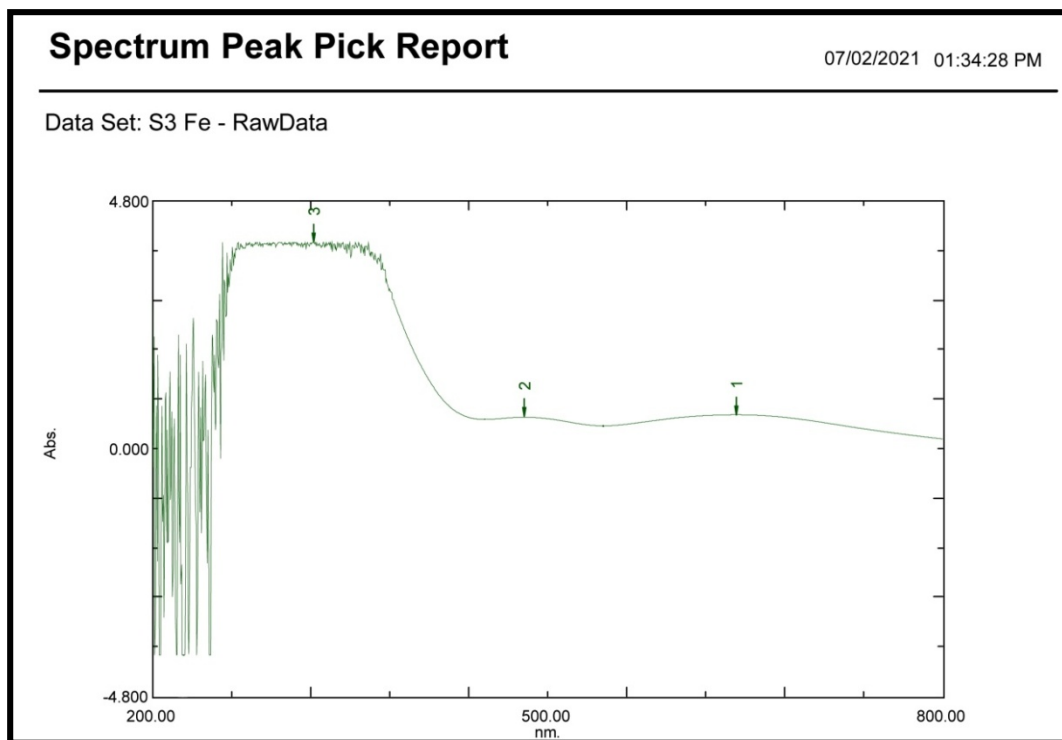


Fig. SI-6. IR spectrum of Zn(II) Complex

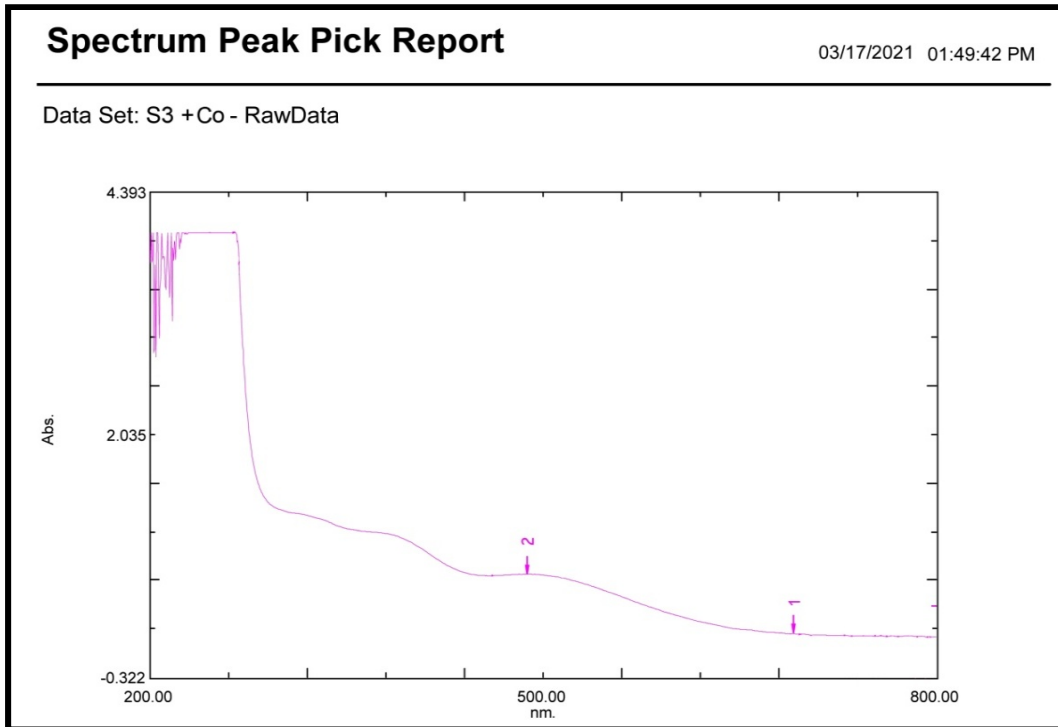
## Electronic Spectra



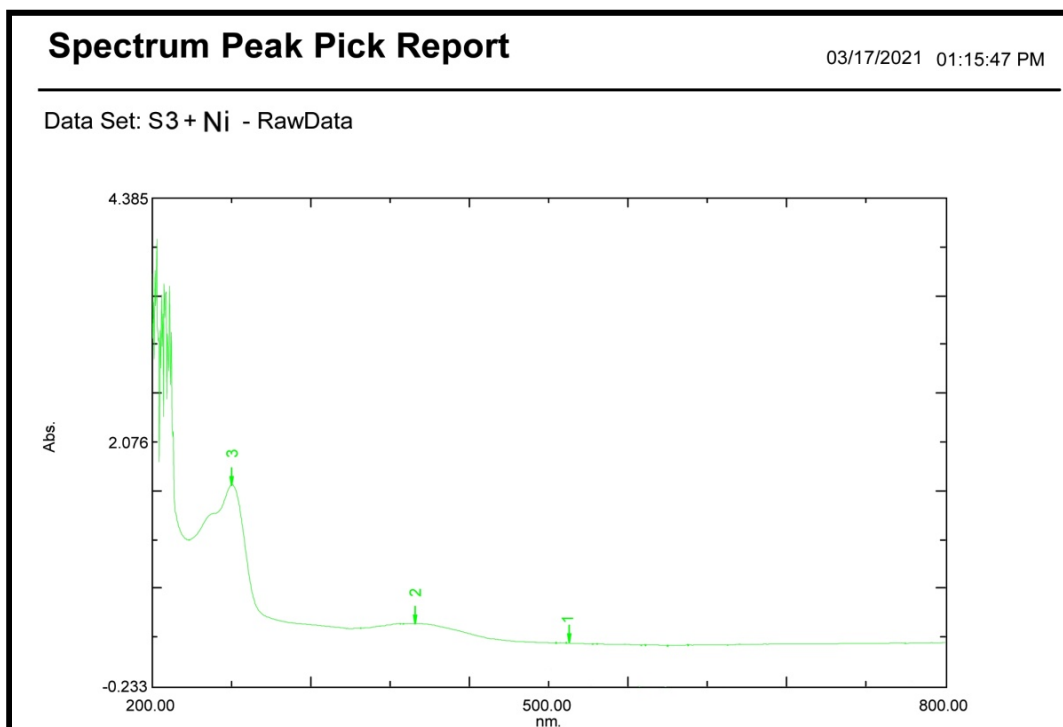
**Fig. SI-7.** Electronic spectrum of Schiff base Ligand ( $S_3$ )



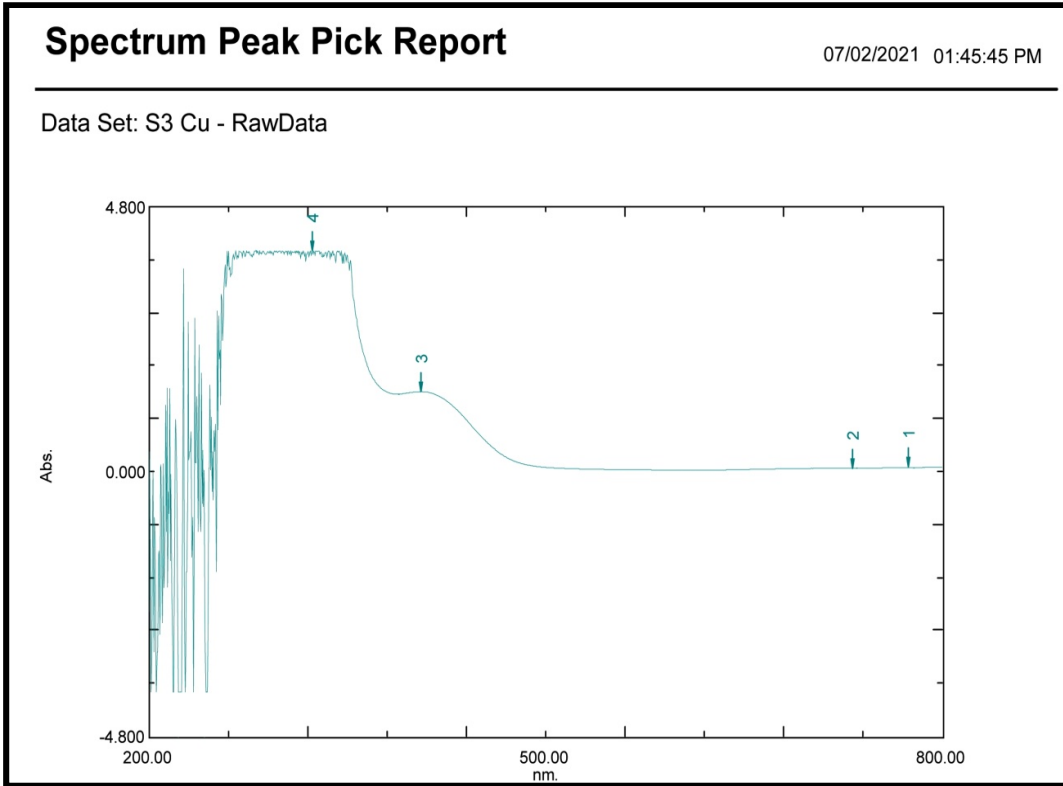
**Fig. SI-8.** Electronic spectrum of Fe(III) Complex



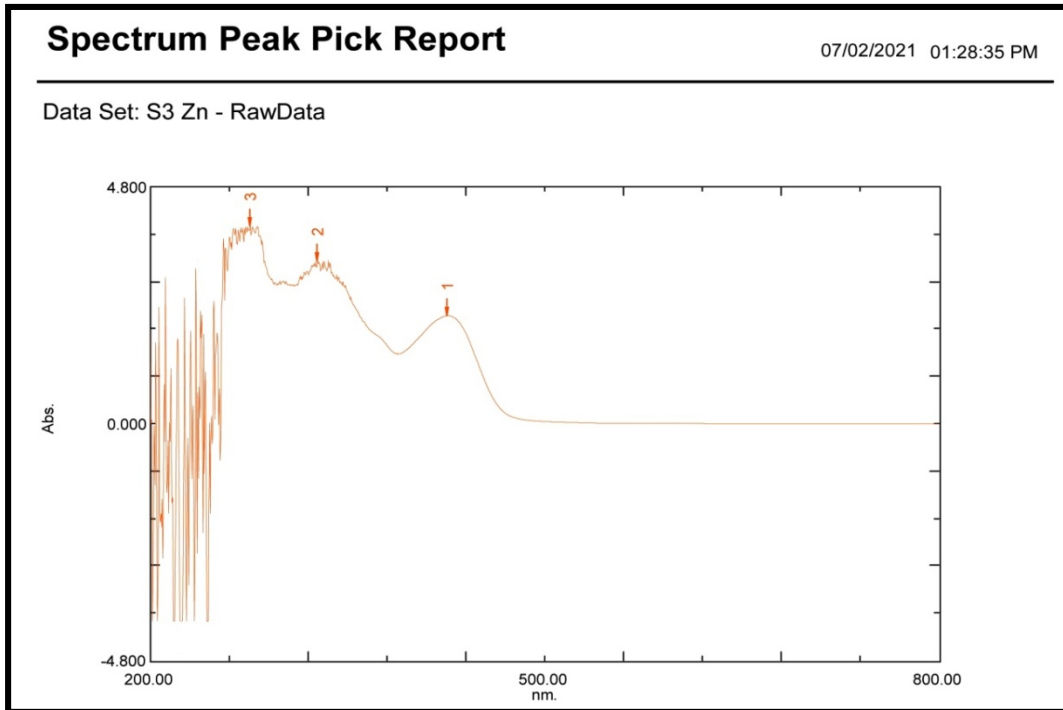
**Fig. SI-9.** Electronic spectrum of Co(II) Complex



**Fig. SI-10.** Electronic spectrum of Ni(II) Complex



**Fig. SI-11.** Electronic spectrum of Cu(II) Complex



**Fig. SI-12.** Electronic spectrum of Zn(II) Complex

## NMR Spectra

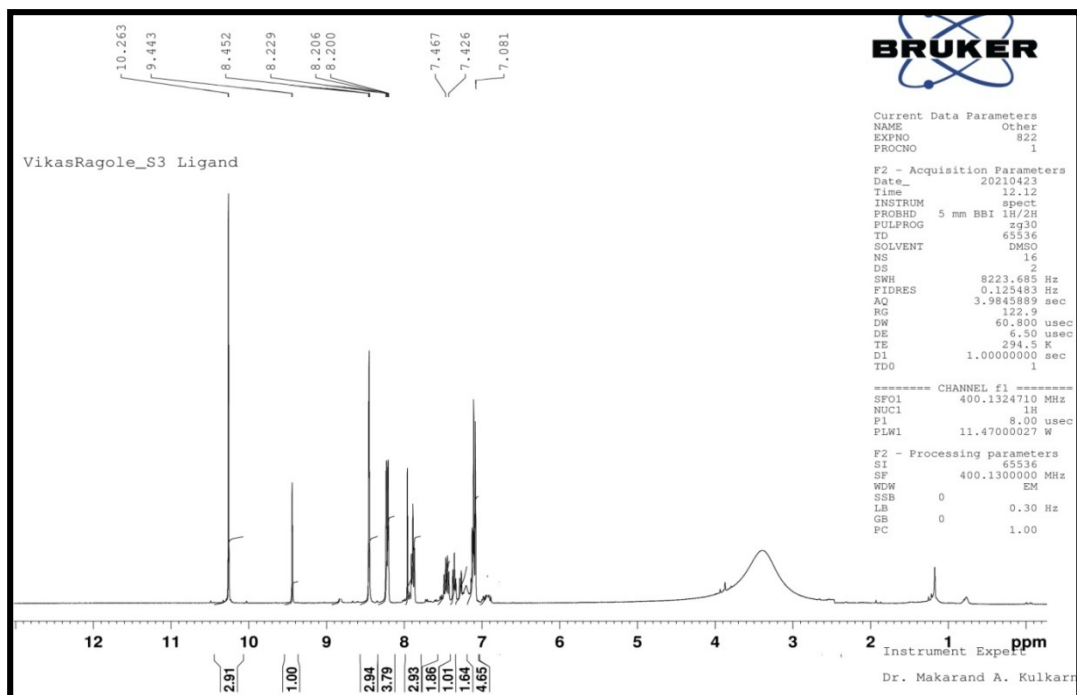


Fig. SI-13.  $^1\text{H}$  NMR spectrum of Schiff base ligand ( $\text{S}_3$ )

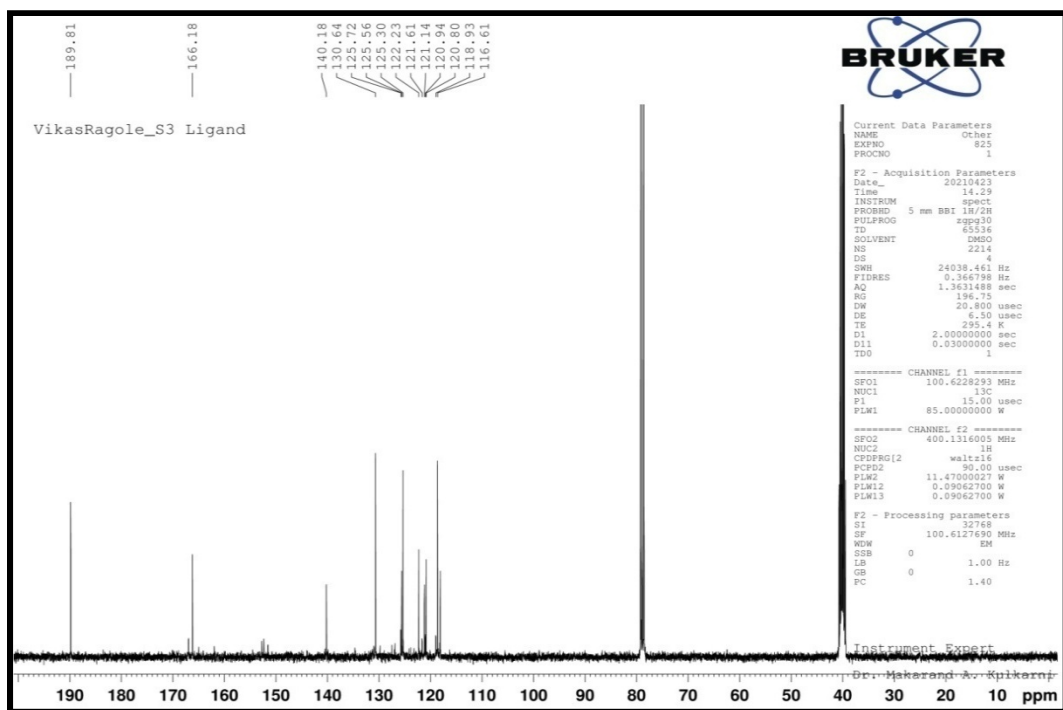
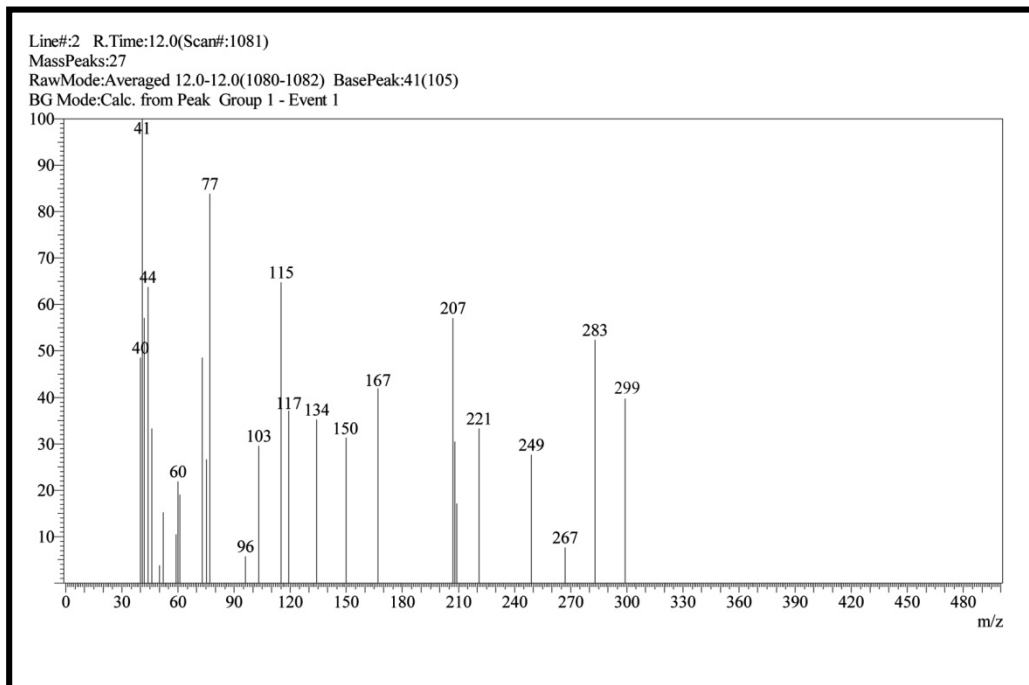
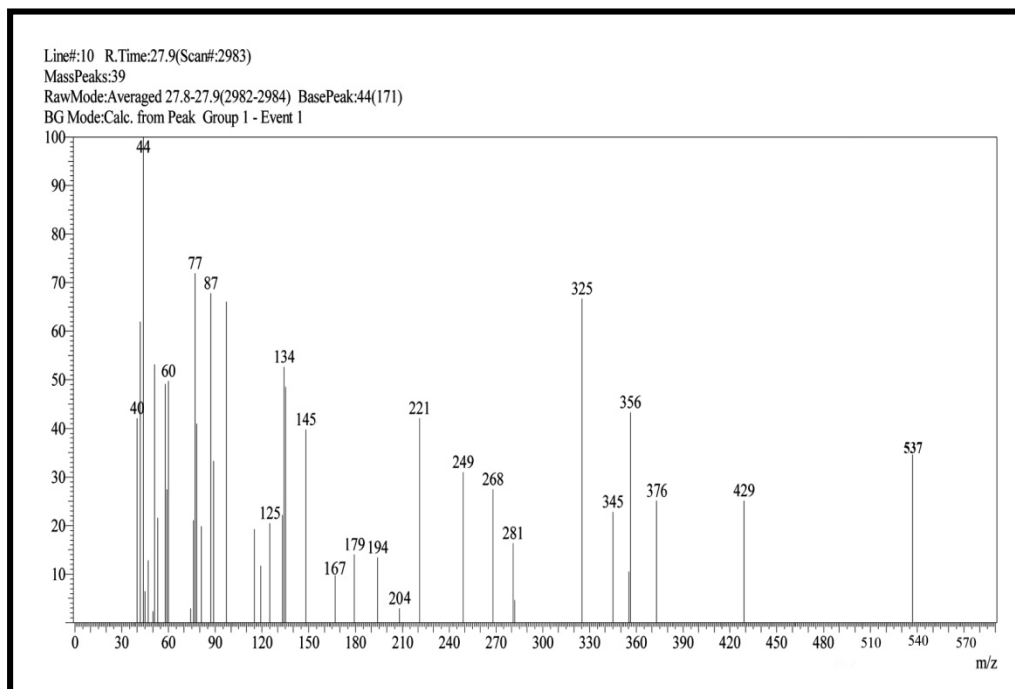


Fig. SI-14.  $^{13}\text{C}$  NMR spectrum of Schiff base ligand ( $\text{S}_3$ )

## Mass Spectra



**Fig. SI-15.** Mass spectrum of Schiff base ligand ( $S_3$ )



**Fig. SI-16.** Mass spectrum of Co(II) complex

## TGA/DTA

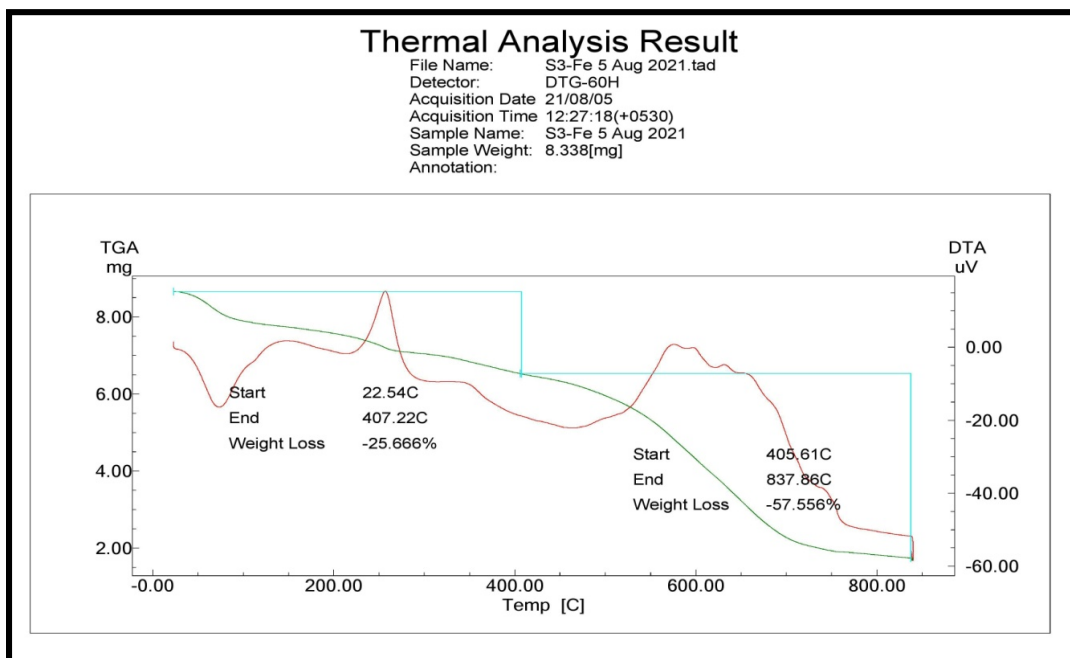


Fig. SI-17. TGA/DTA Curves of Fe(III)

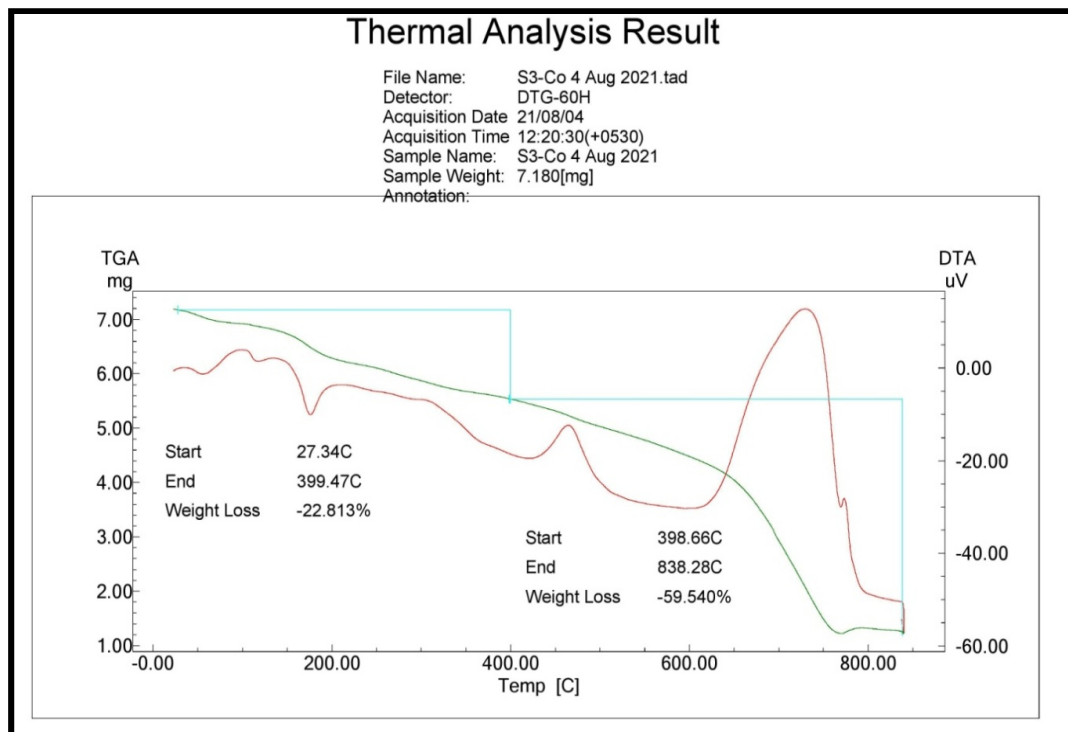
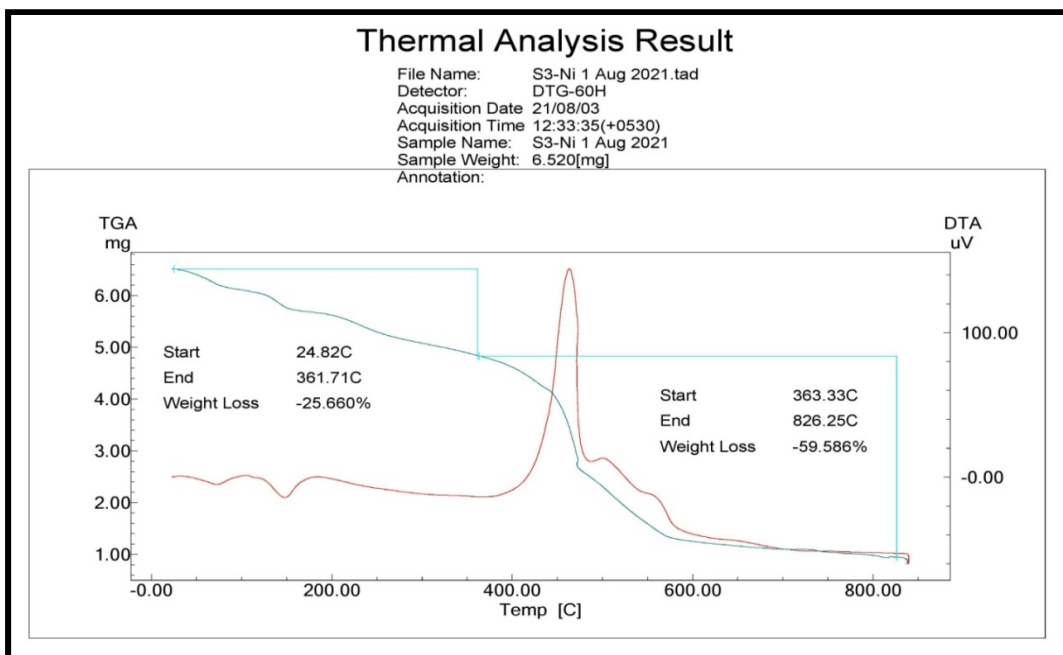
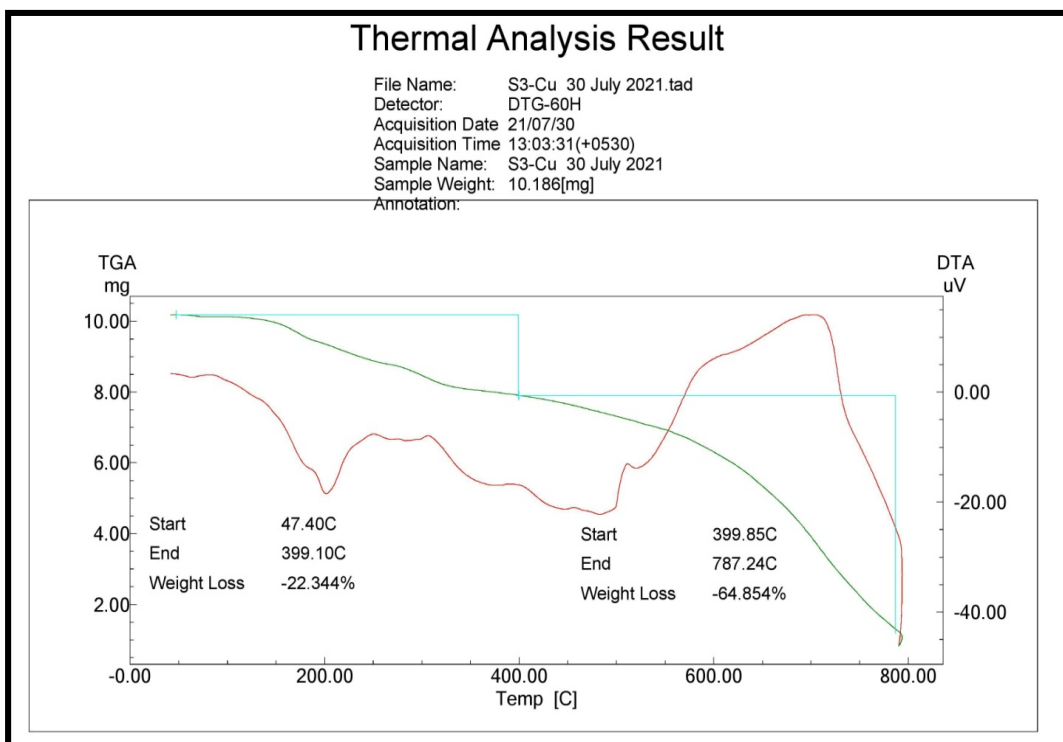


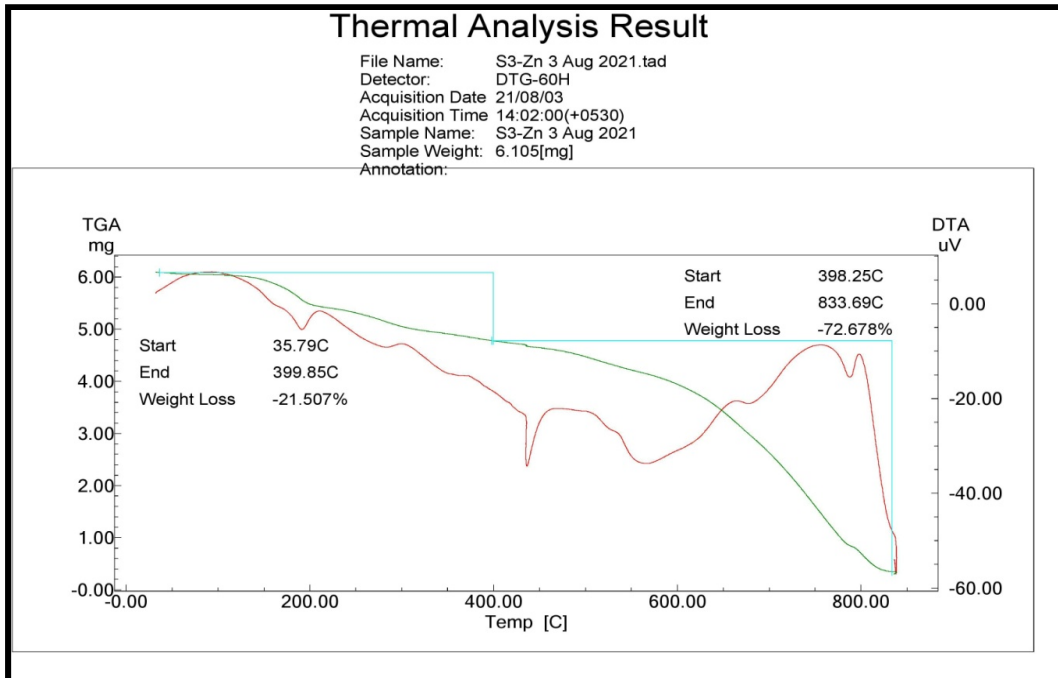
Fig. SI-18. TGA/DTA curves of Co(II) complex



**Fig. SI-19.** TGA/DTA curves of Ni(II) complex



**Fig. SI-20.** TGA/DTA curves of Cu(II) complex



**Fig. SI-21.** TGA/DTA curves of Zn(II) complex

## Powder XRD

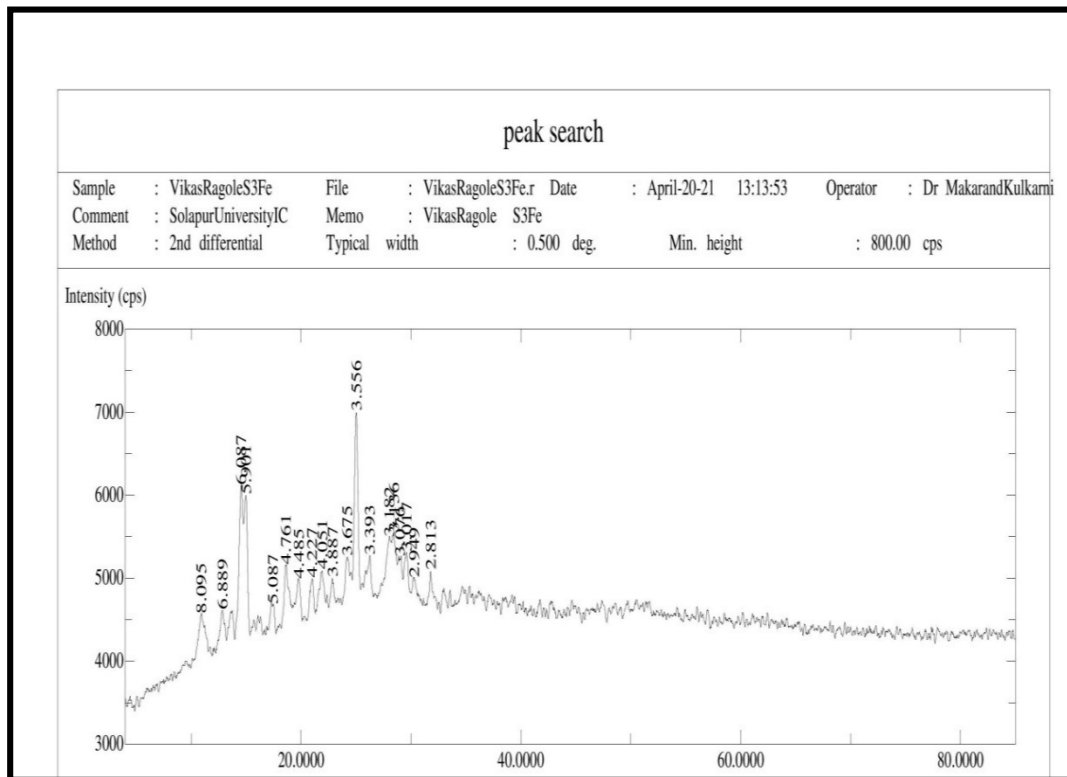


Fig. SI-22. Powder XRD of Fe(III) complex

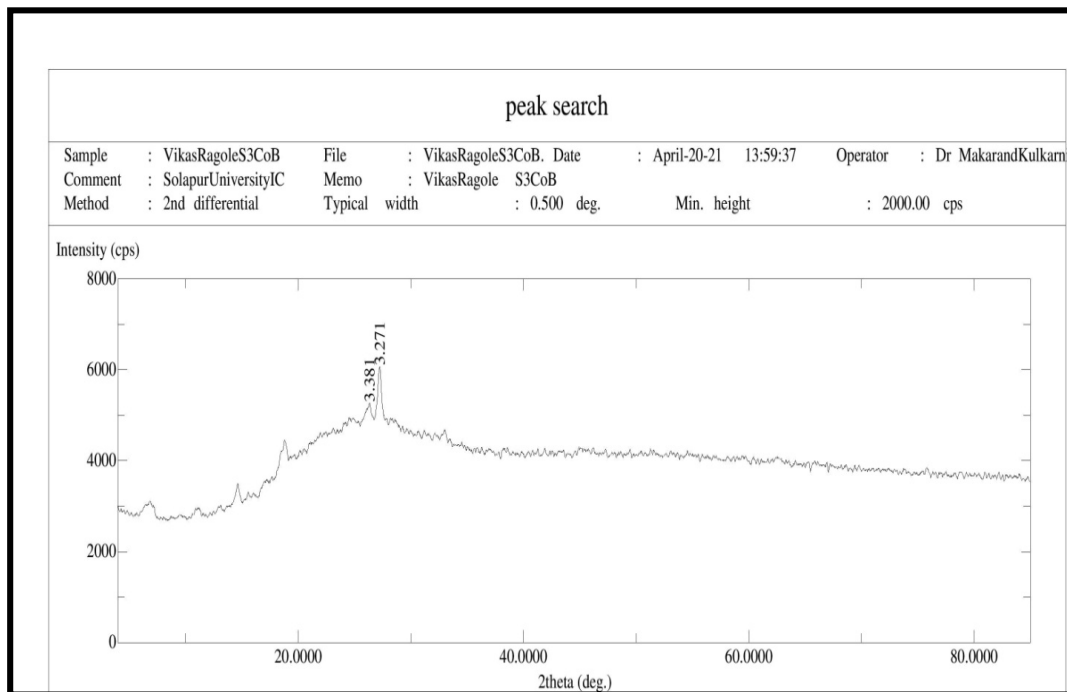
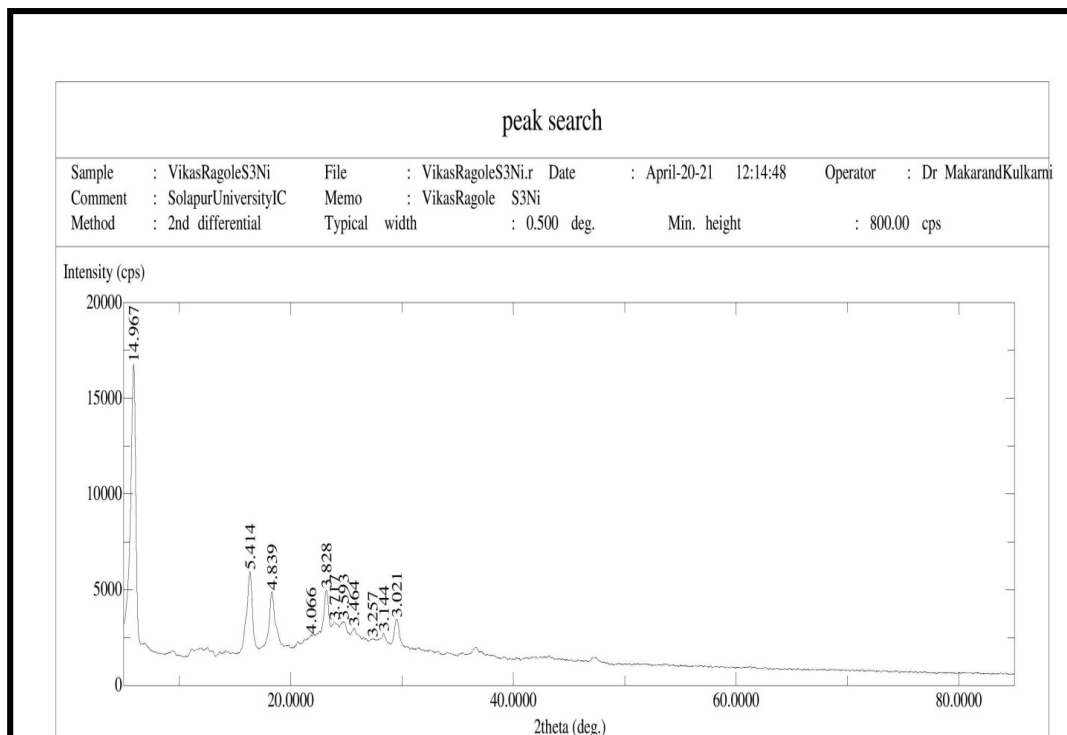
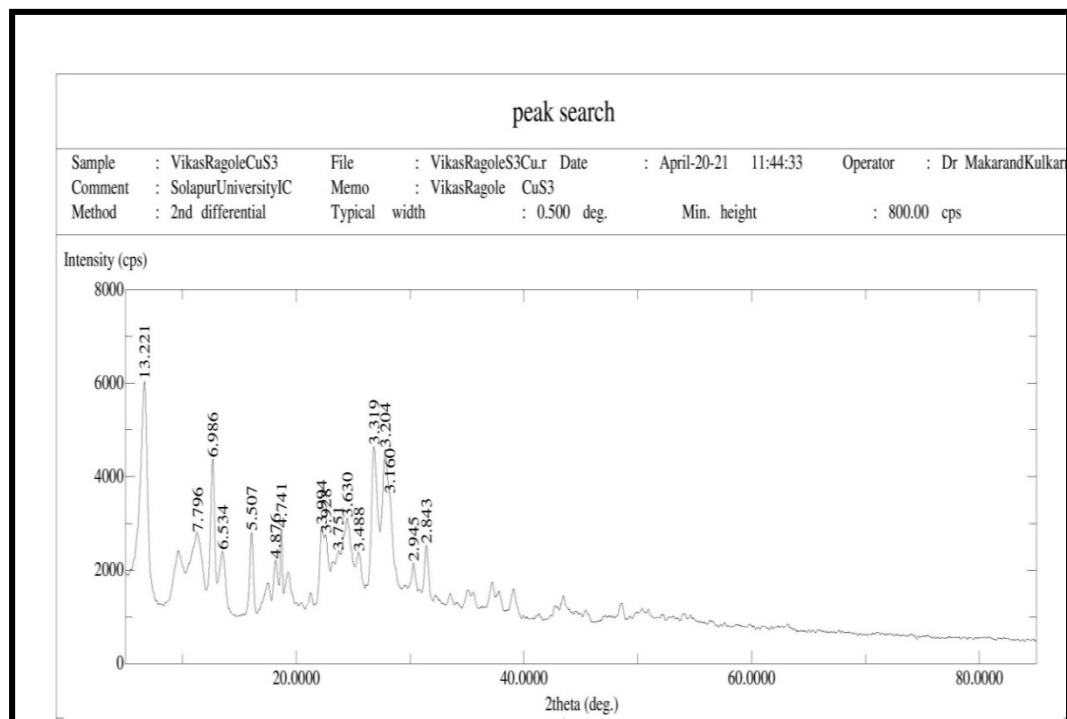


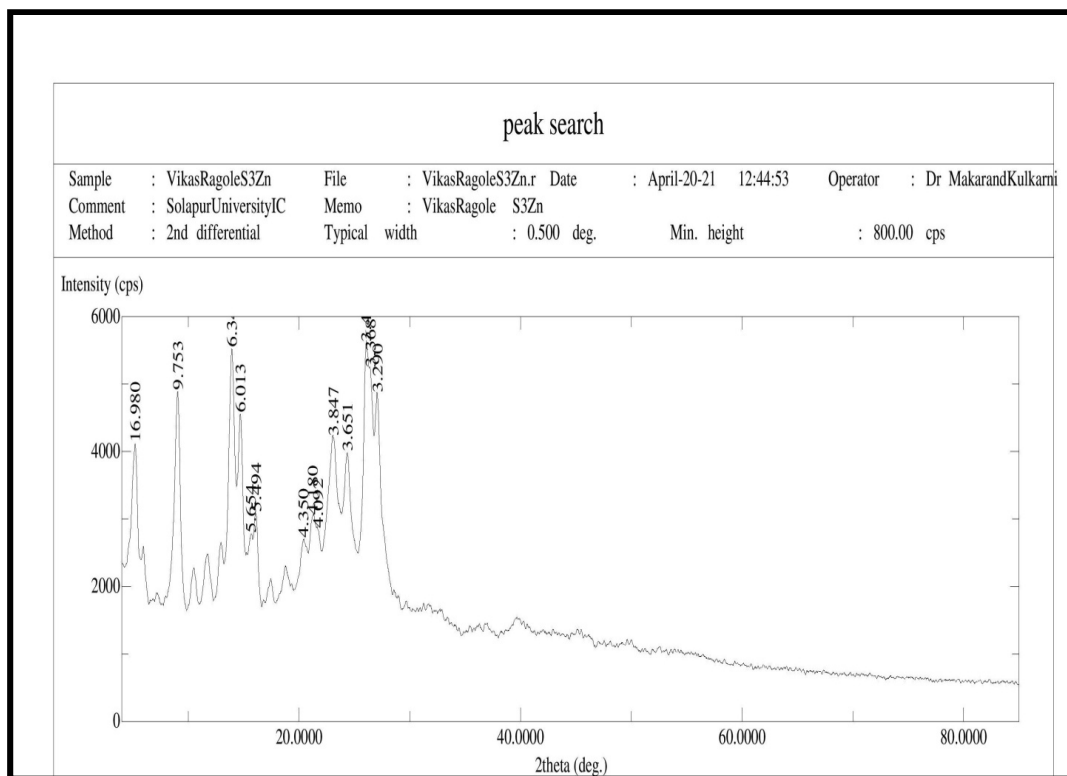
Fig. SI-23. Powder XRD of Co(II) complex



**Fig. SI-24.** Powder XRD of Ni(II) complex



**Fig. SI-25.** Powder XRD of Cu(II) complex



**Fig. SI-26.** Powder XRD of Zn(II) complex