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SUPPLEMENTARY MATERIAL TO
**Green route for efficient synthesis of metal complexes of
4-bromo-2-((*E*)-((2-hydroxyphenyl)imino)methyl)-6-((*E*)-(3-
-nitrophenyl)diazenyl)phenol and its anti-hyperglycemia,
anticancer and antimicrobial assessment**

KULDEEP B. SAKHARE¹, KIRTI N. SARWADE¹, HANSARAJ U. JOSHI²
and MAHADEO A. SAKHARE^{1*}

¹Department of Chemistry, Balbhim Arts, Science & Commerce College, Beed, Maharashtra, India and ²Department of Chemistry, Swa. Sawarkar College, Beed, Maharashtra, India

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*Corresponding author. E-mail: sakharema.chem@gmail.com

Schiff base ligand (B106). Colour: Brown; Time : 30 min; Yield: 84%; M. P.: 210-230 °C; FT-IR in cm^{-1} : 3432, 3502 (-OH stretching), 1619 (>C=N Stretching), 1372 (-N=N Stretching), 1271 (>C-O stretching), 647 (>C-Br stretching); ^1H NMR (400 MHz, CDCl_3) δ 12.37 (s, 1H), 8.65 (s, 1H), 7.58 (d, J = 2.4 Hz, 1H), 7.51 (dd, J = 8.8, 2.4 Hz, 1H), 7.29 (s, 2H), 7.28 – 7.22 (m, 2H), 7.17 (dd, J = 7.9, 1.4 Hz, 1H), 7.05 (d, J = 8.3 Hz, 1H), 7.01 – 6.94 (m, 2H), 5.72 (s, 1H); MS (ESI): m/z for $\text{C}_{19}\text{H}_{13}\text{BrN}_4\text{O}_4$ Calculated: 440.01 Found: 440.; Elemental analysis : Found (Calculated) C=51.72(51.35), H=2.97(2.75), N=12.70(12.12).

Mn(II) complex (A1 complex)

Colour: Maroon; Time: 40-42 min; Yield: 68%; M.P.: >300°C; FT-IR in cm^{-1} : 1590 (>C=N Stretching), 1370 (-N=N Stretching), 1288 (>C-O stretching), 742 (>C-Br stretching), 824(-OH Rocking); Elemental analysis : Found (Calculated) C=41.63(41.06), H=3.13(3.10), N=10.22(10.01); Uv-vis λ_{max} in nm: 335.

Co(II) complex (A2 complex)

Colour: Brown; Time: 40-45 min; Yield: 82%; M.P.: >300°C; FT-IR in cm^{-1} : 1588 (>C=N Stretching), 1370 (-N=N Stretching), 1291 (>C-O stretching), 743 (>C-Br stretching), 823(-OH Rocking); Elemental analysis : Found (Calculated) C=41.33(41.44), H=3.10(3.00), N=10.15(10.24); Uv-vis λ_{max} in nm: 383, 350, and 267.

Ni(II) complex (A3 complex)

Colour: Light Brown; Time: 40-45 min; Yield: 86%; M.P.: >300°C; FT-IR in cm^{-1} : 1580 (>C=N Stretching), 1368 (-N=N Stretching), 1292 (>C-O stretching), 742 (>C-Br stretching), 821(-OH Rocking); Elemental analysis : Found (Calculated) C=41.34(41.25), H=3.10(3.09), N=10.15(10.08); Uv-vis λ_{max} in nm: 398, 366 and 335.

Cu(II) complex (A4 complex)

Colour: Faint green; Time: 40-45 min; Yield: 71%; M.P.: >300°C; FT-IR in cm^{-1} : 1615 (>C=N Stretching), 1368 (-N=N Stretching), 1275 (>C-O stretching), 743 (>C-Br stretching), 825(-OH Rocking); Elemental analysis : Found (Calculated) C=40.90(40.72), H=3.08(3.00), N=10.06(10.00); Uv-vis λ_{max} in nm: 435 and 363.

Zn(II) complex (A5 complex)

Colour: Dark yellow; Time: 40-45 min; Yield: 84%; M.P.: >300°C; FT-IR in cm^{-1} : 1603 (>C=N Stretching), 1374 (-N=N Stretching), 1284 (>C-O stretching), 744 (>C-Br stretching), 828(-OH Rocking); Elemental analysis : Found (Calculated) C=43.67(43.82), H=2.51(2.37), N=10.72(10.46); Uv-vis λ_{max} in nm: 396.

VO(II) complex (A6 complex)

Colour: Green; Time: 40-45 min; Yield: 59%; M.P.: >300°C; FT-IR in cm^{-1} : 1593 (>C=N Stretching), 1381 (-N=N Stretching), 1288 (>C-O stretching), 746 (>C-Br stretching), 828(-OH Rocking); Elemental analysis : Found (Calculated) C=42.09(41.91), H=2.79(2.58), N=10.33(10.17); Uv-vis λ_{max} in nm: 435 and 325.

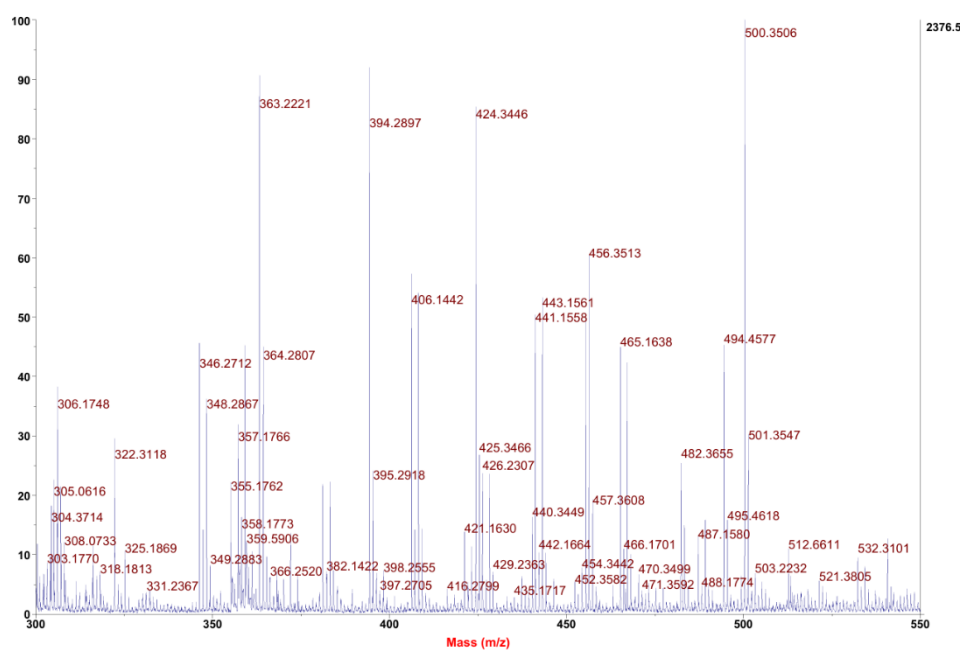
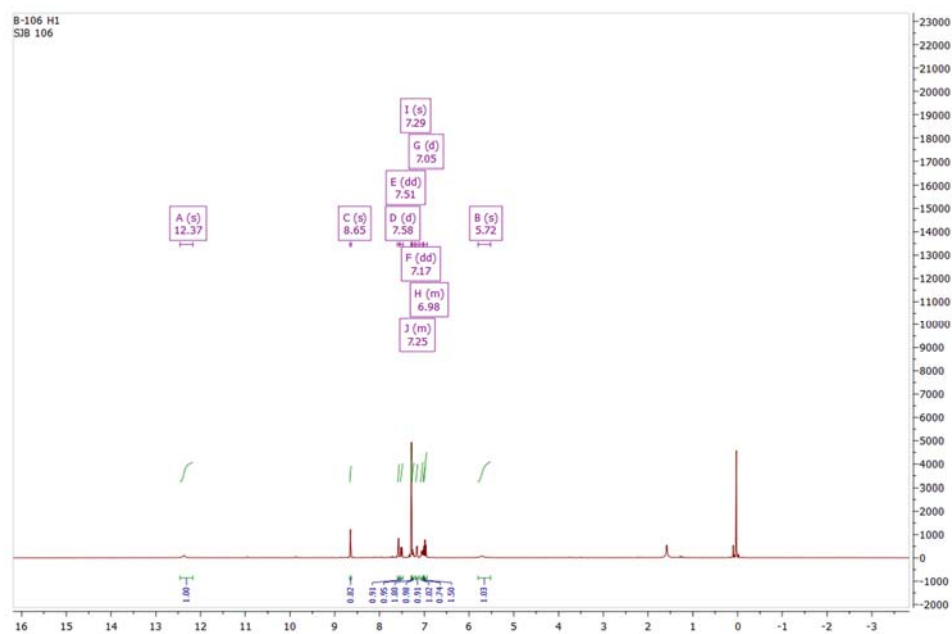
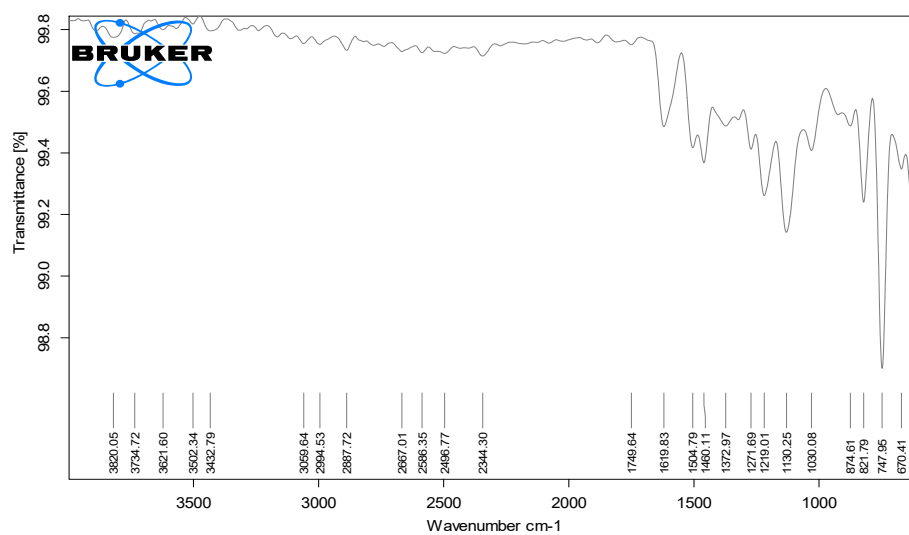


Figure S-1. Mass spectrum of Schiff base ligand B106

Figure S-2. ^1H NMR of Schiff base ligand B106

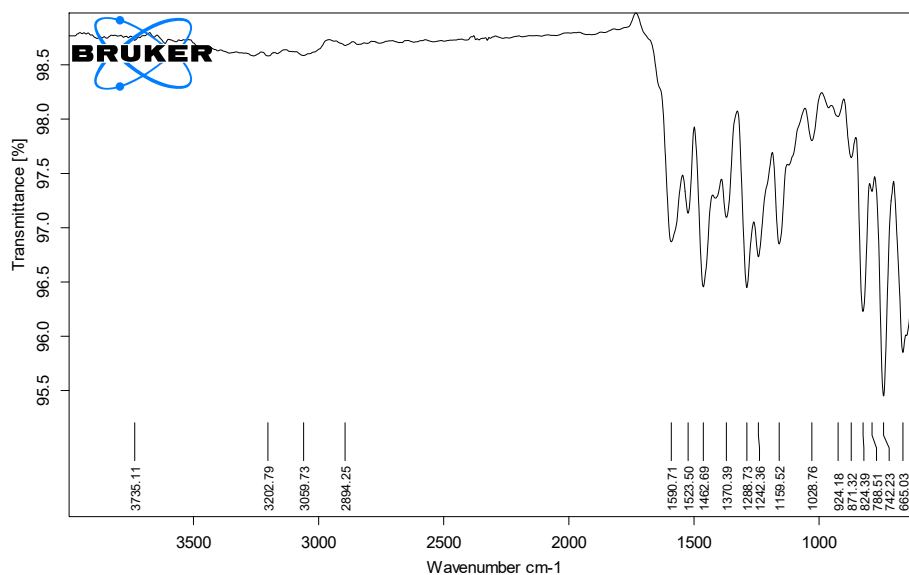
D:\FTIR DATA\B106 25 JUNE 2024.0

B106

Instrument type and / or accessory

6/25/2024

Figure S-3. FTIR of Schiff base ligand B106



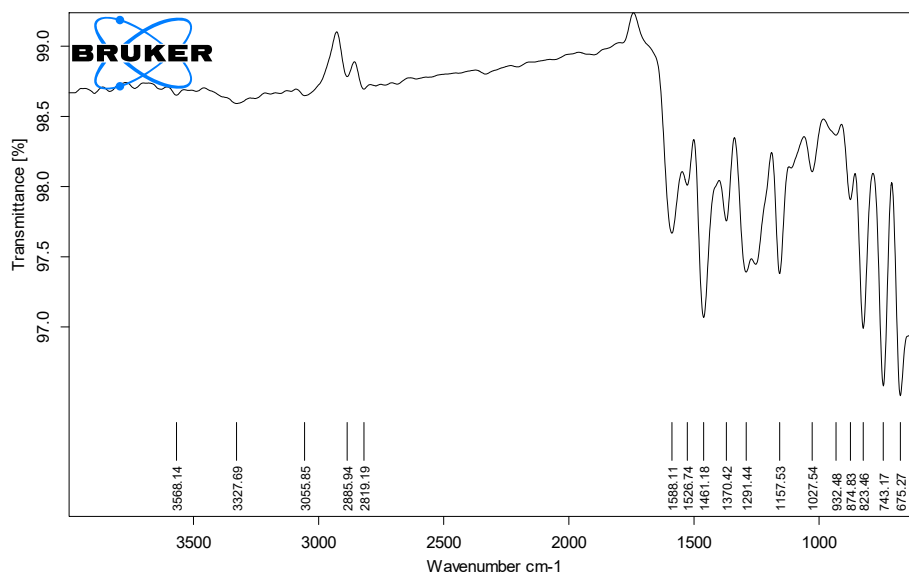
D:\FTIR DATA\A1 25 JUNE 2024.0

A1

Instrument type and / or accessory

6/25/2024

Figure S-4. FTIR of A1 complex



D:\FTIR DATA\A2 25 JUNE 2024.0

A2

Instrument type and / or accessory

6/25/2024

Figure S-5. FTIR of A2 complex

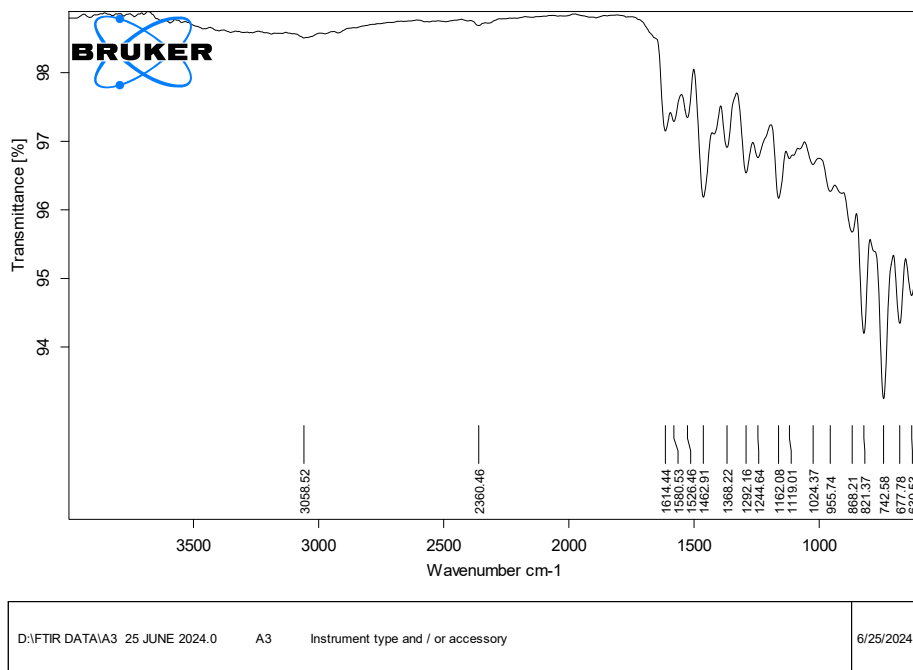


Figure S-6. FTIR of A3 complex

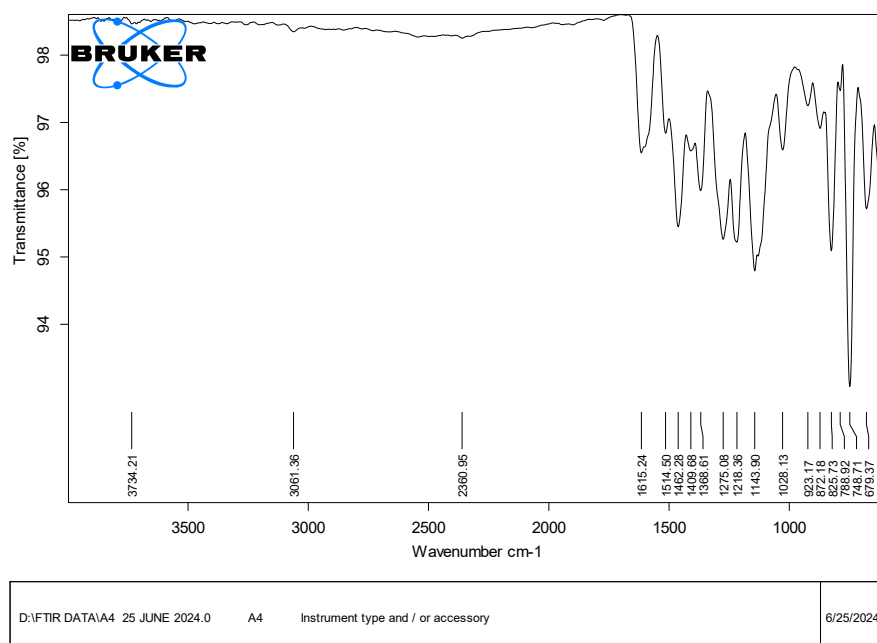


Figure S-7. FTIR of A4 complex

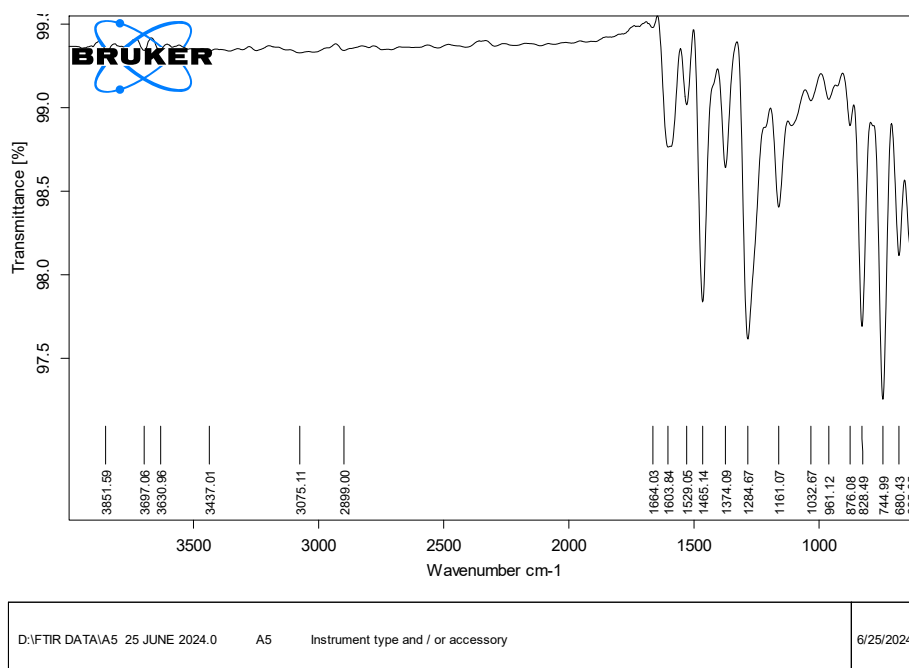


Figure S-8. FTIR of A5 complex

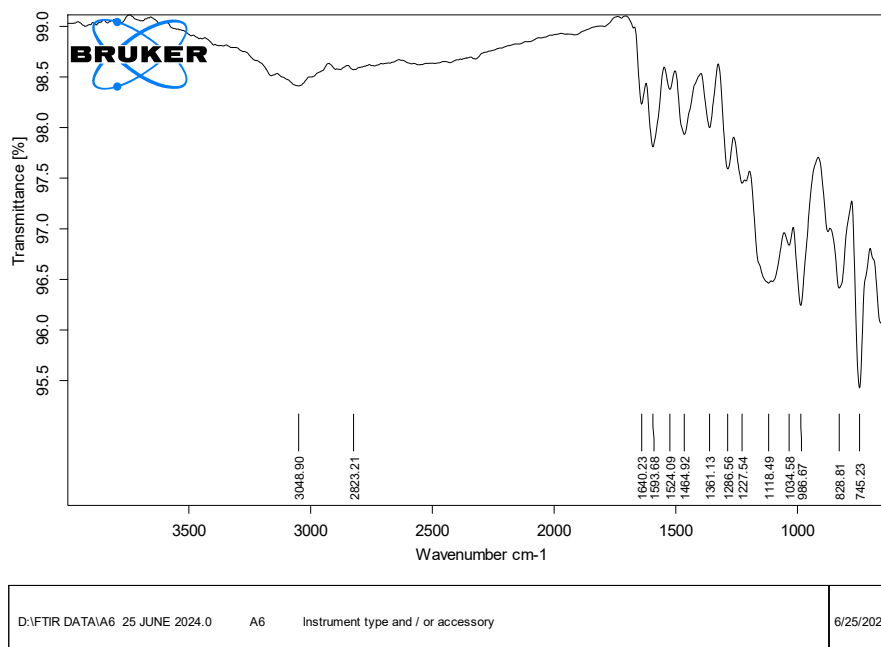


Figure S-9. FTIR of A6 complex

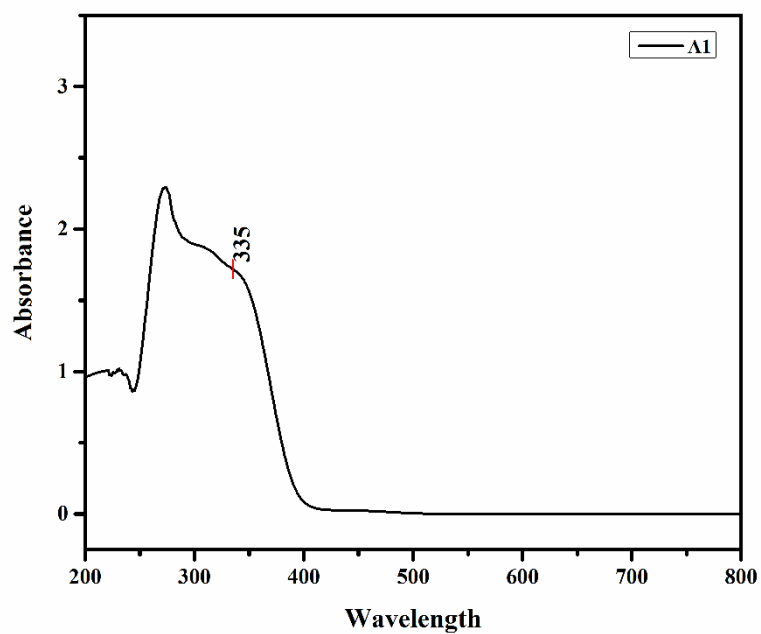


Figure S-10. UV spectra of A1 complex

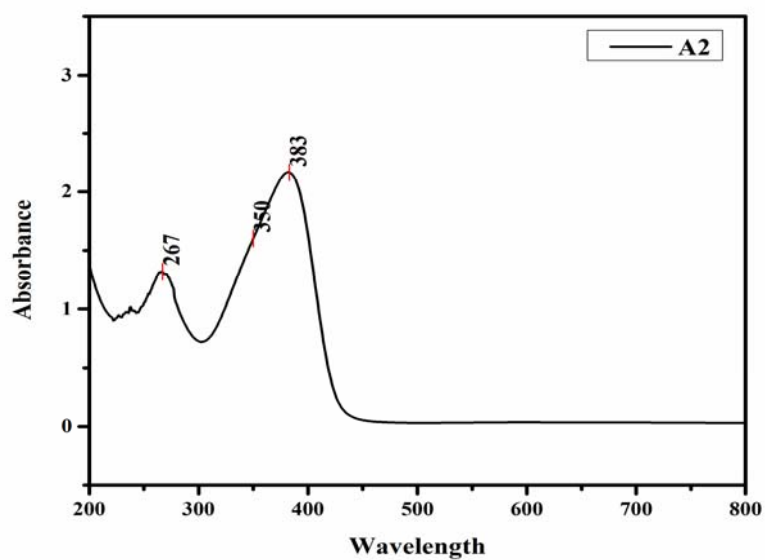


Figure S-11. Uv spectra of A2 complex

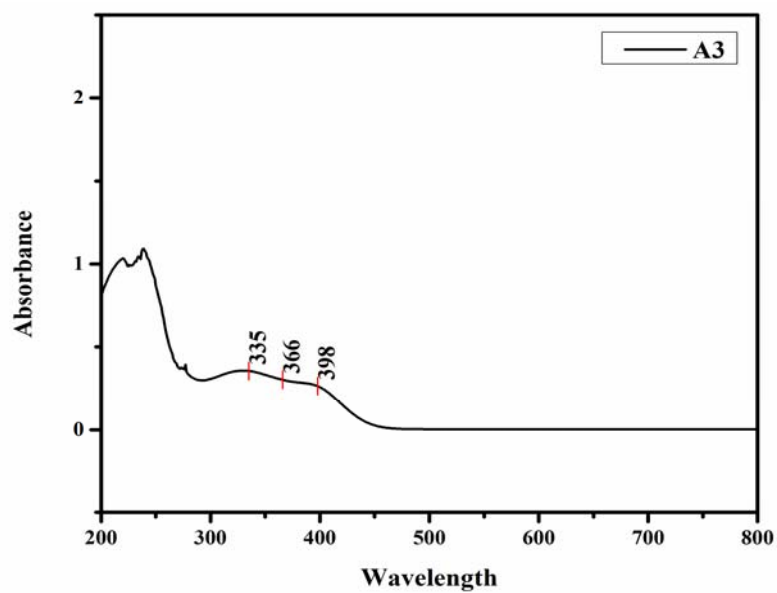


Figure S-12. Uv spectra of A3 complex

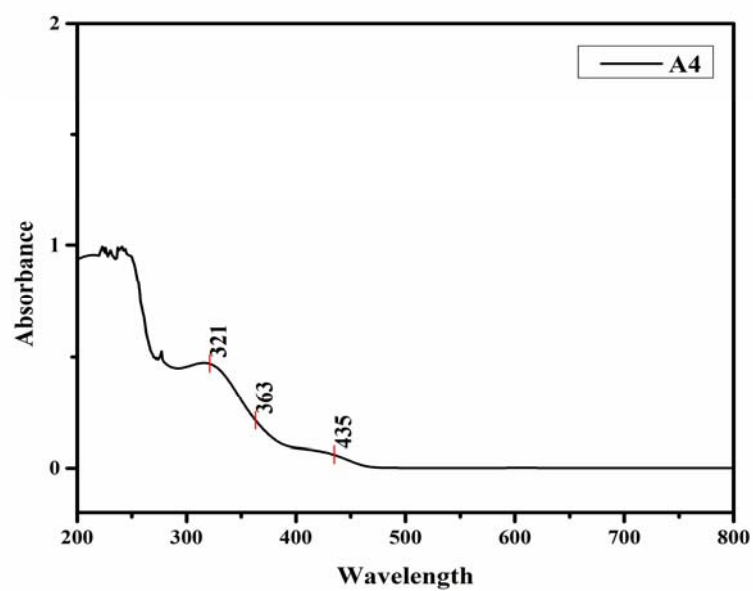


Figure S-13. Uv spectra of A4 complex

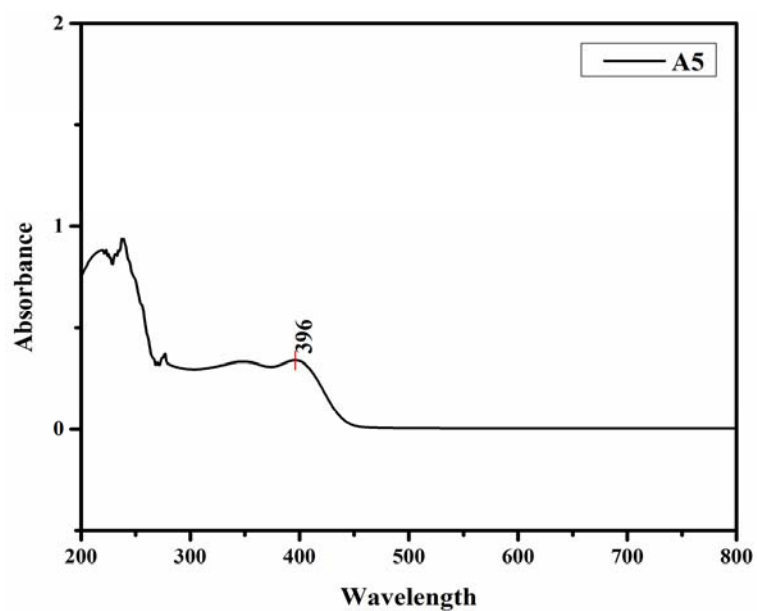


Figure S-14. Uv spectra of A5 complex

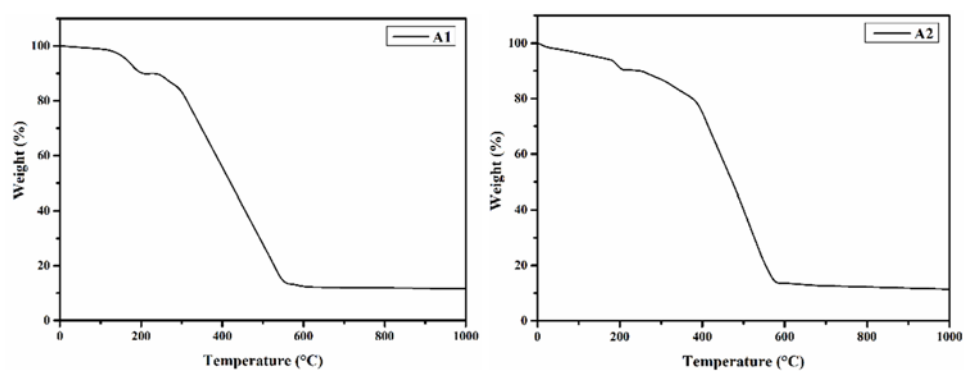


Figure S-15. TGA of A1 and A2 complex

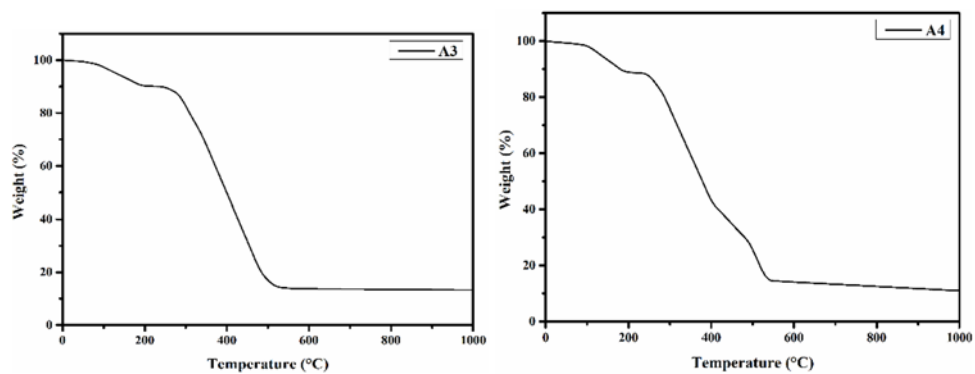


Figure S-16. TGA of A3 and A4 complex

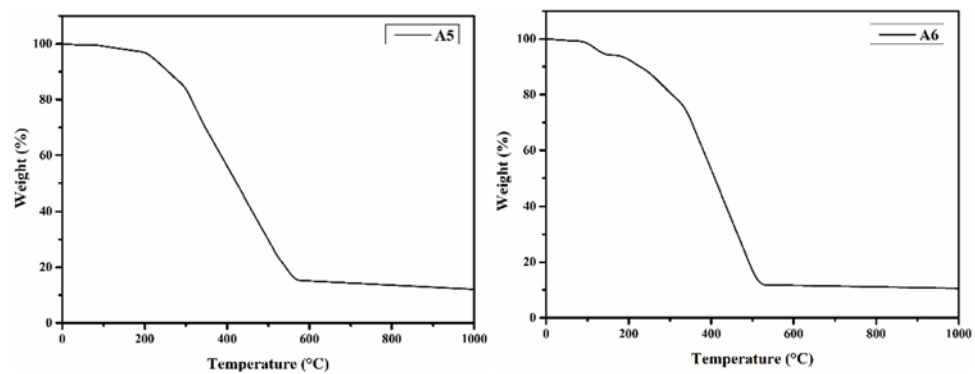


Figure S-17. TGA of A5 and A6 complex

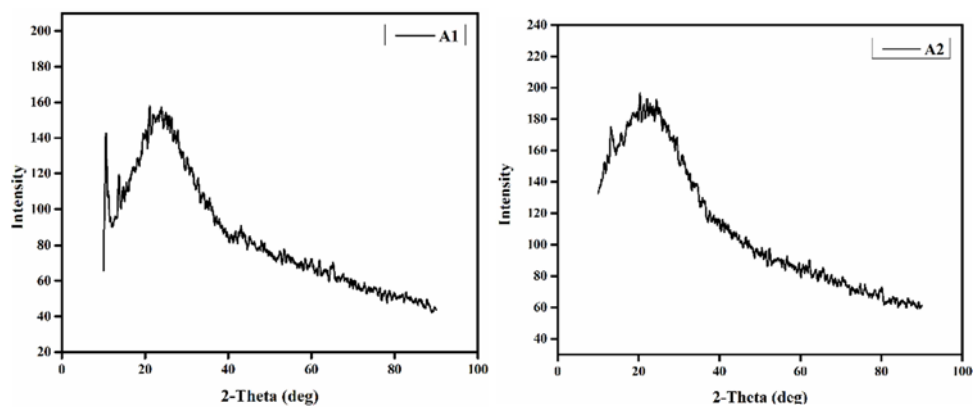


Figure S-18. P-XRD of A1 and A2 complex

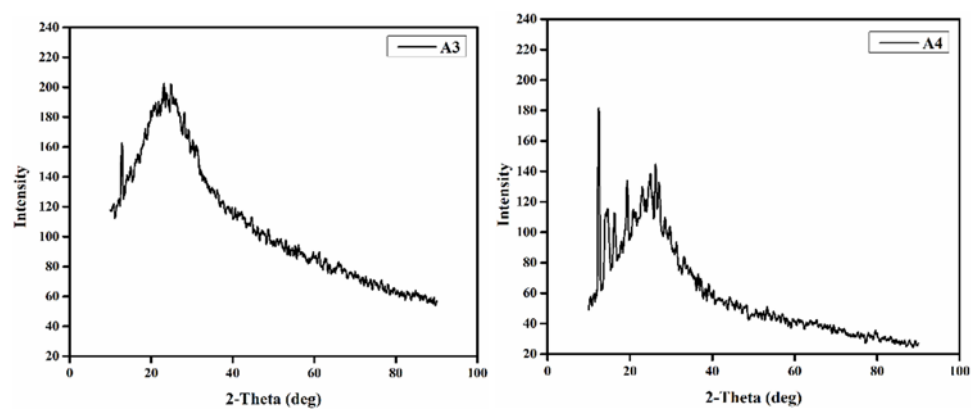


Figure S-19. P-XRD of A3 and A4 complex

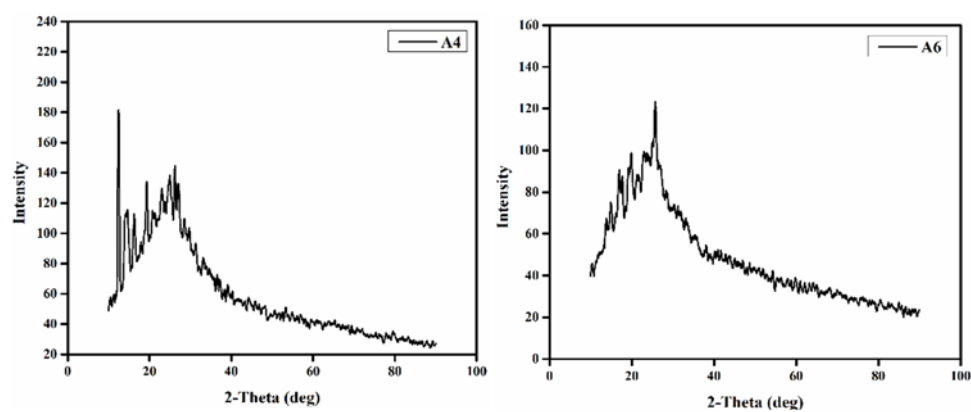
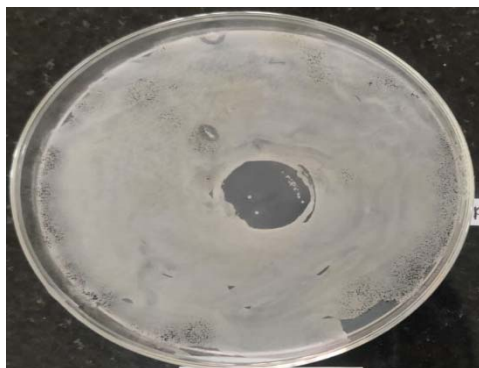


Figure S-20. P-XRD of A5 and A6 complex

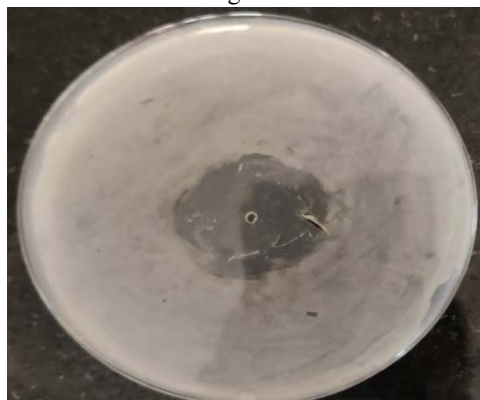
PHOTOS OF ANTIMICROBIAL ASSESSMENTS



Ligand B106



A1 complex



A2 complex



A3 complex



A4 complex



A5 complex



A6 complex

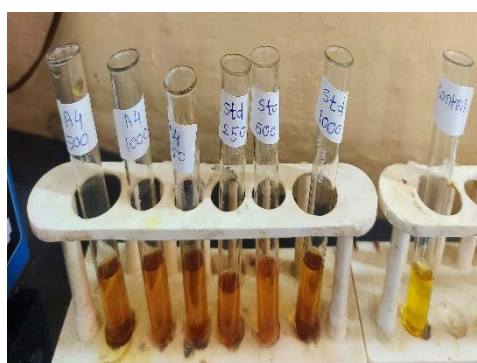
PHOTOS OF HYPERGLYCEMIA ASSESSMENTS



Ligand B106



A2 complex



A4 complex

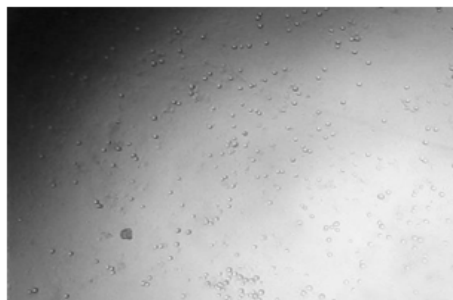


A5 complex

PHOTOS OF ANTICANCER ACTIVITY



Ligand B106



A2 complex



A4 complex



A5 complex