

# Supplementary Information

## Biological Activity Studies on Metal Complexes of Macrocyclic Schiff Base Ligand: Synthesis and Spectroscopic Characterization

Parveez Gull\* and Athar Adil Hashmi

Department of Chemistry, Jamia Millia Islamia, 110025 New Delhi, India

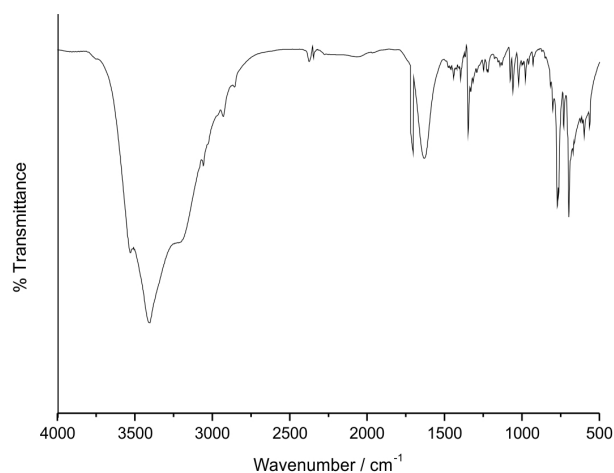


Figure S1. IR spectrum (KBr) of ligand  $C_{44}H_{32}N_8O_4$  (L).

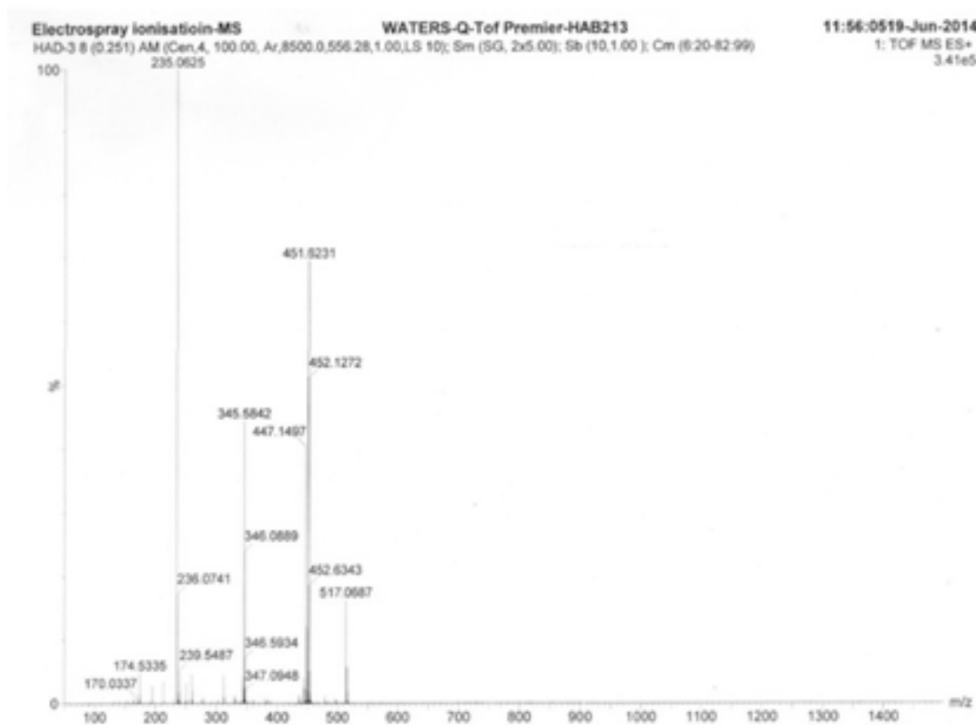


Figure S2. Mass spectrum (ESI) of ligand L ( $C_{26}H_{28}N_8O_4$ ).

\*e-mail: parveezgull@gmail.com

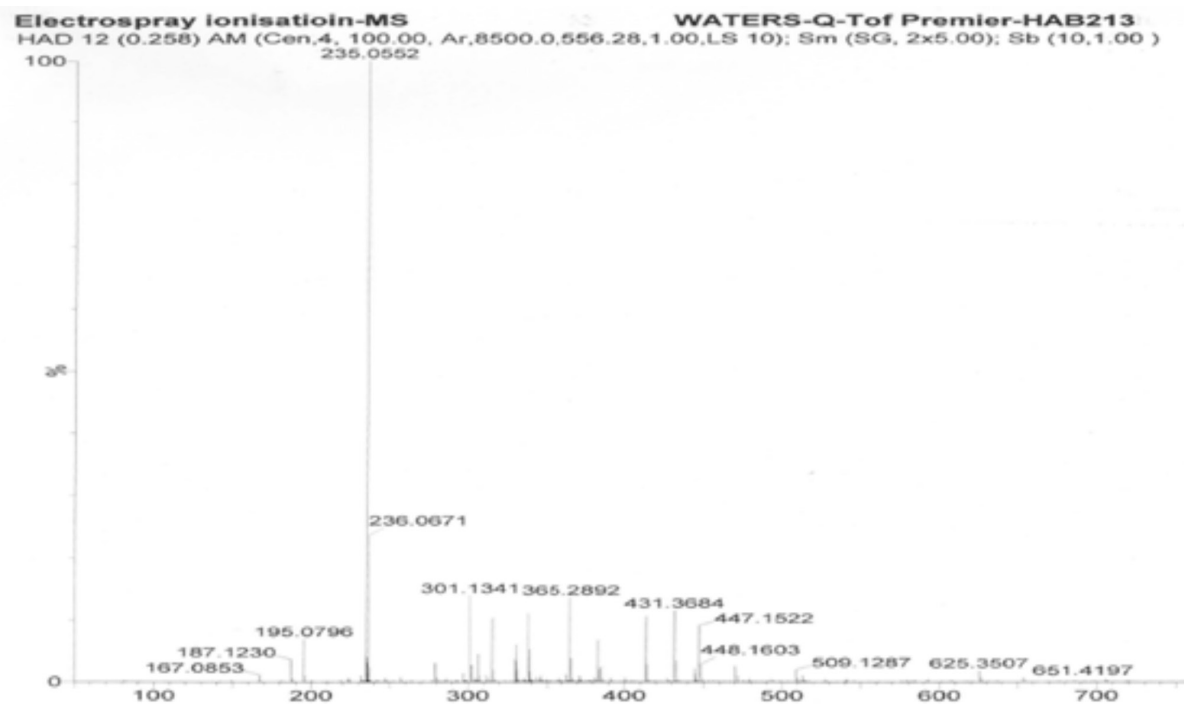


Figure S3. Mass spectrum (ESI) of complex  $[\text{Cu}(\text{C}_{26}\text{H}_{28}\text{N}_8\text{O}_4)\text{Cl}_2]$ .

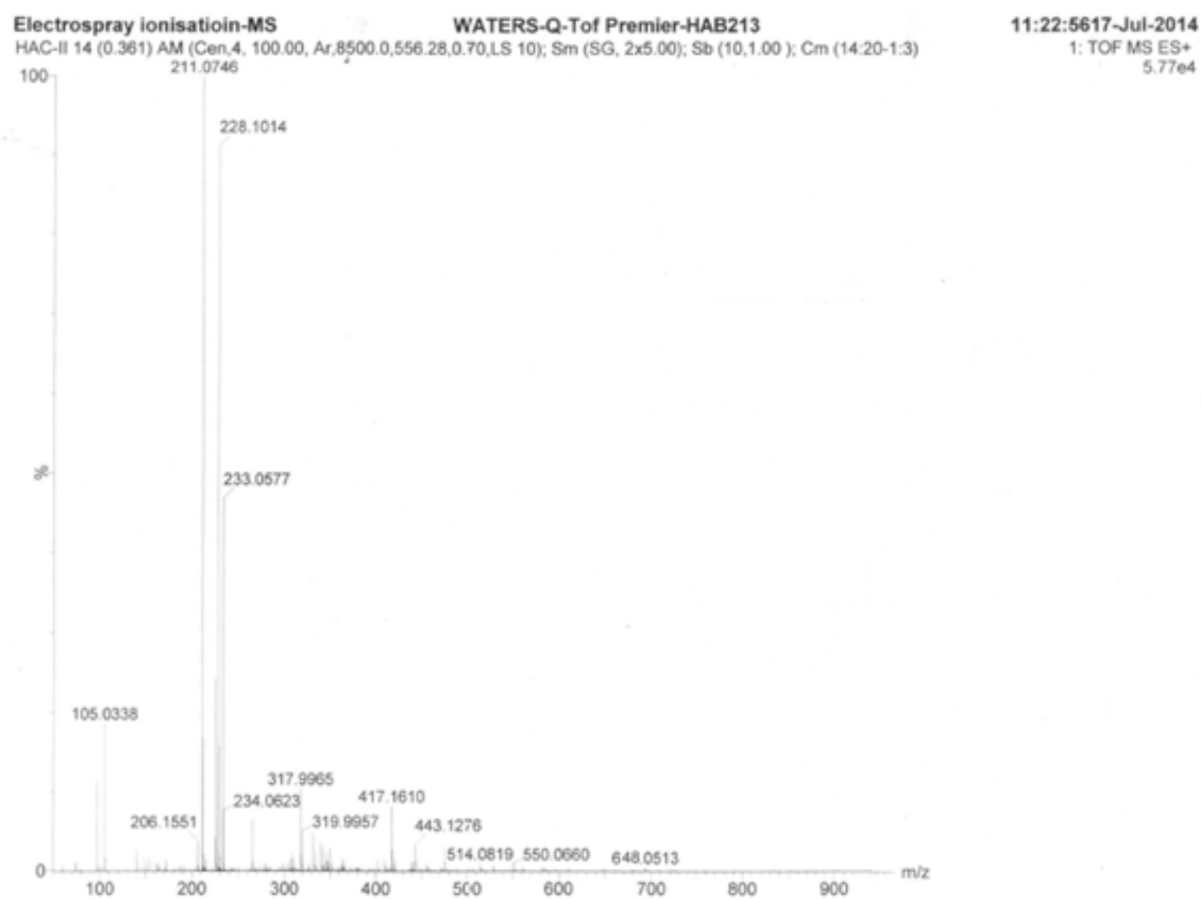
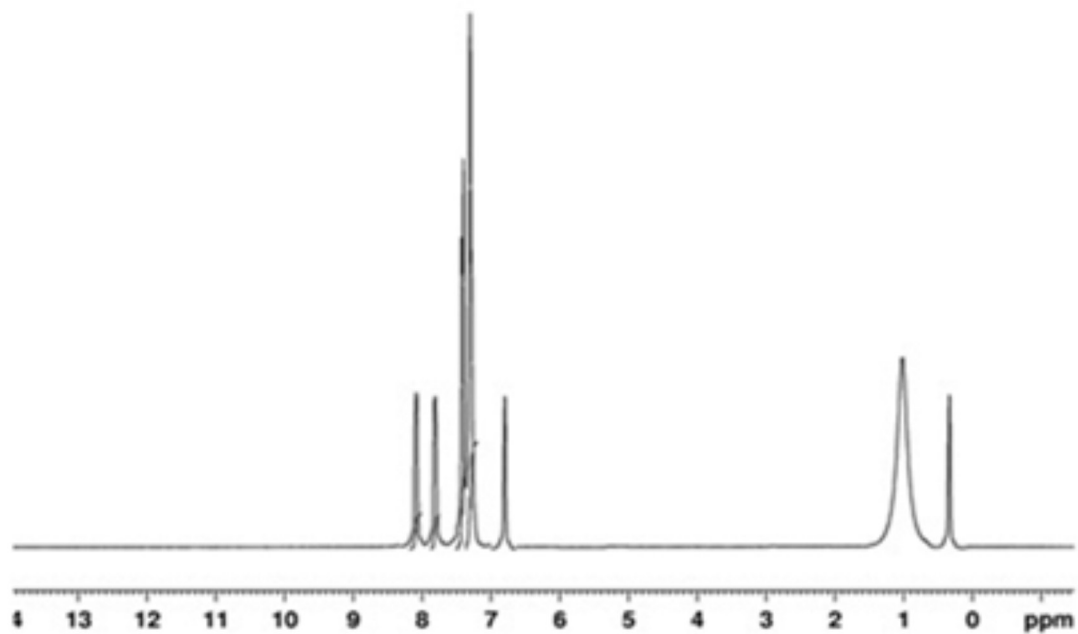


Figure S4. Mass spectrum (ESI) of complex  $[\text{Co}(\text{C}_{26}\text{H}_{28}\text{N}_8\text{O}_4)\text{Cl}_2]$ .



**Figure S5.**  $^1\text{H}$  NMR spectrum (300 MHz,  $\text{DMSO-d}_6$ ) of ligand  $\text{C}_{44}\text{H}_{32}\text{N}_8\text{O}_4$  (L).

**Table S1.** *In vitro* antibacterial activity (MIC,  $\mu\text{g mL}^{-1}$ ) of the compounds

Compound	Bacterial species / ( $\mu\text{g mL}^{-1}$ )			
	<i>E. coli</i>	<i>B. subtilis</i>	<i>P. aeruginosa</i>	<i>S. aureus</i>
Ligand(L)	13	95	62	80
[Cu(L)Cl <sub>2</sub> ]	12	64	13	42
[Co(L)Cl <sub>2</sub> ]	11	13	09	21
[Ni(L)Cl <sub>2</sub> ]	07	04	11	08
Copper(II)	80	64	67	88
Cobalt(II)	98	72	80	75
Nickel(II)	69	94	86	91
Amikacin	05	04	05	04

**Table S2.** *In vitro* antifungal activity (MIC,  $\mu\text{g mL}^{-1}$ ) of the compounds

Compound	Fungal species / ( $\mu\text{g mL}^{-1}$ )			
	<i>C. albicans</i>	<i>Fusarium sp.</i>	<i>Trichosporon sp.</i>	<i>A. flavus</i>
Ligand(L)	85	94	55	77
[Cu(L)Cl <sub>2</sub> ]	18	61	16	29
[Co(L)Cl <sub>2</sub> ]	14	17	12	16
[Ni(L)Cl <sub>2</sub> ]	09	06	14	11
Copper(II)	92	86	65	85
Cobalt(II)	79	89	96	75
Nickel(II)	89	97	84	81
Nystatin	05	04	05	04