Supplementary information

Heteroleptic Cobalt Complex Augments Antifungal Activity with Fluconazole and Causes Membrane Disruption in *Candida albicans*

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Figure captions

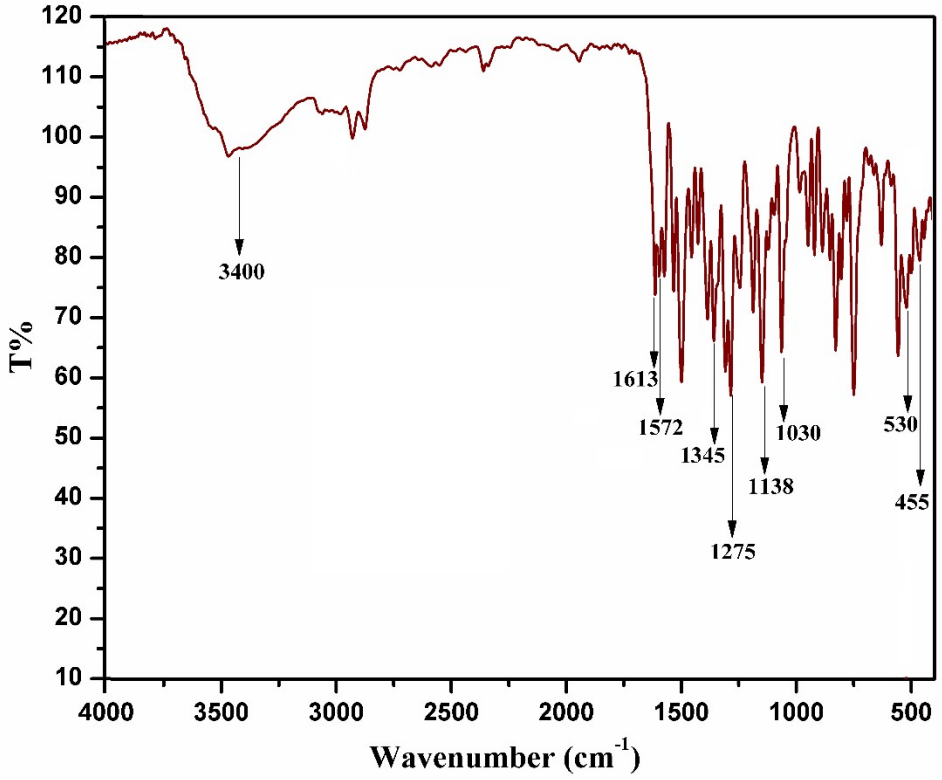

Figure S1 FT-IR spectrum of **C2** complex

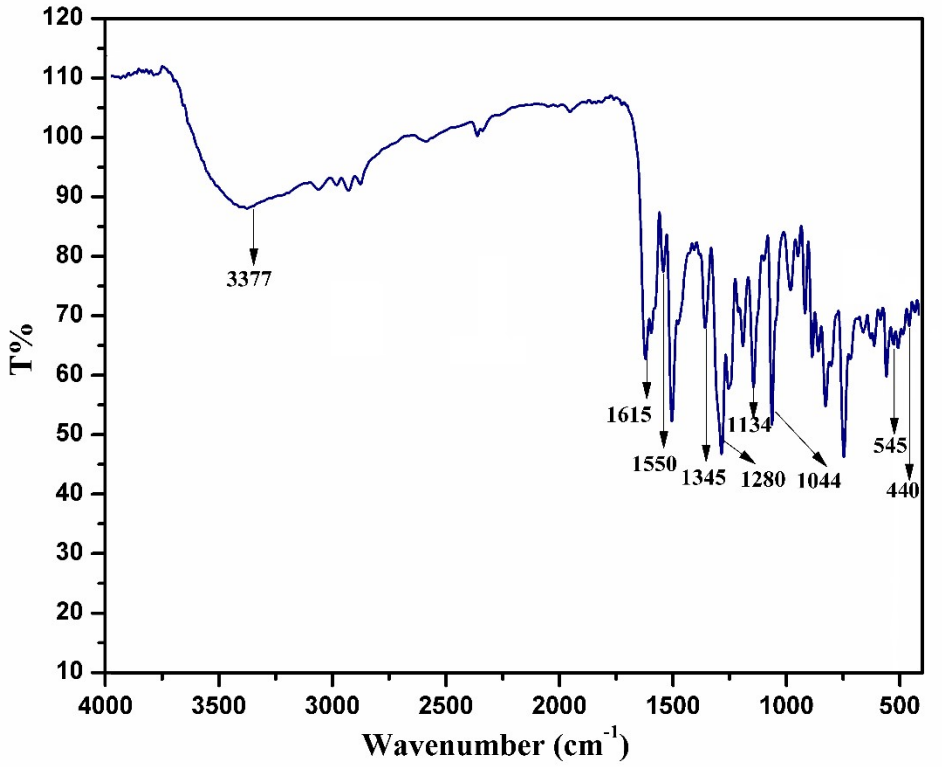

Figure S2 FT-IR spectrum of **C3** complex

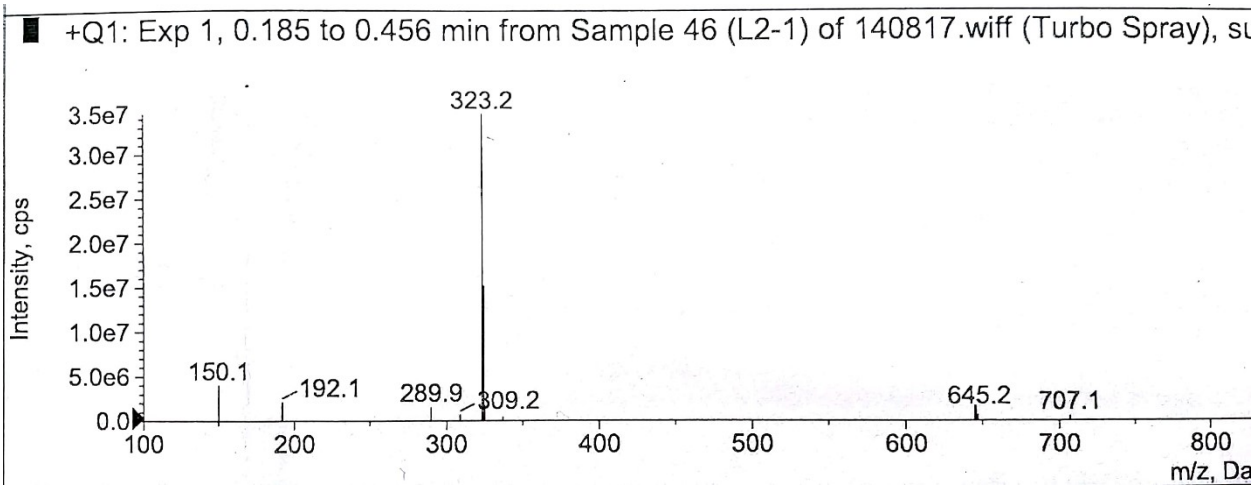

Figure S3 Mass spectrum of schiff base ligand **(L)** showing prominent parent ion peak at 323.2 (m/z) which corresponds to $[M+H]^+$

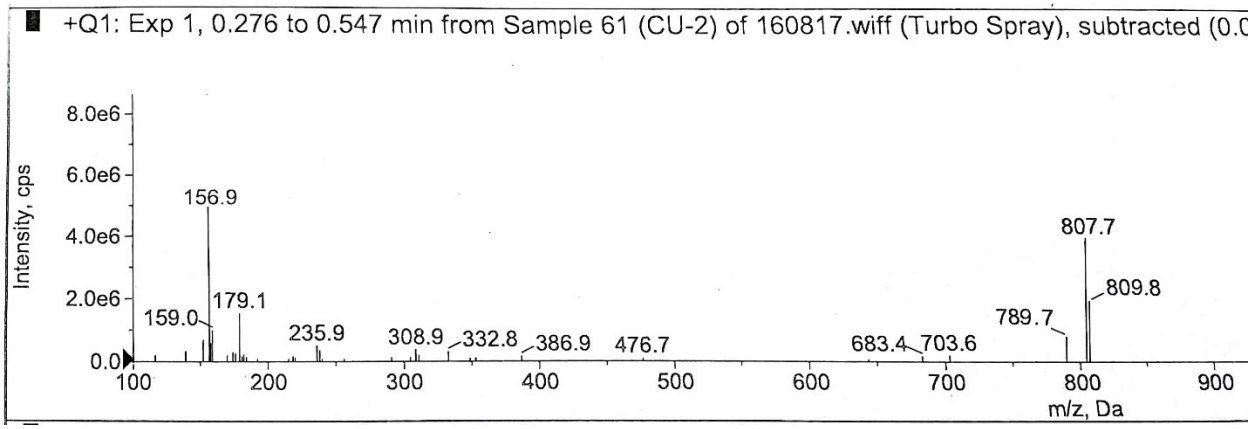

Figure S4 Mass spectrum of complex **C1** complex showing prominent parent ion peak at 807.7 (m/z) which corresponds to $[M+H]^+$

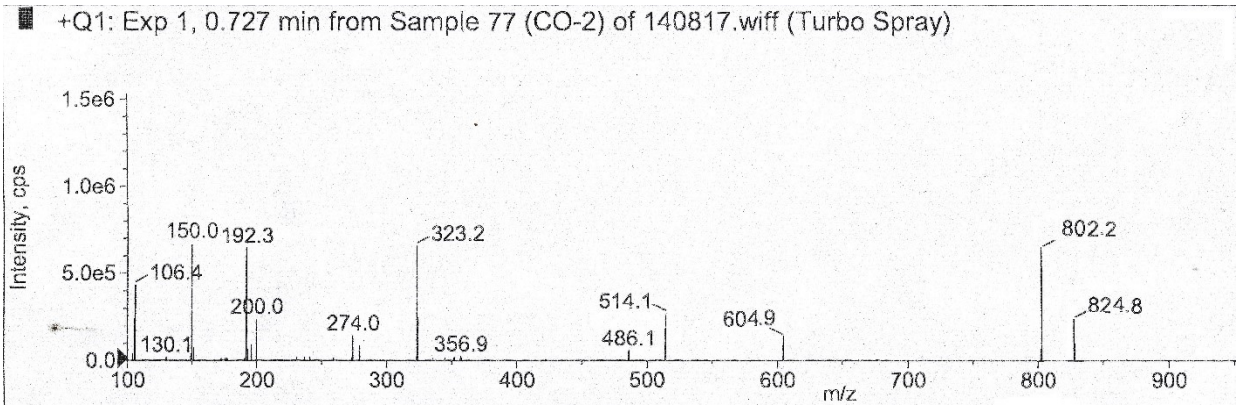

Figure S5 Mass spectrum of **C2** complex showing prominent parent ion peak at 802.2 (m/z) which corresponds to $[M+H]^+$

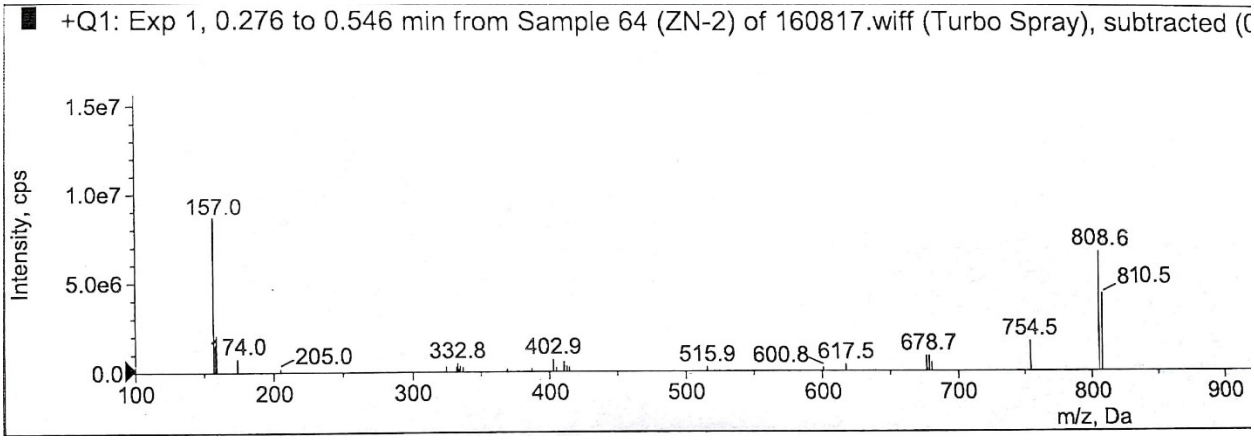

Figure S6 Mass spectrum of **C3** complex showing prominent parent ion peak at 808.6 (m/z) which corresponds to $[M+H]^+$

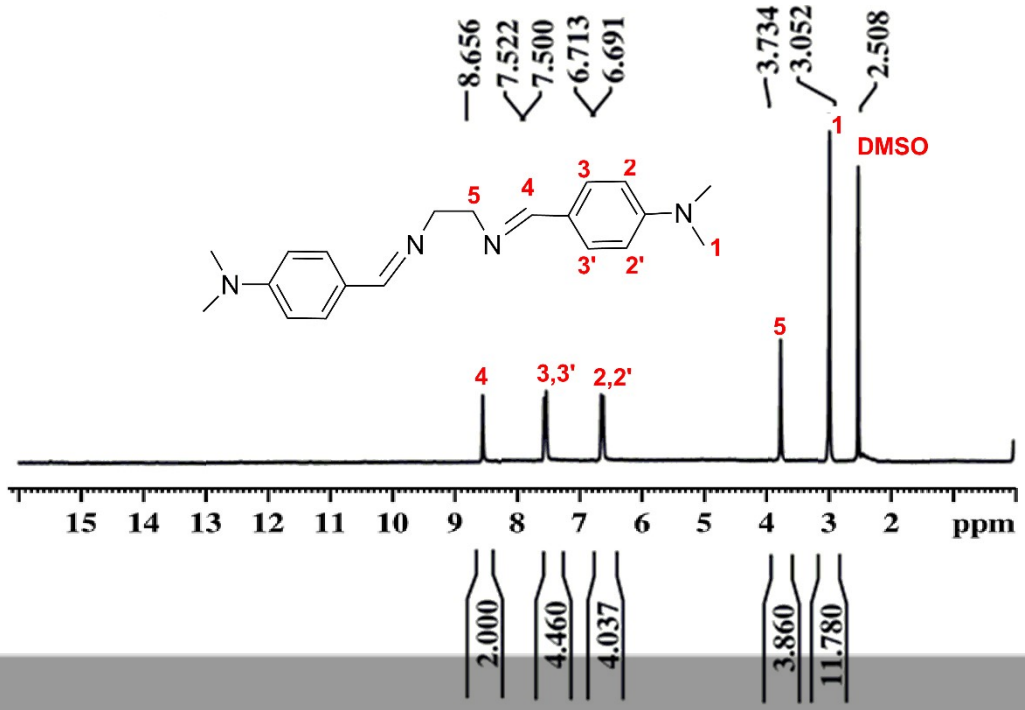

Fig. S7. ^{1}H NMR spectrum of the schiff base ligand **(L)**

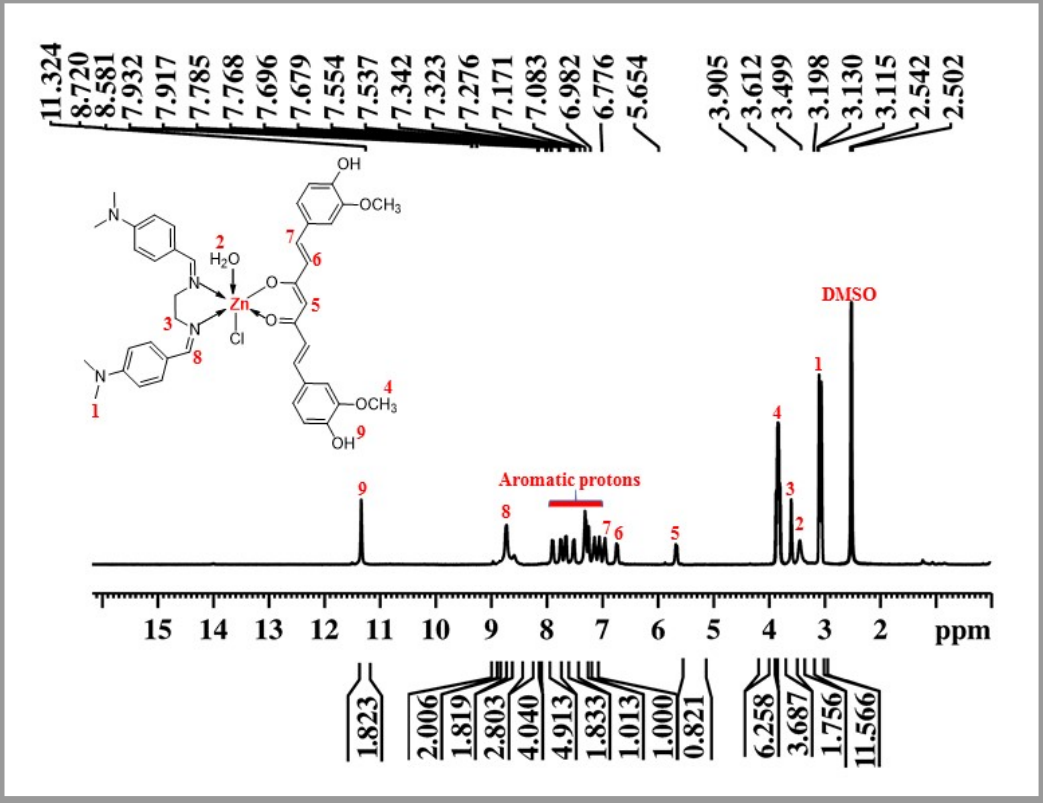

Fig. S8. ^{1}H NMR spectra of **C3** complex.

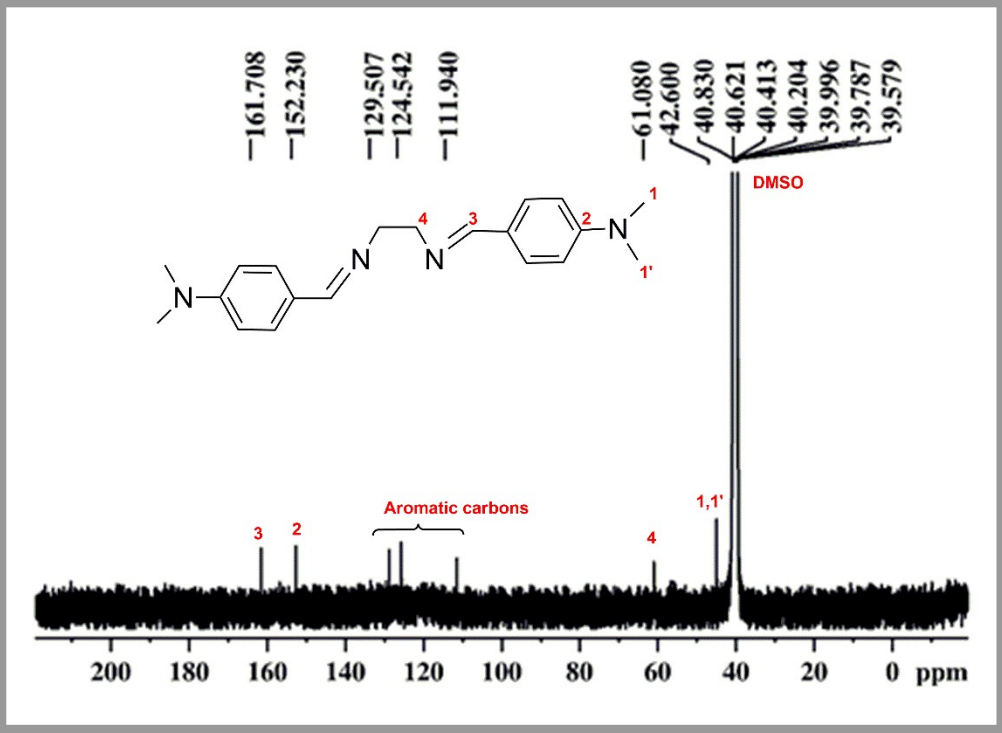

Figure S9 ^{13}C NMR spectrum of Schiff base **(L)**

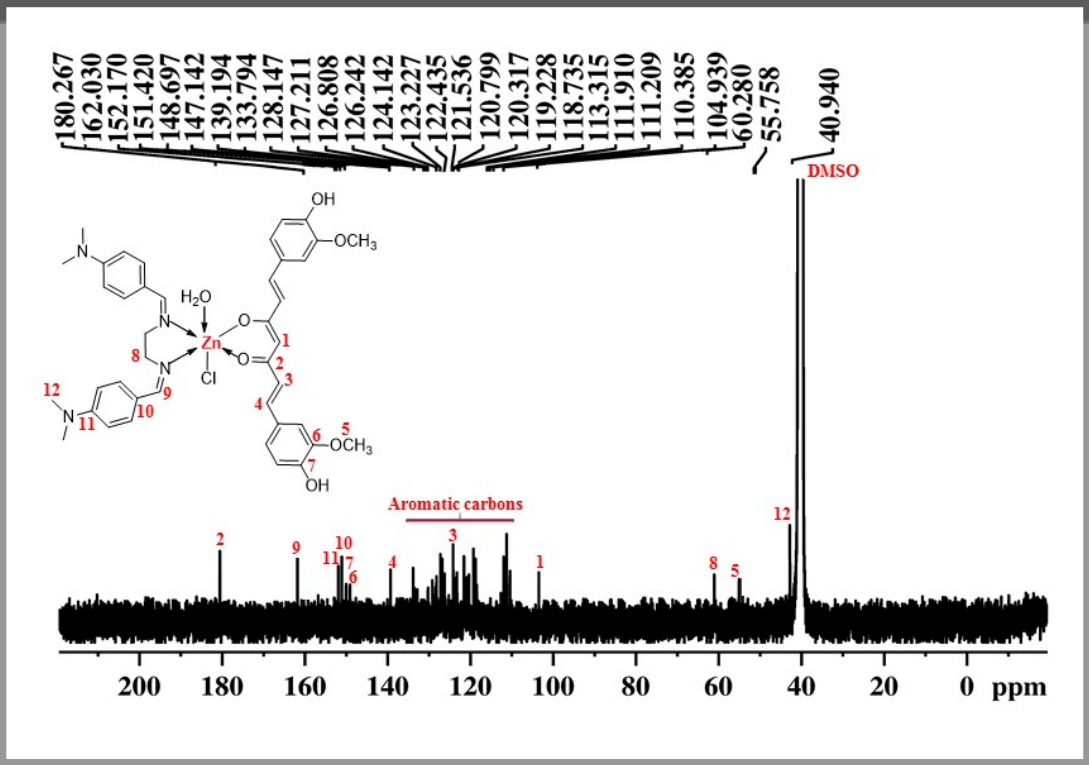

Figure S10 ^{13}C NMR spectrum of **C3** complex

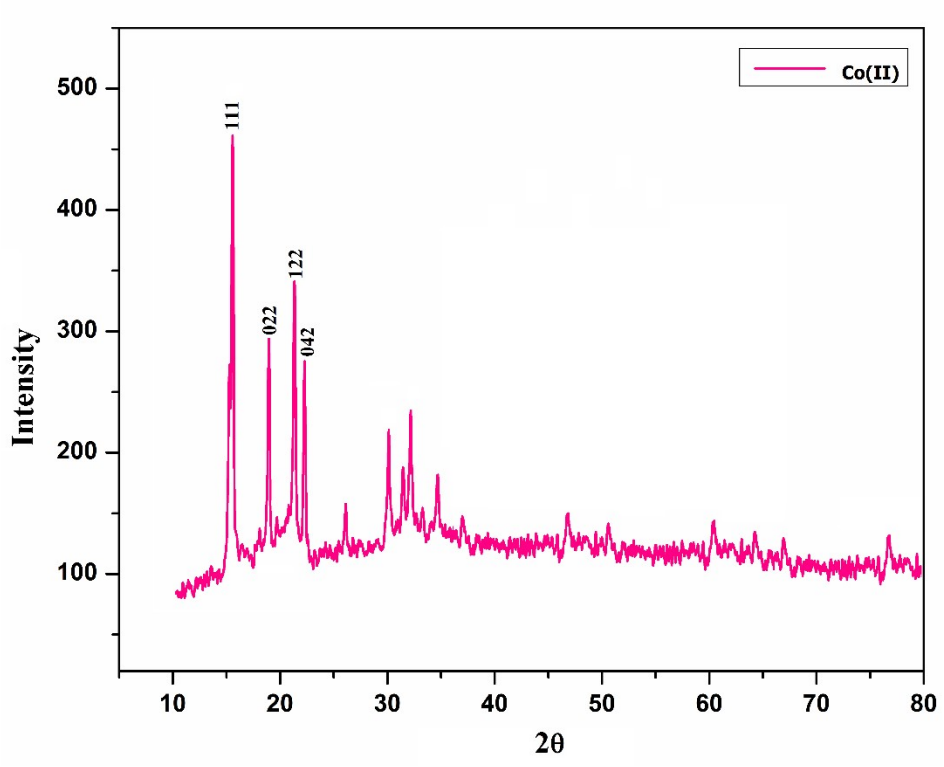

Figure S11. Powder X-ray diffraction pattern of **C2** complex

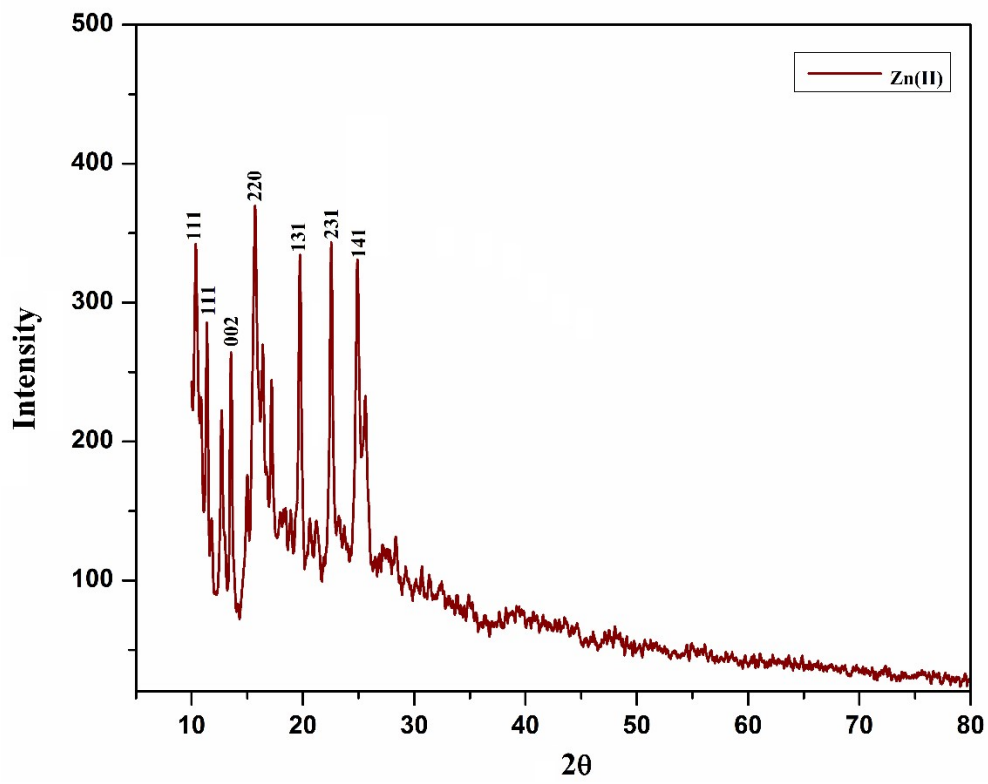

Figure S12. Powder X-ray diffraction pattern of **C3** complex

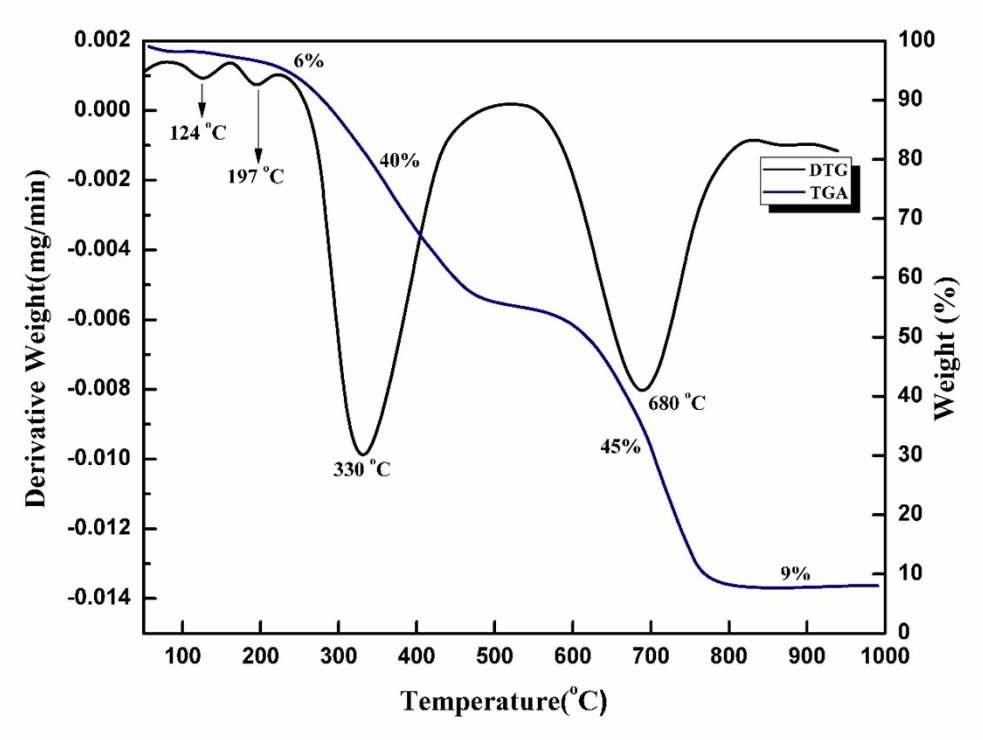

Figure S13. TGA and DTG curves of **C2** complex

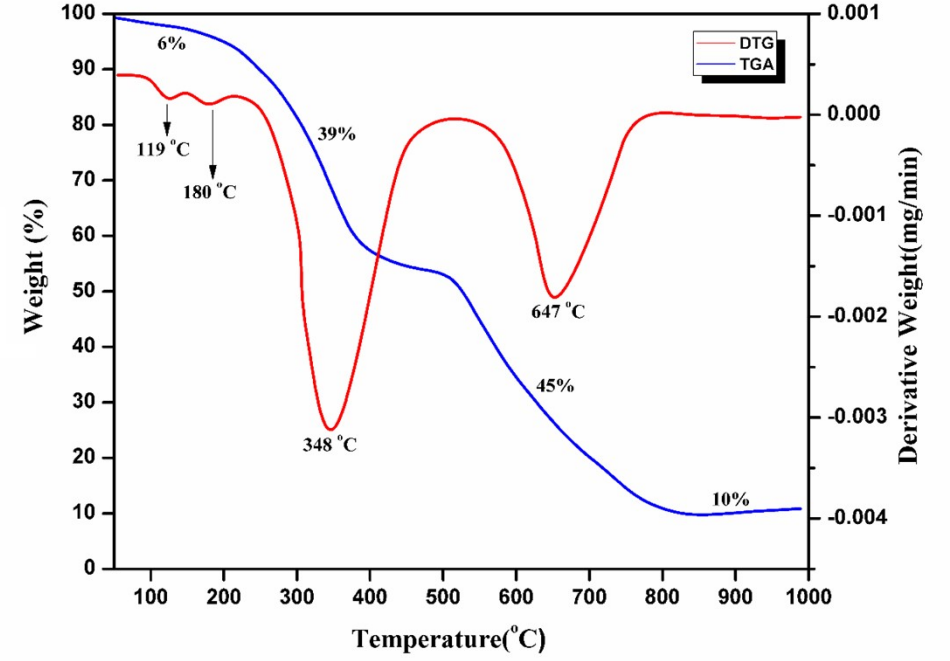

Figure S14. TGA and DTG curves of **C3** complex.

Table S1. Detailed XRD parameters of complexes **(C1-C3)**

Parameter	**C1**	**C2**	**C3**
Formula	$[C_{41}H_{47}ClN_4O_7Cu]$	$[C_{41}H_{45}Cl_2N_4O_6Co]$	$[C_{41}H_{47}ClN_4O_7Zn]$
Temperature (K)	298	298	298
Wavelength	1.5406	1.5406	1.5406
Radiation	Cu-Kα	Cu-Kα	Cu-Kα
Crystal system	Orthorhombic	Monoclinic	Monoclinic
Space group	Pbca	P21/9	P21/c
Lattice	Primitive	Primitive	Primitive
Unit cell dimension			
a(A”)	16.49	7.49	13.83
b(B”)	14.66	22.67	15.66
c(A”)	16.75	10.51	12.45
α	90	90	90
β	90	91.41	96.03
γ	90	90	90
2θ	10-80^o	10-80^o	10-80^o

Table S2. Fractional inhibitory concentration index of ligand **(L)** and heteroleptic complexes **(C1-C3)** with fluconazole

Combination 1:1		**L + FLC**	**INT**	**C1 + FLC**	**INT**	**C2 + FLC**	**INT**	**C3 + FLC**	**INT**
C. albicans SC5314	FICI	0.486	SYN	0.516	ADD	0.563	ADD	0.188	SYN
C. albicans 4175	FICI	0.318	SYN	1.031	IND	1.125	IND	0.625	ADD
C. albicans 4179	FICI	0.750	ADD	0.750	ADD	0.750	ADD	0.500	SYN
C. albicans 4180	FICI	1.063	IND	1.125	IND	5.65	ANT	1.063	IND
C. albicans 4251	FICI	0.321	SYN	0.562	ADD	2.125	IND	0.281	SYN
C. albicans 4554	FICI	0.281	SYN	1.063	IND	5.65	ANT	0.515	ADD
C. albicans 4563	FICI	0.500	SYN	0.258	SYN	0.312	SYN	0.500	SYN
C. albicans 4576	FICI	0.750	ADD	0.750	ADD	2.250	IND	0.750	ADD
C. albicans 4085	FICI	0.281	SYN	0.312	SYN	0.563	ADD	0.141	SYN
C. albicans 4122	FICI	0.250	SYN	0.531	ADD	0.563	ADD	0.258	SYN
C. albicans 4135	FICI	0.133	SYN	0.157	SYN	0.500	SYN	0.157	SYN

FICI: Fractional inhibitory concentration index; INT: interpretation; SYN: synergy; ADD: additive; IND: indifferent