Electronic Supplementary Material (ESI) for RSC Advances.

A homochiral luminescent compound with four-fold symmetry as a potential chemosensor for nitroanilines

Navnita Kumar[a], Sadhika Khullar[ab] and Sanjay K. Mandal*[a]

[a]Department of Chemical Sciences, Indian Institute of Science Education and Research, Mohali, Sector 81, Manauli PO, S.A.S. Nagar, Mohali (Punjab) 140306, INDIA

[b]Department of Chemistry, DAV University, Jalandhar, Punjab 144001, INDIA
*e-mail: sanjaymandal@iisermohali.ac.in

Supplementary Information

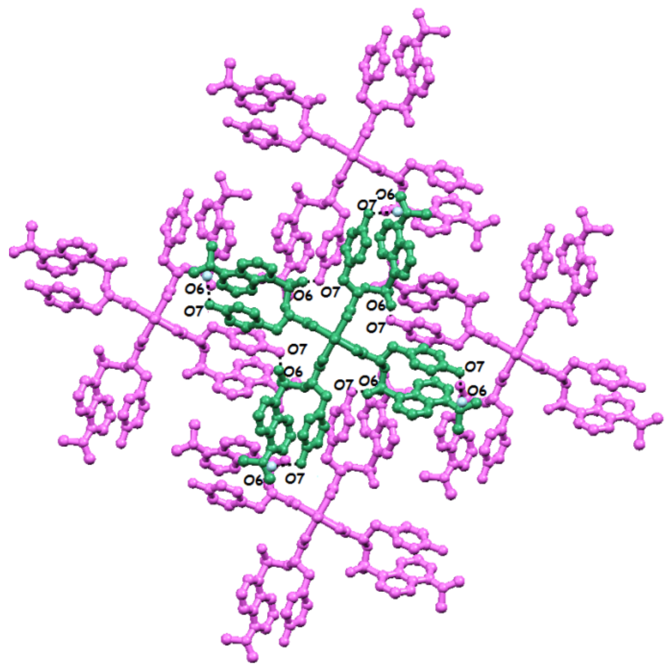

Fig. S1 Dinuclear subunit surrounded by four other dinuclear subunits.

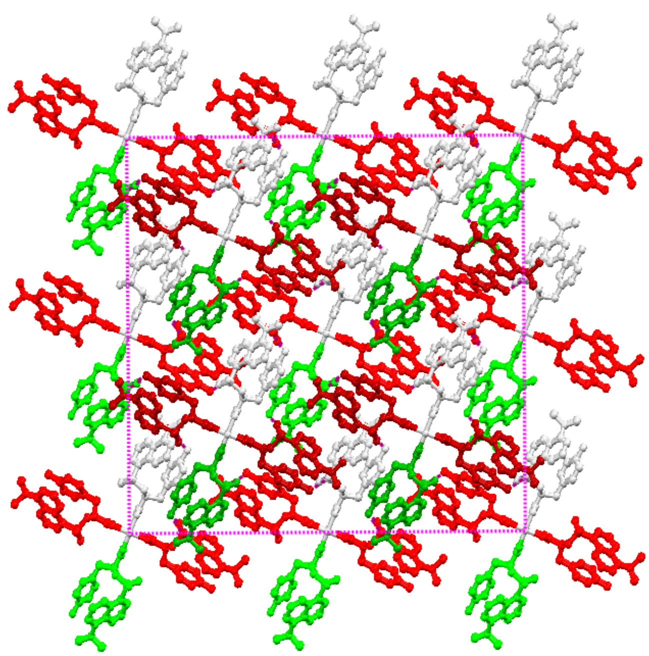

Fig. S2 Growth of the square synthon (different colors represent the symmetry operations).

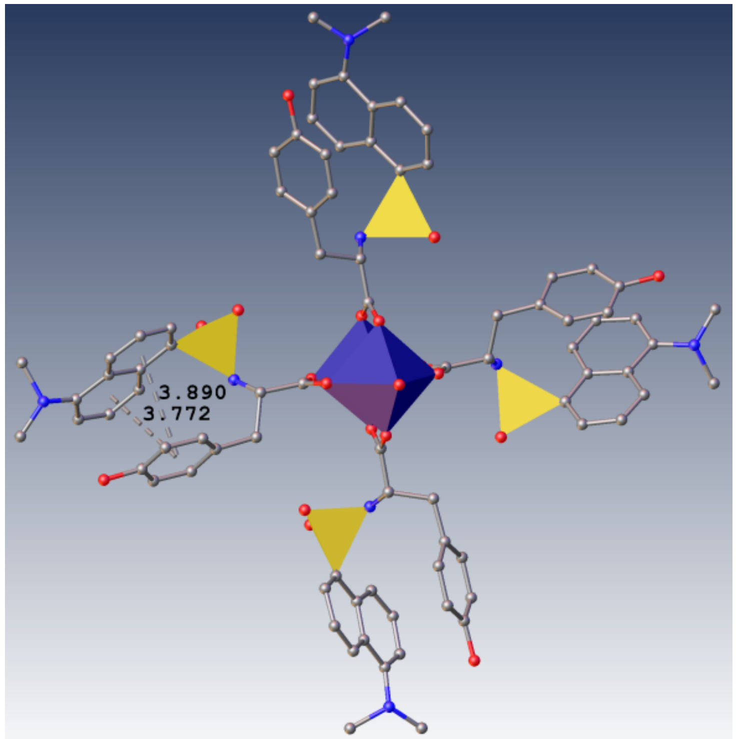

Fig. S3 Schematic view showing π–π interactions in **1**.

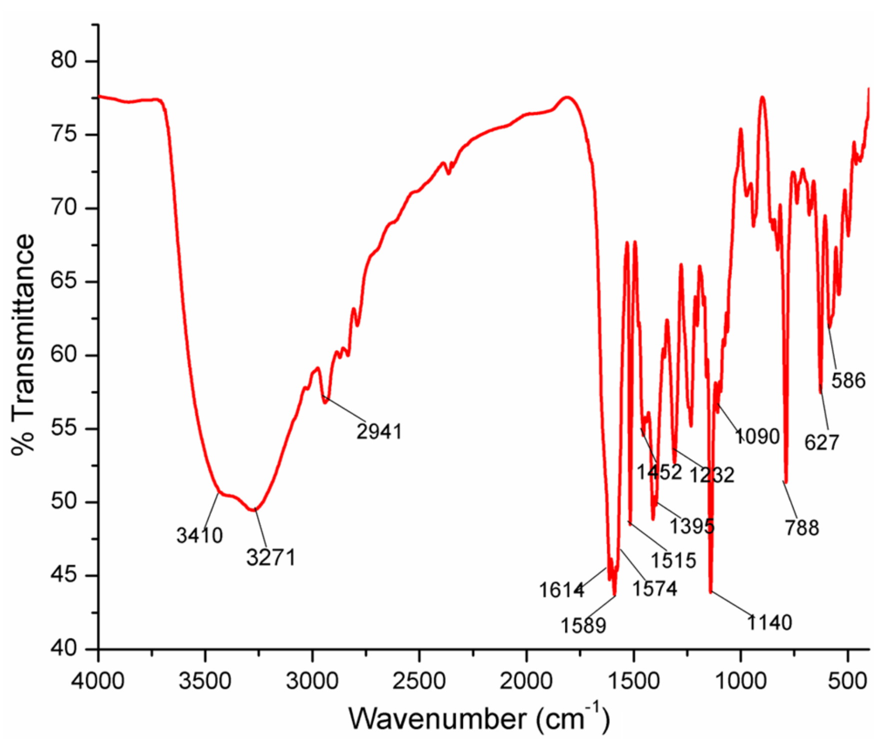

Fig. S4 IR spectrum of **1**.

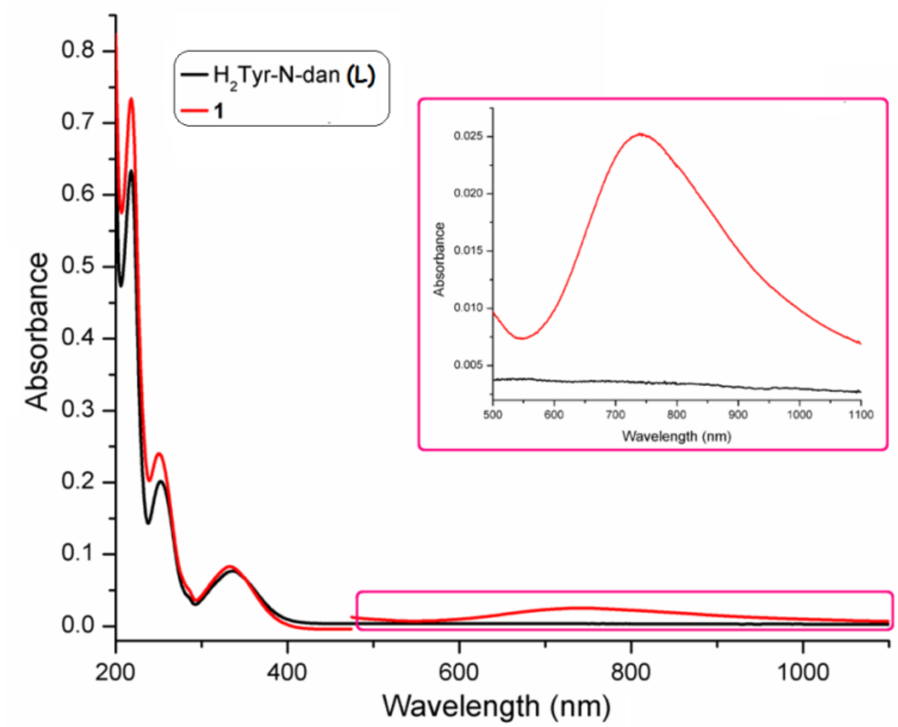

Fig. S5 UV-Visible absorbance spectra of ligand and **1.** Inset: Absorbance in the visible region.

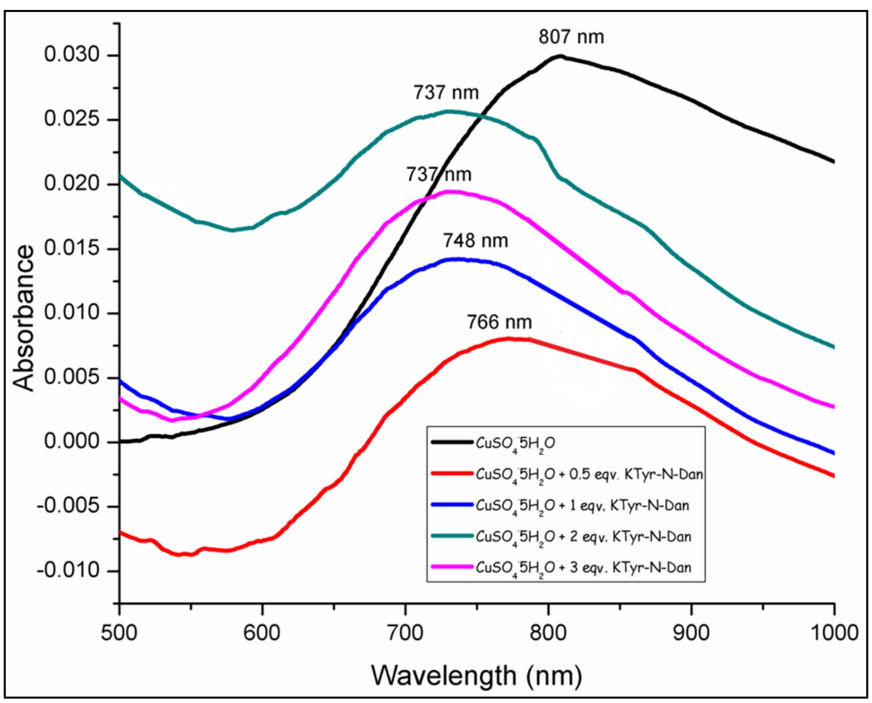

Fig. S6 Monitoring the formation of **1** from $CuSO_4 \cdot 5H_2O$ and KTyr-N-Dan in methanol by UV-Visible spectroscopy.

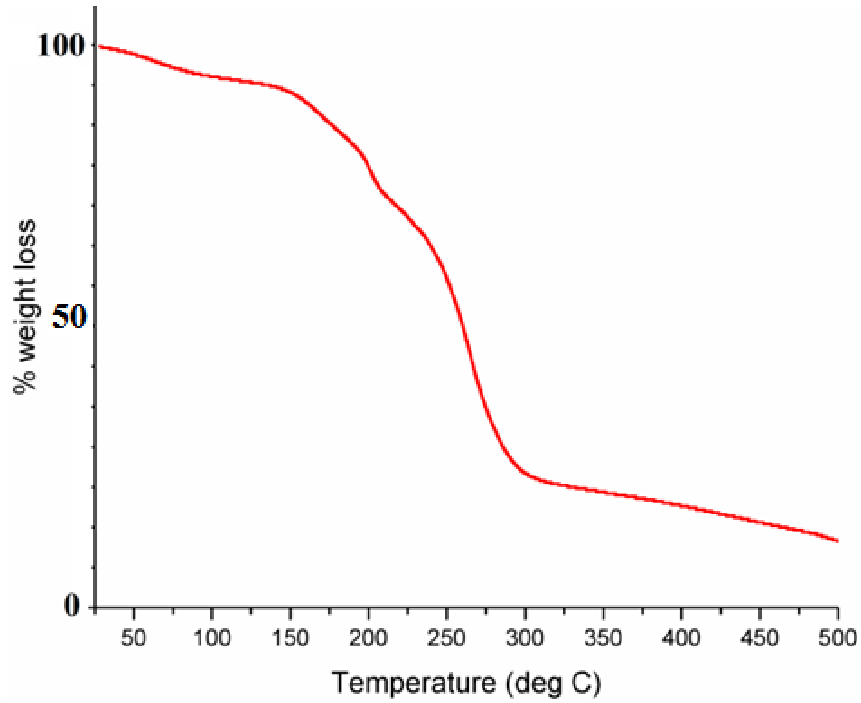

Fig. S7 TGA scan for **1**.

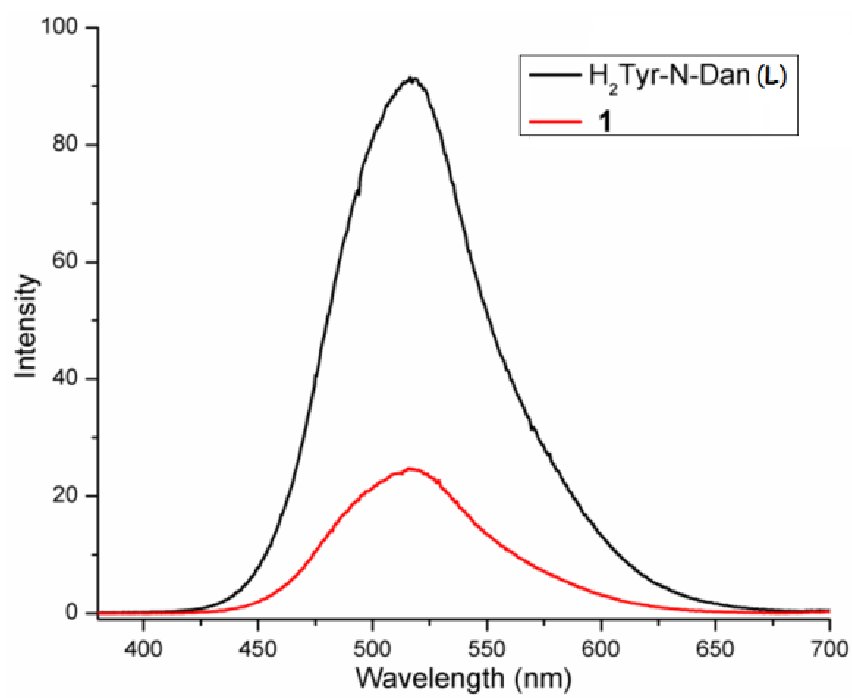

Fig. S8 Photoluminescence spectra for H_2Tyr-N-Dan and **1**.

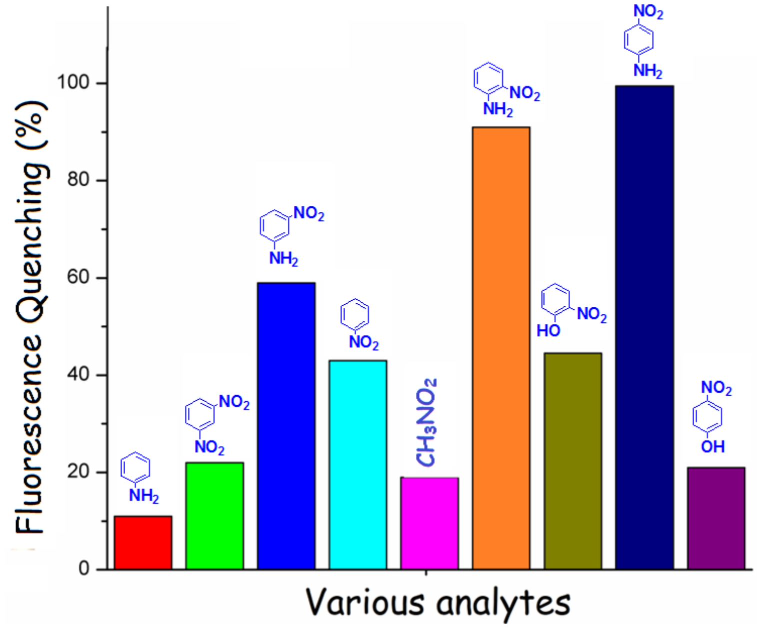

Fig. S9 Comparative study of the role various analytes on quenching the fluorescence intensity of ligand in methanol .

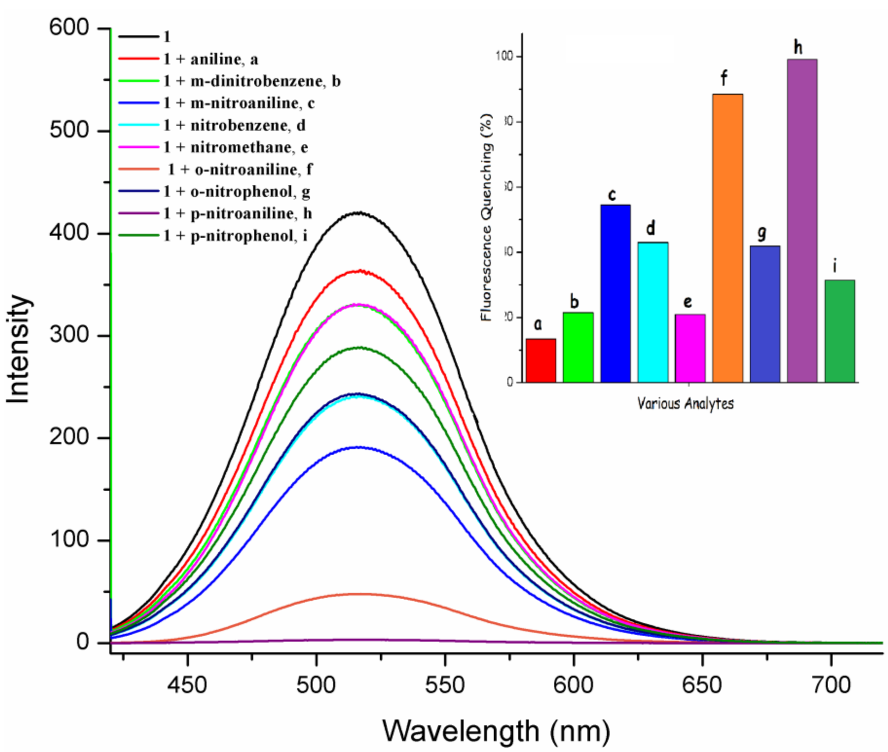

Fig. S10 Change in Fluorescence intensity for complex **1** in methanol upon addition of various analytes.

Table S1. Selected bond lengths (Å) and bond angles (degrees) in **1.**

Cu1-O4[#1]	1.949(4)	Cu1-O4[#3]	1.949(4)
Cu1-O4[#2]	1.949(4)	Cu1-O4	1.949(4)
Cu1-O1	2.130(10)	Cu1-Cu2	2.6384(14)
Cu2-O3[#1]	1.968(4)	Cu2-O3[#2]	1.968(4)
Cu2-O3[#3]	1.968(4)	Cu2-O3	1.968(4)
Cu2-O2	2.161(11)		

O4[#1]-Cu1-O4[#3]	89.47(3)	O4#1-Cu1-O4#2	89.47(3)
O4[#3]-Cu1-O4[#2]	168.9(3)	O4[#1]-Cu1-O4	168.9(3)
O4[#3]-Cu1-O4	89.47(3)	O4[#2]-Cu1-O4	89.47(3)
O4[#1]-Cu1-O1	95.53(15)	O4[#3]-Cu1-O1	95.53(15)
O4[#2]-Cu1-O1	95.53(15)	O4-Cu1-O1	95.53(15)
O4[#1]-Cu1-Cu2	84.47(15)	O4[#3]-Cu1-Cu2	84.47(15)
O4[#2]-Cu1-Cu2	84.47(15)	O4-Cu1-Cu2	84.47(15)
O1-Cu1-Cu2	180.000(2)	O3[#1]-Cu2-O3[#2]	89.33(3)
O3[#1]-Cu2-O3[#3]	89.33(3)	O3[#2]-Cu2-O3[#3]	167.6(3)
O3[#1]-Cu2-O3	167.6(3)	O3[#2]-Cu2-O3	89.33(3)
O3[#3]-Cu2-O3	89.33(3)	O[3#1]-Cu2-O2	96.21(13)
O3[#2]-Cu2-O2	96.21(13)	O3[#3]-Cu2-O2	96.21(13)
O3-Cu2-O2	96.21(13)	O3[#1]-Cu2-Cu1	83.79(13)
O3[#2]-Cu2-Cu1	83.79(13)	O3[#3]-Cu2-Cu1	83.79(13)
O3-Cu2-Cu1	83.79(13)	O2-Cu2-Cu1	180.000(2)
C1-O3-Cu2	122.3(3)	C1-O4-Cu1	122.6(4)

Symmetry transformations used to generate equivalent atoms:

#1	-x+2, -y+2, z
#2	x+2, -y, z
#3	-x, y+2, z