## **Supplementary Information**

Compound	$\lambda_{ex}$ (nm)	$\lambda_{em}$ (nm)	τ (nS)	$\chi^2$
1	353	492	0.3244	1.004603

Table S1. Details of Life time study of Complex 1.



Fig. S1. 2D supramolecular sheet of complex 1 showing CH... $\pi$  and  $\pi$ -hole interactions. Hydrogen atoms of least interest are omitted for clarity.



Fig. S2. 2D supramolecular sheet of complex 2 propagating along the *bc* plane showing CH... $\pi$  and H-bonding interaction. Hydrogen atoms of least interest are omitted for clarity.



Fig. S3. <sup>1</sup>HNMR spectrum of complex 1in DMSO-d<sub>6</sub>.



Fig. S4. <sup>13</sup>CNMR spectrum of complex 1 in DMSO-d<sub>6</sub>.



Fig. S5. <sup>13</sup>CNMR-DEPT90 spectrum of complex 1in DMSO-d<sub>6</sub>.



Fig. S6. <sup>13</sup>CNMR-DEPT135 spectrum of complex 1in DMSO-d<sub>6</sub>.



Fig. S7. Hirshfeld Surface mapped over Shape Index (top) and Curvedness(bottom) for complexes 1 (left)and 2(right).



Fig. S8. Fingerprint plot of Complex 1 (Left) and 2 (Right) showing total interactions (Top), only X....H/H....X contacts (middle) and O....H/H....O contacts (bottom) respectively.