Supplementary Information for:

A series of pure-blue-light emitting Cu(I) complexes with thermally

activated delayed fluorescence: structural, photophysical, and

computational studies

Chun-Hua Huang^a, Meng Wen^a, Chun-Ya Wang^a, Yong-Feng Lu^a, Xi-He Huang^{a,b,*}, Hao-Hong Li^a, Shu-Ting Wu^a, Nai-Feng Zhuang^a and Xiao-Lin Hu^a

^a Institute of Optical Crystalline Materials, College of Chemistry, Fuzhou University, Fuzhou, 350116, P. R. China.

^b State Key Laboratory of Photocatalysis on Energy and Environment, Research Institute of Photocatalysis, Fuzhou University, Fuzhou, 350116, P. R. China.

- 1. Solid state UV-Vis diffuse reflectance spectra of complexes **1-4** measured at room temperature using the Kubelka-Munk function $\alpha/S = (1-R)2/(2R)$.
- 2. Experimental powder X-ray diffraction patterns (black) and simulated patterns derived from the single crystal structural analysis data (red) for complexes **1**-**4**.
- 3. Infrared spectra of complexes 1-4.
- 4. Emission decay curves of complexes 1-4 measured at 77K and 298K.



Figure S1. Solid state UV-Vis diffuse reflectance spectra of complexes **1-4** measured at room temperature using the Kubelka-Munk function $\alpha/S = (1-R)2/(2R)$



Figure S2. Experimental powder X-ray diffraction patterns (black) and simulated patterns derived from the single crystal structural analysis data (red) for complexes **1-4**



Figure S3. Infrared spectra of complexes 1-4



Figure S4. Emission decay curves of complexes 1-4 measured at 298K (top) and 77K (bottom).