Front. Chem. Sci. Eng.
https://doi.org/10.1007/s11705-019-1791-6
RESEARCH ARTICLE

Highly selective detection of copper(II) by a “ligand-free” conjugated copolymer in nucleophilic solvents

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Electronic Supplementary Material

Contents

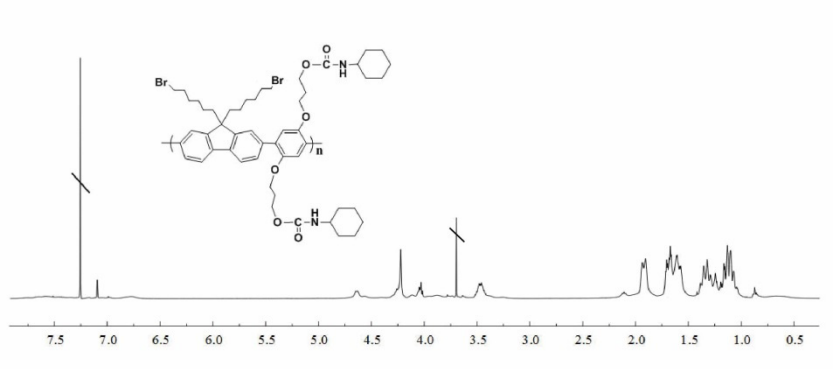

Figure S1. ^{1}H NMR spectrum of PFPNCC in $CDCl_3$.

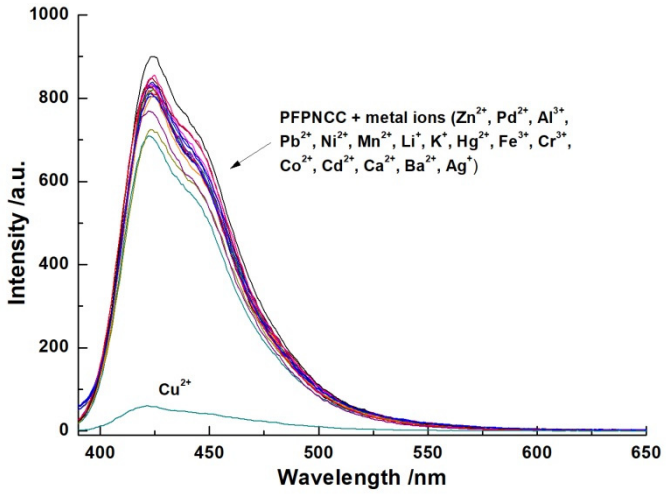

Figure S2. Fluorescence spectra of PFPNCC (1.0×10^{-6} M) in the presence or absence of metal ions in DMF solution. λ_{ex} = 370 nm. [Metal ion] = 4 mM.

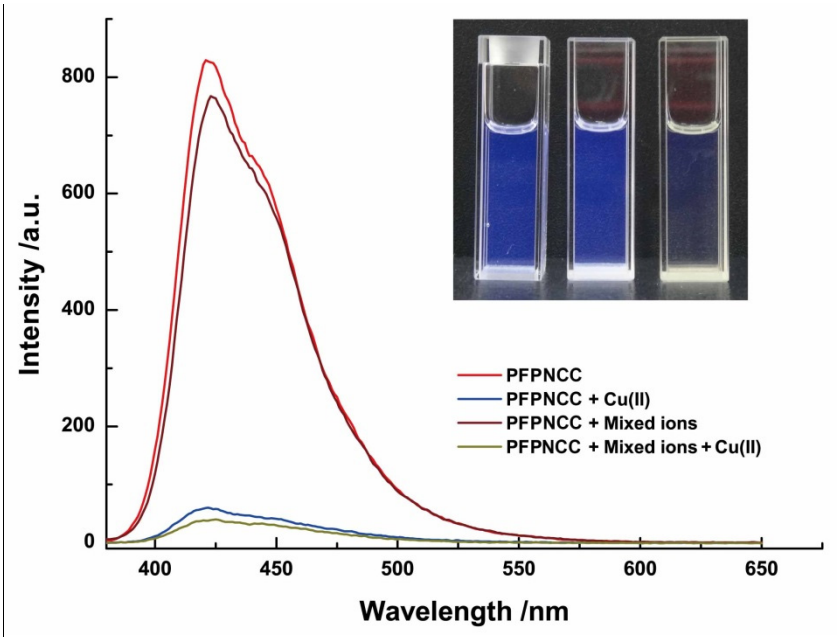

Figure S3. Fluorescence spectra of PFPNCC (1.0×10^{-6} M) in DMF upon the addition of Cu(II) in the presence or absence of a mixture of metal ions. λ_{ex} = 370 nm. Inset photograph shows PFPNCC in DMF (left), PFPNCC with a mixture of metal ions (Zn^{2+}, Pd^{2+}, Al^{3+}, Pb^{2+}, Ni^{2+}, Mn^{2+}, Li^{+}, K^{+}, Hg^{2+}, Fe^{3+}, Cr^{3+}, Co^{2+}, Cd^{2+}, Ca^{2+}, Ba^{2+} and Ag^{+}) in the absence of Cu(II) in DMF (middle), and PFPNCC with a mixture of metal ions in the presence of Cu(II) in DMF (right) under black light. Every concentrations of metal ions are 4 mM.

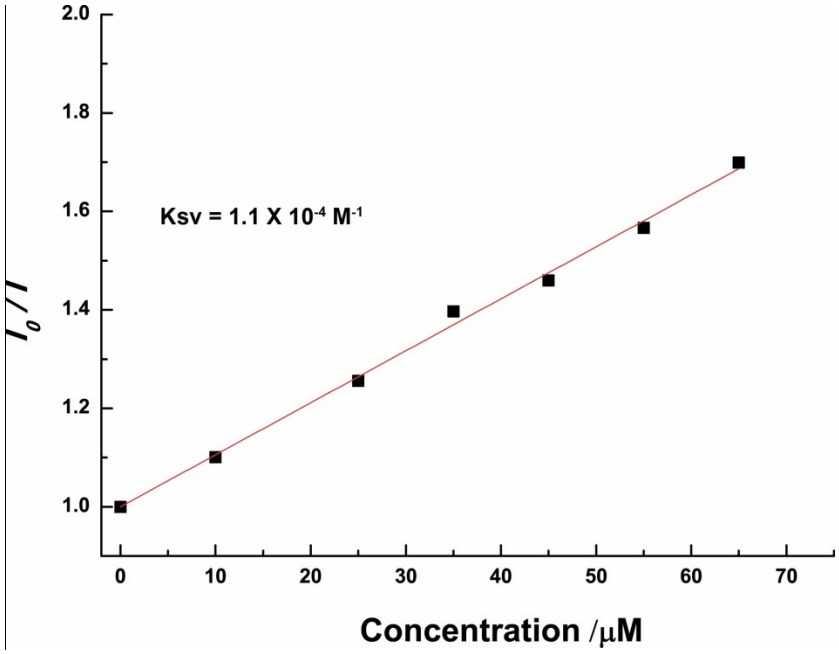

Figure S4. Stern-Volmer plot of PFPNCC with different concentrations of Cu(II) in DMF. λ_{ex} = 370 nm. λ_{em} = 420 nm.