Electronic Supplementary Information for Dalton Transactions

Supplementary Information

Electron Transfer Reaction of Porphyrin and Porphycene Complexes of Cu(II) and Zn(II) in Acetonitrile

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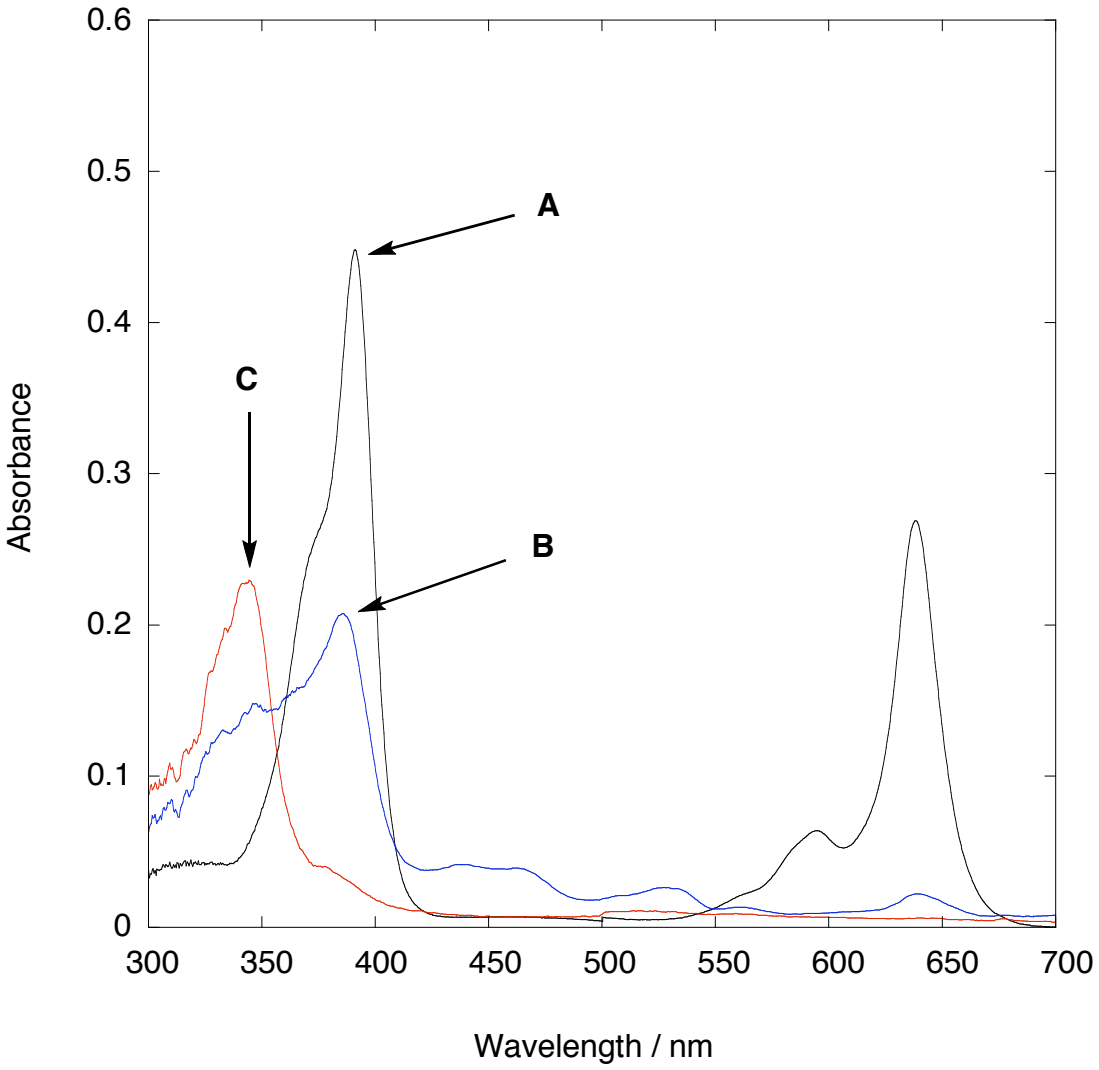

Figure S1. Change of the UV-visible absorption spectrum of [Zn(OEPc)] associated with the reaction with Cu(II) triflate in acetonitrile at T = 25.0°C: [Zn(OEPc)] (**A**), $[Zn(OEPc)]^{+}$ (**B**), $[Zn(OEPc)]^{2+}$ (**C**). $C_{\text{Zn-OEPc}} = 3.1 \times 10^{-6}$ M, $C_{\text{Cu(II)}} = 2.55 \times 10^{-5}$ M.

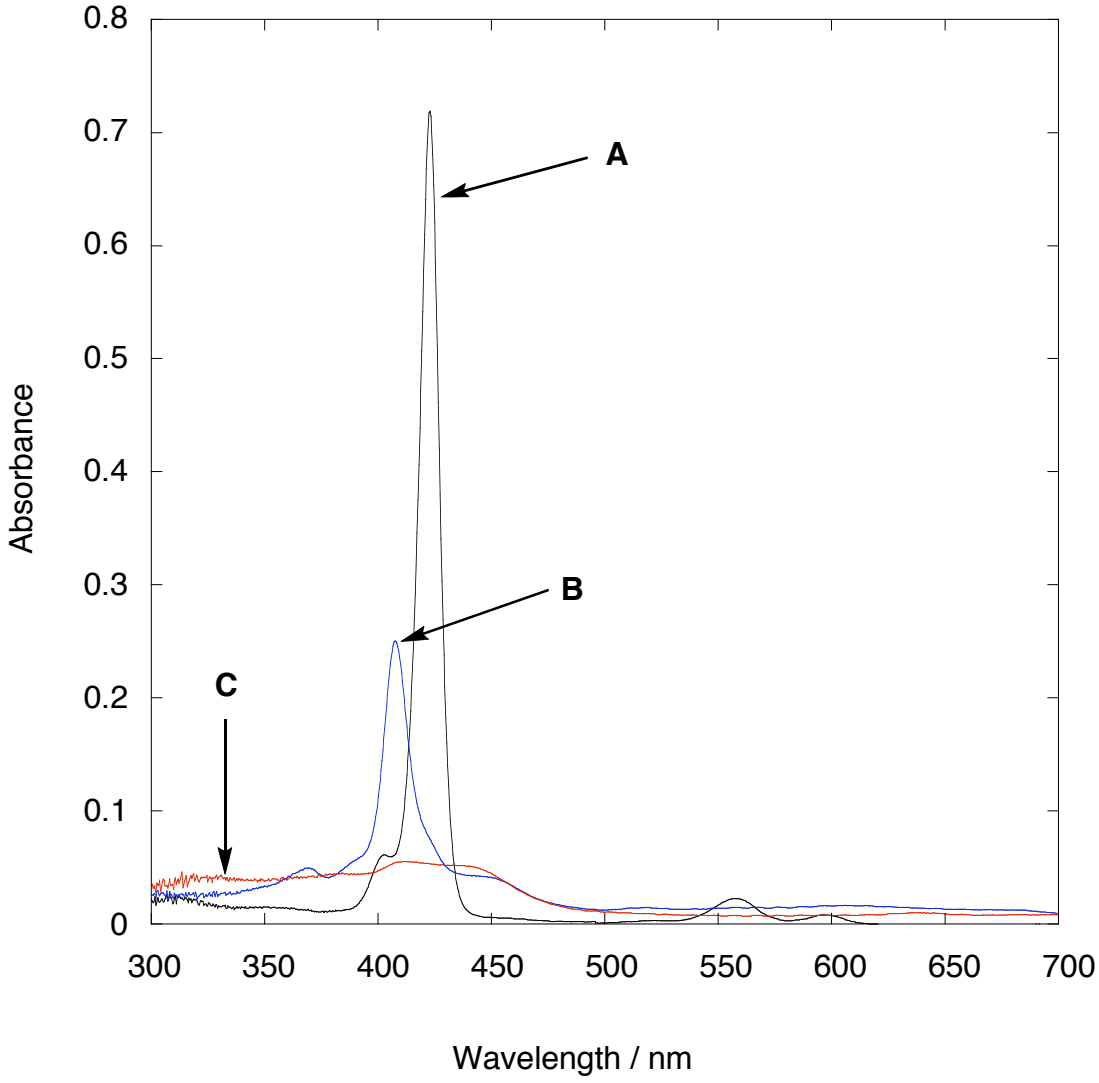

Figure S2. Change of the UV-visible absorption spectrum of [Zn(TPP)] associated with the reaction with Cu(II) triflate in acetonitrile at T = 25.0°C: [Zn(TPP)] (**A**), $[Zn(TPP)]^{+}$ (**B**), $[Zn(TPP)]^{2+}$ (**C**). $C_{Zn\text{-}TPP} = 1.2 \times 10^{-6}$ M, $C_{Cu(II)} = 2.94 \times 10^{-5}$ M.

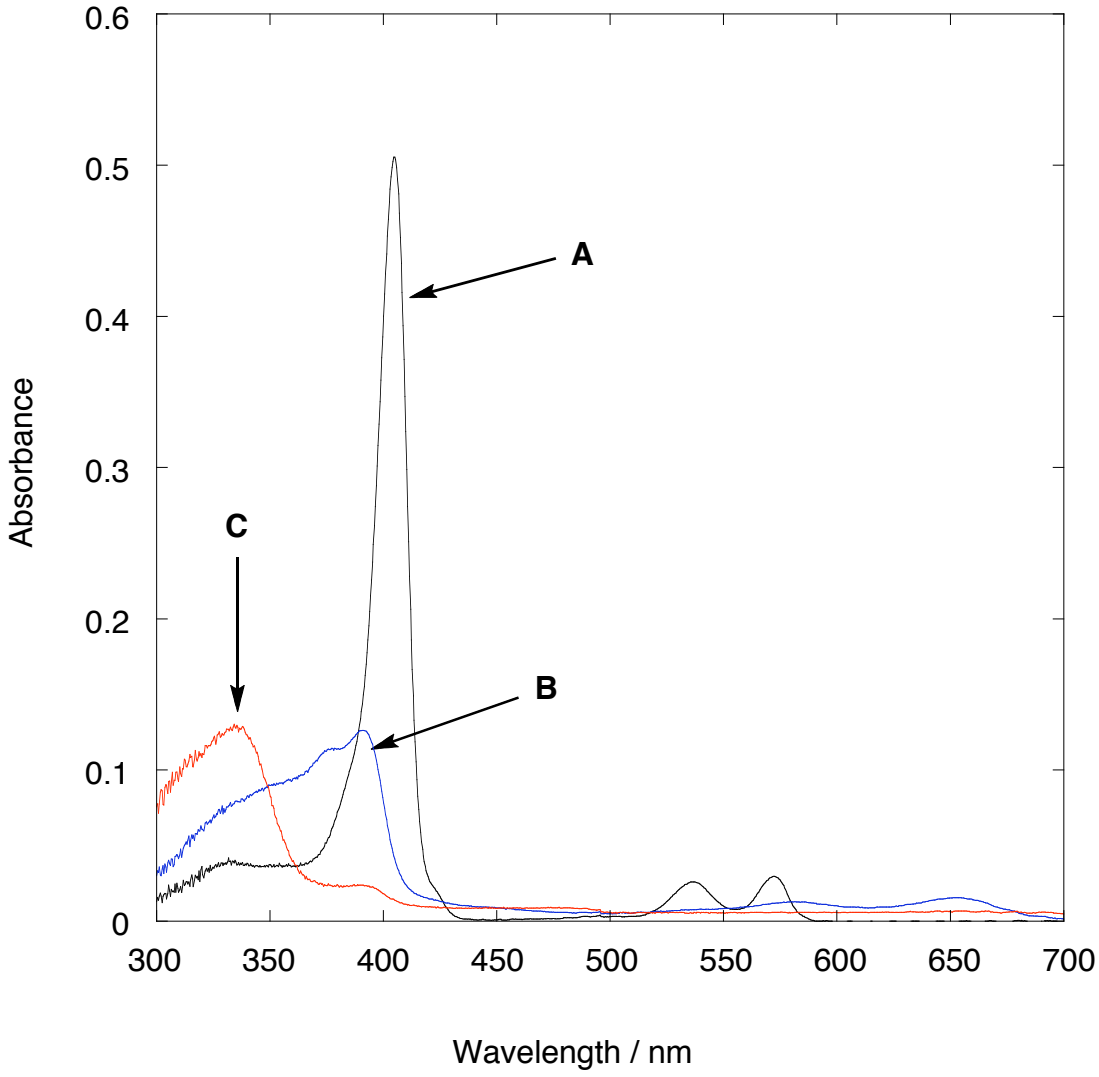

Figure S3. Change of the UV-visible absorption spectrum of [Zn(OEP)] associated with the reaction with Cu(II) triflate in acetonitrile at T = 25.0°C: [Zn(OEP)] (**A**), $[Zn(OEP)]^{+}$ (**B**), $[Zn(OEP)]^{2+}$ (**C**). $C_{\text{Zn-OEP}} = 1.7 \times 10^{-6}$ M, $C_{\text{Cu(II)}} = 2.94 \times 10^{-5}$ M.

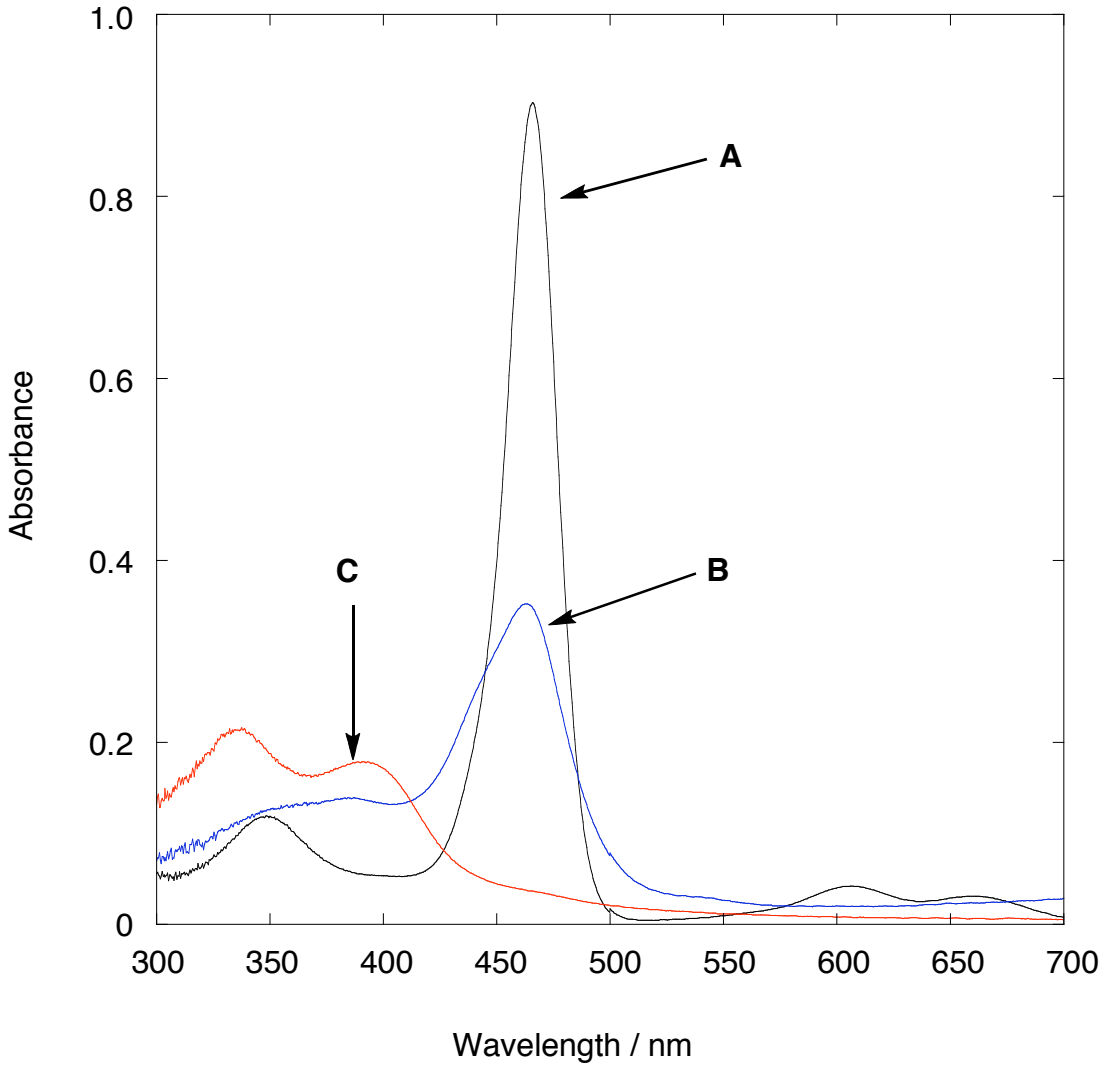

Figure S4. Change of the UV-visible absorption spectrum of [Zn(OETPP)] associated with the reaction with Cu(II) triflate in acetonitrile at T = 25.0°C: [Zn(OETPP)] (**A**), $[Zn(OETPP)]^{+}$ (**B**), $[Zn(OETPP)]^{2+}$ (**C**). $C_{Zn\text{-}OETPP} = 4.4 \times 10^{-6}$ M, $C_{Cu(II)} = 2.94 \times 10^{-5}$ M.

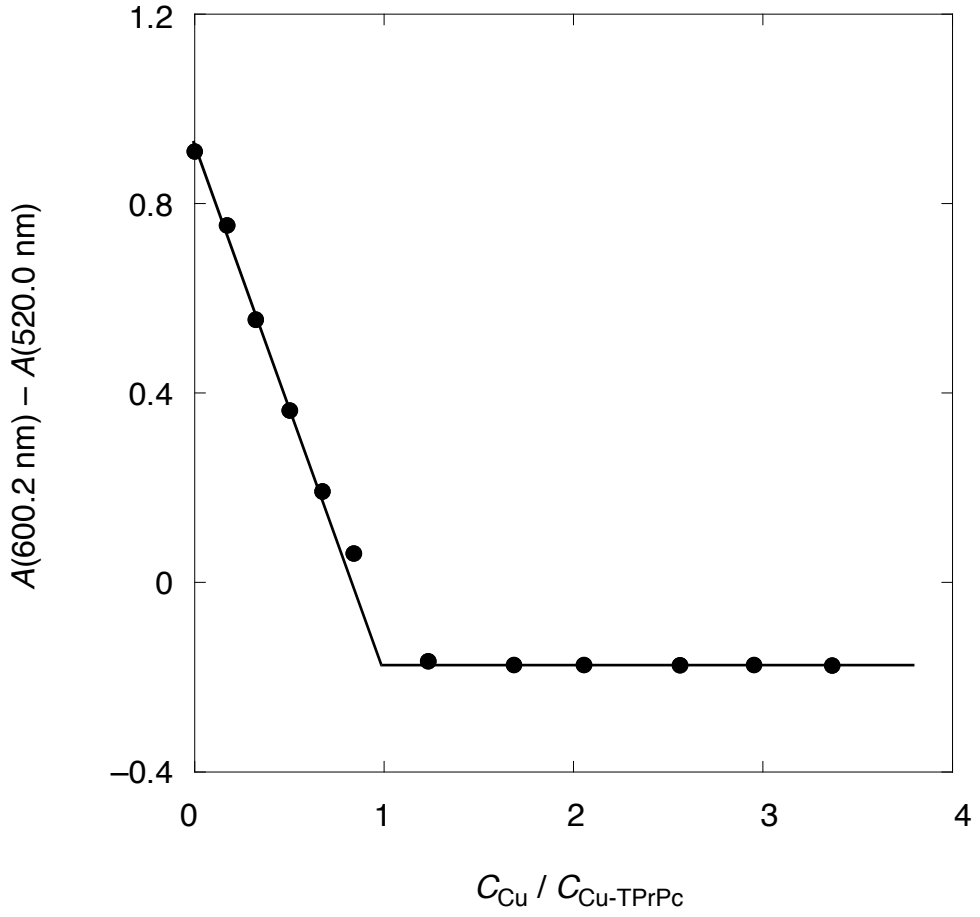

Figure S5. Dependence of the absorbance of the solution on the ratio of the total concentrations of Cu(II) ion (C_{Cu}) and [Cu(TPrPc)] ($C_{Cu\text{-}TPrPc}$) for the reaction of [Cu(TPrPc)] and Cu(II) triflate at T = 25.0 °C. Total concentration of the porphycene complex is 2.75 x 10^{-5} M. The mixture of acetonitrile and dichloromethane (1:1 v/v) was used as a solvent instead of pure acetonitrile for the sake of higher solubility of the porphycene complex.