Supplementary Material (ESI) for Chemical Communications

A Conjugated Polyelectrolyte-Based Fluorescence Sensor for Pyrophosphate (supporting information)

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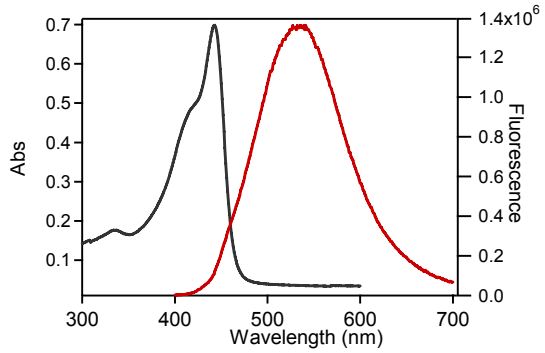

Fig. S1. Absorption (left) and emission (right) of PPE-CO_2^- in 0.01 M HEPES buffere solution (pH = 7.5), [PPE-CO_2^-] = 5 μM.

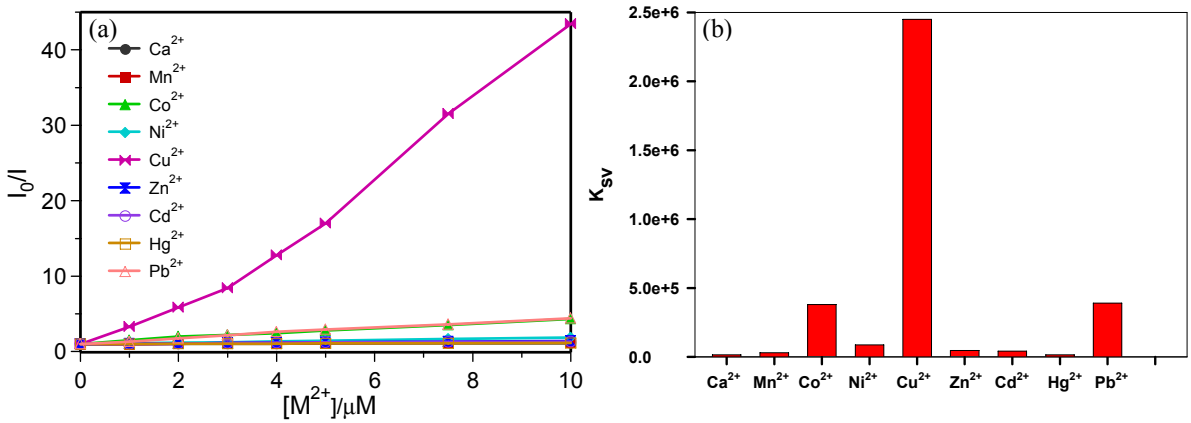

Fig. S2. (a) Stern-Volmer (SV) plot of PPE-CO_2^- (5μM) titrated with different metal ions (M^{2+}) in 0.01 M HEPES buffere solution; (b) K_{sv} Values for quenching of PPE-CO_2^- with different metal ions. The K_{sv} was determined by fitting the linear region of the SV-plot.

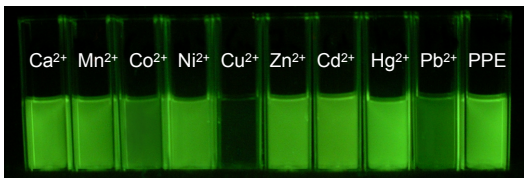

Fig. S3. Photography of solutions of PPE-CO_2^-/M^{2+} (5 μM /10 μM) illuminated with a UV-lamp.

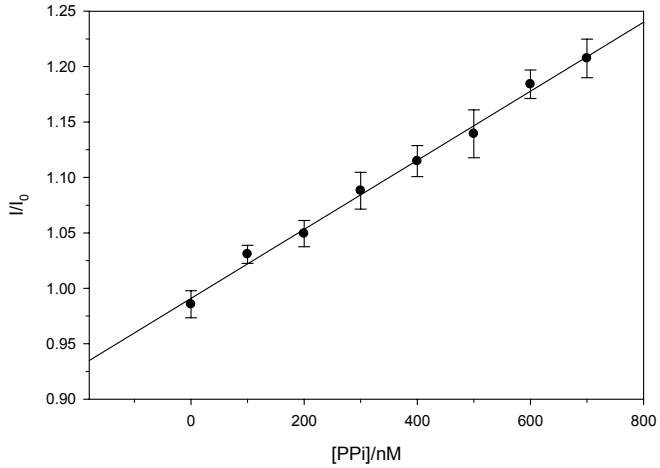

Fig. S4. Fluorescence response of PPE-CO_2^-/Cu^{2+} (5 μM/10 μM) to PPi in the low concentration range (0 ─ 700 nM). The analytical detection limit (ADL) was calculated to be 80 nM using the equation ADL = 3 δ_{bk}/m, where δ_{bk} is the standard deviation of the blank and m is the slope of the calibration plot.