Supplementary Material (ESI) for Chemical Communications

† Electronic supplementary information (ESI) available: Details of UV-visible spectroscopy; titrations of **L** with Zn^{2+}/Cd^{2+} ion by using absorption, ^{1}H NMR, fluorescence spectroscopy and electrochemical methods.

Electronic Supplementary Information

Axial bis(terpyridoxy)phosphorus(V) porphyrin: Modulation of PET and EET by Zn^{2+} or Cd^{2+} ions

P. Prashanth Kumar,* G. Premaladha and Bhaskar G. Maiya‡

* School of Chemistry, University of Hyderabad, Hyderabad 500 046, India; ‡ Deceased 21st March 2004; Fax: +91-40-2301-2460; Tel: +91-40-2313-4831; E-mail: ppk13d@yahoo.com

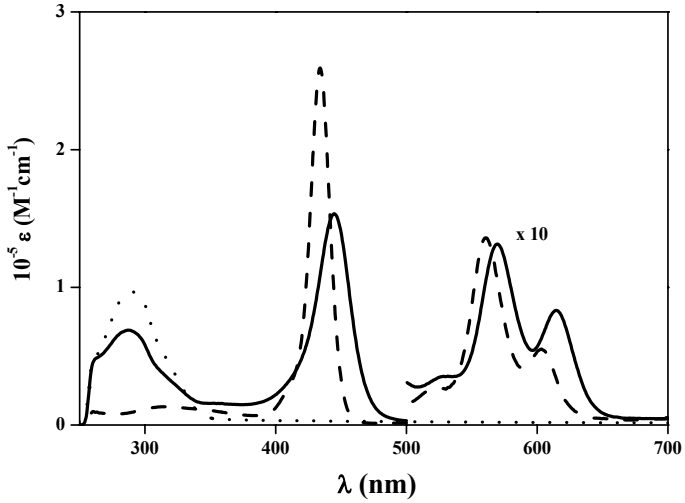

Fig. S1 Absorption spectra of triad **L** (——) and its monomeric compounds $[P(OH)_2]^+$ (- - - - -), **OH-ptp** (·····) in DMSO.

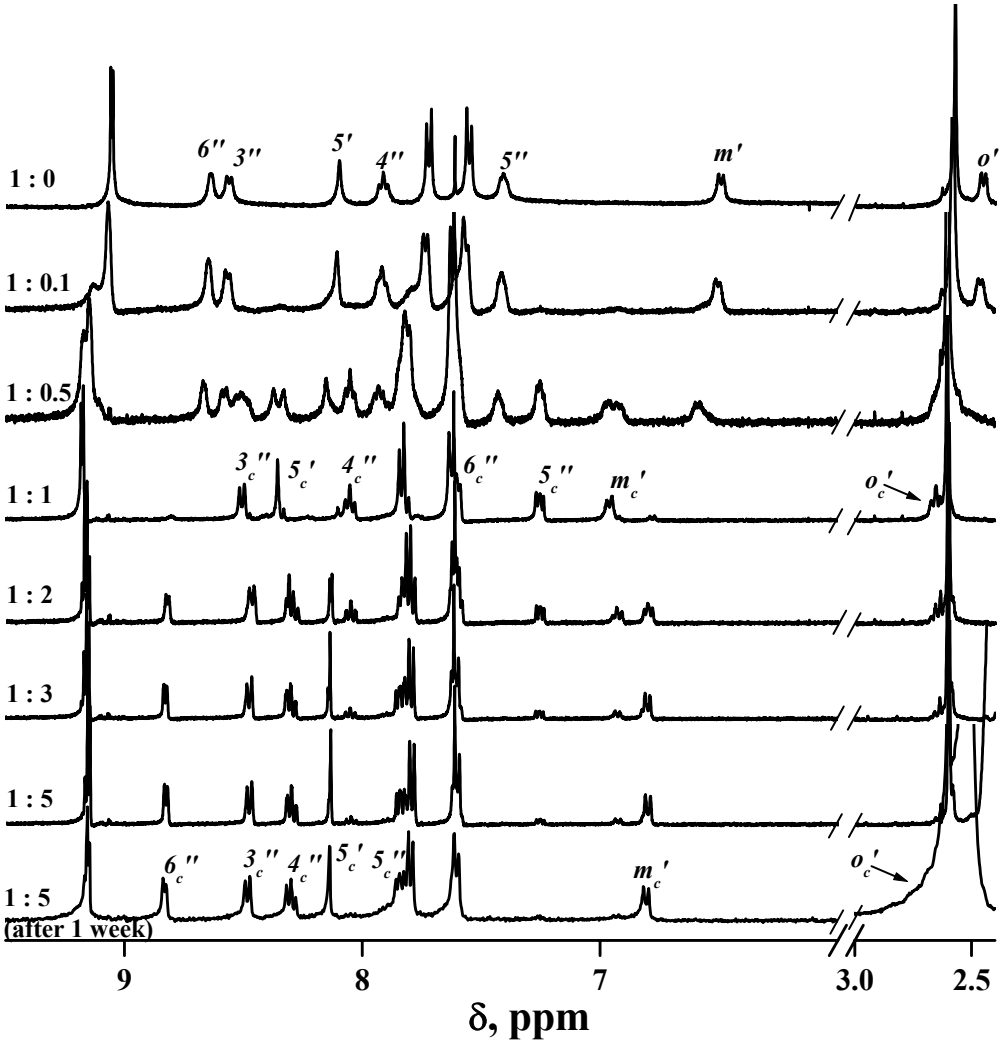

Fig. S2 ^{1}H NMR titration of **L** (3.66 x 10^{-3} M) in CD_3CN upon aliquot addition of **Zn(OTf)$_2$** (3.25 x 10^{-2} M) with corresponding **L**:**Zn^{2+}** ratios. In last spectrum (1:5 ratio) singlet seen at 2.50 ppm is due to the solvent (400 MHz, 300 K).

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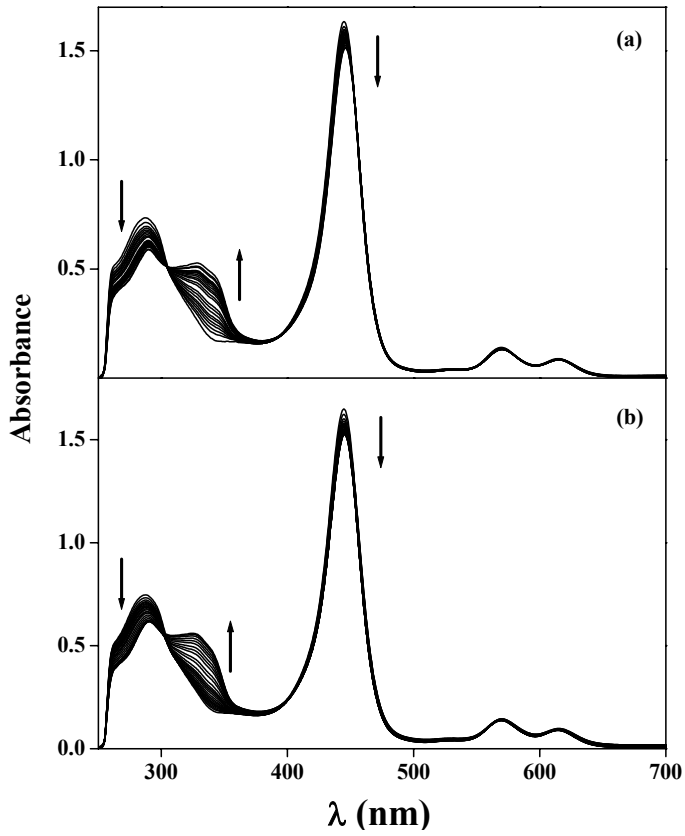

Fig. S3 UV-visible titration of **L** (1.066 x 10^{-5} M) with 1.23 x 10^{-3} M of (a) **$Zn(OAc)_2$** and (b) **$Cd(OAc)_2$** in DMSO.

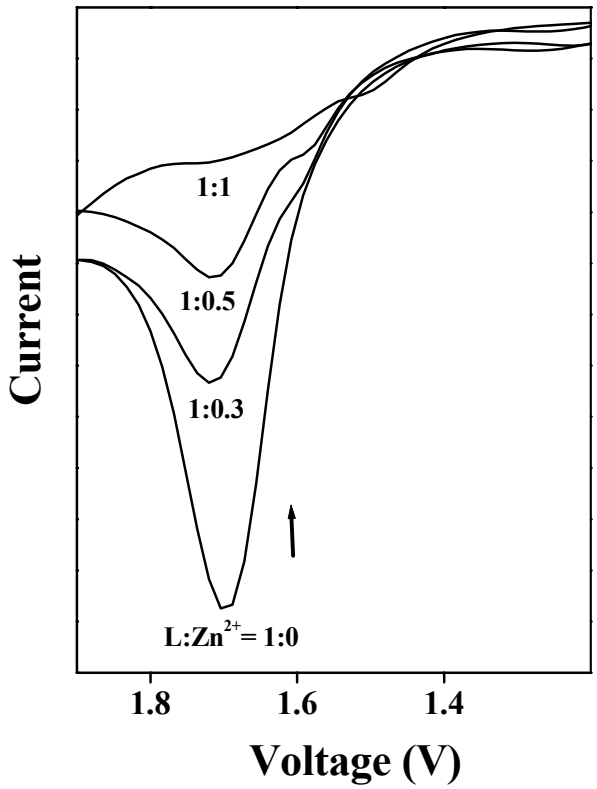

Fig. S4 Differential pulse voltammetric titration of **L** (1.01×10^{-3} M) with **$Zn(OTf)_2$** (1.62×10^{-2} M) in 0.1 M TBAP CH_3CN (scan rate = 100 mV/sec).

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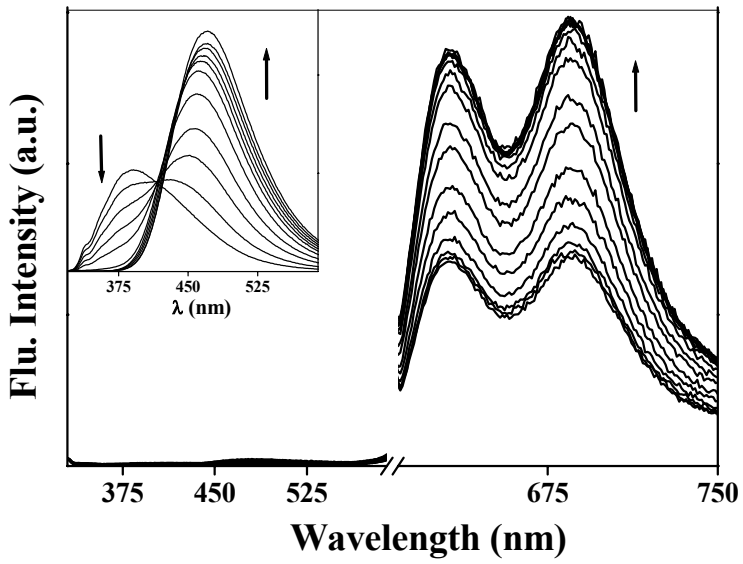

Fig. S5 Fluorescence titration of **L** (6.08 x 10^{-6} M) with **Zn(OTf)$_2$** (1.27 x 10^{-4} M) in CH_3CN excitation at isosbestic point (λ_{ex} = 300 nm). The inset shows a fluorescence titration of **OMe-ptp** (6.2 x 10^{-6} M) with **Zn(OTf)$_2$** (1.3 x 10^{-4} M) in CH_3CN at λ_{ex} = 300 nm.