SUPPORTING INFORMATION

Schiff bases carrying dipicolylamine groups for selective determination of metal ions in aqueous media. A phenanthrene-based fluorescent sensor for Hg^{2+} determination

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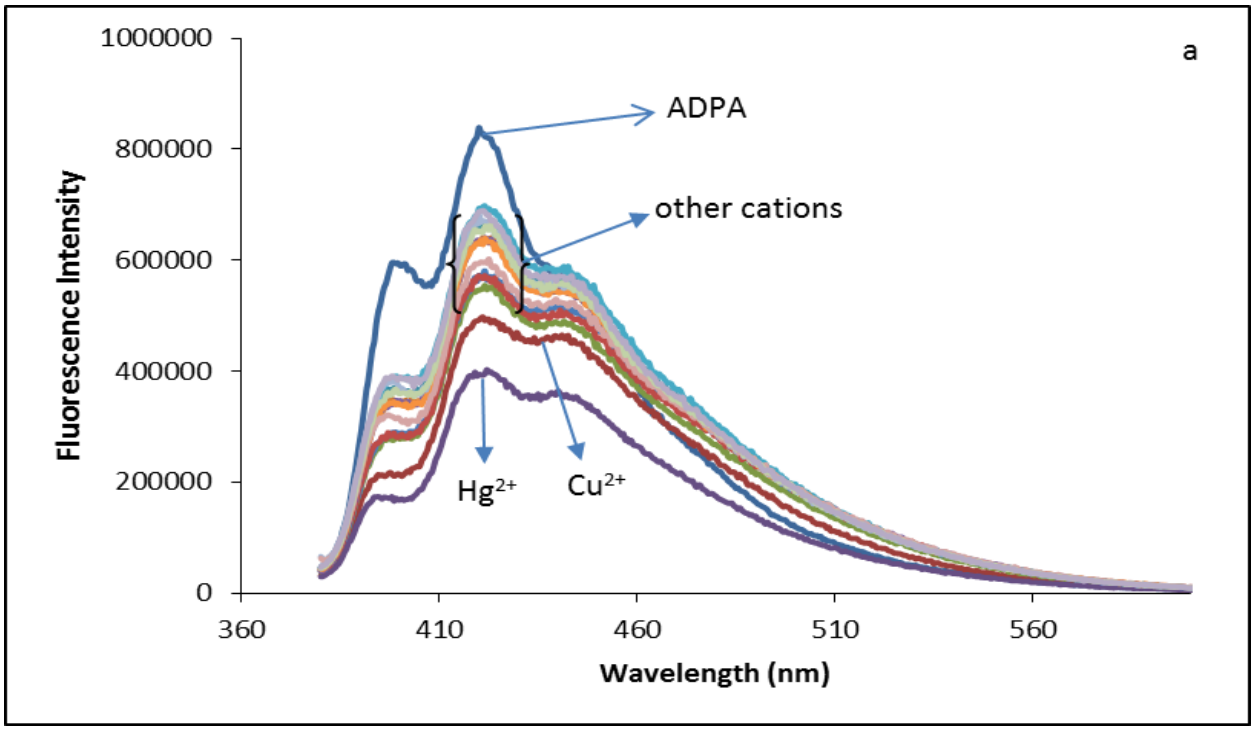


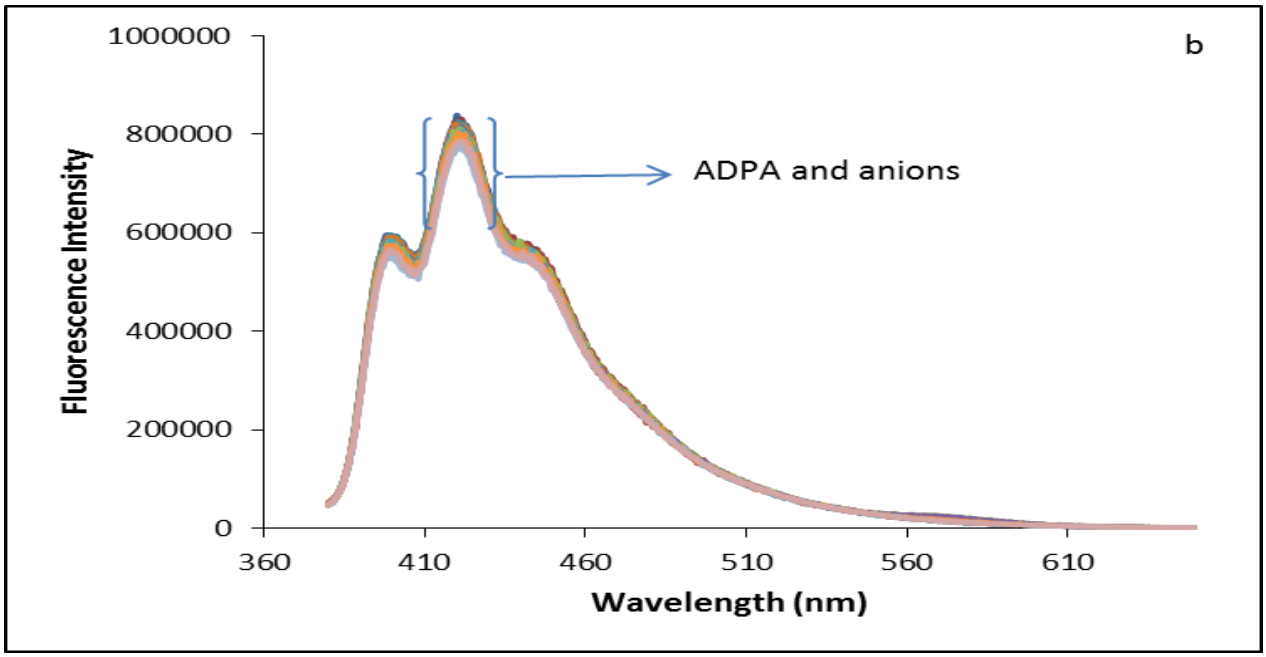


Fig. S1. Effects of ions on fluorescence spectra of the ligand **ADPA** in the ethanol-water mixture (1:1). (Ligand concentration=3.6×10^{-6} M. Ion concentrations=3.6×10^{-5} M. Excitation at 370 nm), a: for cations b: for anions.

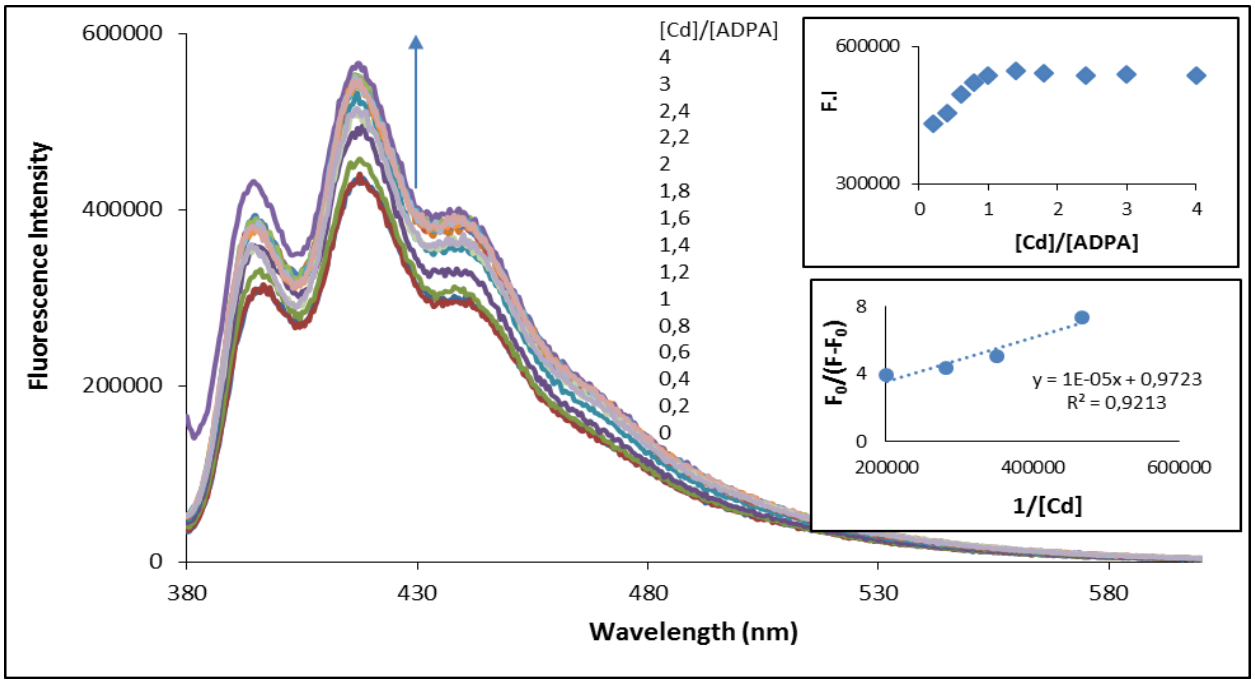


Fig. S2 The variation of the emission of the ligand **ADPA** with the concentration of Cd^{2+} added as 0-4 equivalents of Cd^{2+} in the ethanol-water mixture (1:1). Ligand concentration=$3.6x10^{-6}$ M. Excitation at 370 nm. Insets: Emission wavelength is 418 nm.

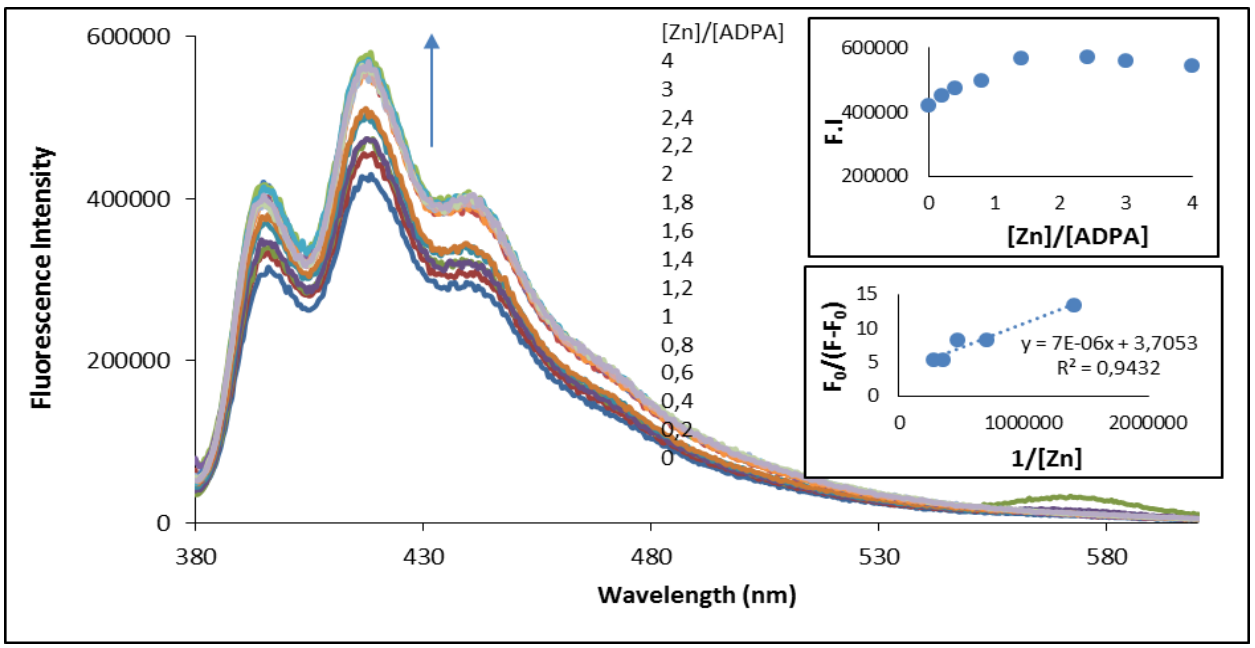


Fig. S3 The variation of the emission of the ligand **ADPA** with the concentration of Zn^{2+} added as 0-4 equivalents of Zn^{2+} in the ethanol-water (1:1). Ligand concentration=$3.6x10^{-6}$ M. Insets: Emission wavelength is 418 nm.

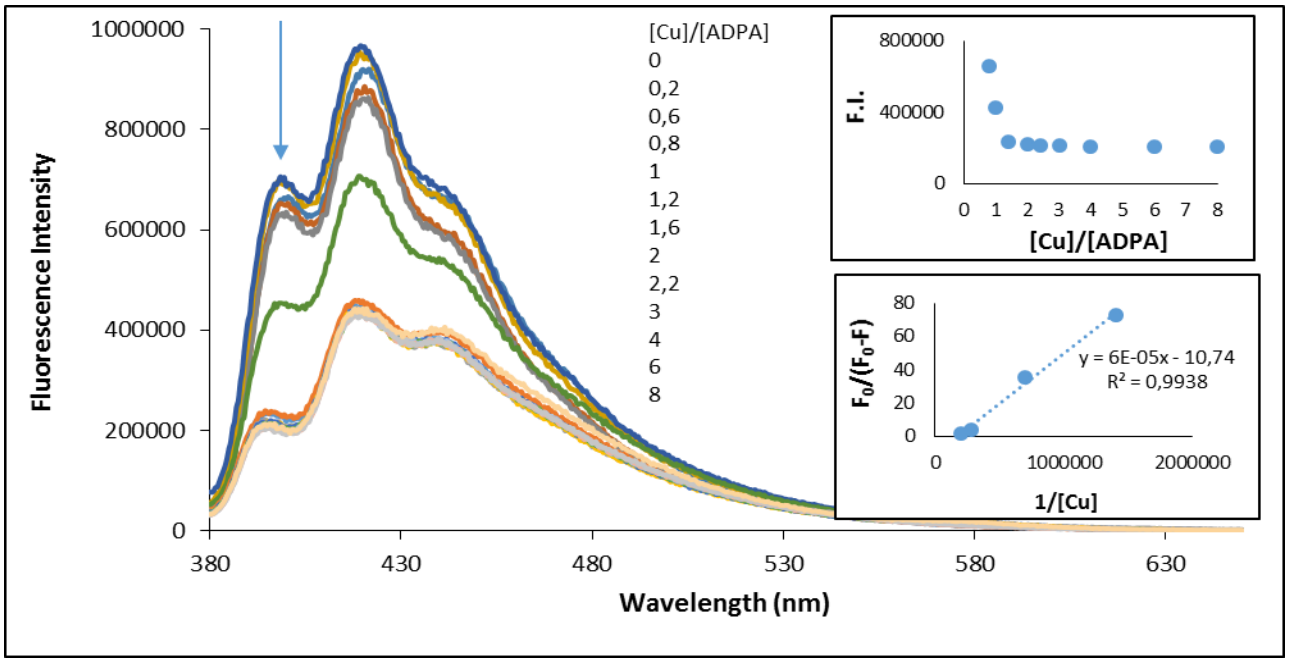


Fig. S4 The variation of the emission of the ligand **ADPA** with the concentration of Cu^{2+} added as 0-8 equivalents of Cu^{2+} in the ethanol-water mixture (1:1). Ligand concentration=$3.6x10^{-6}$ M. Insets: Emission wavelength is 395 nm.

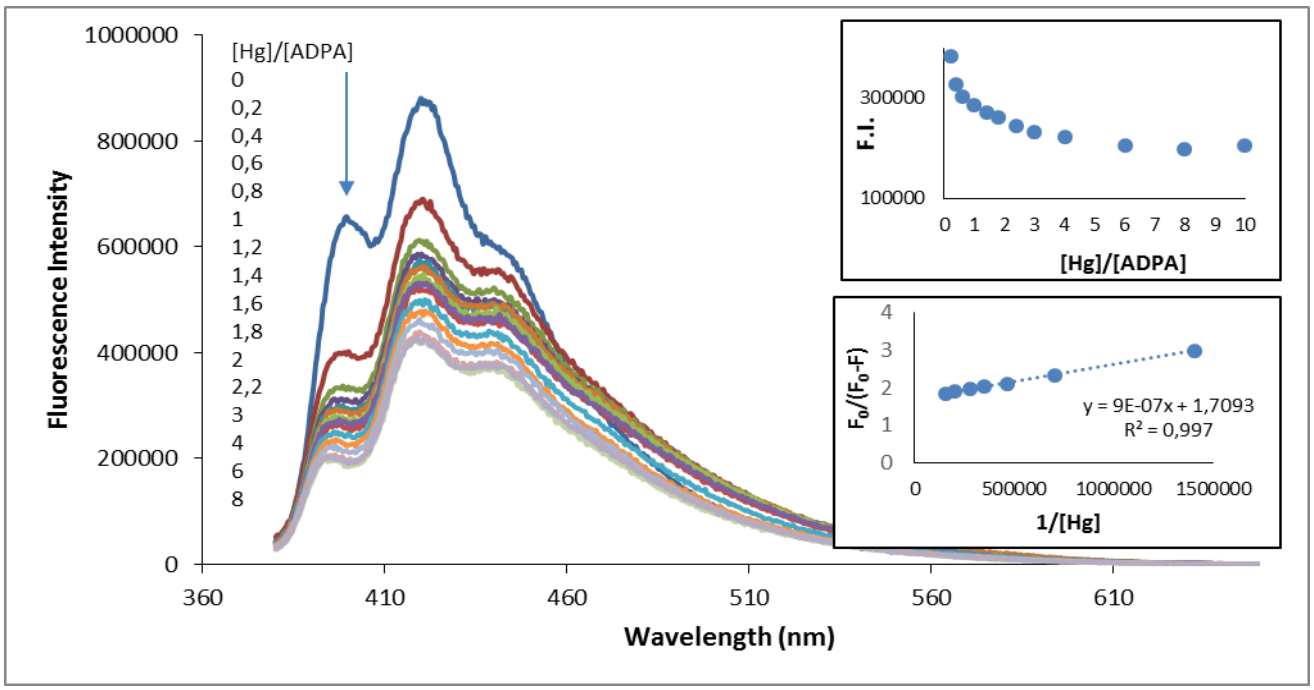


Fig. S5 The variation of the emission of the ligand **ADPA** with the concentration of Hg^{2+} added as 0-8 equivalents of Hg^{2+} in the ethanol-water (1:1). Ligand concentration=$3.6x10^{-6}$ M. Insets: Measurements were carried out at 395 nm.

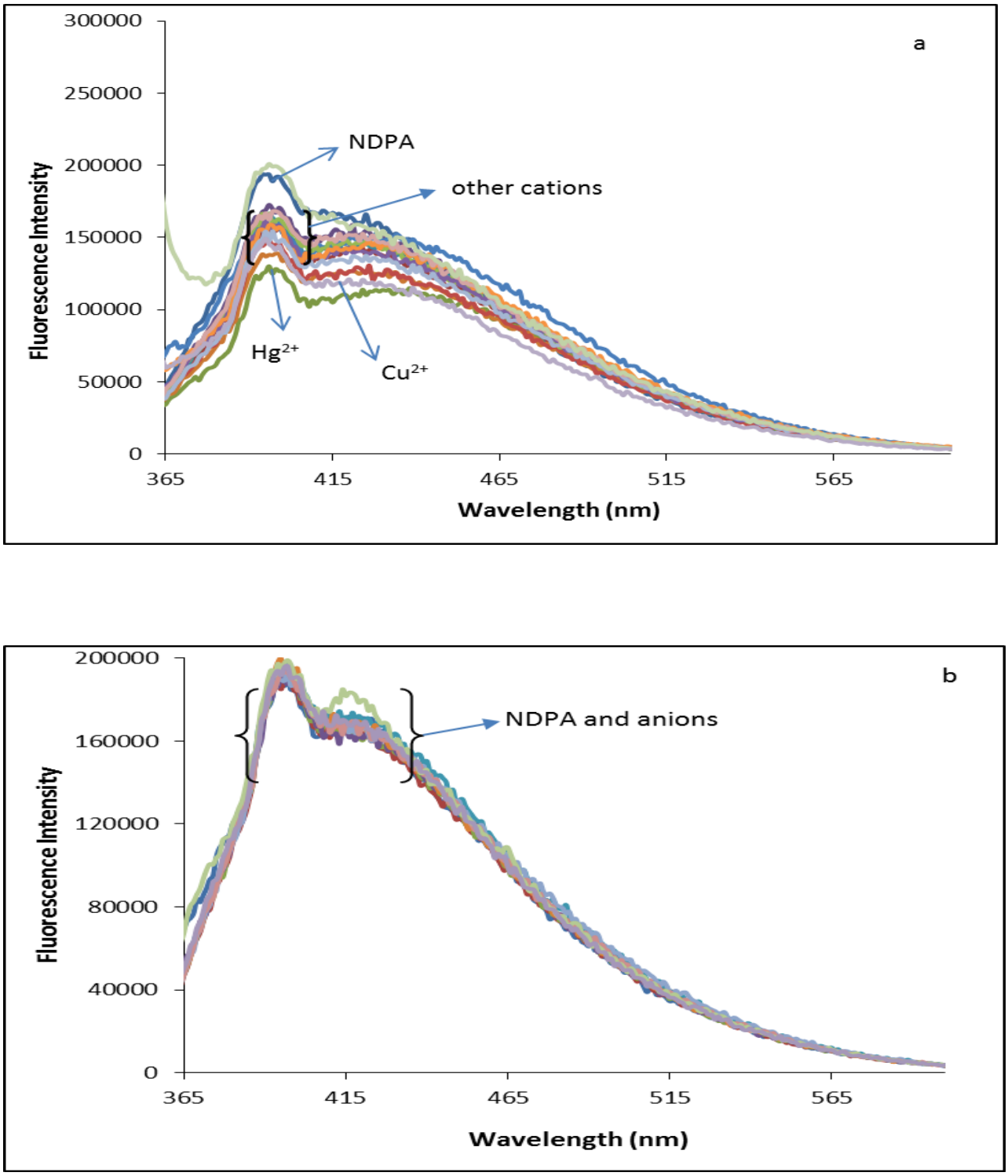


Fig. S6 Effects of ions on fluorescence spectra of the ligand **NDPA** in the ethanol-water mixture (1:1). (Ligand concentration=$1.7x10^{-5}$ M. Ion concentrations=$1.7x10^{-4}$ M. Excitation at 355 nm.), a: for cations b: for anions.

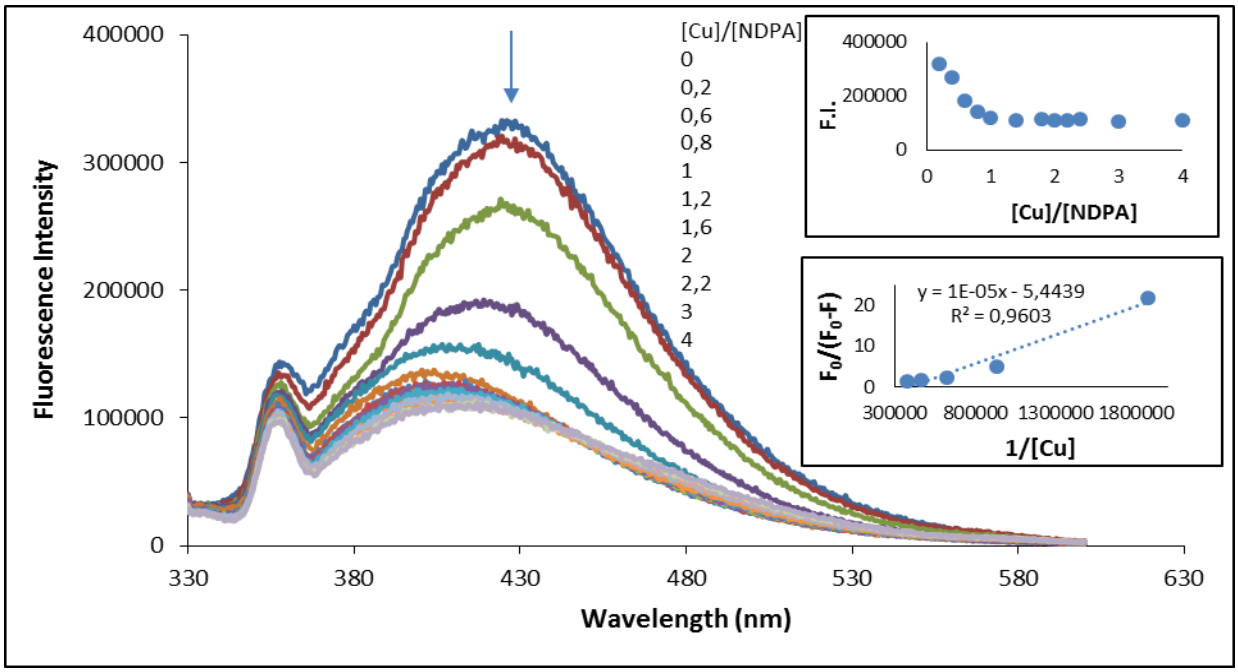


Fig. S7 The variation of the emission of the ligand **NDPA** with the concentration of Cu^{2+} added as 0-4 equivalents of Cu^{2+} in the ethanol-water mixture (1:1). Ligand concentration=$2.7x10^{-6}$ M. Excitation at 320 nm. Insets: Emission wavelength is 426 nm.

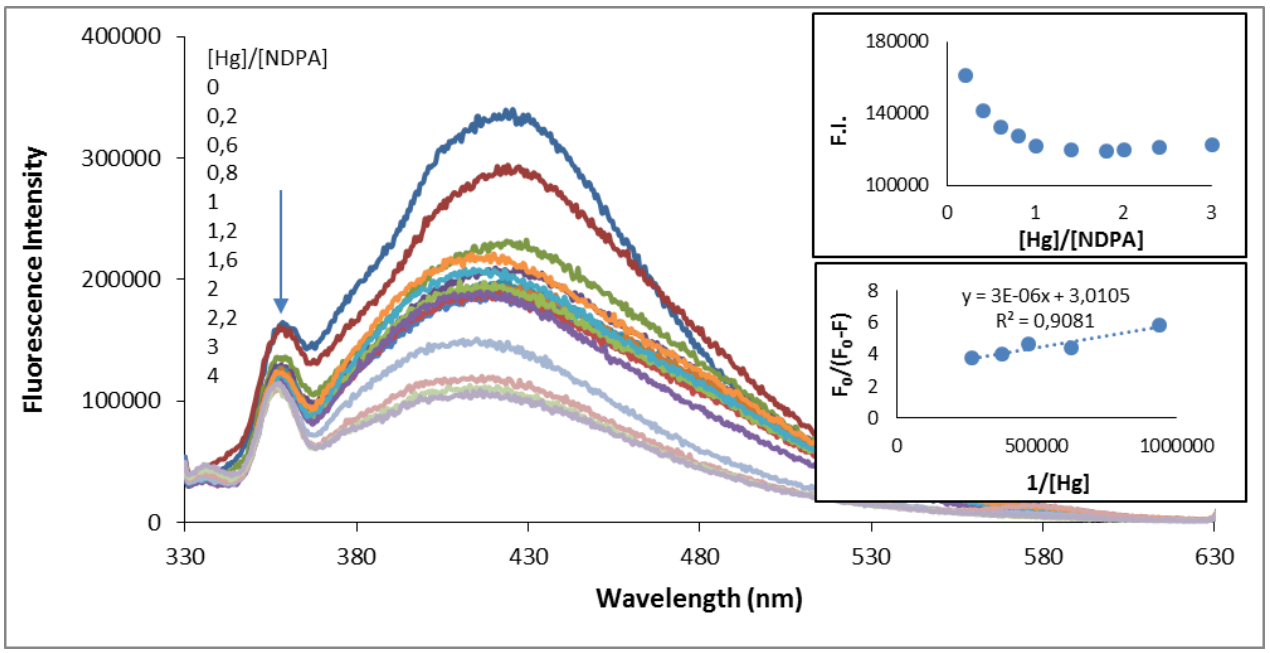


Fig. S8 The variation of the emission of the ligand **NDPA** with the concentration of Hg^{2+} added as 0-4 equivalents of Hg^{2+} in the ethanol-water (1:1). Ligand concentration=$2.7x10^{-6}$ M. Excitation at 320 nm. Insets: Emission wavelength is 358 nm.

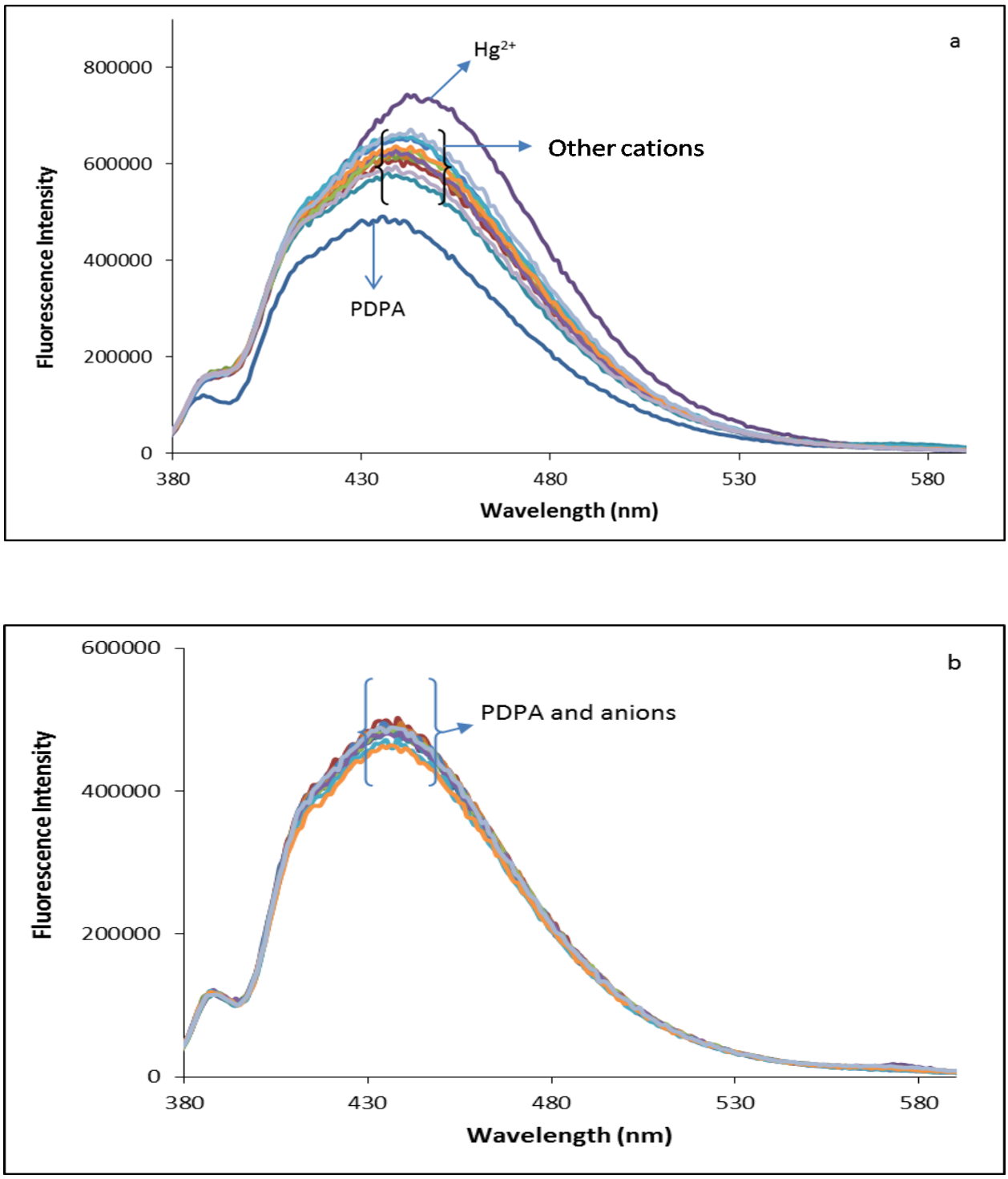


Fig. S9 Effects of ions on fluorescence spectra of the ligand **PDPA** in the ethanol-water mixture (1:1). (Ligand concentration=$2.5x10^{-6}$ M. Ion concentrations=$2.5x10^{-5}$ M. Excitation at 360 nm.), a: for cations b: for anions.

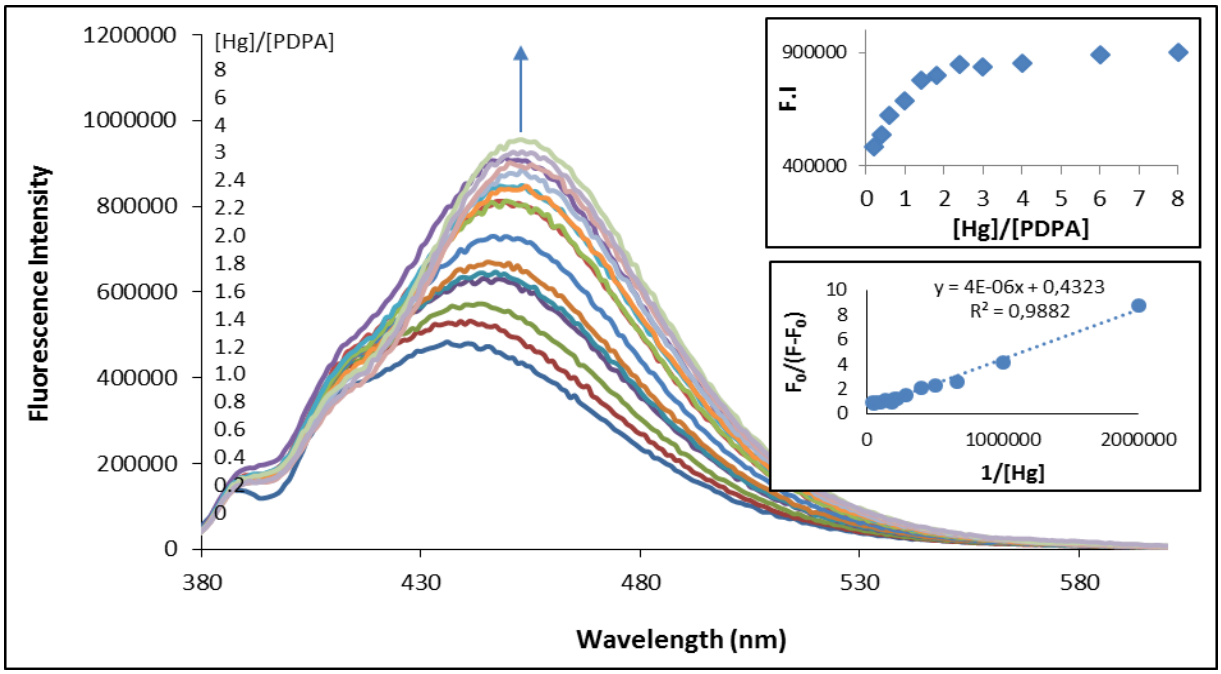


Fig. S10 The variation of the emission of the ligand **PDPA** with the concentration of Hg^{2+} added as 0-8 equivalents of Hg^{2+} in the ethanol-water mixture (1:1). Ligand concentration=$2.5x10^{-6}$ M. Excitation at 360 nm. Insets: Emission wavelength is 453 nm.

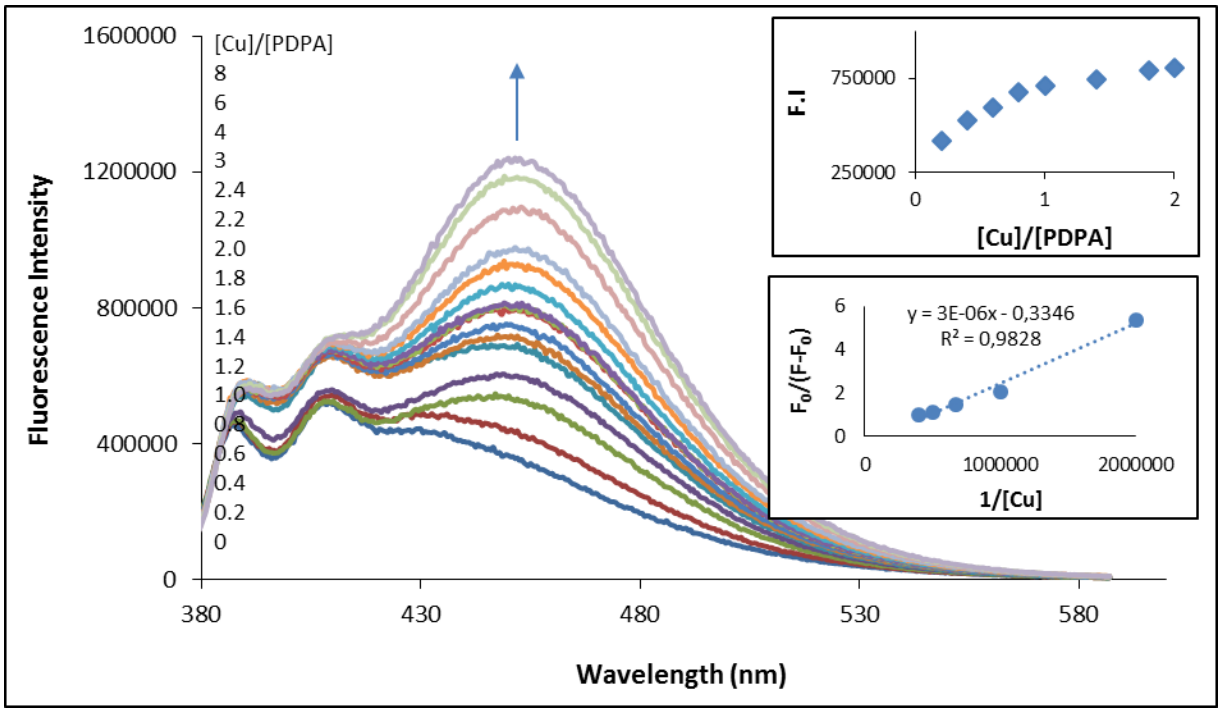


Fig. S11 The variation of the emission of the ligand **PDPA** with the concentration of Cu^{2+} added as 0-8 equivalents of Cu^{2+} in the ethanol-water (1:1). Ligand concentration=$2.5x10^{-6}$ M. Excitation at 360 nm. Insets: Emission wavelength is 453 nm.

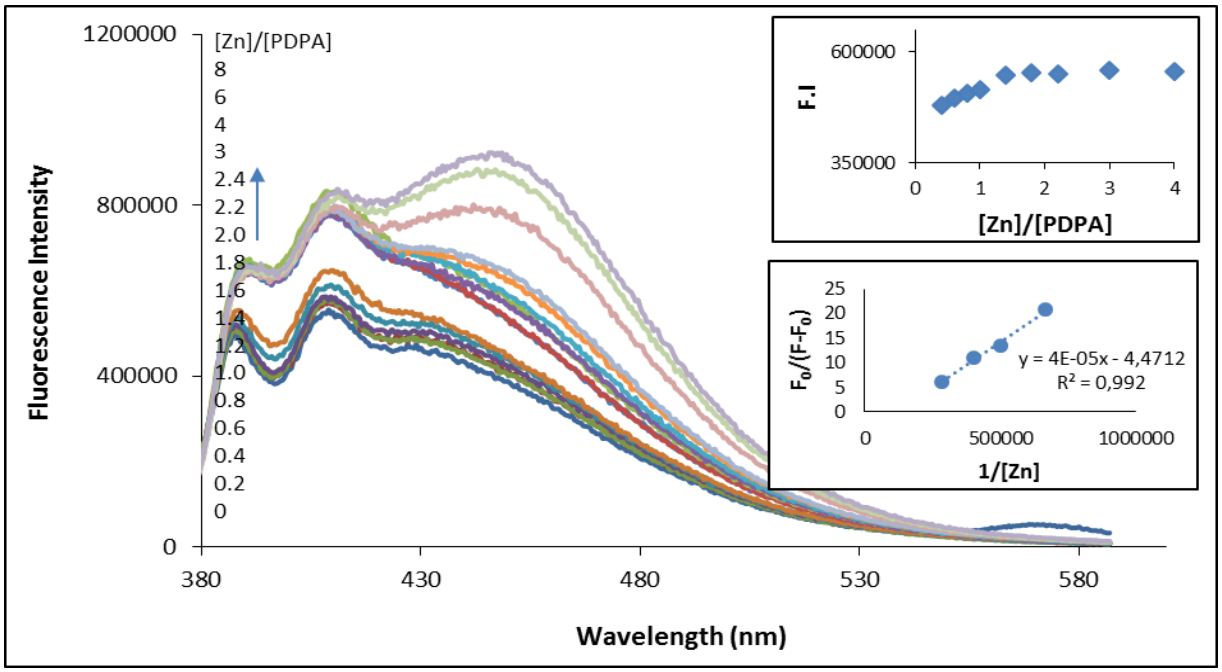


Fig. S12 The variation of the emission of the ligand **PDPA** with the concentration of Zn^{2+} added as 0-8 equivalents of Zn^{2+} in the ethanol-water mixture (1:1). Ligand concentration=$2.5x10^{-6}$ M. Excitation at 360 nm. Insets: Emission wavelength is 386 nm.

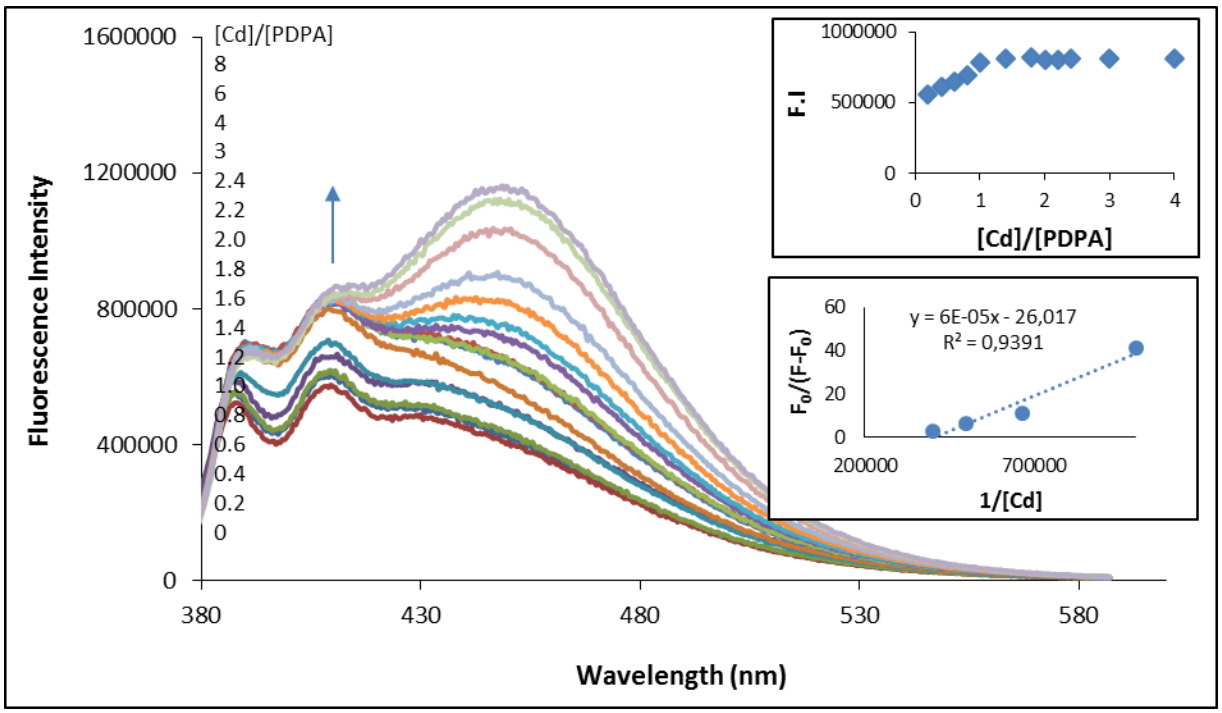
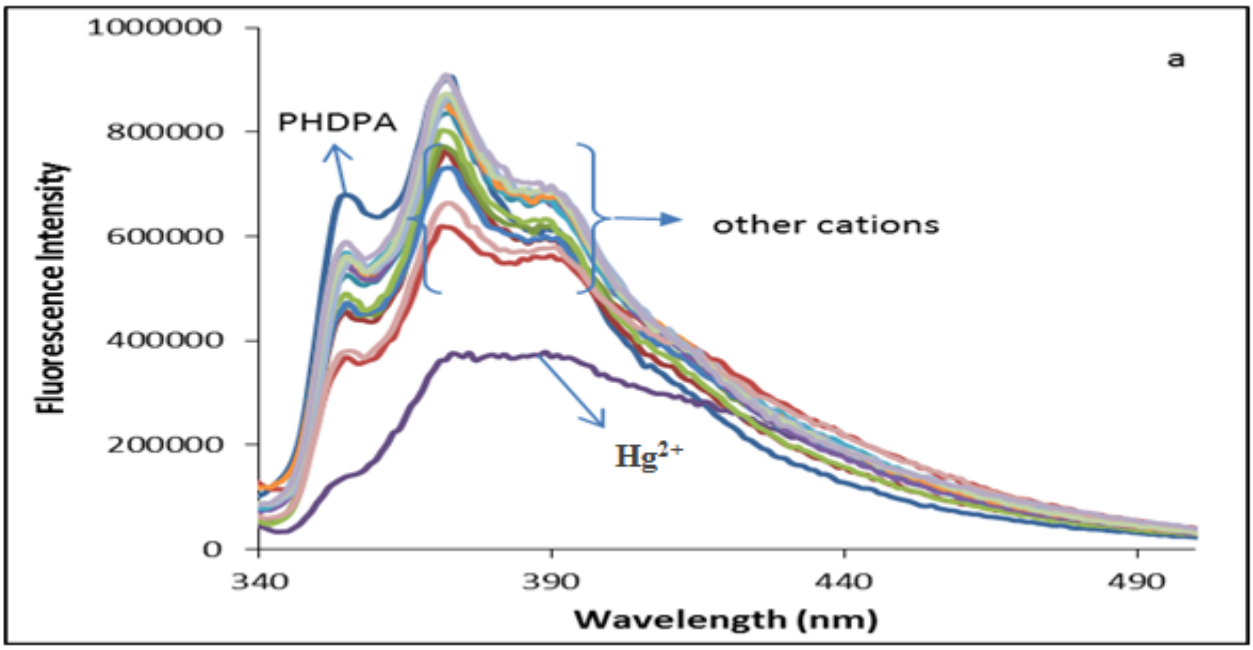


Fig. S13 The variation of the emission of the ligand **PDPA** with the concentration of Cd^{2+} added as 0-8 equivalents of Cd^{2+} in the ethanol-water (1:1). Ligand concentration=$2.5x10^{-6}$ M. Excitation at 360 nm. Insets: Emission wavelength is 407 nm.



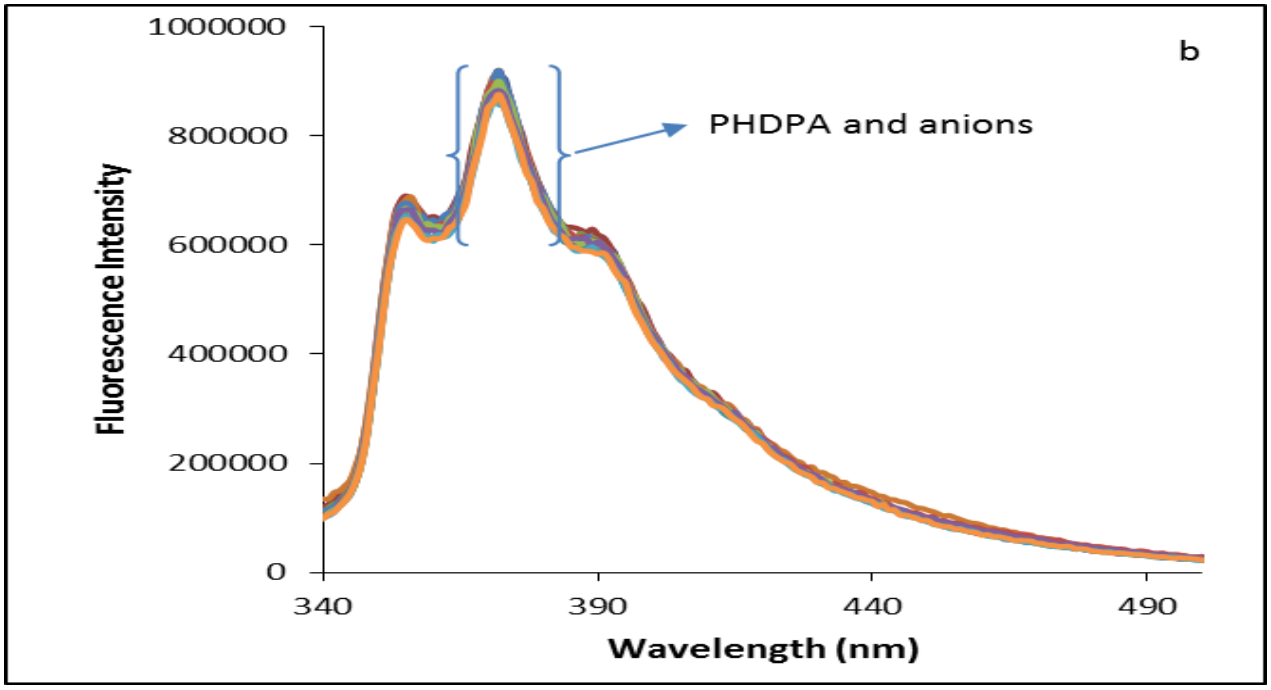


Fig. S14 Effects of ions on fluorescence spectra of the ligand **PHDPA** in the ethanol-water mixture (1:1). (Ligand concentration=$2.5x10^{-6}$ M. Ion concentrations=$2.5x10^{-5}$ M. Excitation at 300 nm), a: for cations b: for anions.