Supplementary Information

Photoinduced Electron Transfer of Poly(o-phenylenediamine)-Rhodamine B Copolymer Dots: Application in Ultrasensitive Detection of Nitrite in Vivo

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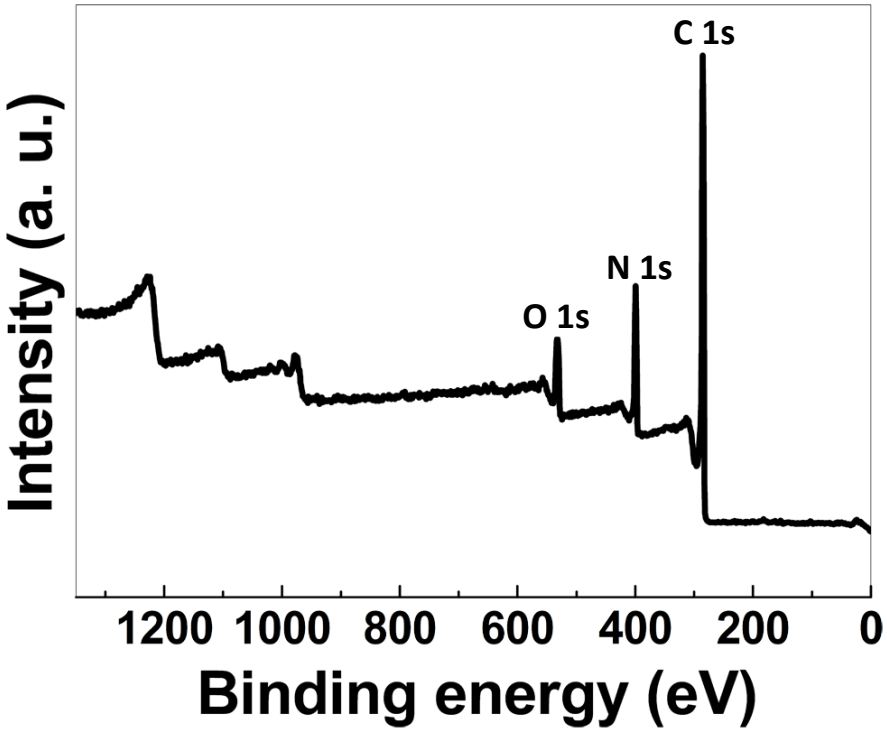

Fig. S1 XPS survey spectrum for Pp-RhB dots

Table S1. Elemental composition (at. %) of Pp-RhB dots

C	N	O
78.38	15.35	6.27

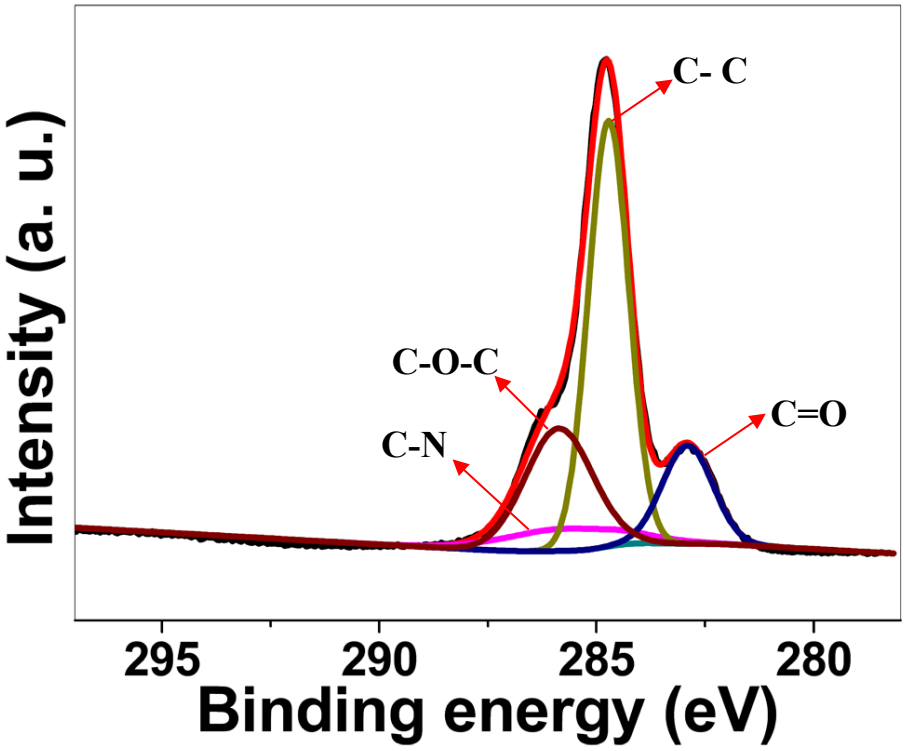

Fig. S2 C1s spectra of Pp-RhB dots

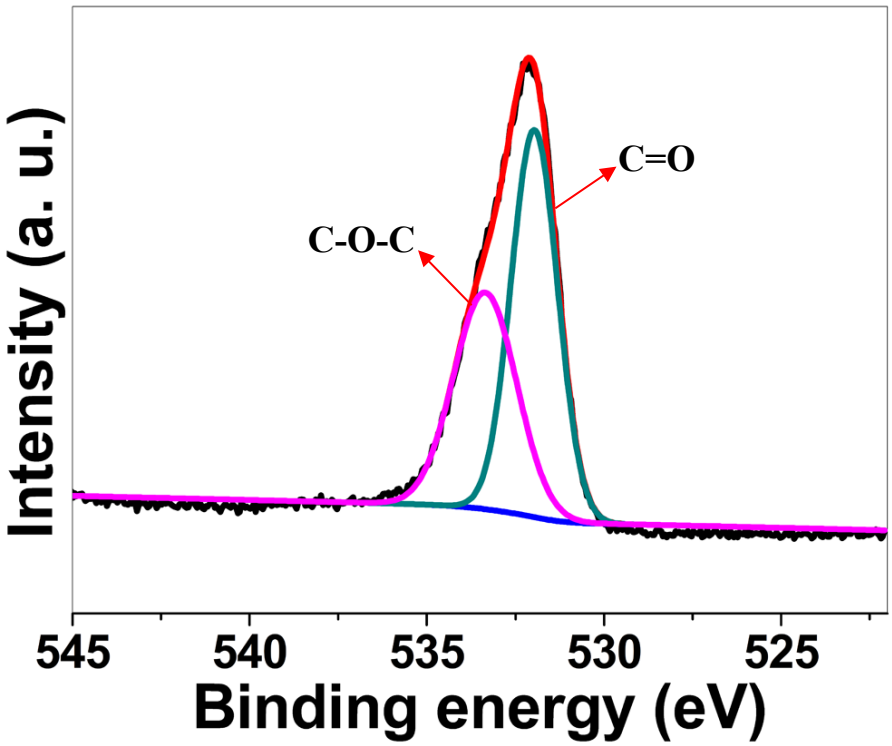

Fig. S3 O1s spectra of Pp-RhB dots

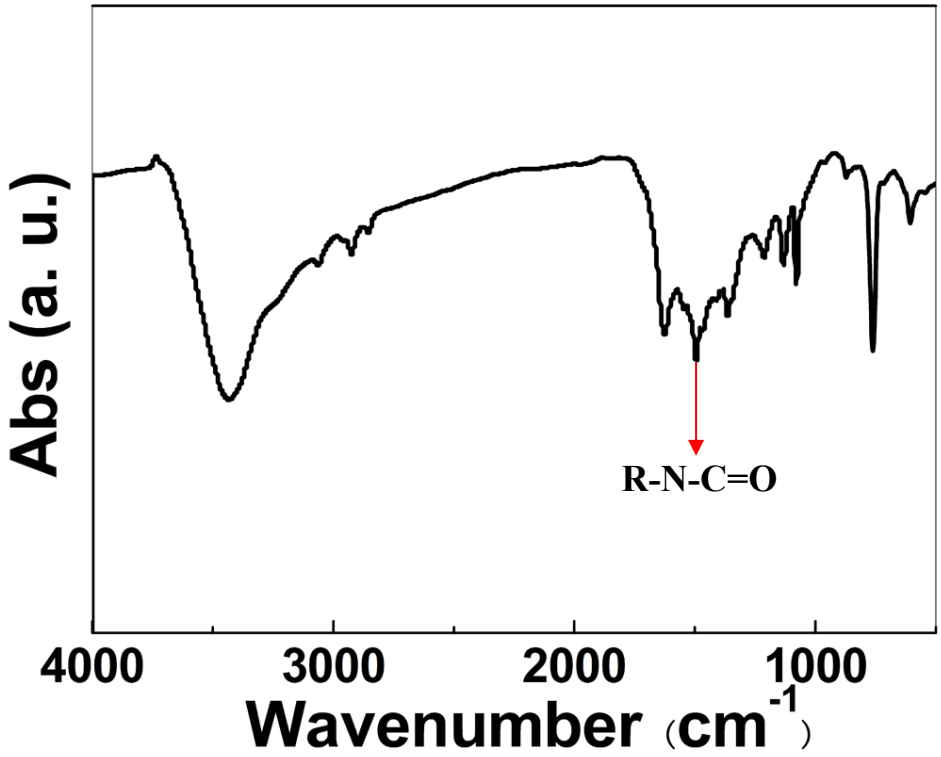

Fig. S4 FTIR spectrum of Pp-RhB dots

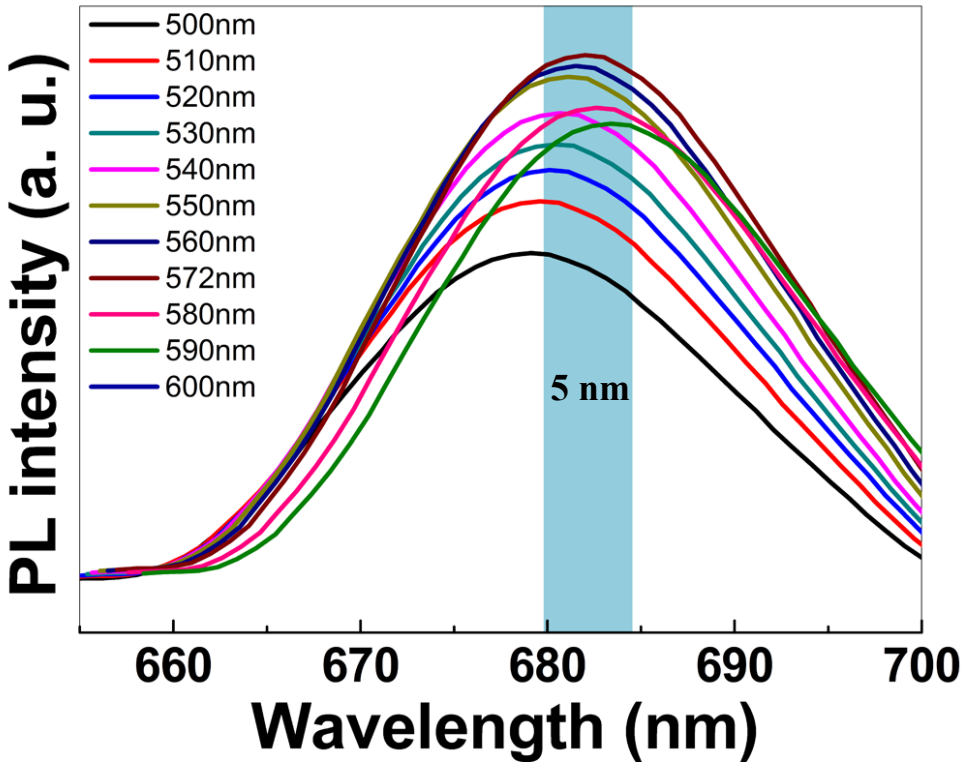

Fig. S5 PL emission spectra of Pp-RhB dots with different excitation wavelength

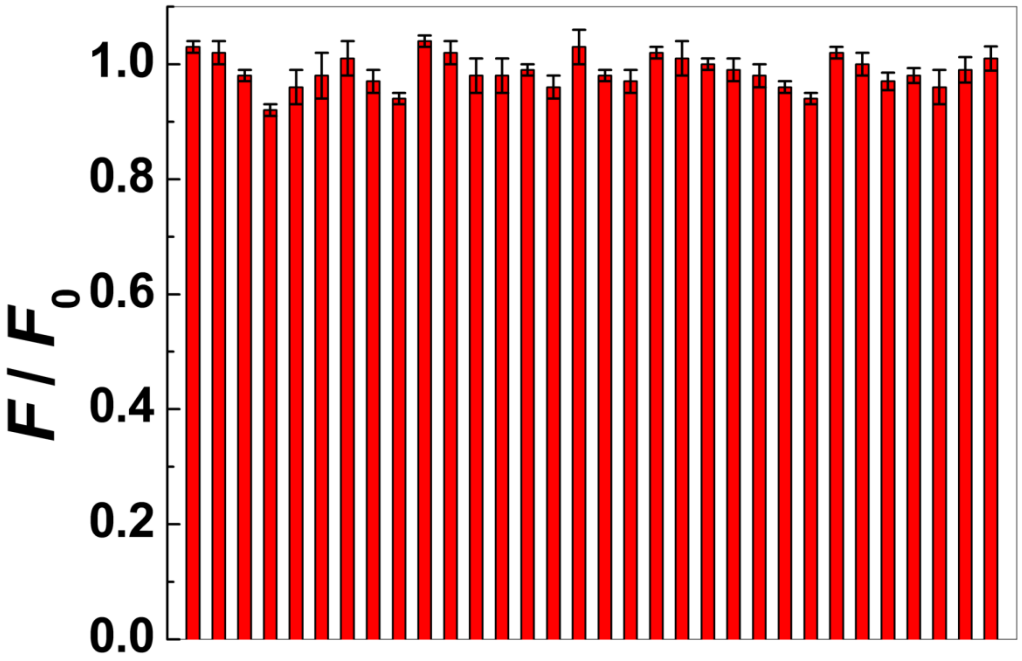

Fig. S6 The difference in PL intensity of Pp-RhB dots between the blank and solutions containing different disturbing substances with the presence of NO_2^- (F_0 and F are PL intensities in the absence and presence of these ions, respectively). The disturbing substances are: F^-, I^-, HPO_4^{2-}, $H_2PO_4^-$, Sn^{4+}, Sn^{2+}, Cu^{2+}, Cu^+, Ca^{2+}, Hg^{2+}, Cr^{3+}, Co^{2+}, ClO^-, ClO_3^-, H_2O_2, L-cysteine (L-Cys), L-methionine (L-Met), L-tryptophan (L-Trp), L-histidine (L-His), L-leucine (L-Leu), L-tyrosine (L-Tyr), L-phenylalanine (L-Phe), L-glycine (L-Gly), L-valine (L-Val), L-isoleucine (L-Ile), L-proline (L-Pro), L-arginine (L-Arg), L-serine (L-Ser), L-asparaginate (L-Asn), L-glutamate (L-Gln), glutathione (GSH) and creatinine (Cr) left to right.

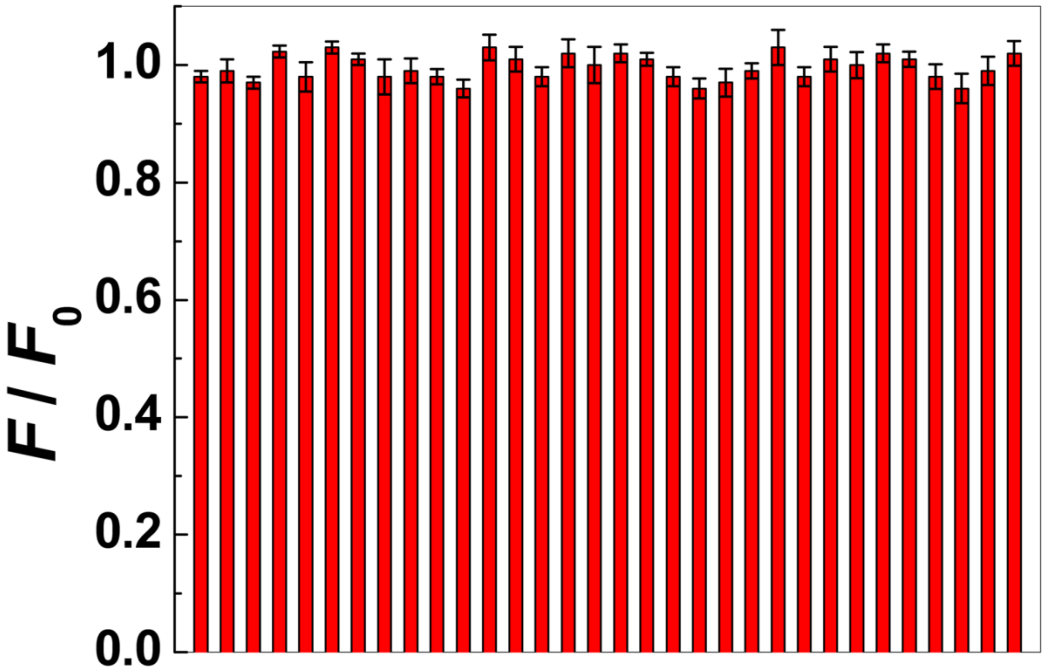

Fig. S7 The difference in PL intensity of Pp-RhB dots between the blank and solutions containing different disturbing substances without the presence of NO_2^- (F_0 and F are PL intensities in the absence and presence of these ions, respectively). The disturbing substances are: F^-, I^-, HPO_4^{2-}, $H_2PO_4^-$, Sn^{4+}, Sn^{2+}, Cu^{2+}, Cu^+, Ca^{2+}, Hg^{2+}, Cr^{3+}, Co^{2+}, ClO^-, ClO_3^-, H_2O_2, L-cysteine (L-Cys), L-methionine (L-Met), L-tryptophan (L-Trp), L-histidine (L-His), L-leucine (L-Leu), L-tyrosine (L-Tyr), L-phenylalanine (L-Phe), L-glycine (L-Gly), L-valine (L-Val), L-isoleucine (L-Ile), L-proline (L-Pro), L-arginine (L-Arg), L-serine (L-Ser), L-asparaginate (L-Asn), L-glutamate (L-Gln), glutathione (GSH) and creatinine (Cr) left to right.

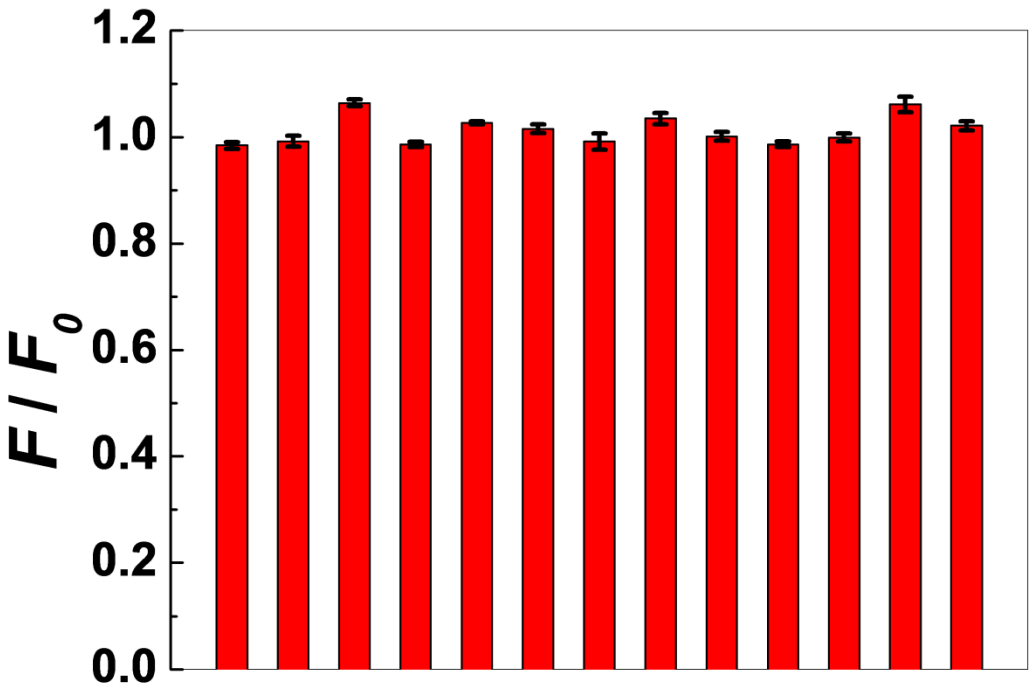

Fig. S6 The difference in PL intensity of Pp-RhB dots between the blank and solutions containing different anionic with the presence of NO_2^- (F_0 and F are PL intensities in the absence and presence of anionic, respectively). The disturbing substances are: Cl^-, Br^-, SO_4^{2-}, HSO_4^-, CO_3^{2-}, HCO_3^-, S^{2-}, HS^-, SO_3^{2-}, HSO_3^-, NO_3^-, ClO_4^- and BrO_3^- left to right.

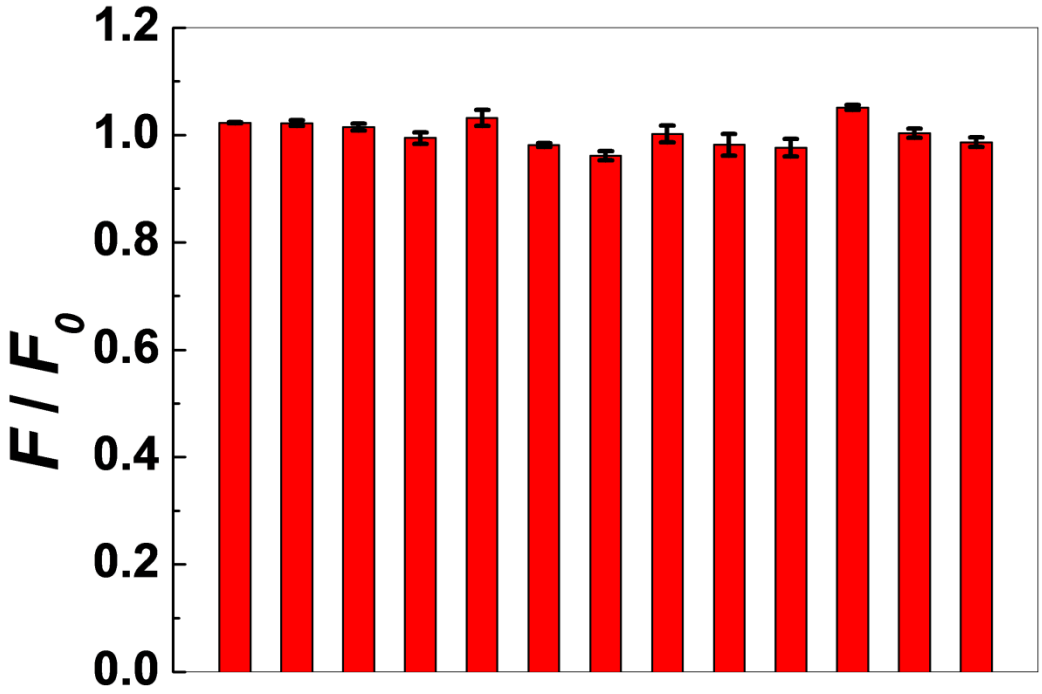

Fig. S9 The difference in PL intensity of Pp-RhB dots between the blank and solutions containing different anionic without the presence of NO_2^- (F_0 and F are PL intensities in the absence and presence of anionic, respectively). The disturbing substances are: Cl^-, Br^-, SO_4^{2-}, HSO_4^-, CO_3^{2-}, HCO_3^-, S^{2-}, HS^-, SO_3^{2-}, HSO_3^-, NO_3^-, ClO_4^- and BrO_3^- left to right.

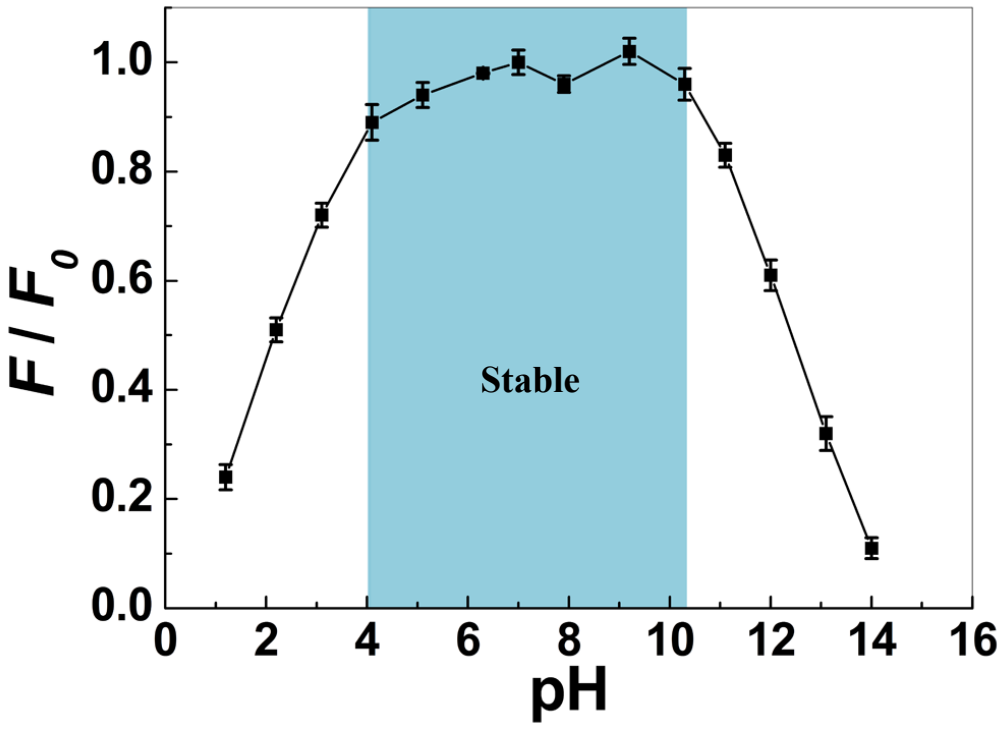

Fig. S10 PL intensity of Pp-RhB dots under different pH. The F and F_0 are PL intensity of Pp-RhB dots when pH=7 and other value, respectively. The concentration of Pp-RhB dots is 0.2 mg/L.

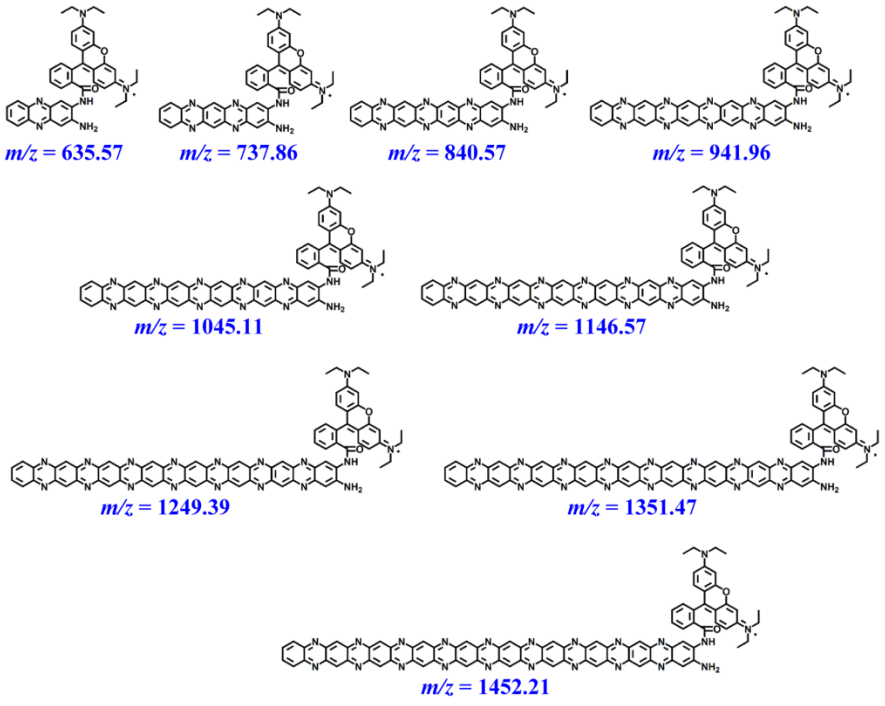

Fig. S11 A schematic of the molecular structures of Pp-RhB dots before the NO_2^- was added.

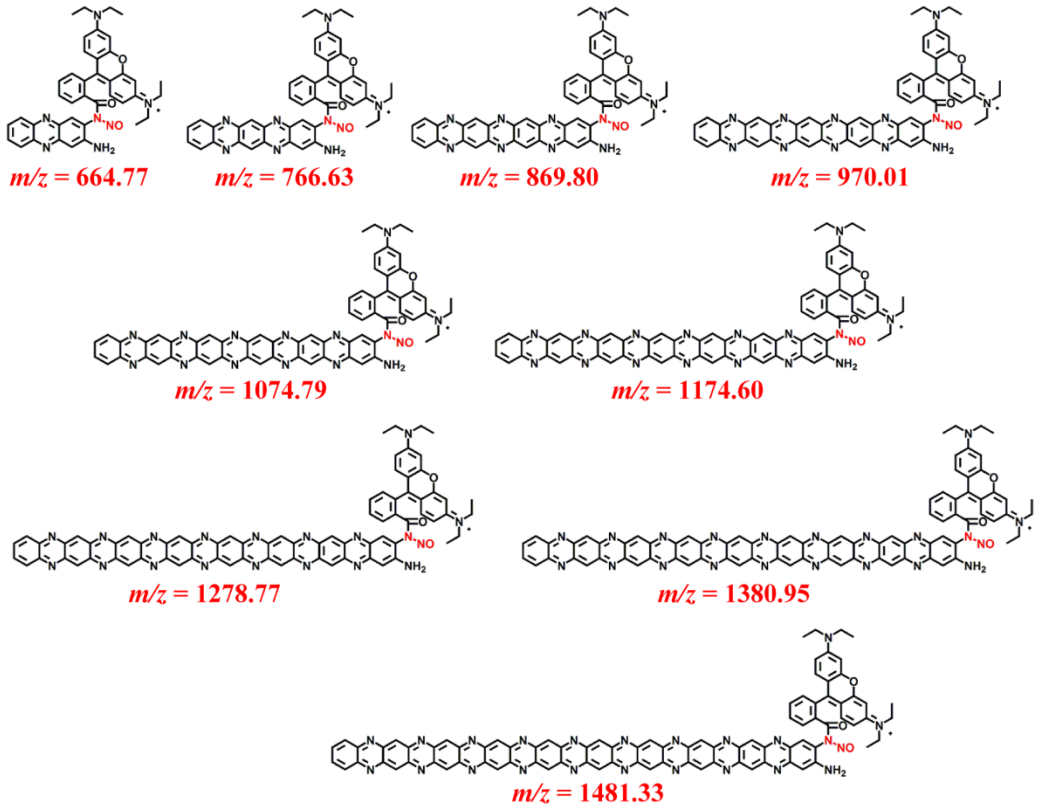

Fig. S12 A schematic of the molecular structures of Pp-RhB dots after the NO_2^- was added.