Supplementary Material (ESI) for New Journal of Chemistry

Supplementary Information

Azocalix[4]arene-based Chromogenic Anion Probes

Chuan-Feng Chen and Qi-Yin Chen*

Laboratory of Chemical Biology, Center for Molecular Science, Institute of Chemistry,

Chinese Academy of Sciences, Beijing 100080, China

Email: cchen@iccas.ac.cn

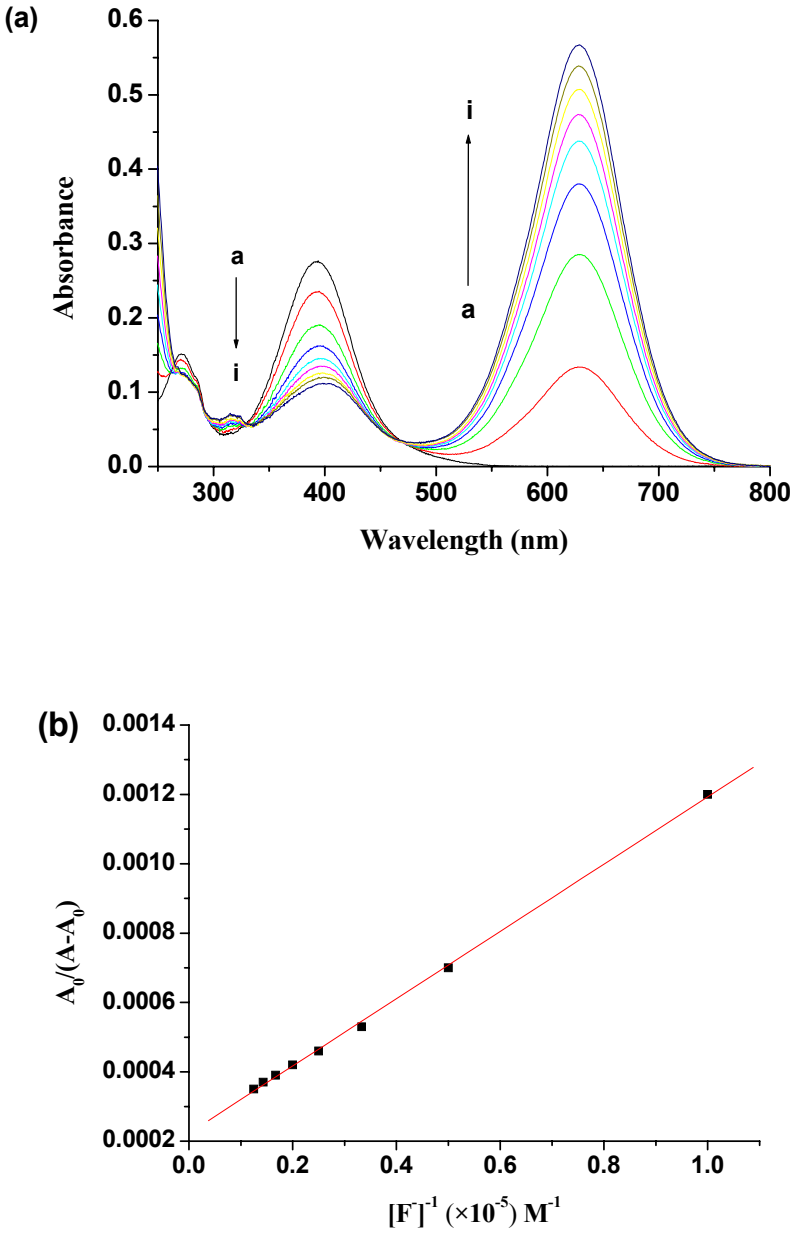

Figure S1. (a) UV-vis titrations of **1** (10^{-5} M) with F^- in MeCN, $[F^-]$: from a → i 0 – 8 eq. of **1**; (b) the plot of $A_0/(A-A_0)$ versus $[F^-]^{-1}$.

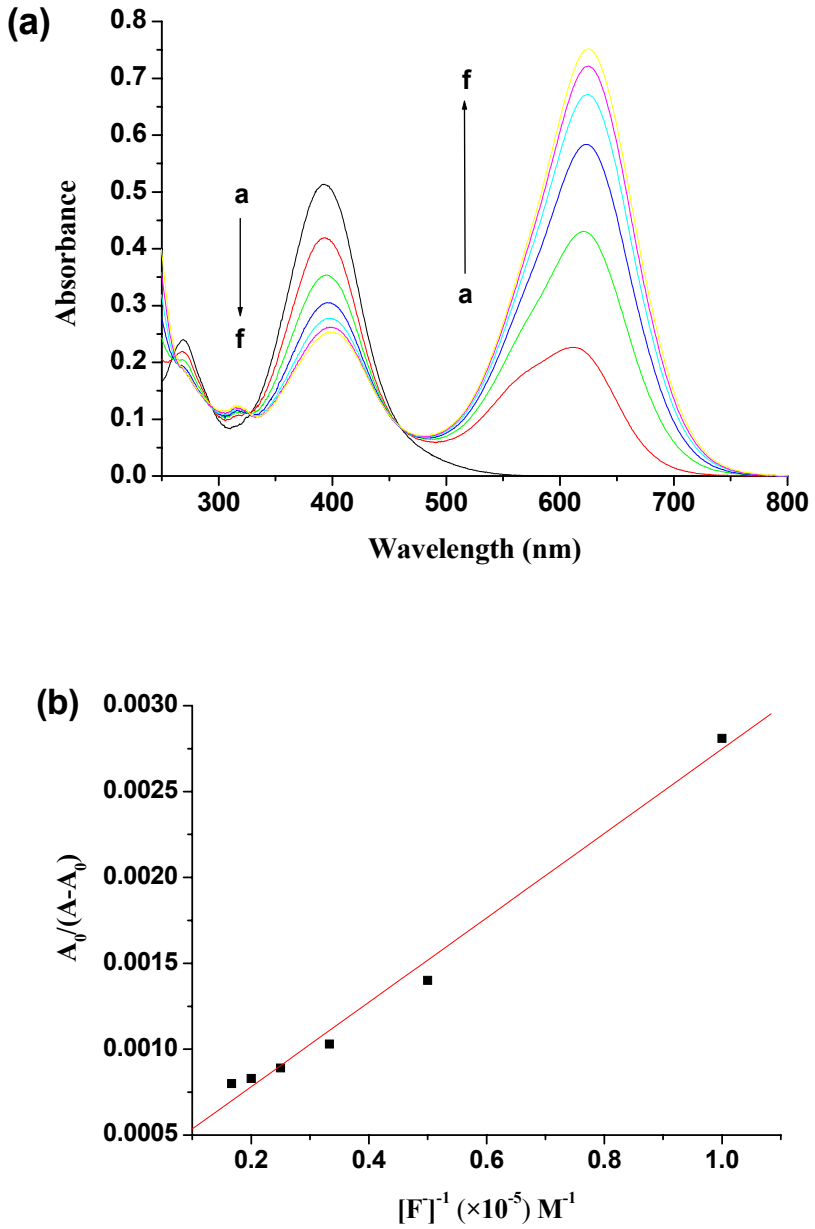

Figure S2. UV-vis titrations of **2** (10^{-5} M) with F^- in MeCN, [F^-]: from a → f: 0 - 6eq. of **2**; (b) the plot of $A_0/(A-A_0)$ versus $[F^-]^{-1}$.

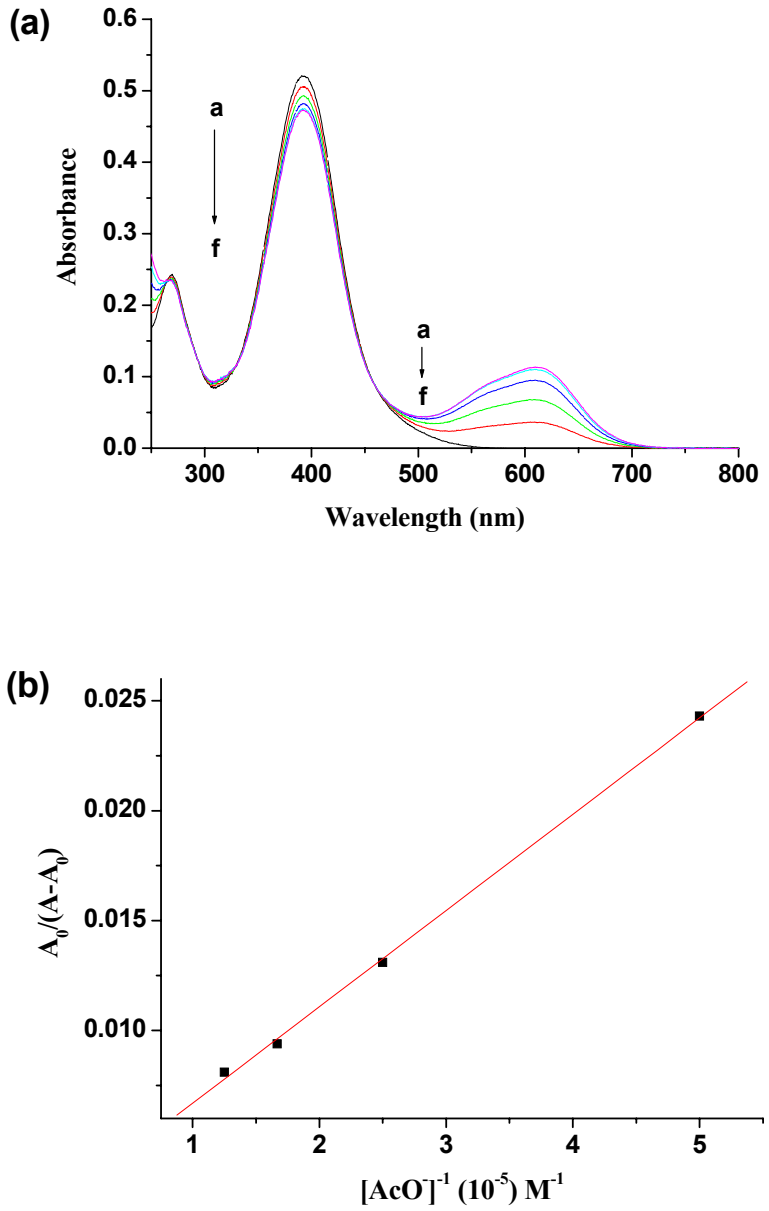

Figure S3. (a) UV-vis titrations of **2** (10^{-5} M) with AcO^- in MeCN, [AcO^-]: from a → f : 0 – 1.0eq. of **2**; (b) the plot of $A_0/(A-A_0)$ versus $[AcO^-]^{-1}$.

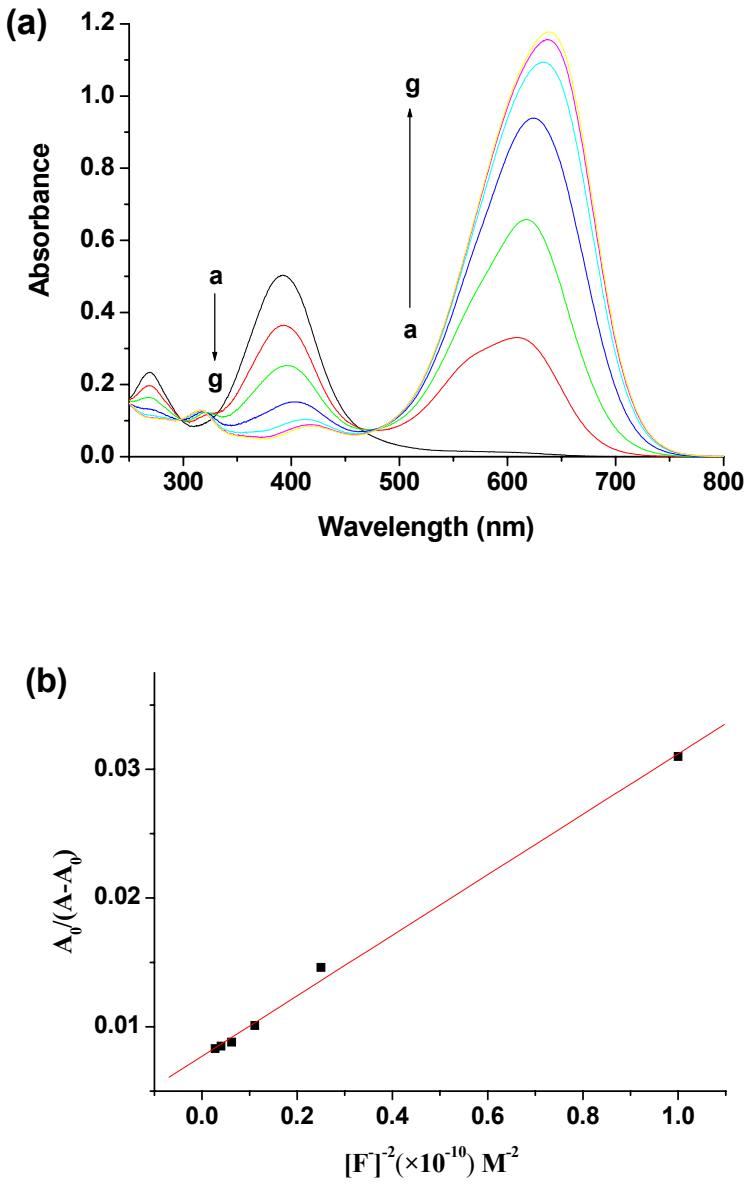

Figure S4. (a) UV-vis titrations of **3** (10^{-5} M) with F^- in MeCN, [F^-]: from a →g: 0 - 6eq. of **3**; (b) the plot of $A_0/(A-A_0)$ versus $[F^-]^{-2}$.

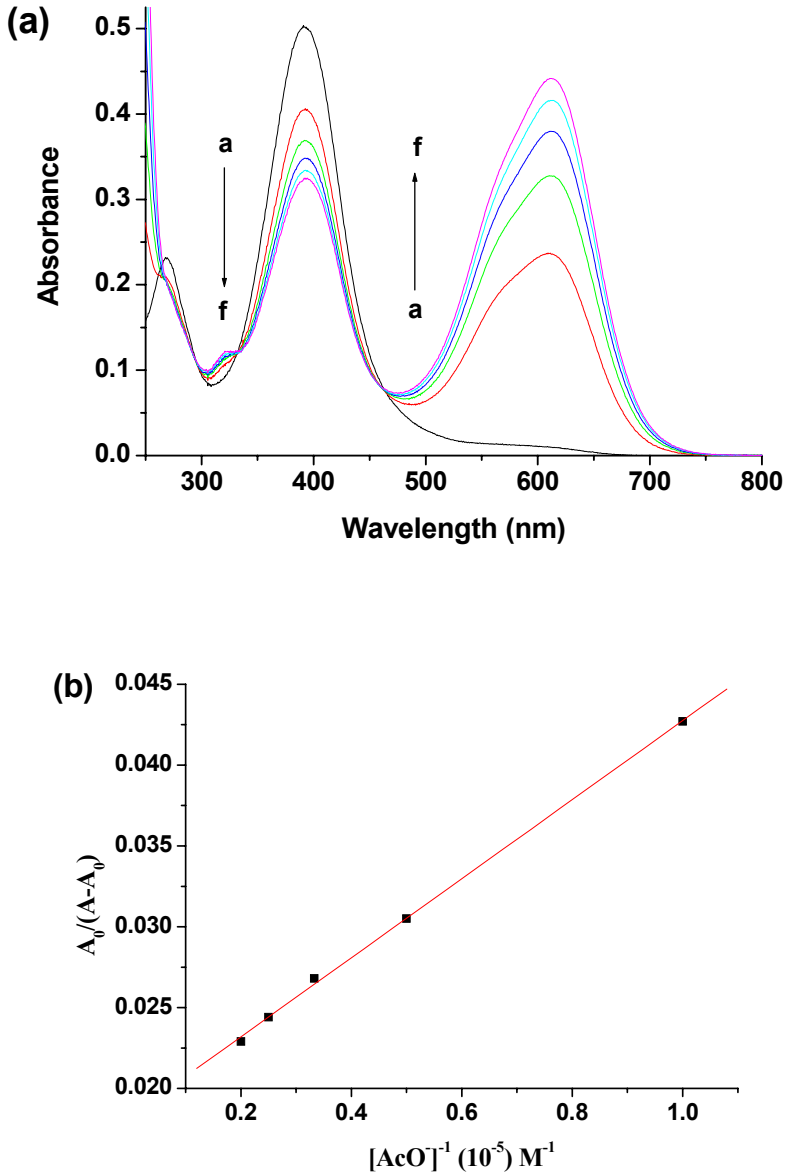

Figure S5. (a) UV-vis titrations of **3** (10^{-5} M) with AcO^- in MeCN, [AcO^-]: from a →f : 0 – 5.0eq. of **3**; (b) the plot of $A_0/(A-A_0)$ versus $[AcO^-]^{-1}$.

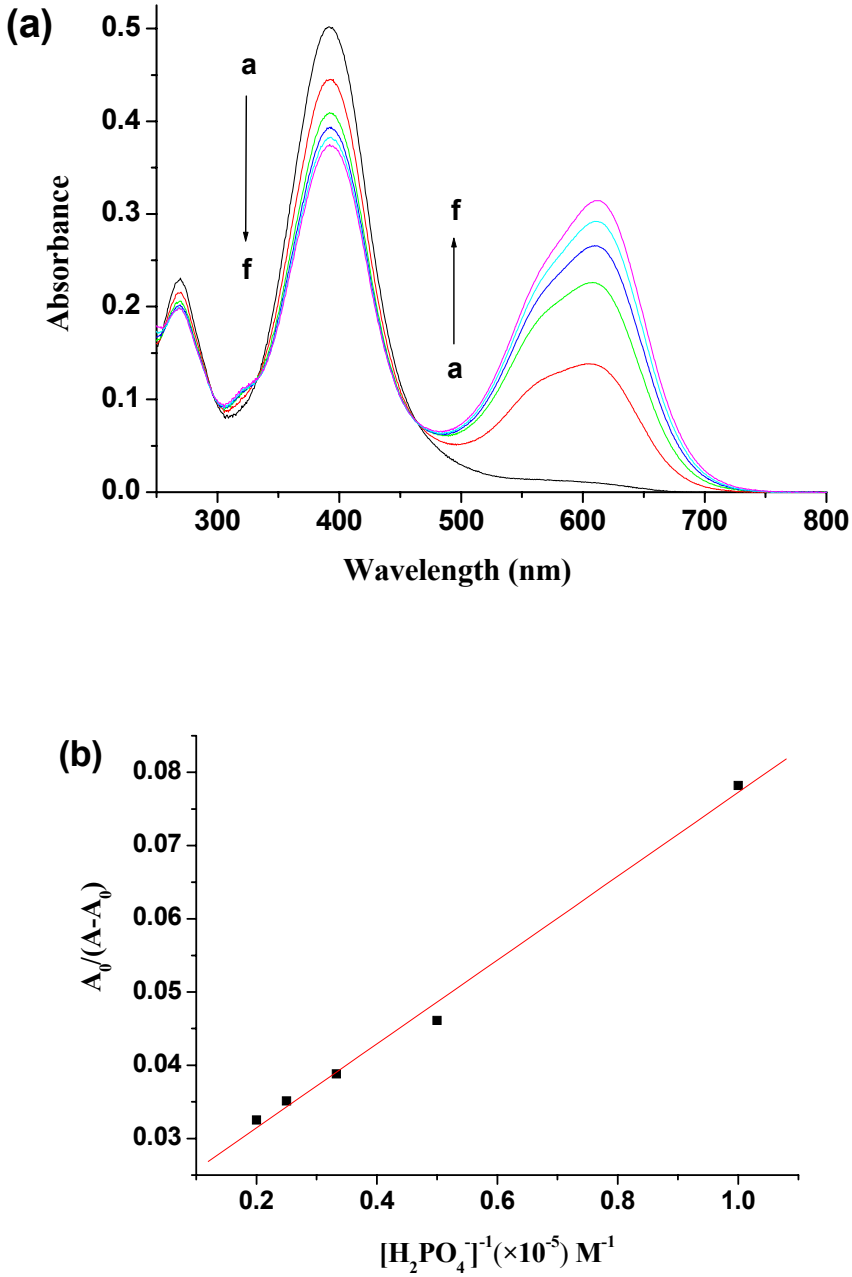

Figure S6. (a) UV-vis titrations of **3** (10^{-5} M) with $H_2PO_4^-$ in MeCN, $[H_2PO_4^-]$: from a →f: 0 – 5.0eq. of **3**; (b) the plot of $A_0/(A-A_0)$ versus $[H_2PO_4^-]^{-1}$.

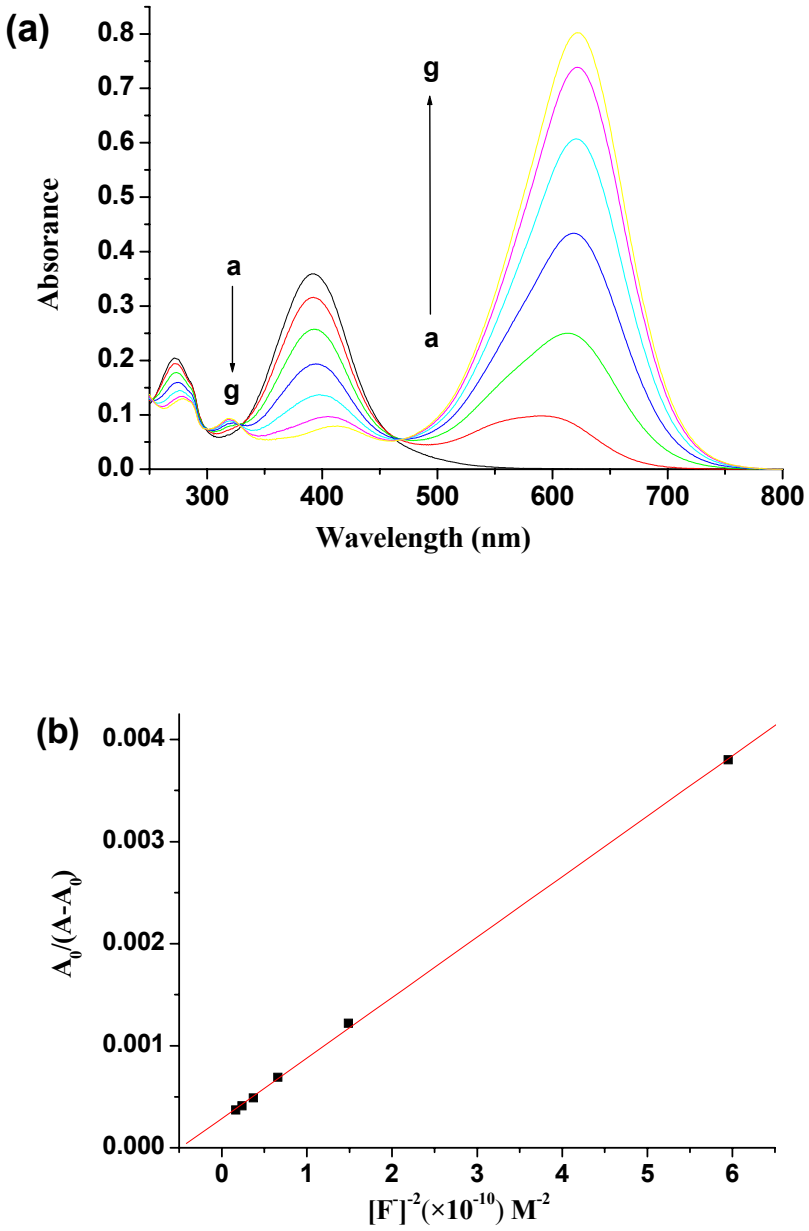

Figure S7. (a) UV-vis titrations of **4** (10^{-5} M) with F^- in MeCN, [F^-]: from a →g 0 – 2.46eq. of **4**; (b) the plot of $A_0/(A-A_0)$ versus $[F^-]^{-2}$.

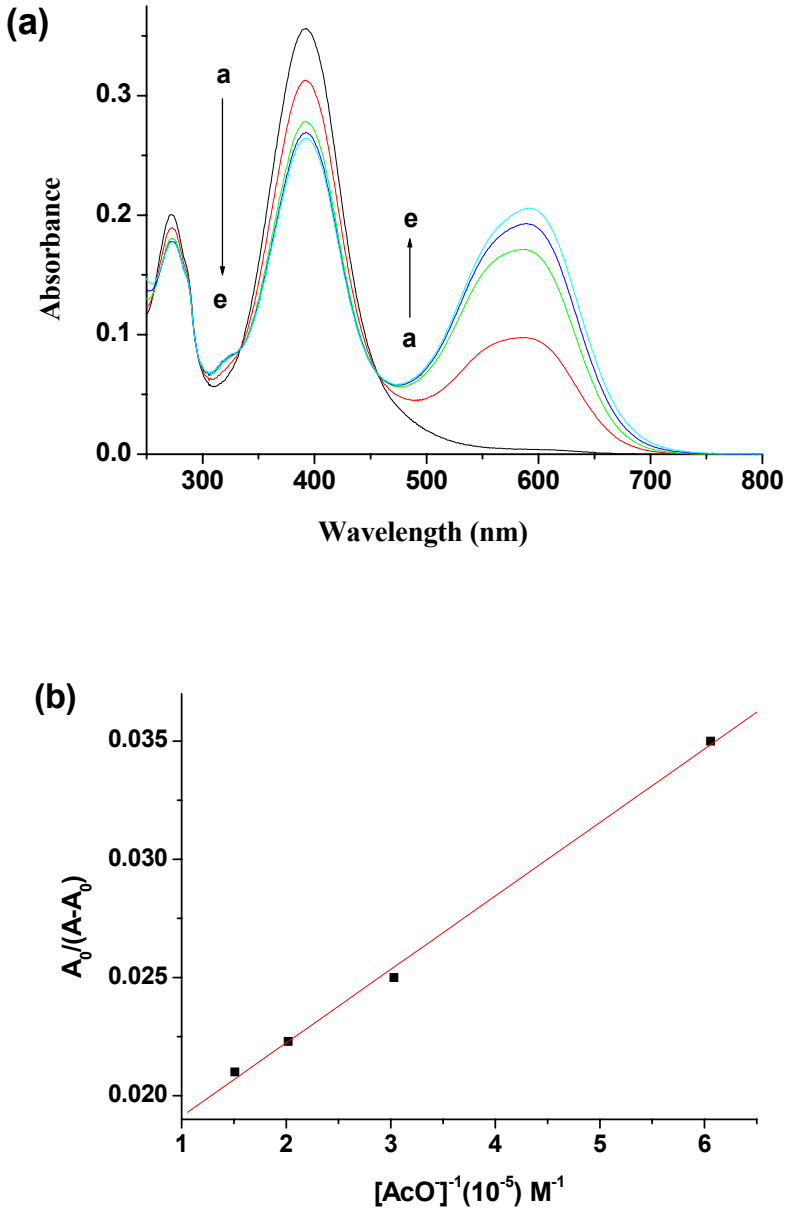

Figure S8. (a) UV-vis titrations of **4** (10^{-5} M) with AcO^- in MeCN, [AcO^-]: from a → e: 0 – 0.6eq. of **4**; (b) the plot of $A_0/(A-A_0)$ versus $[AcO^-]^{-1}$.

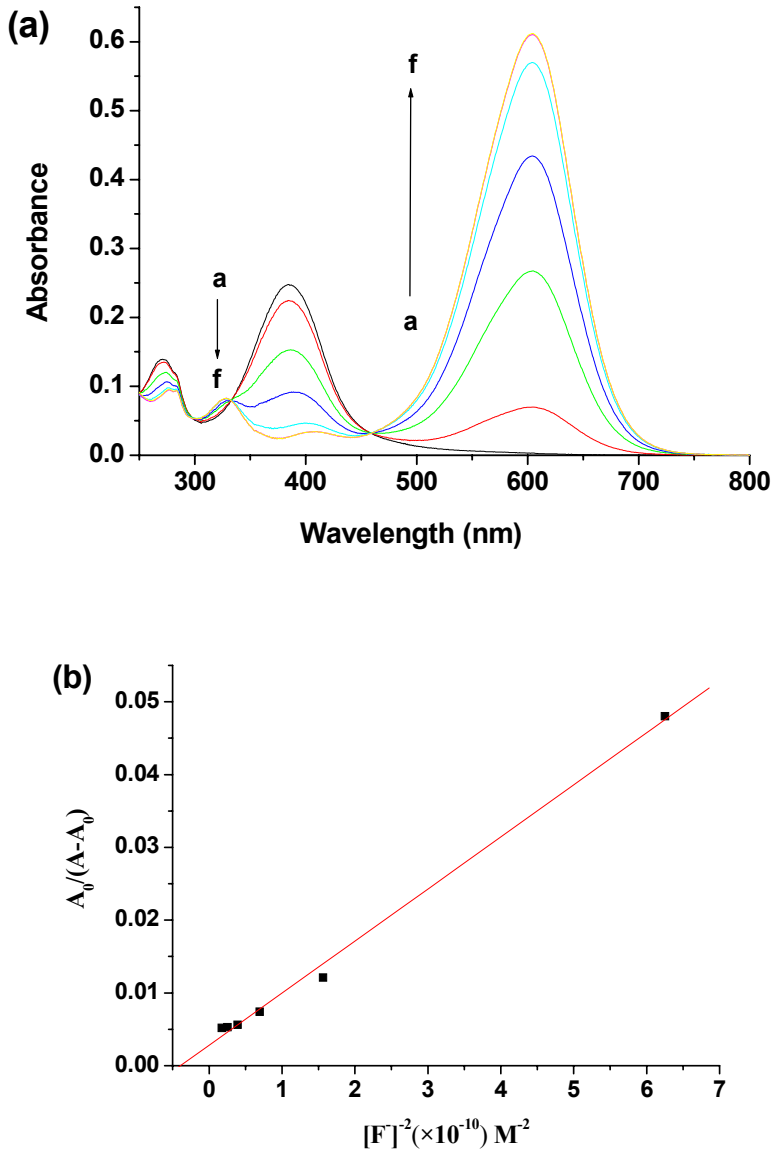

Figure S9. (a) UV-vis titrations of **5** (10^{-5} M) with F^- in MeCN. [F^-]: from a →f: 0 – 2.4eq. of **5**; (b) the plot of $A_0/(A-A_0)$ versus $[F^-]^{-2}$.

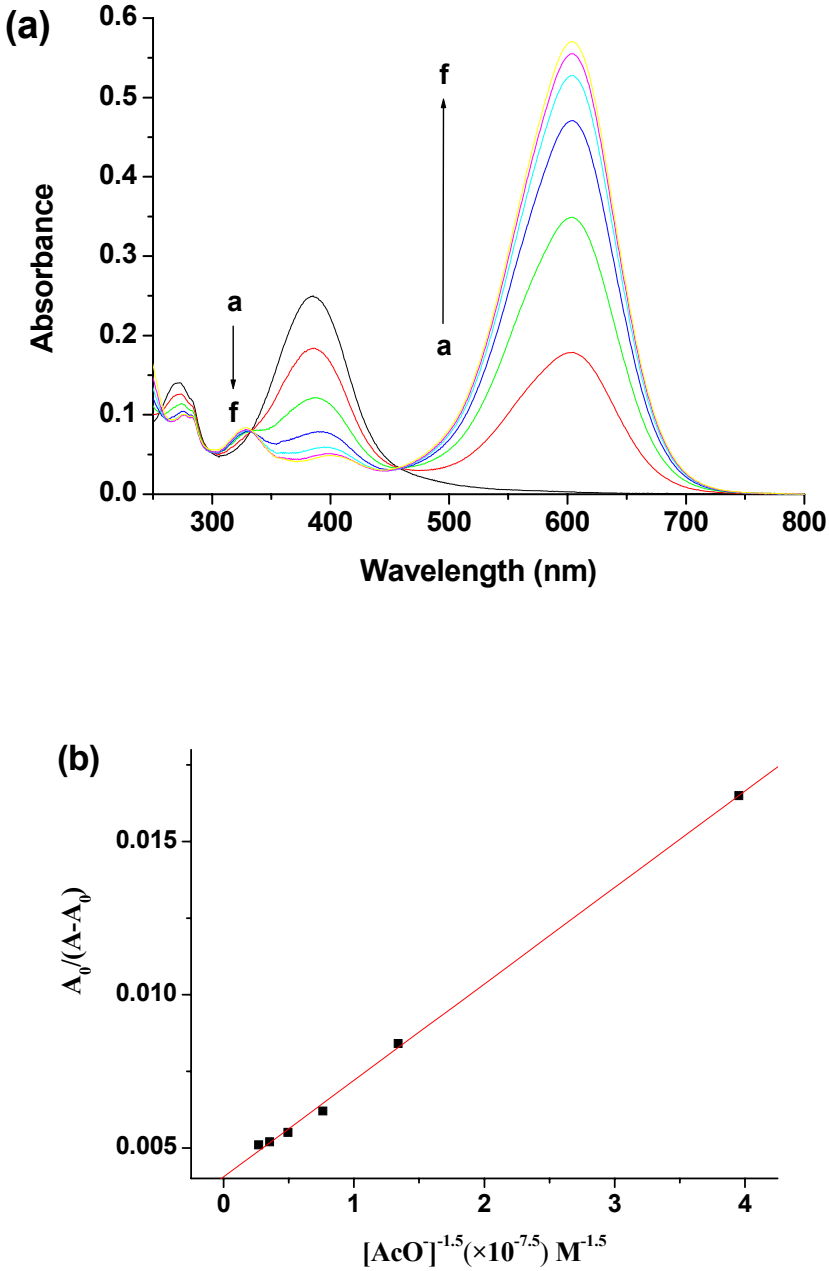

Figure S10. (a) UV-vis titrations of **5** (10^{-5} M) with AcO^- in MeCN, [AcO^-]: from a →f: 0 – 2.4 eq. of **5**; (b) the plot of $A_0/(A-A_0)$ versus $[AcO^-]^{-1.5}$.

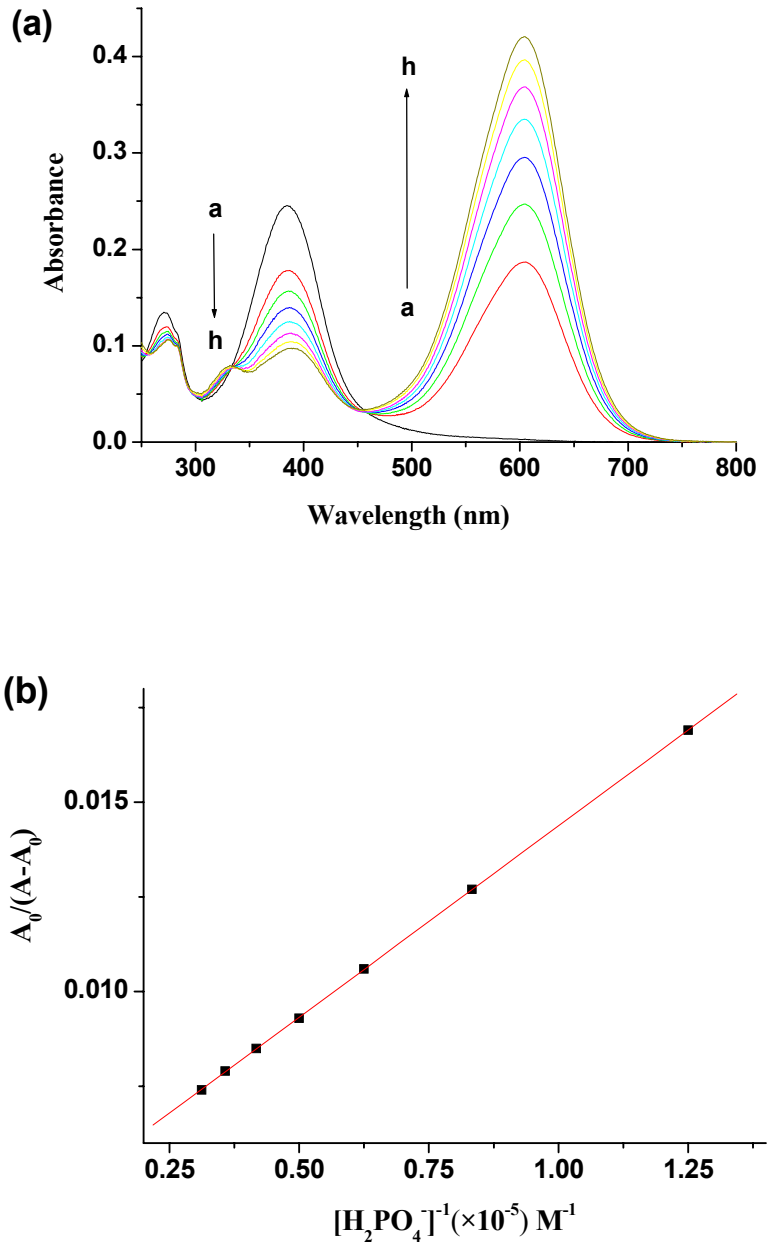

Figure S11. (a) UV-vis titrations of **5** (10^{-5} M) with $H_2PO_4^-$ in MeCN, $[H_2PO_4^-]$: from a →h: 0 – 3.2 eq. of **5**; (b) the plot of $A_0/(A-A_0)$ versus $[H_2PO_4^-]^{-1}$.