Supporting Information

A Highly Sensitive and Selective Chemosensor for Pb\(^{2+}\) Based on Quinoline-coumarin

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1. Determination of association constant

The association constants (Ka) were also determined based on the fluorescent titration curve using the equation as follows:

Where $F$ and $F_0$ represent the intensity of host in the presence and absence of ions, respectively, $F_{\text{max}}$ is the saturated intensity of host in the presence of excess amount of ions; $[X]$ is the concentration of ions added.

$$\frac{1}{F - F_0} = \frac{1}{F_{\text{max}} - F_0} \left[ \frac{1}{K_a[X]} + 1 \right]$$
2. $^1$H NMR spectra of sensor 1

Fig.S1. $^1$H NMR spectra of sensor 1

3. $^{13}$C NMR spectra of sensor 1
Fig. S2. $^{13}$C NMR spectra of sensor 1

4. ESI-MS spectra of sensor 1
Fig. S3. ESI-MS spectra of sensor 1.