Supplementary Information

Anion Recognition Properties of Chromone-Based Organic Nanoparticles and Organic-Inorganic Hybrid Nanoparticles

Rajinder Kaur, Amanpreet Kaur, Gurpinder Singh, Manoj Kumar, Navneet Kaur

Centre for Nanoscience and Nanotechnology (UIEAST), Panjab University, Chandigarh, India, 160014. Tel: 91-1722534464; E-mail: navneetkaur@pu.ac.in

Department of Chemistry, LPU, Phagwara, Punjab-144 806, India.

Figure S1. 1H NMR spectrum of compound 1
Figure S2. 13C NMR spectrum of compound 1
Figure S3. Mass spectrum of compound 1.

Figure S4 (A). Effect on UV-vis absorbance spectrum of compound 1, upon increasing the concentration of compound used for preparing the nanoaggregates; (B). Effect on fluorescence spectrum of compound 1, upon increasing the concentration of compound used for preparing the nanoaggregates.
Figure S5. Effect on particle size of nanoaggregates, upon increasing the concentration of compound used for preparing the nanoaggregates.

Figure S6. (A) Effect of addition of acid on organic nanomaterial N1 (ONP) (10 µM); (B) Effect of addition of base on organic nanomaterial N1 (ONP) (10 µM).
**Figure S7.** Effect of ionic strength on ONP N1 upon addition of 0-100 equiv. of TBA salt of perchlorate.

**Figure S8.** Change in emission spectra of ONP N1 (10µM) in water on addition of 40µM of TBA salts of anions (F⁻, Cl⁻, Br⁻, I⁻, NO₃⁻, CH₃COO⁻, H₂PO₄⁻, CN⁻, ClO₄⁻, HSO₄⁻).
Figure S9. (A) Effect of addition of acid on hybrid nanomaterial $H_1$ (AuNP+ ONP) (0.1mM); (B) Effect of addition of base on hybrid nanomaterial $H_1$ (AuNP+ ONP) (0.1mM).

Figure S10. Effect of ionic strength on hybrid nanomaterial $H_1$ upon addition of 0- 100 equiv. of TBA salt of perchlorate.