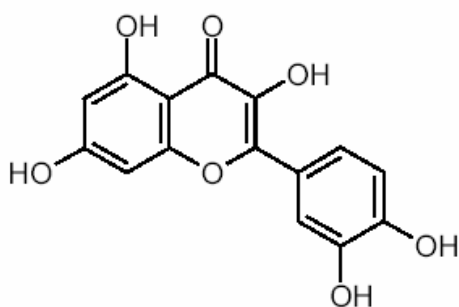


**Supporting Information for**  
**A Backscattering Light Detection Assembly Used for**  
**Sensitive Determination of Analyte Concentrated at**  
**Liquid/Liquid Interface**

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1. Molecular structure of QT:

Fig. S1. Molecular structure of QT.

## 2. The Optimization of the General Procedures:

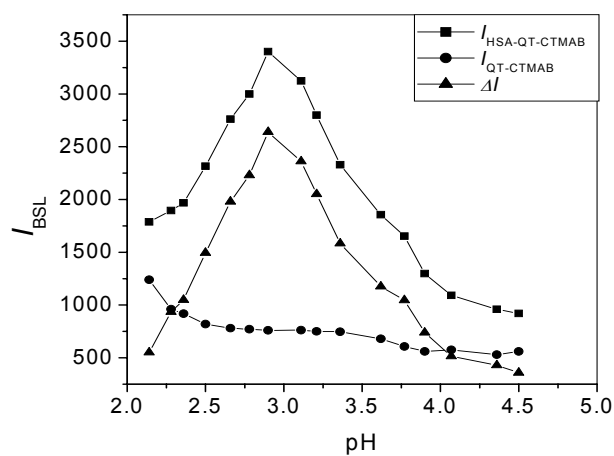


Fig. S2. Effect of pH on BSL intensity of QT-CTMAB-HSA at the  $\text{H}_2\text{O}/\text{CCl}_4$  interface. Concentrations: QT,  $1.6 \times 10^{-5}$  M; CTMAB,  $6.0 \times 10^{-6}$  M. HSA,  $0.5 \mu\text{g}/\text{mL}$ . pH 2.90.

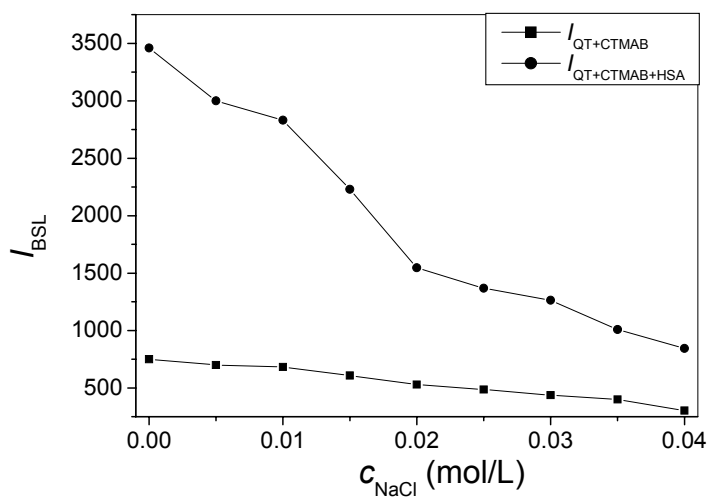


Fig. S3. Effect of ionic strength on the BSL intensity. Concentrations: QT,  $1.6 \times 10^{-5}$  M; CTMAB,  $6.0 \times 10^{-6}$  M; HSA,  $0.5 \mu\text{g}/\text{mL}$ . pH 2.90.

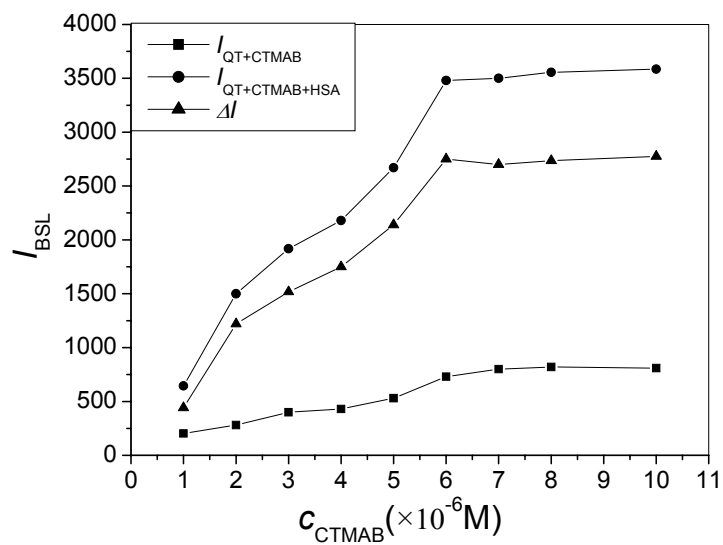


Fig. S4. Effect of surfactant concentration on BSL intensities of the  $H_2O/CCl_4$  interface. Concentrations: QT,  $1.6 \times 10^{-5} M$ ; HSA,  $0.5 \mu g/mL$ . pH 2.90, ionic strength, 0.003 M.