Support Information:

Photoluminescence Sensing of Chloride Ions in Sea Sand Using Alcohol-Dispersed $CsPbBr_3@SiO_2$ Perovskite Nanocrystal Composites

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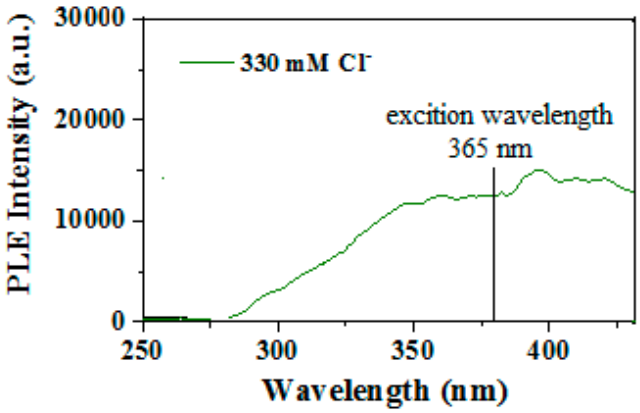

Figure S1. Excitation spectrum of $CsPbBr_3@SiO_2$ PNCCs in the solution of 1.92% (330 mmol/L)） Cl^- ·excitation slit width, 1.5 nm; emission slit width, 5.5 nm, scan rate: 1200 nm·min^{-1}

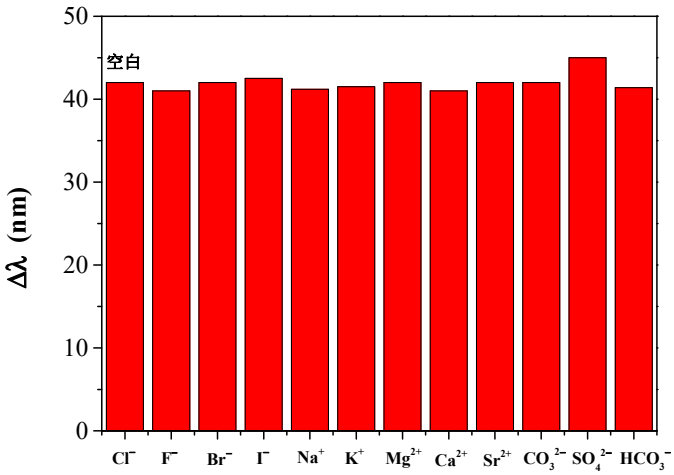

Figure S2. The selectivity investigation on Cl^- determination in sea water based on $CsPbBr_3$@SiO_2 PNCCs halide exchanges with Cl^- (330 mmol/L). The potential coexistent ions in sea water from left to right were 20 μmol/L F^-, 0.7mmol/L Br^-, 5 μmol/L I^-, 300 mmol/L Na^+, 10 mmol/L K^+, 20 mmol/L Mg^{2+}, 10 mmol/L Ca^{2+}, 50 μmol/L Sr^{2+}, 5 mmol/L CO_3^{2-}, 20 mmol/L SO_4^{2-}, 5 mmol/L HCO_3^-.

Table S1. The determination of Cl^- in sea water.

Sample	Concentration of NaCl（%）	RSD （%，n=3）	Added amount （%）*	Obtained（%）	Recovery（%）
1	2,14	3.5	1.00	2.93	93.3
2	2.15	2.8	1,00	3.04	96.6
3	2.12	0.8	1.00	2.91	93.3
4	2.13	11.0	1,00	2.82	90.0
5	2.15	5.3	1.00	2.88	91.6

*1.000 g NaCl was added to each 100 mL seawater sample