

Supporting information

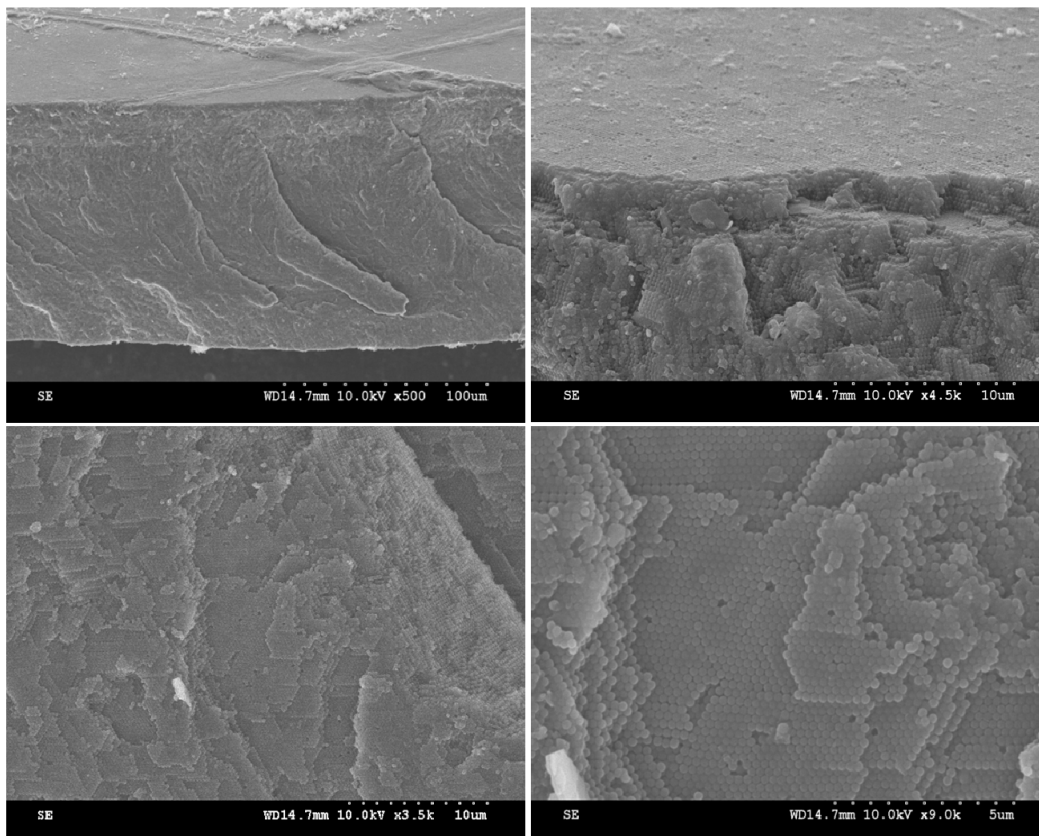


Fig. 1S SEM images (cross-section) of CPCHs

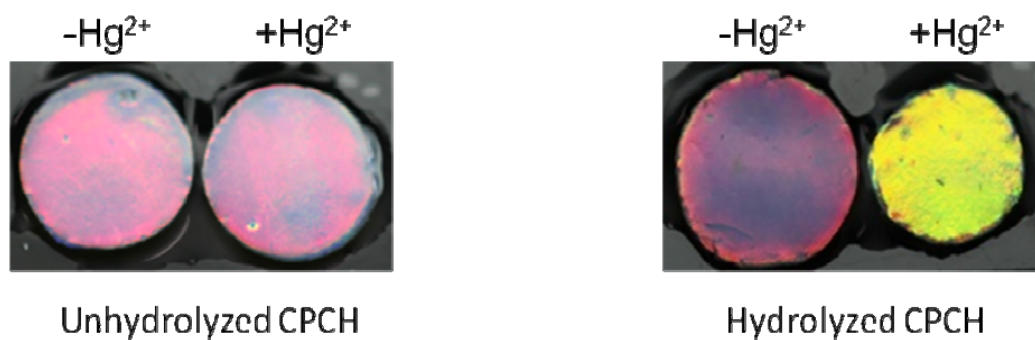


Fig. 2S Control experiment of unhydrolyzed CPCH.

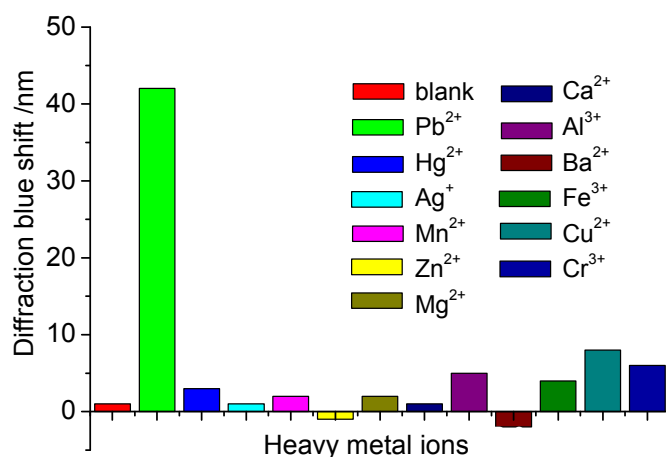


Fig. 3S Effects of various metal ions on Pb²⁺ aptasensor diffraction shift. (1 μ M for Pb²⁺ and 100 μ M each for Hg²⁺, Ag⁺, Mn²⁺, Zn²⁺, Mg²⁺, Ca²⁺, Al³⁺, Ba²⁺, Fe³⁺, Cu²⁺, Cr³⁺).

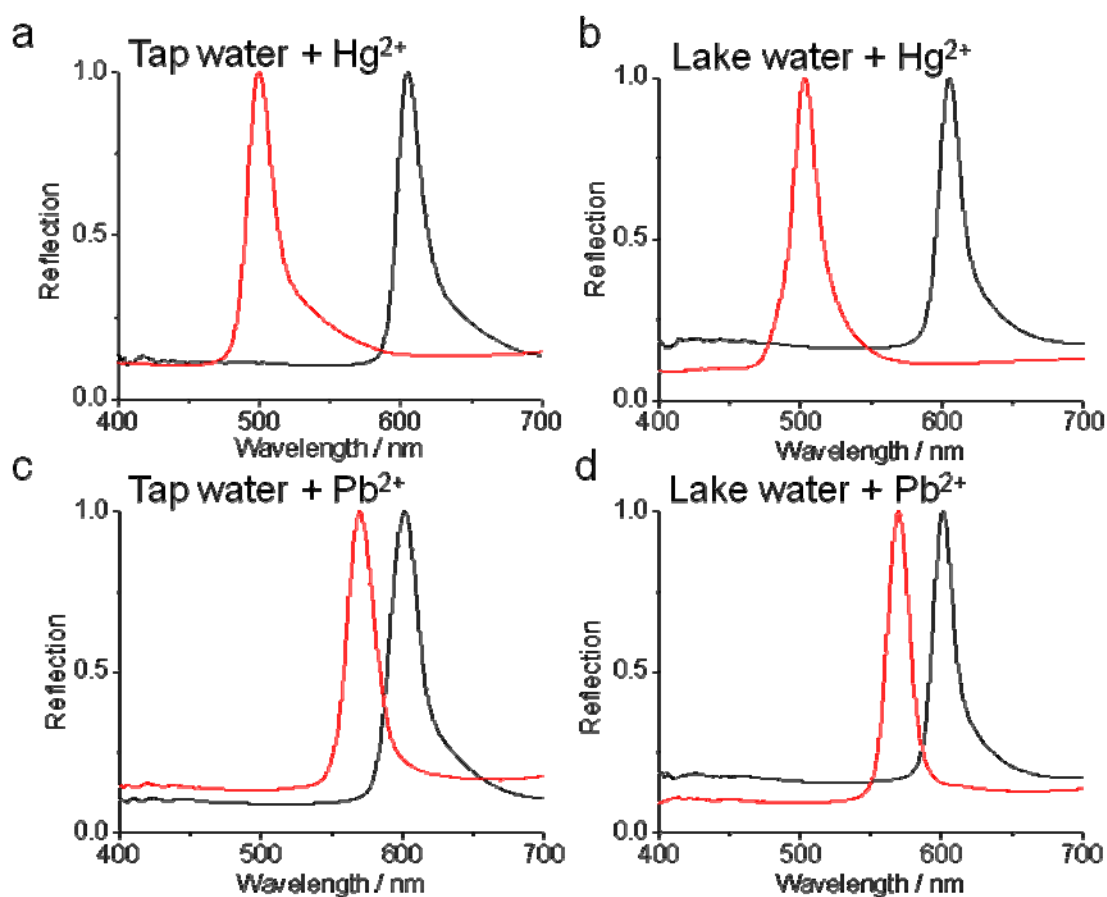


Fig. 4S Diffraction shift of the aptasensor in real water samples. (a) Hg²⁺ aptasensor in simulated tap water. (b) Hg²⁺ aptasensor in simulated lake water. (c) Pb²⁺ aptasensor in simulated tap water. (d) Pb²⁺ aptasensor in simulated lake water.