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Encapsulating quantum dots with amino functionalized mesoporous hollow silica microspheres for the sensitive analysis formaldehyde in seafood

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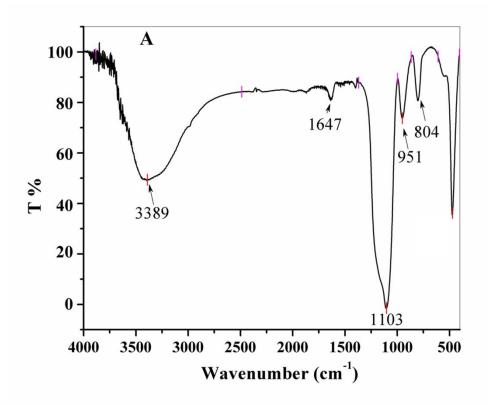
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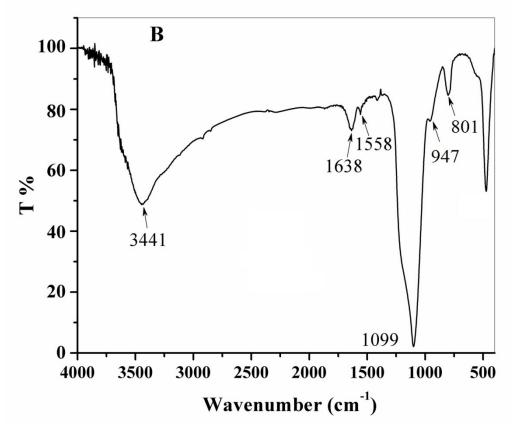
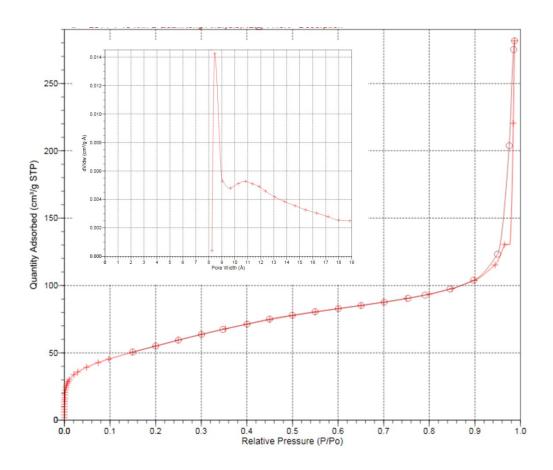


Fig.S1 FT-IR spectra of SiO<sub>2</sub> microsphere (A) and MHSM (B)



 $\label{eq:fig.S2N2} Fig.S2\ N_2\ adsoption-desorption\ isotherms\ of\ MHSM\ (Inset\ is\ the\ related\ pore$  diameter distribution of MHSM)

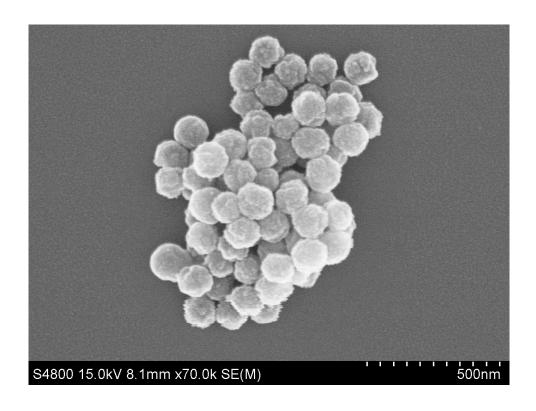


Fig.S3 SEM characterization of QD-MHSMs in real sample analysis

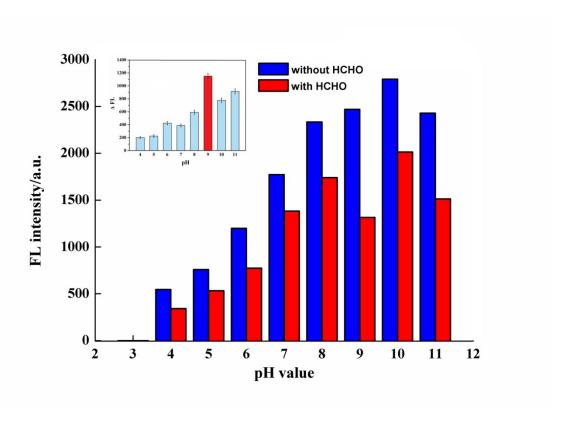


Fig.S4 FL quenching response of QDs-MHSM in the presence of 3.1 mg/L  $formal dehyde \ at \ different \ pH \ values$ 

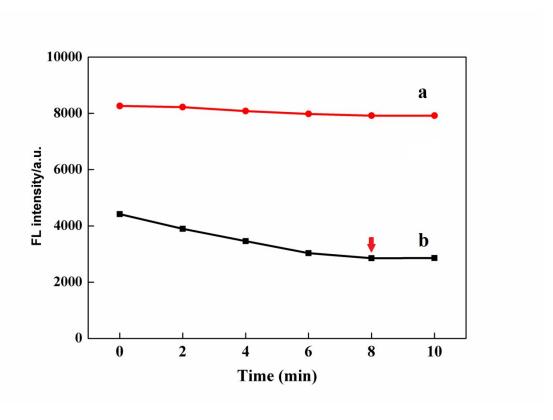


Fig.S5 Time-dependent FL response of QDs-MHSM in the absence (a) and presence (b) of 3.1 mg/L formaldehyde in pH 9 PBS buffer