

Supporting Information

Fiber optic cadmium ion sensor based on functionalization of magnetic ion-imprinted polymer

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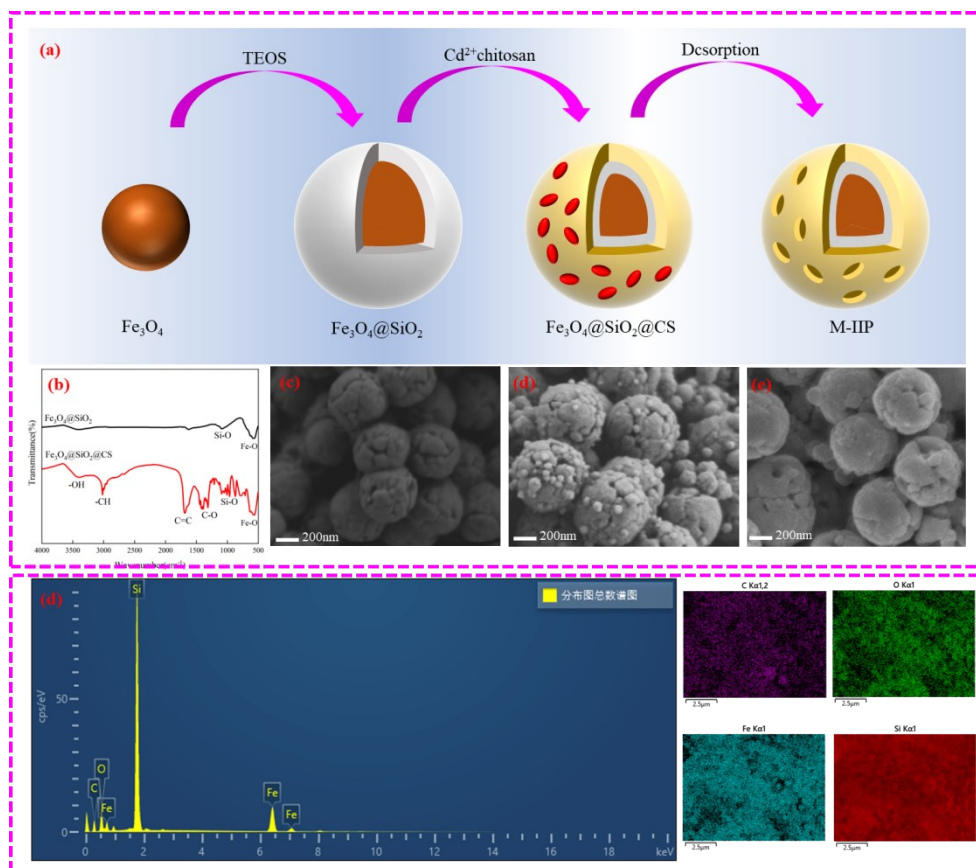


Fig. S1. (a) Preparation steps of M-IIP; (b) infrared spectra of $\text{Fe}_3\text{O}_4@\text{SiO}_2$ and M-IIP.; (c) SEM characterization of N-IIP; (d) SEM characterization of M-IIP(Cadmium addition); (e) SEM characterization of M-IIP(Cadmium removal); (f) EDS characterization of M-IIP(Cadmium removal).

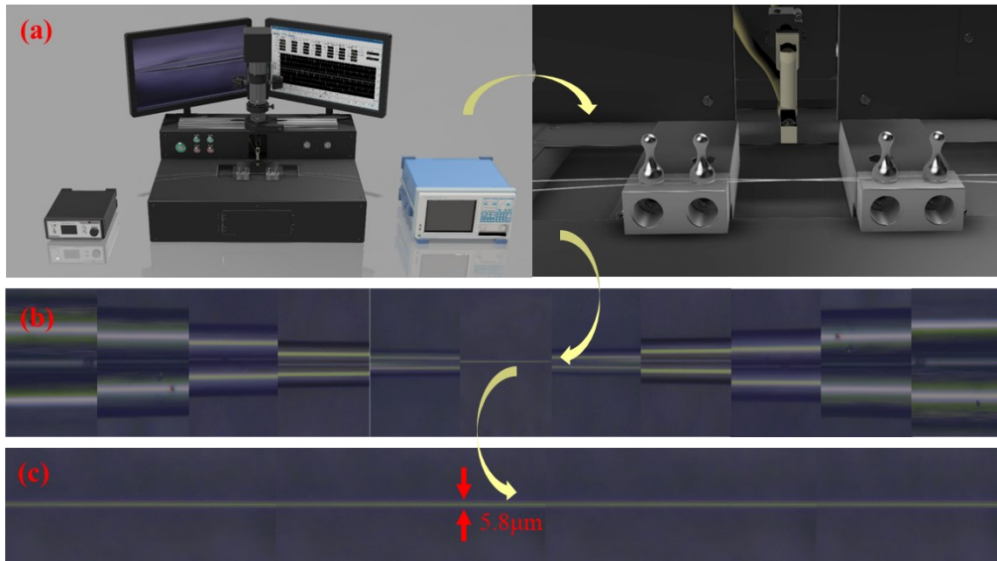


Fig. S2. Schematic diagram of OMC preparation step: (a) OMC preparation platform; (b) structure diagram of OMC; (c) local amplification diagram of the strong coupling area of OMC.

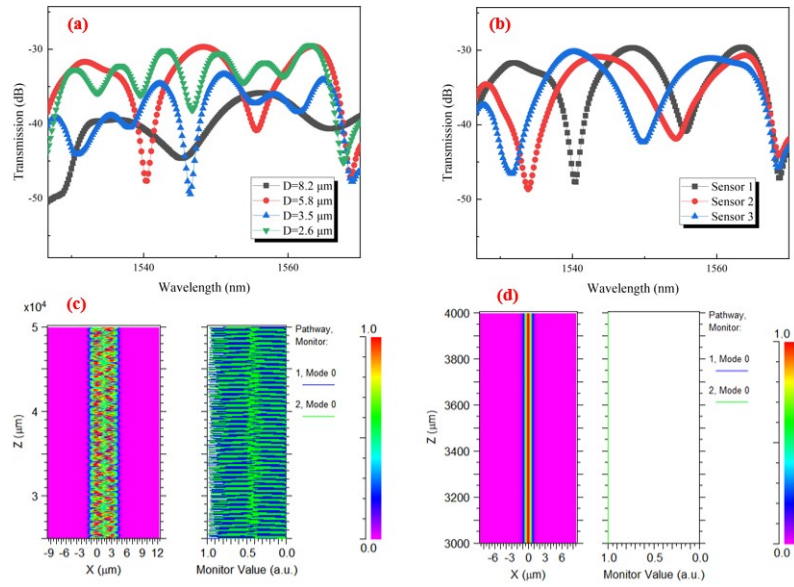


Fig. S3. (a) interference spectrum of the OMC; (b) repeat preparation of sensors; (c) strong coupling phase of the OMC; (d) final coupling stabilization phase of the OMC.

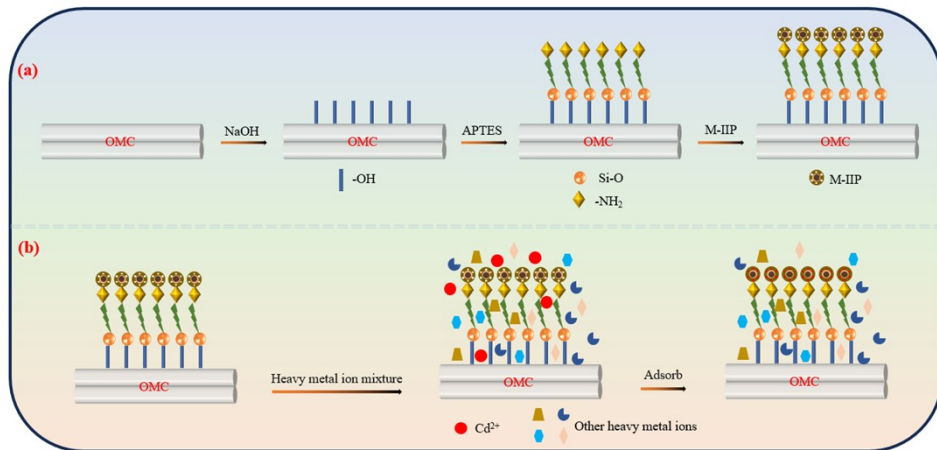


Fig. S4. Functionalization and modification steps of sensitive materials in the OMC coupling zone.

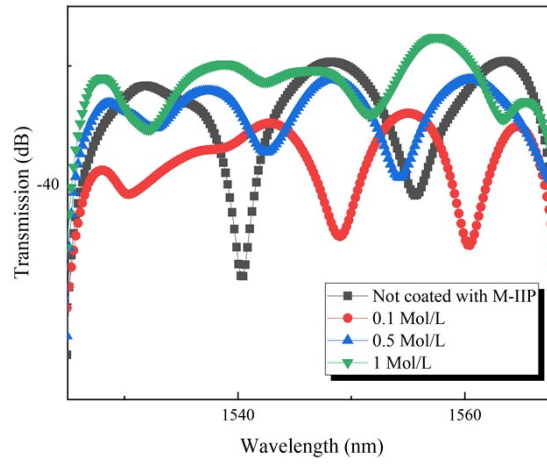


Fig. S5. Interference spectrum changes before and after OMC coating with sensitive materials.