

Supporting Information

Acid-etched Fe/Fe₂O₃ nanoparticles encapsulated into carbon cloth as a novel voltammetric sensor for the simultaneous detection of Cd²⁺ and Pb²⁺

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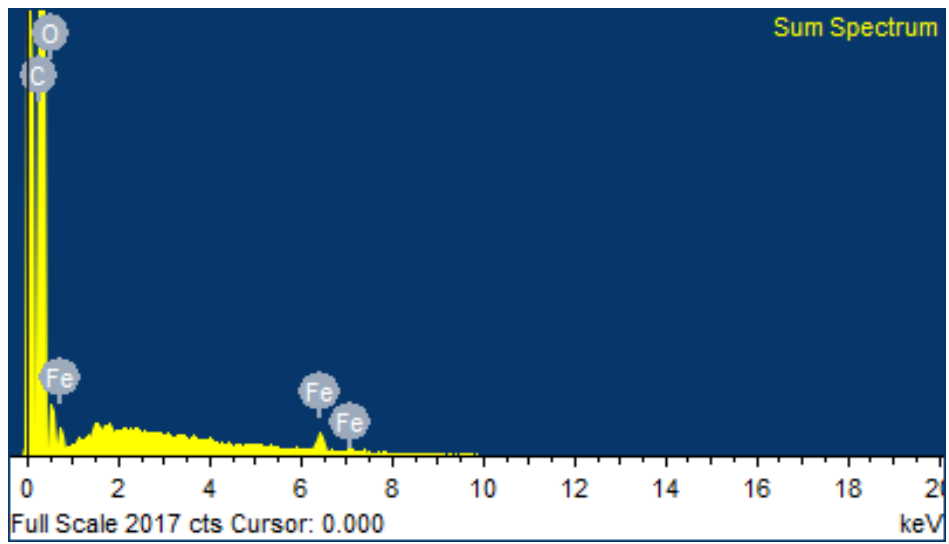


Fig. S1 EDS of ae-Fe/Fe₂O₃@CC.

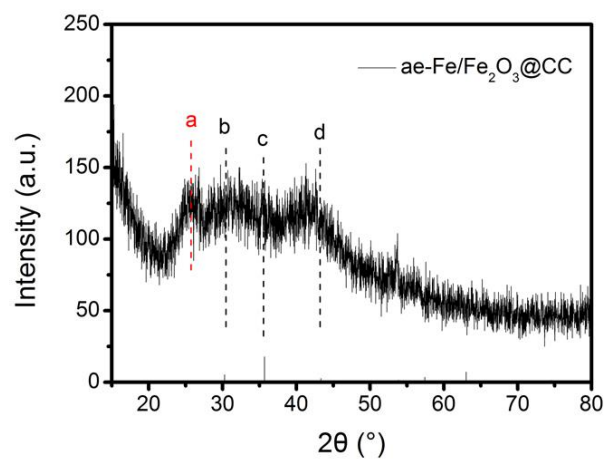


Fig. S2 XRD spectra of ae-Fe/ Fe₂O₃@CC.

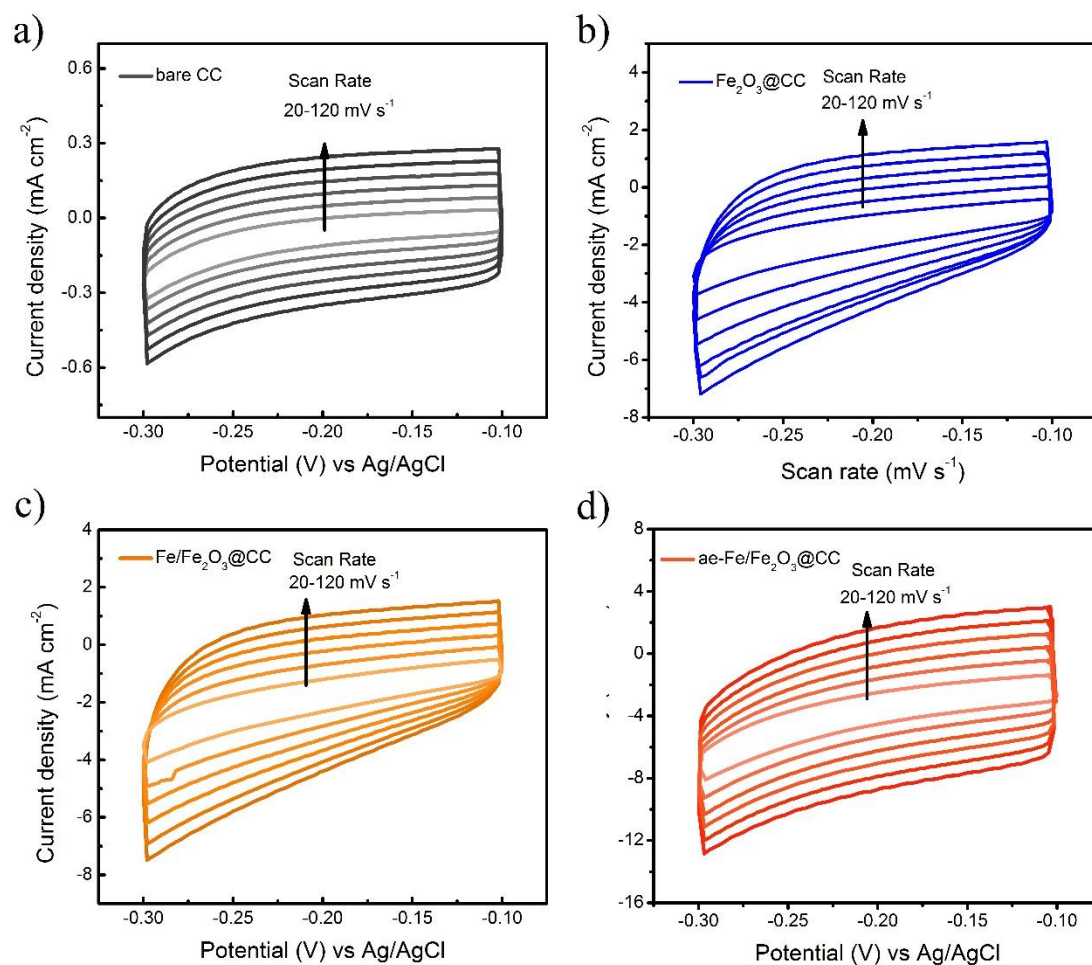


Fig. S3 Voltammograms of the a) bare CC; b) Fe₂O₃@CC, c) Fe/Fe₂O₃@CC and d) ae-Fe/Fe₂O₃@CC at various scan rates (20 - 120 mV s⁻¹) used to estimate the C_{dl} and relative electrochemically active surface area.

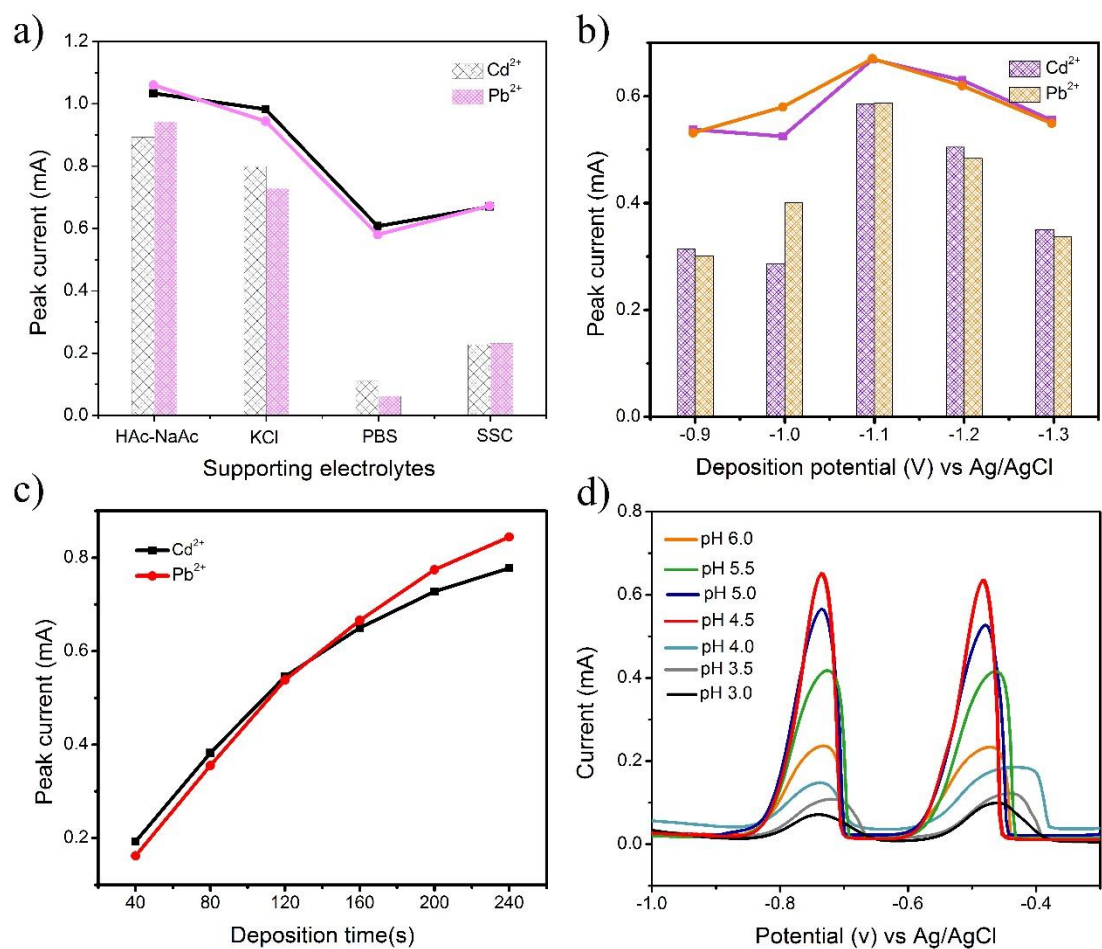


Fig. S4 Experimental condition optimization. Influences of a) supporting electrolyte; b) deposition potential; c) deposition time and d) pH were studied by DPASV with 0.1 M Cd(II) and Pb(II) on the ae-Fe/Fe₂O₃@CC.

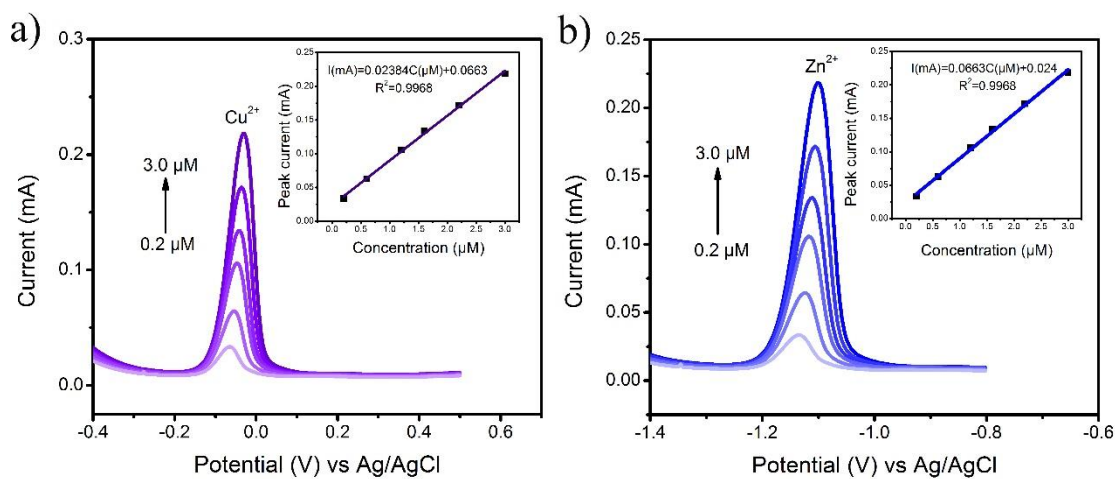


Fig. S5 DPASV responses and linear equations (inset) of ae-Fe/Fe₂O₃@CC toward a) Cu(II), b) Zn(II) under the same experimental conditions.