

Sensitive determination of trace Cd(II) and Pb(II) in soil by an improved stripping voltammetry method using two different in-situ plated bismuth-film electrodes based on a novel electrochemical measurement system

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Fig. S1. Micro-electrolytic cell with (A) the first combined electrode composed of the GCPE working electrode, a Ag/AgCl reference electrode and a Pt-wire counter electrode and (B) the second combined electrode composed of the MWCNT-Nafion/GCE working electrode, a Ag/AgCl reference electrode and a Pt-wire counter electrode.

Fig. S2. (a) SWASV of 20 $\mu\text{g/L}$ Cd(II) and Pb(II) in 20 mL of acetate buffer solution (0.1 M, pH 4.5) at the GCE and Bi/GCE. (b) Stripping current measurements of 20 $\mu\text{g/L}$ Cd(II) and Pb(II) on the Bi/GCE in 0.1 M acetate buffer solution (pH 5.0). The insets correspond to data collected from every SWASV response over eight repetitions. RSD: relative standard deviation; deposition time: 140 s; deposition potential: -1.2 V; Bi(III) concentration: 600 $\mu\text{g/L}$.

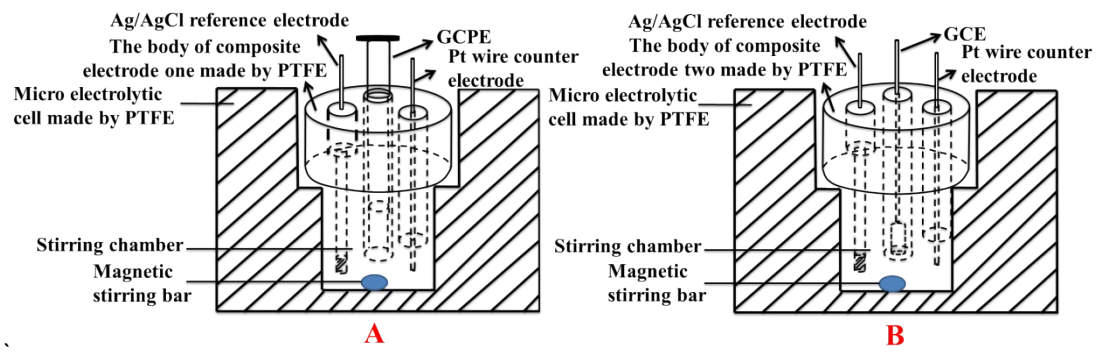


Fig. S1.

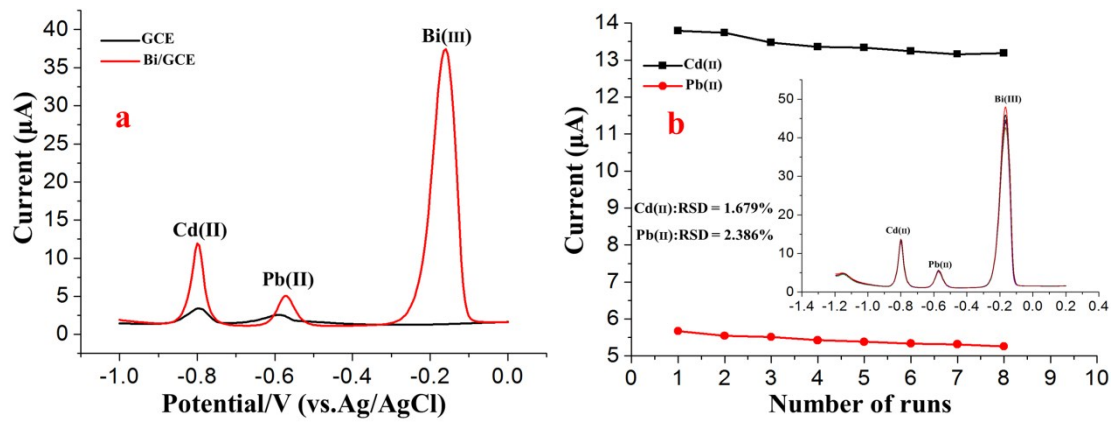


Fig. S2.