Supporting Information

An Electrochemical Sensor Based on Electropolymerization of β-Cyclodextrin on Glassy Carbon Electrode for the Determination of Fenitrothion

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1. The scanning electron microscope images of bare GCE and β-CDP/GCE

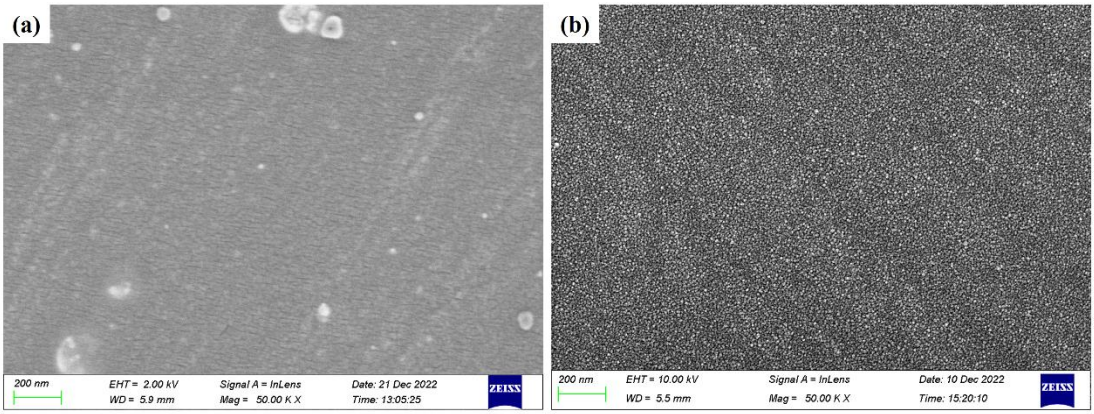

Figure S1. The scanning electron microscope images of bare GCE and β-CDP/GCE: (a) bare GCE; (b) β-CDP/GCE.

2. The EIS measurements of bare GCE and β-CDP/GCE

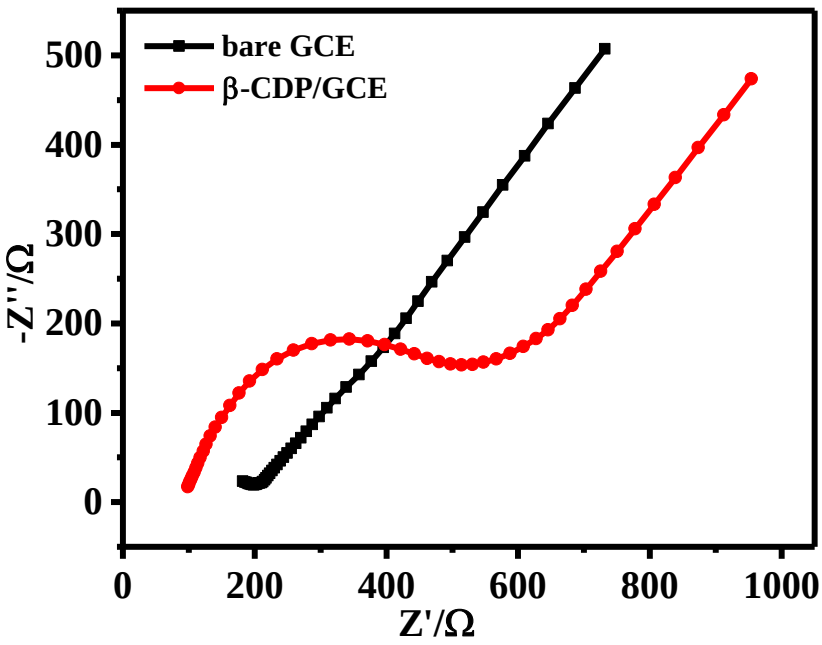

Figure S2. The EIS measurements of bare GCE and β-CDP/GCE in 5.0 mM $K_3[Fe(CN)_6]/K_4[Fe(CN)_6]$(1:1) containing 0.1 M KCl.

3. The effect of scan rate on the $I_{pc,2}$ at β-CDP/GCE

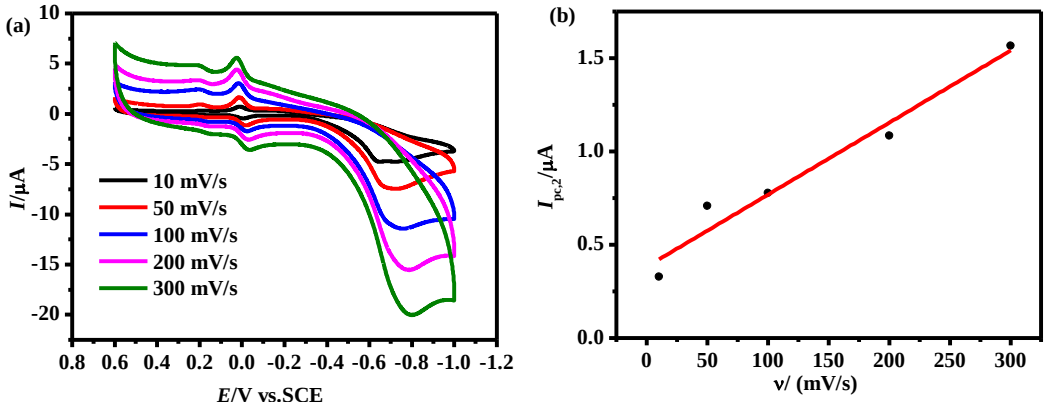

Figure S3. The second CV curves of FNT (2 μg/mL in acetate buffer solution, pH=5.00) with different scan rate (10, 50, 100, 200, 300 mV/s); (b) the plot of the $I_{pc,2}$ against the scan rate (v).

4. The electrochemical response of FNT with different methods

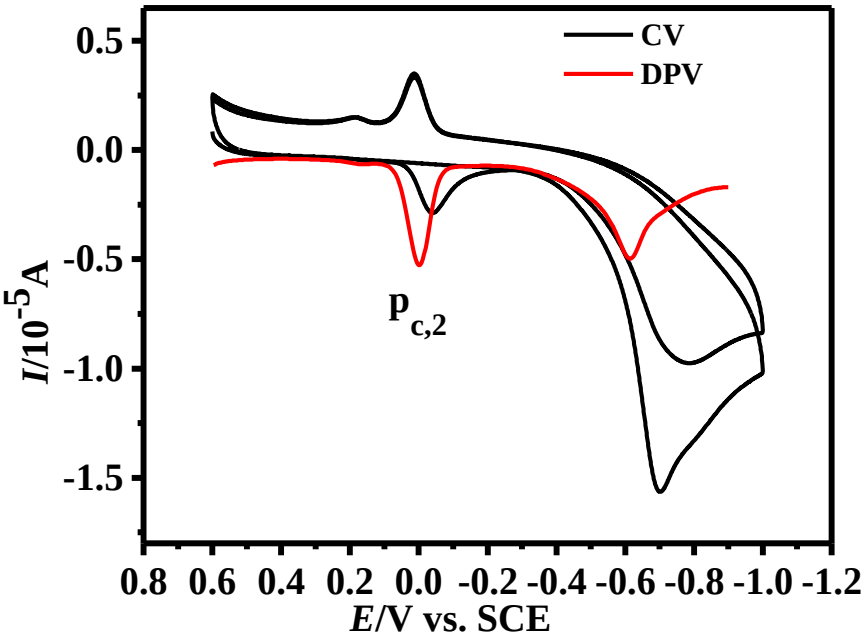

Figure S4. The electrochemical response of FNT (2 μg/mL in acetate buffer solution, pH=5.00) with different methods: (black line) the first 2 CV curve with potential from 0.6 to -1.0 V and scan rate of 50 mV/s; (red line) the third-step DPV curve with potential increment of 13mV, amplitude of 50mV, pulse width of 60ms, sampling width of 20ms, pulse period of 500ms and potential from 0.6 to -0.9 V.

5. The electrochemical behavior of β-CDP/GCE in blank acetate buffer solution

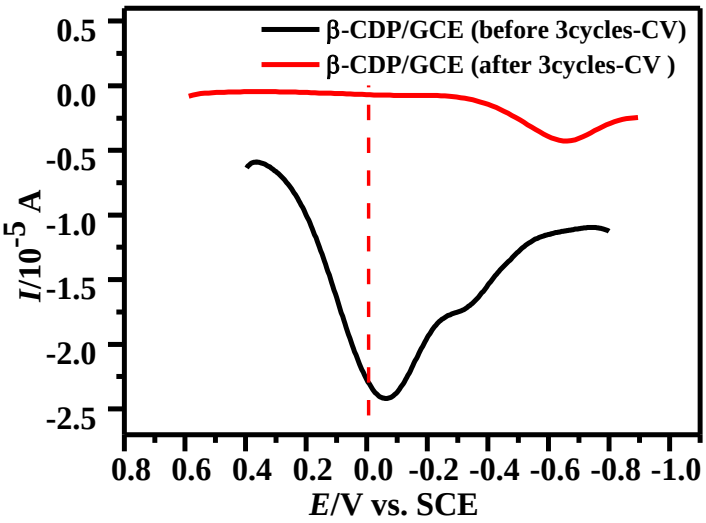

Figure S5. The third-step DPV curves of different electrodes in blank (no FNT) acetate buffer solution (PH=5.00), DPV parameters: potential increment of 13 mV, amplitude of 50 mV, pulse width of 60 ms, sampling width of 20 ms, pulse period of 500 ms and potential from 0.6 to -0.9 V

6. The variation of $I_{pc,2}$ with the accumulation time of every step of DPV method

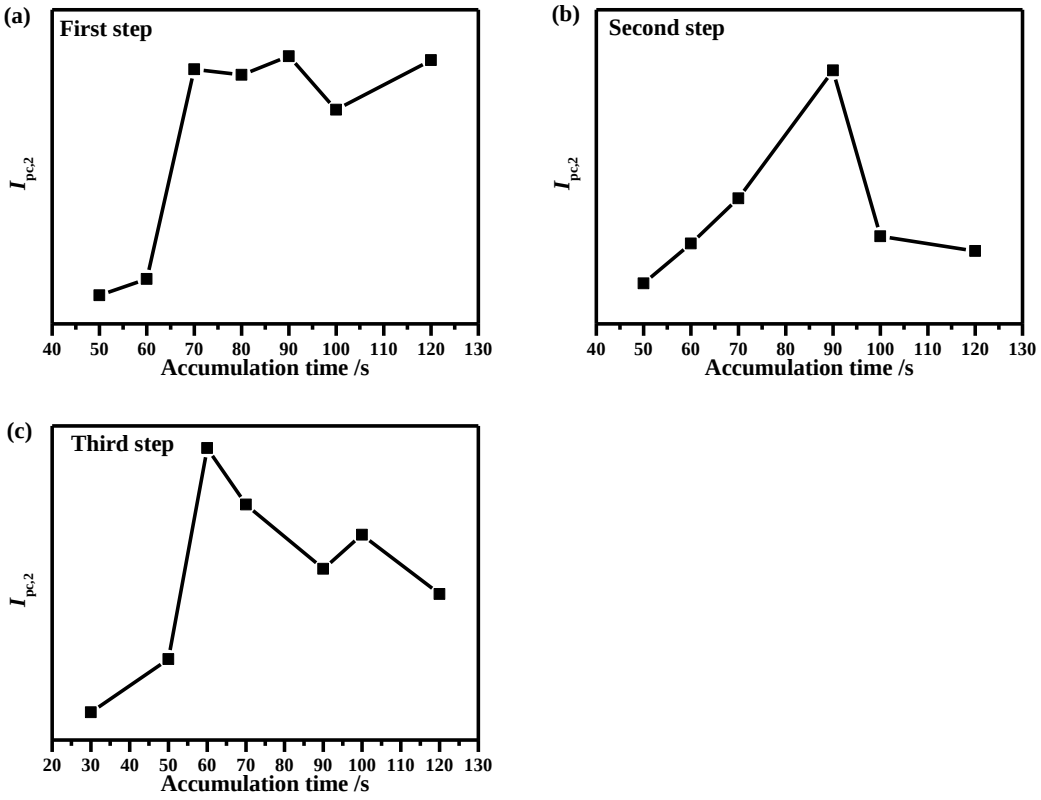

Figure S6. The variation of $I_{pc,2}$ with the accumulation time of every step of DPV method: (a) the first step; (b) the second step; (c) the third step.

7. The variation of $I_{pc,2}$ with potential increment and amplitude

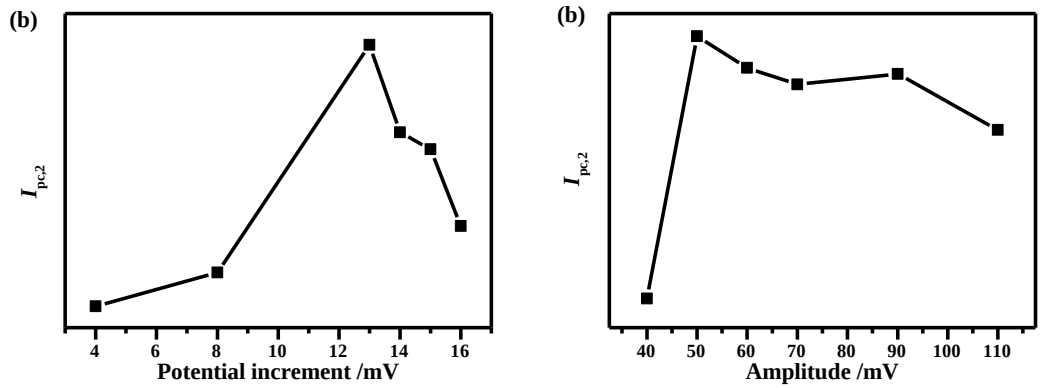

Figure S7. (a) The variation of $I_{pc,2}$ with potential increment; (b) the variation of $I_{pc,2}$ with amplitude.

8. Repeatability and interference

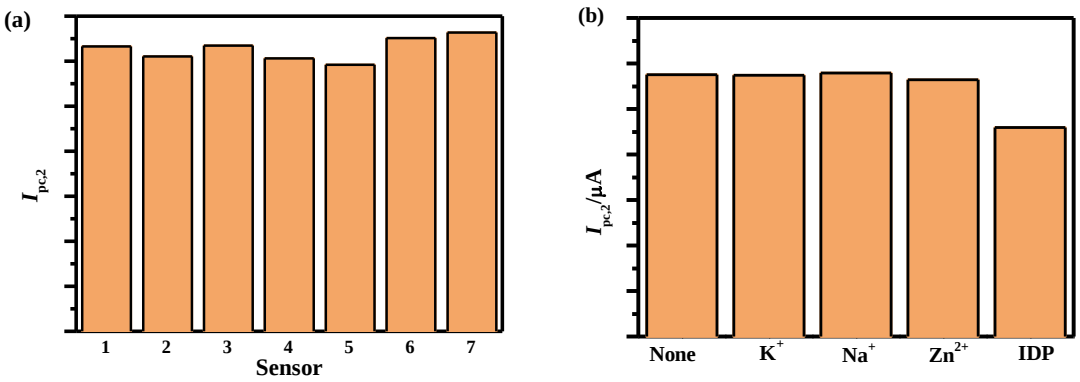

Figure S8. (a) The $I_{pc,2}$ of seven proposed sensors prepared in the same manner; (b) the variation of $I_{pc,2}$ with different interfering compounds.