

**Development of molecularly imprinted electrochemical sensors based
on Fe₃O₄@MWNTs-COOH/CS nanocomposite layers for detecting
traces of acephate and trichlorfon**

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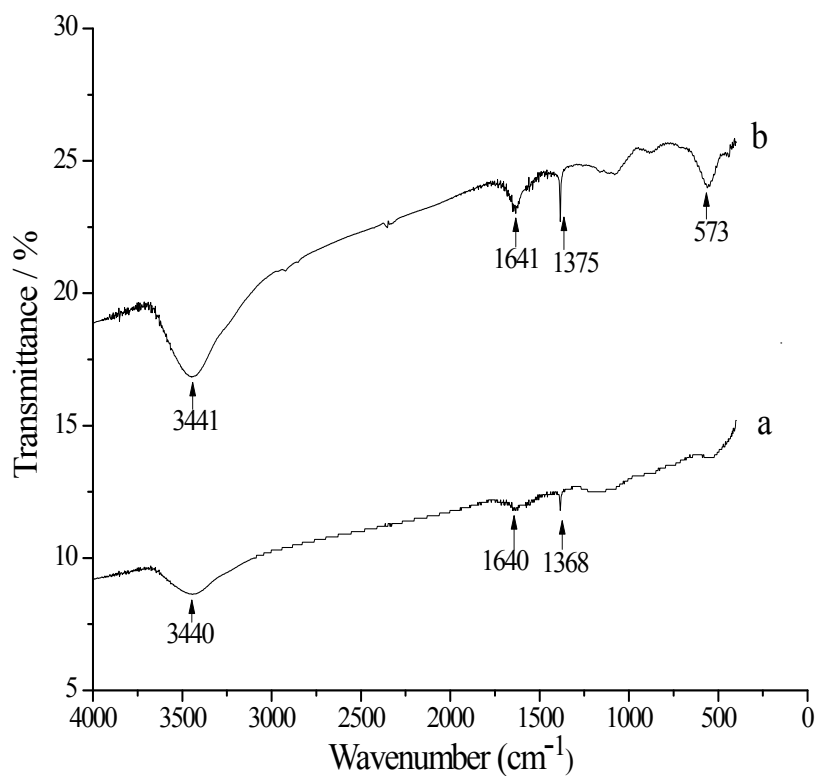


Fig. S1. FT-IR spectra of MWNTs-COOH (a) and Fe_3O_4 @MWNTs-COOH (b)

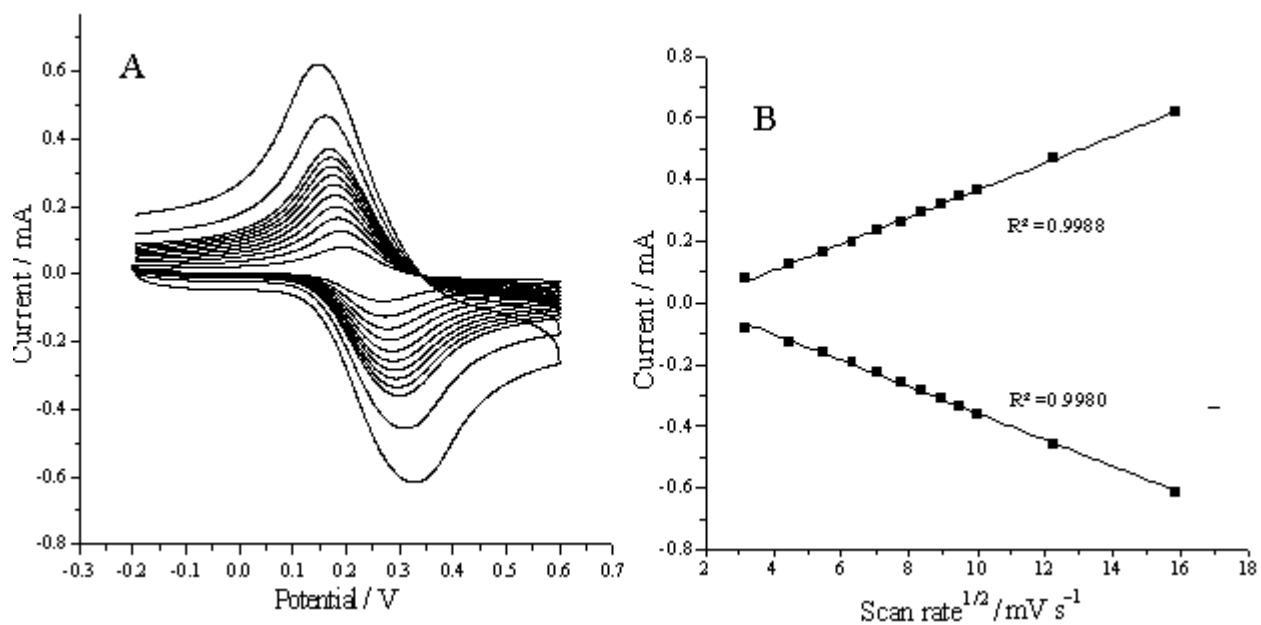


Fig. S2. (A) CV curves of MIP/ Fe_3O_4 @MWNTs-COOH/CS/GCE at different scan rates (from inner to outer): 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 150, 200 and 250 mV s^{-1} in the ORPS. (B)

The relationship between the scan rate and anodic (I_{pa}), cathodic (I_{pc}).

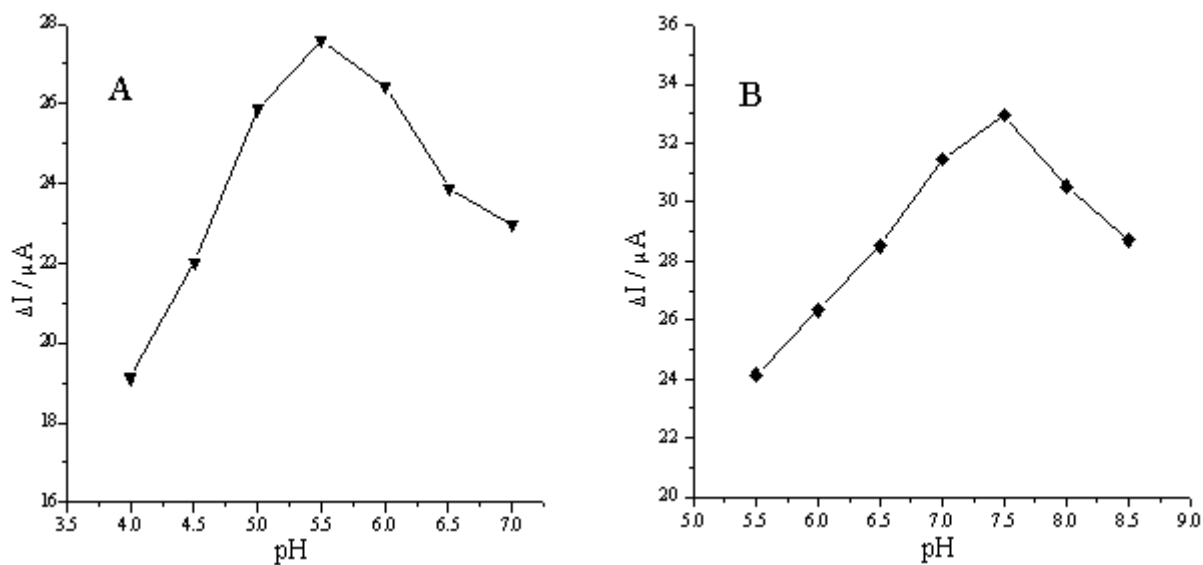


Fig. S3. The influences of the pH of the PBS on the current responses of MIP/Fe₃O₄@MWNTs-COOH/CS/GCE for acephate (A) and trichlorfon (B).

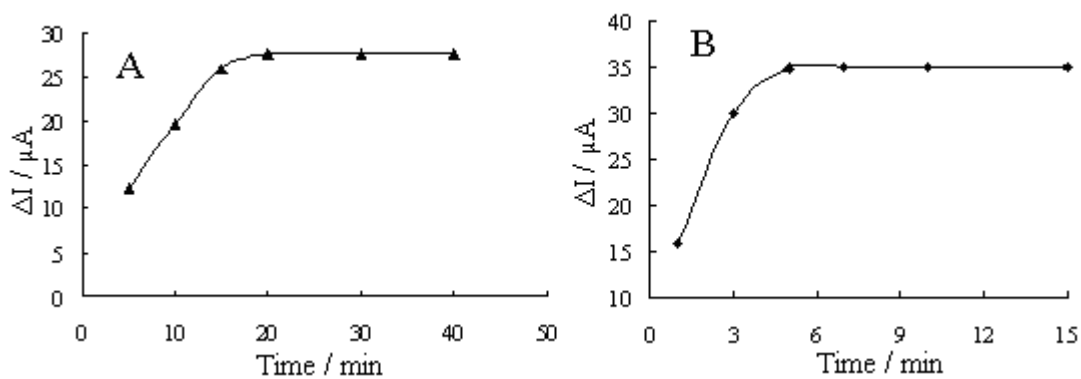


Fig. S4. The influences of accumulation times on the response current of MIP/Fe₃O₄@MWNTs-COOH/CS/GCE for acephate (A) and trichlorfon (B).

Table S1 Repeatability experiments of the MIP sensor.

| | 1 | 2 | 3 | 4 | 5 | RSD |
|----------------------|-------|-------|-------|-------|-------|-------|
| Current (- μA) | 34.82 | 34.07 | 33.41 | 32.40 | 32.62 | 3.01% |

Table S1 The fabrication reproducibility experiments of the MIP sensor.

| | 1 | 2 | 3 | 4 | 5 | 6 | RSD |
|---------------------|-------|-------|-------|-------|-------|-------|-------|
| Current (- μ A) | 33.45 | 36.75 | 34.42 | 33.96 | 32.39 | 35.12 | 4.35% |