Supporting material

The Vital Function of Au-nanoparticles for Hydrolase Biosensor Design and Its Application in Detection of Methyl Parathion

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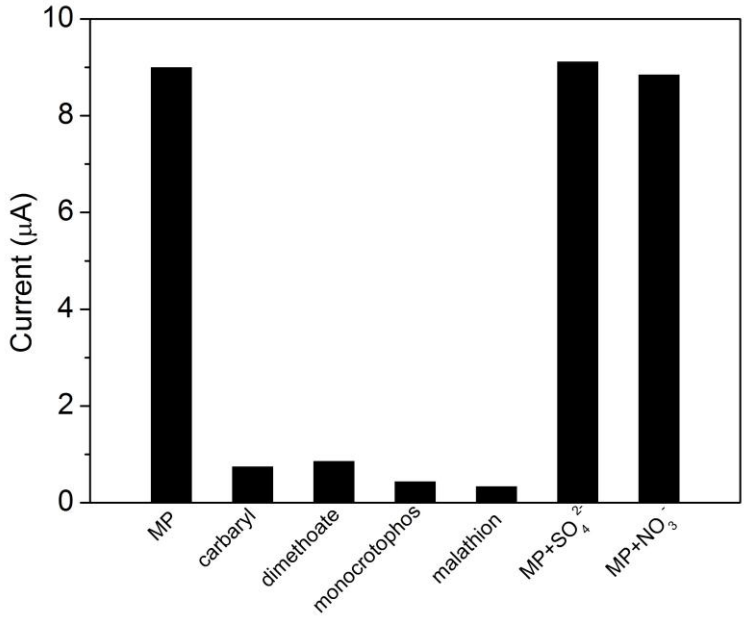

Fig.S1. Amperometric response of various interferences by the MPH/Au-Fe3O4/SPE. Experiments were performed with PBS (pH 7.4) containing 100 ng/mL methyl parathion, 100 ng/mL carbaryl, 100 ng/mL dimethoate, 100 ng/mL moncrotophos, 100 ng/mL malation, and 100 ng/mL methyl parathion in the presence of 0.1 M SO_4^{2-}, and 0.1M NO_3^-, respectively.

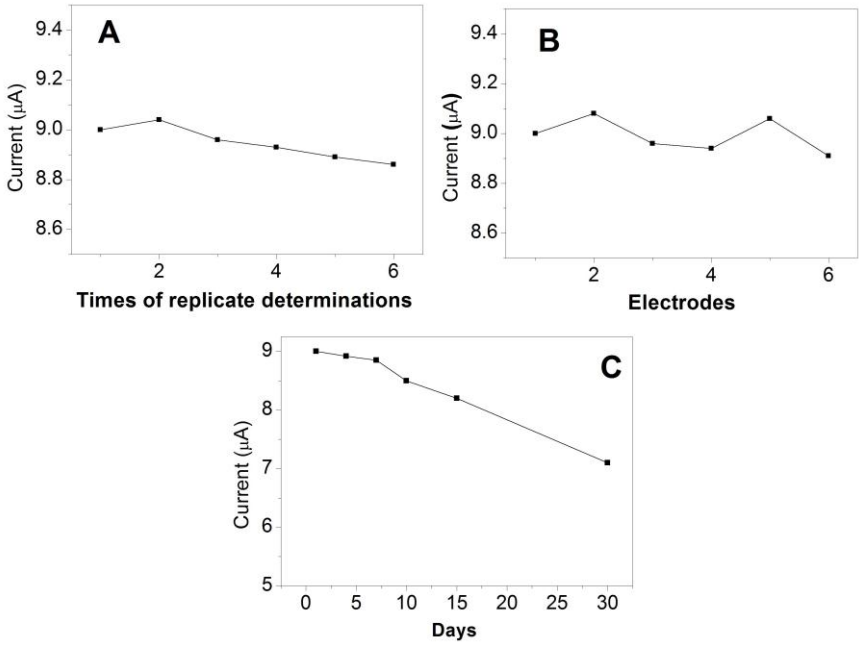

Fig.S2. (A) Six replicate determinations for one MPH/Au-Fe_3O_4/SPE electrode in 100 ng/mL methyl parathion. (B) Reproducibility of the enzyme electrodes. Experiment was done on six different electrodes at the same condition. (C) Stability of the MPH/Au-Fe_3O_4/SPE electrode