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Article

A Metal Organic Framework-Based Light Scattering ELISA for the Detection of Staphylococcal Enterotoxin B

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1. The reaction between ZIF−8 and H_2O_2

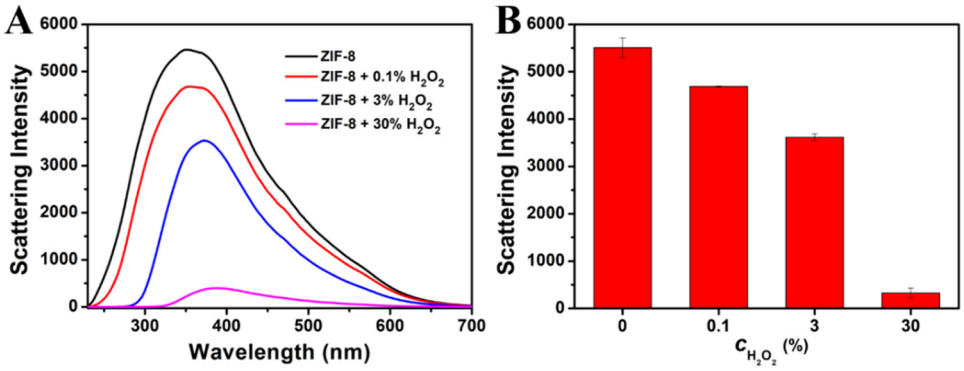

Fig. S1 The reaction between ZIF−8 and H_2O_2. (A) The LS spectrum of ZIF−8 before and after the reaction with H_2O_2. (B) The LS intensity of ZIF−8 before and after the reaction with H_2O_2. Experimental conditions: the concentration of H_2O_2 in A and B was 0.1%, 3%, 30%; reaction time, 70 min; ZIF−8, 50 μg/mL. The error bars represent the standard deviation of three replicates.

2. Requirements for the number of times the board is washed by interfering substances

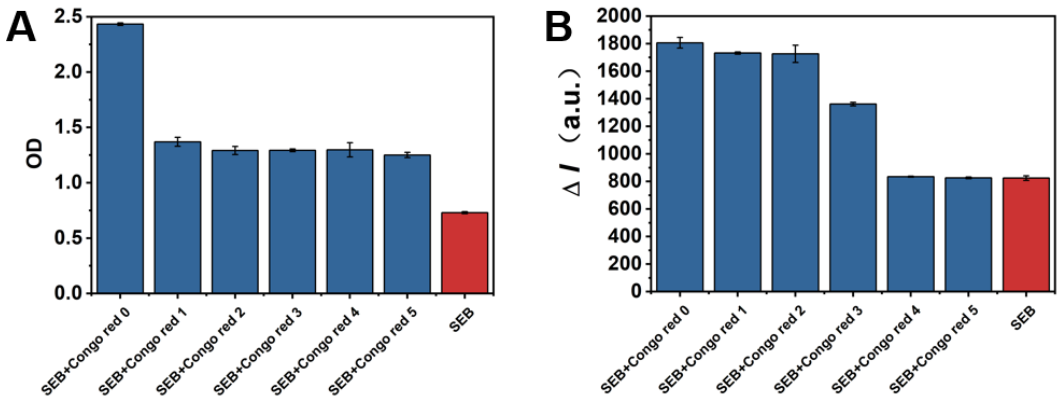

Fig. S2 SEB ELISA test kits test results (A). The concentration of SEB is 5 pg/mL, the concentration of Congo Red is 50 pg/mL. and the light scattering ELISA test results (B). The concentration of SEB is 250 ng/mL, and the concentration of Congo Red is 2500 ng/mL. Among them, 0 to 5 represent the number of times the board is washed; The error bars represent the standard deviation of three replicates.

3. Real sample detection

200 mg skim milk powder dissolved in 1 mL sample diluent. Three different concentrations of SEB were added into the skim milk solutions, orange juice, and fresh milk and then diluted 5 times with sample dilution. The other operations were same with that of SEB detection in standard diluent.