

Supplementary documents

Molecularly imprinted electrochemical sensor for advanced diagnosis of alpha-fetoprotein

Xiaolei Shen, Ya Ma, Qiang Zeng, Jia Tao, Jianzhi Huang, Lishi Wang*

Key Laboratory of Fuel Cell Technology of Guangdong Province, School of Chemistry and Chemical Engineering, South China University of Technology, Guangzhou

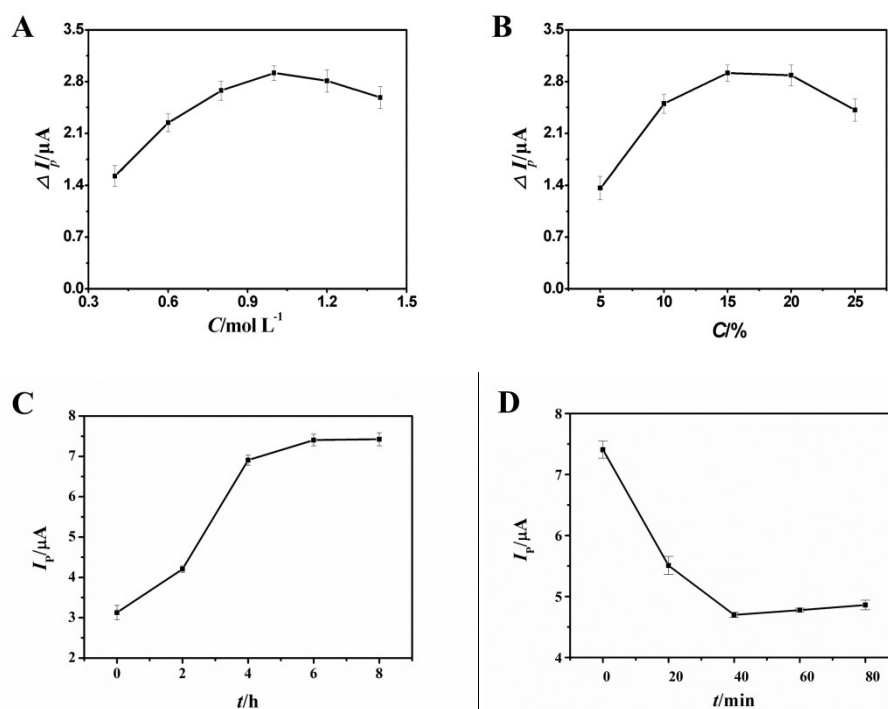


Fig.S1 (A) (B) (C) (D) were the effect of monomer concentration, cross-linker concentration, elution time and reabsorption time, respectively. The DPV assays were performed in PBS buffer (pH 7.4) containing 5.0 mmol L⁻¹ [Fe(CN)₆]^{3-/4-} (1:1) and 0.1 mol L⁻¹ KCl.

Table S1 Comparison of the linear range and the detection limit between the proposed

| Method | Detection scheme | Linear range (ng/mL) | Detection limit (ng/mL) | Reference |
|--------------------|------------------------|-------------------------|----------------------------|--------------|
| MIP ^a | Fluorescence intensity | 3.96 ~ 80 | 0.42 | Karfa., 2016 |
| ECL ^b | ECL intensity | 0.005 ~ 100 | 0.0012 | Zhang., 2015 |
| ECI ^c | SWV ^e | 0.001 ~ 5 | 0.0003 | De., 2015 |
| ELISA ^d | DPV ^f | 0.05 ~ 100 | 0.02 | Liu., 2013 |
| ECI | DPV | 0 ~ 150 | 0.74 | Yu., 2004 |
| MIP | DPV | 0.8 ~ 10000 | 0.096 | This work |

and previously reported electrochemical methods for AFP determination

*a- Molecularly imprinted polymer, b- Electrochemiluminescence, c- Electrochemical immunoassay, d- Enzyme-linked immunosorbent assay, e- Square wave voltammetry, f- Differential pulse voltammetry

References

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