

Supporting information

Simple, Low-Cost and Sensitive Electrochemical Sensing of Antineoplastic Drug Amethopterin Based on Nanocarbon Black Modified Electrode

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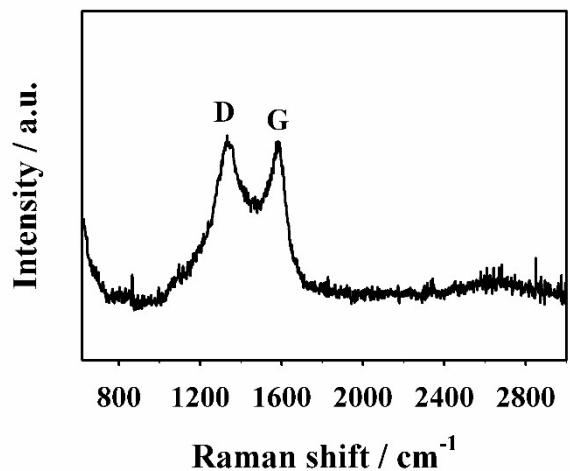


Figure S1. The Raman spectrum of CB.

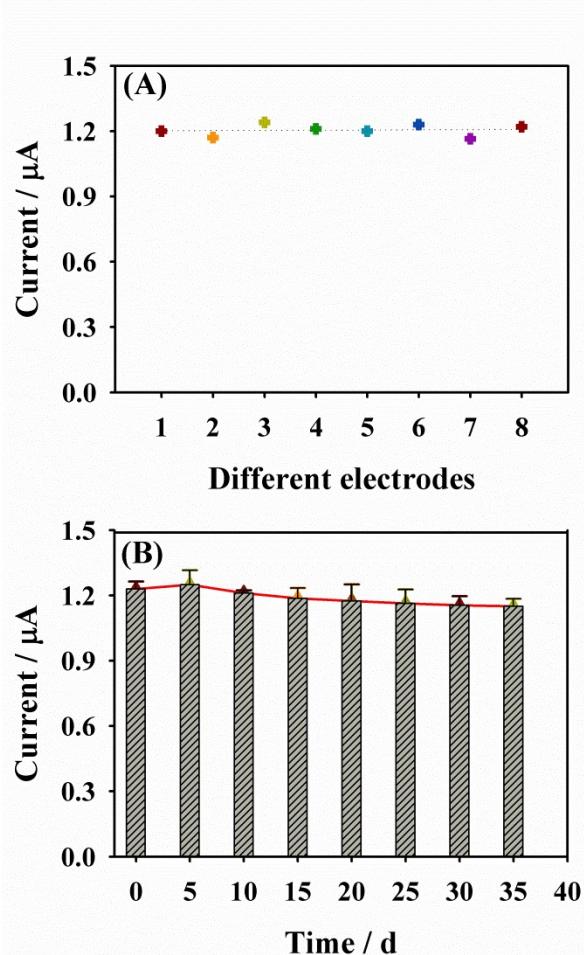


Figure S2. The DPV peak current value of $2.0 \mu\text{M}$ ATP measured in 0.1 M PBS (pH 6.5) (A) at independently fabricated NCB/GCE and (B) with different storage times.

Table S1. Comparison of different modified electrodes for the electrochemical determination of ATP.

Modified electrodes	Linear range [μM]	LOD [μM]	Reference
Surfactant modified carbon nanotube paste electrode	0.2-7.0	0.035	1
Functionalized carbon nanotube paste electrodes	0.01-1.5	0.0029	2
Biopolymers blend films/indium tin oxide	1.5-50.0	0.595	3
Ce-ZnO/GCE	0.01-500.0	0.0063	4
N-doped hollow nanocarbon sphere/GCE	0.05-14.0	0.01	5
Porous graphene-carbon nanotube/GCE	0.7-10.0	0.07	6
Carbon black/cooper nanoparticles/nafion/GCE	2.2-25.0	0.09	7
CoFe ₂ O ₄ /reduced graphene oxide/ionic liquid/GCE	0.1-7.5	0.02	8
NCB/GCE	0.01-10.0	0.004	This work

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Table S2. The results of recovery analysis for detecting ATP in blood serum sample based on NCB/GCE and their comparison with HPLC technique.

Samples	Added [μM]	Found [μM]	Recovery [%]	HPLC
a	1.0	0.95	95.0	0.95
b	4.0	4.16	104.0	4.10
c	8.0	7.83	97.88	7.76