

The electrochemical sensor of dopamine based on polydopamine
modified reduced graphene oxide anchored with tin dioxide and gold
nanoparticles

Xiaoqing Cui^a, Xian Fang^a, Hong Zhao^{a*}, Zengxi Li^{1*}, Hongxuan Ren^{b*}

^a *School of Chemistry and Chemical Engineering, University of Chinese Academy of Sciences, 19A*

YuQuan Road, Beijing 100049, China

^b *National Center for Nanoscience and Technology of China, Beijing, 100080, China*

* Corresponding author: Tel.: +86-10-88256827. E-mail address: hongzhao@ucas.ac.cn (H. Zhao);

lizengxi@ucas.ac.cn (Z. Li); bruseren@nanoctr.cn (H. Ren).

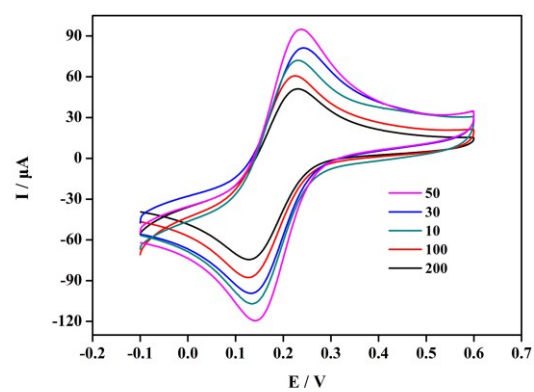


Fig. S1 CVs of potassium ferricyanide solution containing 0.1 M KCl and 5 mM $K_3[Fe(CN)_6]$ at pRGO/AuNPs nanomaterials modified electrode. pRGO/AuNPs nanomaterials were prepared from 10 μ L, 30 μ L, 50 μ L, 100 μ L, 200 μ L $HAuCl_4 \cdot 4H_2O$ (0.02 mM) solution and 6 mL pRGO solution, respectively, scan rate, 100 $mV s^{-1}$.

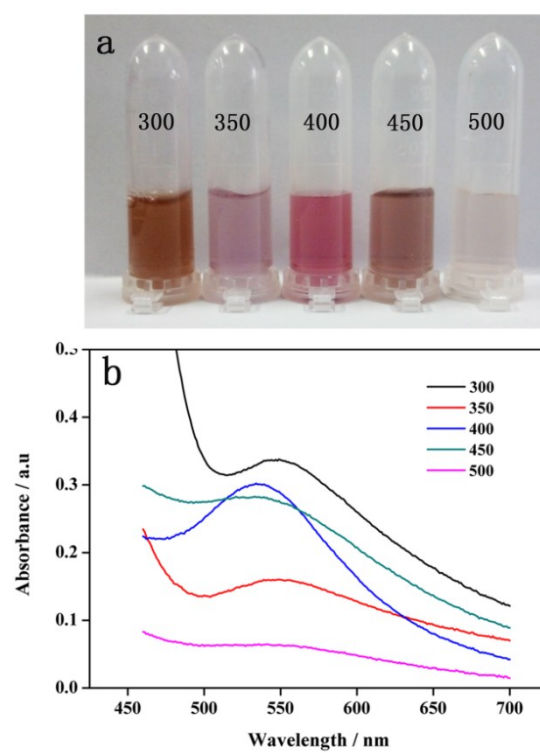


Fig. S2 (a) Photographs and (b) UV-vis absorption spectra SnO₂/AuNPs nanomaterials prepared from 50 μL HAuCl₄·4H₂O (0.02 mM) solution and 300 μL, 350 μL, 400 μL, 450 μL, 500 μL SnCl₂·2H₂O (0.01 mM) solution, respectively.

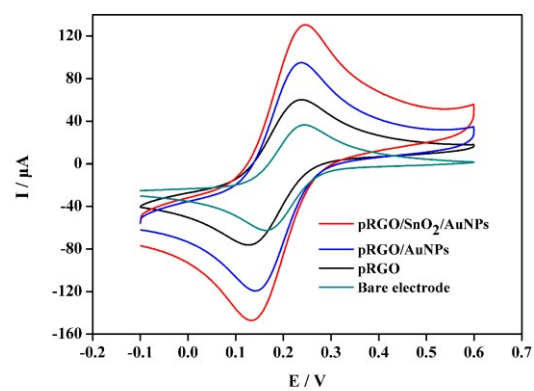


Fig. S3 CVs of potassium ferricyanide solution containing 0.1 M KCl and 5 mM $K_3[Fe(CN)_6]$ at bare GCE, pRGO/GCE, pRGO/AuNPs/GCE and pRGO/SnO₂/AuNPs/GCE, scan rate, 100 mV s⁻¹;