Supporting Information:

Highly-sensitive epinephrine sensors based on organic electrochemical transistors with carbon nanomaterials modified gate electrodes

Chun Hin Mak, Caizhi Liao, Ying Fu, Meng Zhang, Chun Yin Tang, Y. H. Tsang, H.L.W. Chan and Feng Yan*

Department of Applied Physics, The Hong Kong polytechnic University, Kowloon, Hong Kong, China. * E-mail: <u>apafyan@polyu.edu.hk</u>

Figures:



Figure S1. (a) Transfer curves (I_{DS} - V_G) of an OECT with a Pt gate electrode characterized in PBS solution before and after the addition of epinephrine with the concentration of 10 μ M. (2) Output curves (I_{DS} - V_{DS} at different V_G) of the OECT characterized in PBS solution.



Figure S2. (a-e) AFM images of Pt gate electrodes modified with different films, including (a) 1.2µm thick Nafion; (b) 2.3µm thick Nafion; (c) Nafion+SWNT composite; (d) Nafion+Gr composite; (e) Nafion+GO composite.



Figure S3. Normalized current responses of the OECT with a Nafion/SWCN modified Pt gate to additions of (a) uric acid (UA) and (b) ascorbic acid (AA) measured at $V_{DS}=0.1$ V and $V_G=0.6$ V.