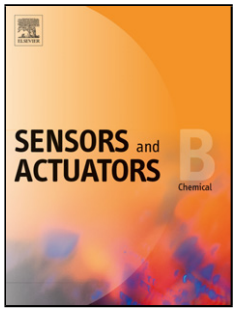


Title: ZnO nanosheet balls anchored onto graphene foam for electrochemical determination of dopamine in the presence of uric acid

Authors: Shuo Huang, Shanshan Song, Hongyan Yue, Xin Gao, Bao Wang, Erjun Guo

PII: S0925-4005(18)31653-8
DOI: https://doi.org/10.1016/j.snb.2018.09.040
Reference: SNB 25346

To appear in: *Sensors and Actuators B*

Received date: 15-3-2018
Revised date: 22-8-2018
Accepted date: 9-9-2018

Please cite this article as: Huang S, Song S, Yue H, Gao X, Wang B, Guo E, ZnO nanosheet balls anchored onto graphene foam for electrochemical determination of dopamine in the presence of uric acid, *Sensors and amp; Actuators: B. Chemical* (2018), https://doi.org/10.1016/j.snb.2018.09.040

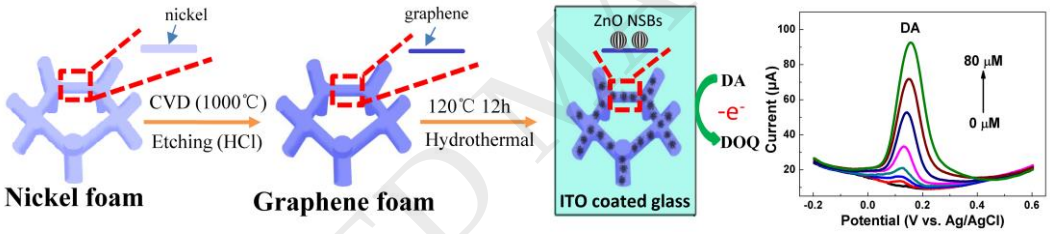
ZnO nanosheet balls anchored onto graphene foam for electrochemical determination of dopamine in the presence of uric acid

Shuo Huang[1,2,*], Shanshan Song[2], Hongyan Yue[2], Xin Gao[2], Bao Wang[2], Erjun Guo[2]

[1] Department of Neurology, The First Affiliated Hospital of Harbin Medical University, Harbin 150001, People's Republic of China

[2] School of Materials Science and Engineering, Harbin University of Science and Technology, Harbin 150040, People's Republic of China

Graphical abstract



Highlights

- Graphene foam (GF) prepared by chemical vapor deposition using nickel foam as the template.
- ZnO NSBs were synthesized on the GF (ZnO NSB/GF) by a hydrothermal process.
- The hybrid ZnO NSB/GF demonstrates a high sensitivity of 0.99 $\mu A \cdot \mu M^{-1}$ for the detection of dopamine.
- The electrode exhibits a low limit of detection and excellent selectivity,