Electronic Supplementary Material (ESI) for Inorganic Chemistry Frontiers.


# 3D graphene foam/ZnO nanorods array mixed-dimensional heterostructure for photoelectrochemical biosensing

Zhuo Kang[a], Yong Li[a], Shiyao Cao[a], Zihan Zhang[a], Huijing Guo[a], Pingwei Wu[a], Lixin Zhou[a], Suicai Zhang[a], Jing Wu[a], Xiaomei Zhang[b], Yue Zhang[a,c,*]

[a]*State Key Laboratory for Advanced Metals and Materials, School of Materials Science and Engineering, University of Science and Technology Beijing, Beijing 100083, China*

[b]*Department of Mechanical Engineering, Tokyo Institute of Technology, Tokyo, Japan*

[c]*Key Laboratory of New Energy Materials and Technologies, University of Science and Technology Beijing, Beijing 100083, China*

[*]*Corresponding author: The Beijing Municipal Key Laboratory of New Energy Materials and Technologies, University of Science and Technology Beijing, Beijing, 100083, China.*

E-mail: yuezhang@ustb.edu.cn (Y. Zhang)

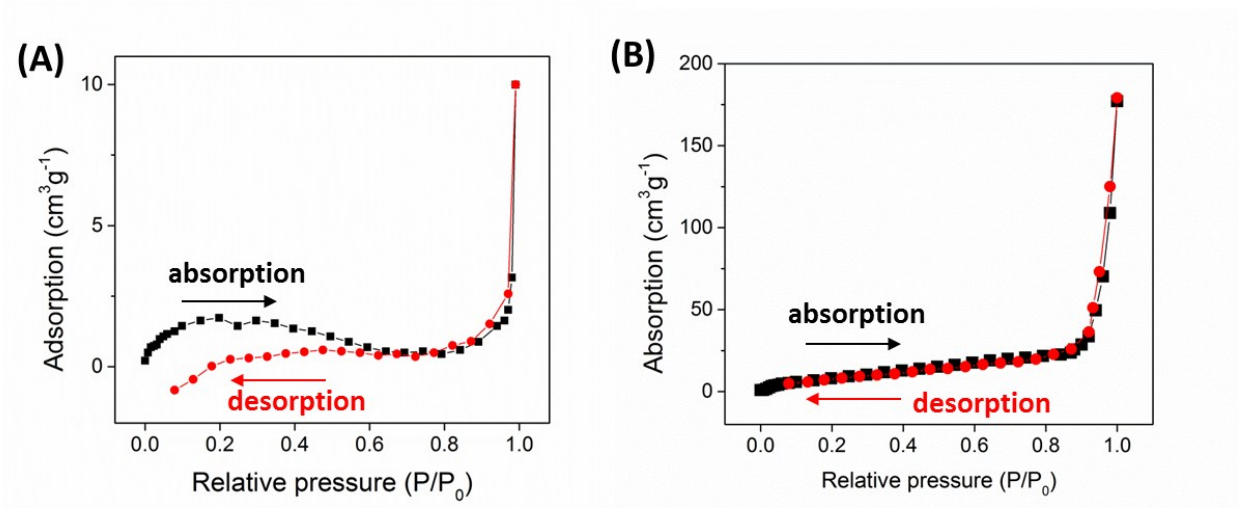


**Figure S1**. Brunauer-Emmett-Teller (BET) nitrogen adsorption/desorption characteristics of pristine 3DGF (A)and 3DGF/ZnO (B), respectively. The specific surface area of 3DGF is 5.7 $m^2g^{-1}$, while it changed to 39.2 $m^2g^{-1}$ after synthesis of ZnO NRs array. The results demonstrated the significant surface area increase for 3DGF/ZnO compared with pristine 3DGF.