Electronic Supplementary Information

## Facile synthesis of three-dimensional Pt-Pd alloyed multipods with enhanced electrocatalytic activity and stability for ethylene glycol oxidation

Jing-Jing Lv, Li-Ping Mei, Xuexiang Weng, Ai-Jun Wang\*, Li-Li Chen, Xiang-Feng Liu, Jiu-Ju Feng\*

College of Geography and Environmental Science, College of Chemistry and Life Science, Zhejiang Normal University, Jinhua 321004, China

\*Corresponding Author: Tel./Fax:+86 579 82282269. Email: ajwang@zjnu.cn (AJW); jjfeng@zjnu.cn (JJF).



**Figure S1** TEM images of the products collected in the absence of EG (A) and using DMF instead of EG (B).



**Figure S2** TEM images of the products collected without (A), and with 1.32 M (B) and 4.37 M (C) *N*-methylimidazole.



Figure S3 TEM image of the product collected by only using  $PdCl_2$  as the precursor.

![](_page_4_Picture_0.jpeg)

Figure S4 TEM image of the product collected by using  $Pt(acac)_2$  and  $Pd(acac)_2$  as the precursors.

![](_page_5_Figure_0.jpeg)

**Figure S5** CO-stripping voltammograms of the Pt-Pd multipods (A), Pt black (B), and Pd black (C) catalyst-modified electrodes in 0.5 M  $H_2SO_4$  at a scan rate of 50 mV s<sup>-1</sup>. The ECSA (D) of Pt-Pd multipods (a), Pt black (b), and Pd black (c).

![](_page_6_Figure_0.jpeg)

Figure S6 CVs of the Pt-Pd multipods (curve a), Pt black (curve b), and Pd black (curve c) catalyst-modified electrodes in  $0.5 \text{ M H}_2\text{SO}_4$  at a scan rate of 50 mV s<sup>-1</sup>.

![](_page_7_Picture_0.jpeg)

Figure S7 TEM images of Pt black and Pd black.