

# Supporting information

## **Green synthesis of graphene-PtPd alloy nanoparticles with high electrocatalytic performance for ethanol oxidation**

*Xiaomei Chen,<sup>\*a,c</sup> Zhixiong Cai<sup>b</sup>, Xi Chen<sup>\*b</sup> and Munetaka Oyama<sup>c</sup>*

<sup>a</sup>*College of Biological Engineering, Jimei University, Xiamen, 361021, China.*

<sup>b</sup>*State Key Laboratory of Marine Environmental Science, Xiamen University, Xiamen, 361005, China*

<sup>c</sup>*Department of Material Chemistry, Graduate School of Engineering, Kyoto University, Nishikyo-ku, Kyoto, 615-8520, Japan*

Email: [xmchen@jmu.edu.cn](mailto:xmchen@jmu.edu.cn)

Fax: 86 592 6180470; Tel: 86 592 6181487

## Supplementary Results

Figure S1

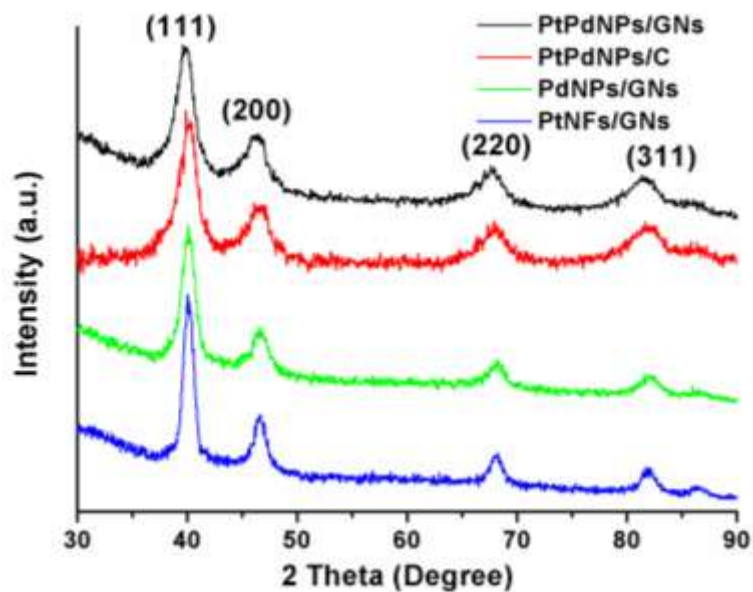


Fig. S1 XRD patterns of the as-synthesized PtPdNPs/GNs, PtPdNPs/C, PdNPs/GNs and PtNFs/GNs.

Figure S2

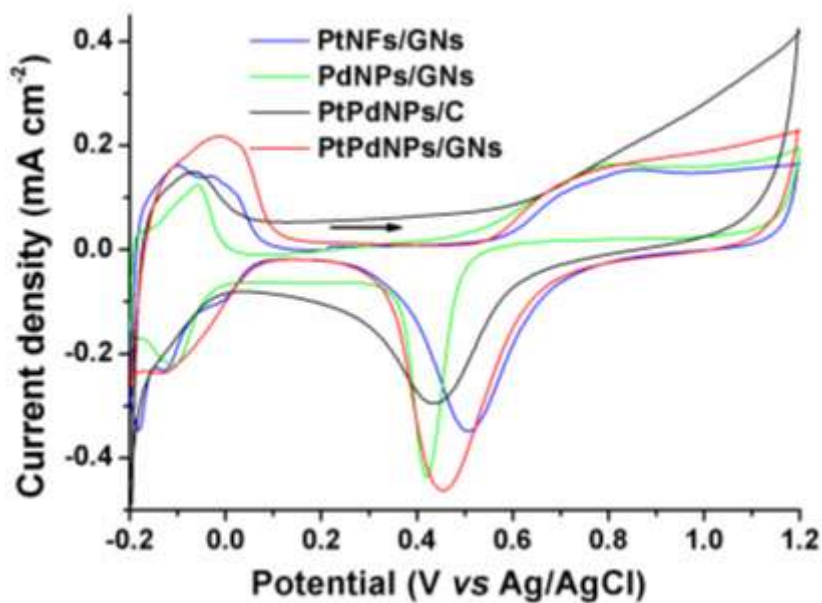


Fig. S2 CVs of PtNFs/GNs, PdNPs/GNs, PtPdNPs/C and PtPdNPs/GNs at 50 mV s<sup>-1</sup> in 0.5 M H<sub>2</sub>SO<sub>4</sub>.