Supporting Information

Synthesis of well-dispersive 2.0 nm Pd-Pt bimetallic nanoclusters supported on

β-cyclodextrin functionalized graphene with excellent electrocatalytic activity

Xin Ran^{a,1}, Long Yang^{a,1}, Qing Qu^{a,*}, Shunling Li^a, Ying Chen^b, Limei Zuo^a, Lei

Li^{b,*}

^a School of Chemical Science and Technology, Yunnan University, Kunming 650091,

China.

^b Laboratory for Conservation and Utilization of Bio-Resources, Yunnan University,

Kunming, 650091, China.

¹These authors contributed equally to this work.

* Corresponding authors.

Tel.: +86 871 65035798; fax: +86 871 65036538.

E-mail: <u>quqing@ynu.edu.cn</u> (Q. Qu); <u>leelei@ynu.edu.cn</u> (L. Li)



Fig. S1 FTIR spectra of β -CD, RGO, and β -CD-RGO.



Fig. S2 TGA curves of β -CD, RGO, and β -CD-RGO.



Fig. S3 CV curves of Pd/C, Pd@ β -CD-RGO, Pt@ β -CD-RGO, Pd-Pt@-RGO, and Pd-Pt@ β -CD-RGO catalysts modified GCE in a N₂ saturated 0.5 M H2SO4 solution at the scan rate of 50 mV s⁻¹.



Fig. S4 The TEM images of Pd/C at different magnification.



Fig. S5 TEM image of Pd-Pt@ β -CD-RGO after durability by current-time test recorded at -0.2 V for 4000 s.