Supporting Information

Confined nanospace pyrolysis for synthesis of N-doped fewlayer graphene-supported yolk-shell carbon hollow spheres for electrochemical sensing

Sen Liu,^a Yong Zhang,^a Ziying Wang,^a Bo Yu,^a Shenguan Song,^a and Tong Zhang*a,^b

^a State Key Laboratory on Integrated Optoelectronics, College of Electronic Science

and Engineering, Jilin University, Changchun 130012, P. R. China

^b State Key Laboratory of Transducer Technology, Chinese Academy of Sciences, P.

R. China

*Corresponding author:

E-mail address: zhangtong@jlu.edu.cn (T. Zhang)

Tel.: +86 431 85168385; Fax: +86 431 85168270.

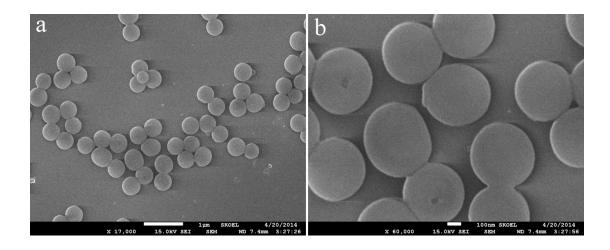


Fig. S1 (a) Low and (b) high magnification SEM images of PPy particles thus obtained.

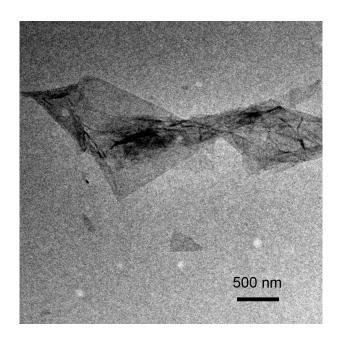


Fig. S2 TEM image of GO.

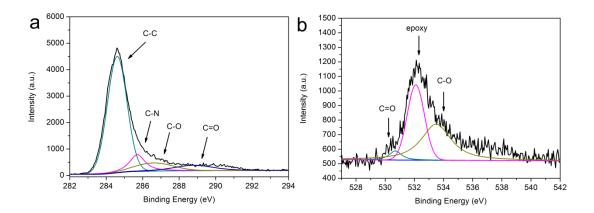


Fig. S3 (a) The C1s and (b) O1s spectra of CHSs/N-G hybrids.

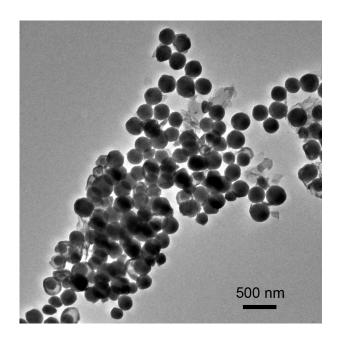


Fig. S4 TEM image of CHSs/N-G prepared by pyrolysis of PPy-GO hybrids at 700 °C for 4 h.

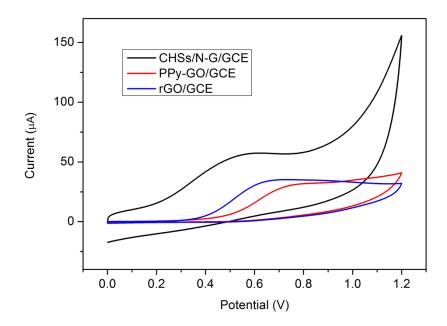


Fig. S5 Cyclic voltammetrys (CVs) of CHSs/N-G/GCE, PPy-GO/GCE and rGO/GCE in 0.1 M PBS at pH 7.0 in the presence of 5.0 mM L-cysteine (scan rate: 0.05 V/s).

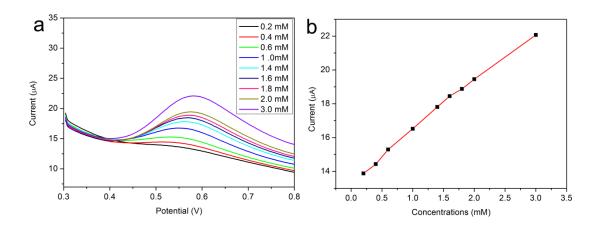


Fig. S6 (a) DPVs at CHSs/N-G/GCE in 0.1 M PBS (pH 7.0)in the presence of 0.2, 0.4, 0.6, 1.0, 1.4, 1.6, 1.8, 2.0, and 3.0 mM L-cysteine, and (b) corresponding calibration plot of the concentration of L-cysteine versus peak current.