

## Supplementary Information

### Synthesis and characterization of graphene hollow spheres for application in supercapacitors

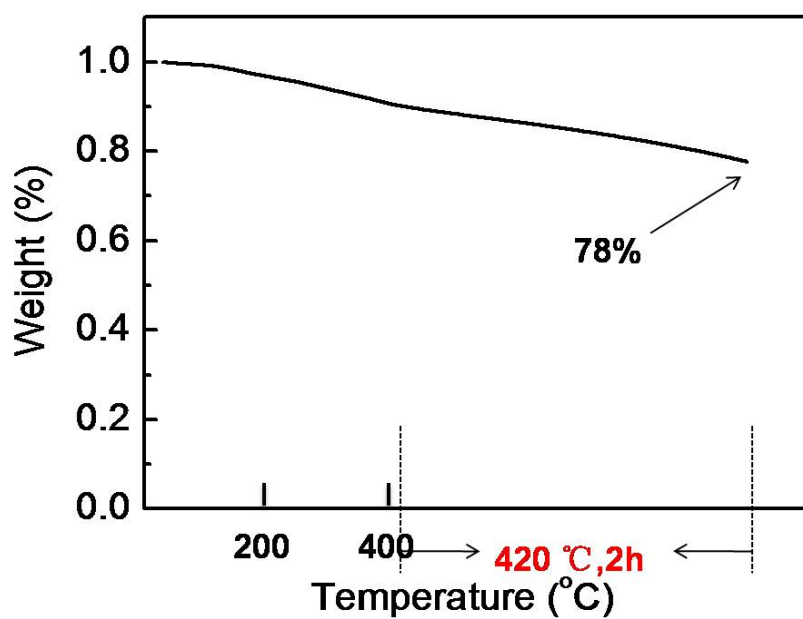
Qingguo Shao,<sup>a,b</sup> Jie Tang,<sup>a,b,\*</sup> Yuexian Lin,<sup>a,b</sup> Feifei Zhang,<sup>a,b</sup> Jinshi Yuan,<sup>a</sup> Han Zhang,<sup>a</sup> Norio Shinya,<sup>a</sup> Lu-Chang Qin<sup>c</sup>

<sup>a</sup> National Institute for Materials Science, 1-2-1 Sengen, Tsukuba 305-0047, Japan.

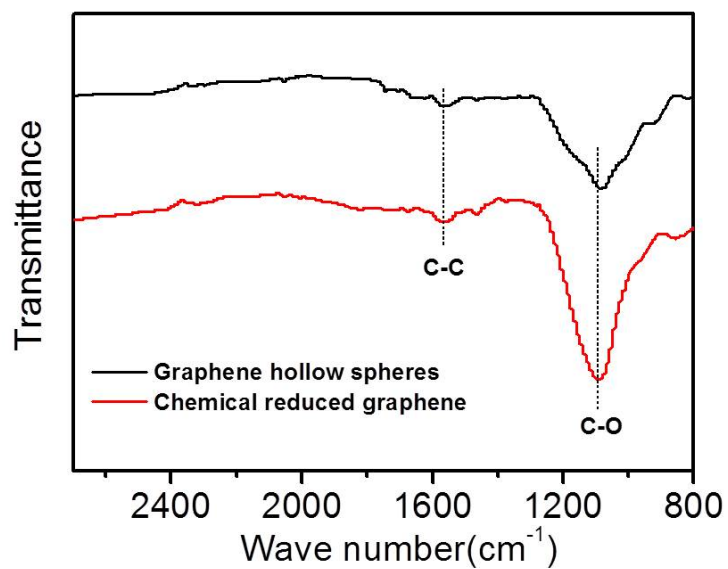
<sup>b</sup> Doctoral Program in Materials Science and Engineering, University of Tsukuba, 1-1-1 Tennodai, Tsukuba 305-8577, Japan.

<sup>c</sup> Department of Physics and Astronomy, University of North Carolina at Chapel Hill, Chapel Hill, NC 27599-3255, USA.

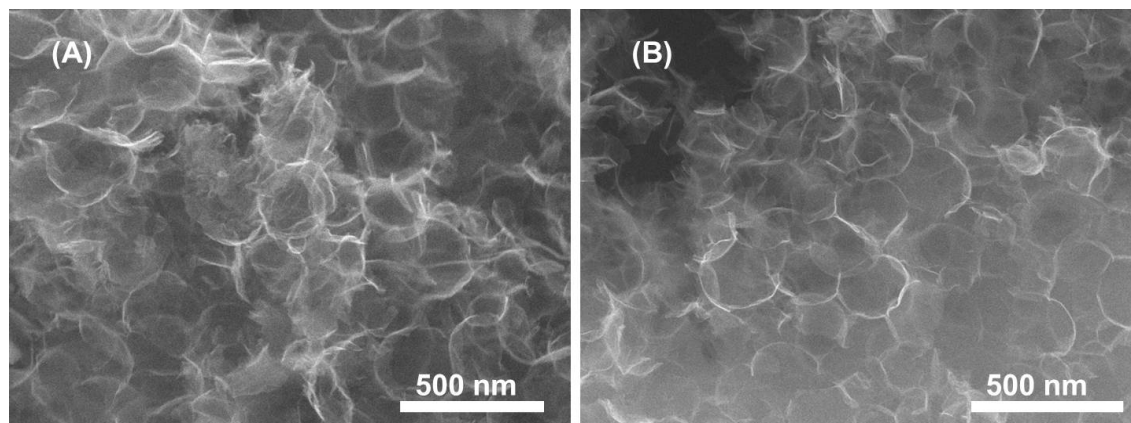
E-mail: [tang.jie@nims.go.jp](mailto:tang.jie@nims.go.jp)



**Figure S1.** TG curve of chemically-reduced graphene. (condition: air; 30-420 °C, heating rate, 5 °C/min; held at 420 °C holding for 2 hours)



**Figure S2.** FT-IR spectra of graphene hollow spheres and chemically-reduced graphene. Number of C-O bonds is reduced in the graphene hollow spheres.



**Figure S3.** SEM image of graphene hollow spheres (A) before and (B) after being pressed to produce supercapacitor electrode.