Electronic Supplementary Material (ESI) for RSC Advances. This journal is © The Royal Society of Chemistry 2019

Supplementary Information

### Fe<sub>3</sub>O<sub>4</sub> Hard Templating to Assemble Highly Wrinkled Graphene Sheets into

#### **Hierarchical Porous Film for Compact Capacitive Energy Storage**

Hua Fang\*,<sup>a</sup>, Fanteng Meng<sup>a</sup>, Ji Yan<sup>\*, a</sup>, Gao-yun Chen<sup>b</sup>, Linsen Zhang<sup>a</sup>, Shide Wu<sup>a</sup>, Shichao Zhang<sup>\*,c</sup>,

#### Lizhen Wang<sup>a</sup>, Yongxia Zhang<sup>a</sup>

<sup>a</sup> School of Material and Chemical Engineering, Zhengzhou University of Light Industry, Zhengzhou

450001, PR China

b. Institute of Chemical Defense, Beijing, 102205, PR China

<sup>c</sup> School of Materials Science and Engineering, Beihang University, Beijing, 100191, PR China

### **Figure S1**



**S1** The flocculent precipitate formed with the different volume ratio of GO hydrosol and  $Fe(OH)_3$  colloid solution ranging from 1:1 to 1:20 (the photo was taken after the hybrids were subjected to 9

hours standing).

<sup>\*</sup> Corresponding author. E-mail addresses: fh@zzuli.edu.cn (Hua Fang), jiyan@zzuli.edu.cn (Ji Yan), csc@buaa.edu.cn (Shichao Zhang)

# Figure S2



Fig. S2 The image of the generated highly wrinkled graphene film (HWGF)

# Figure S3

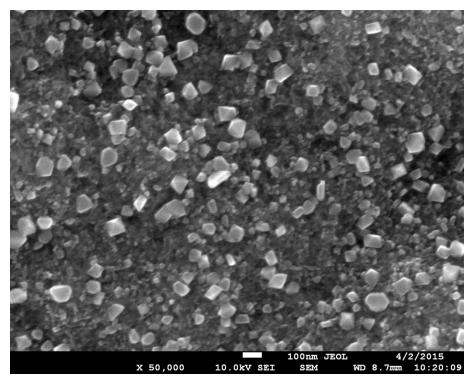


Fig. S3 Top view SEM image of the  $\rm Fe_3O_4@rGO$  hybrid film