## Facile synthesis of all-in-one graphene nanosheets@nickel electrode for high-

## power performance supercapacitor application

Bing Huang<sup>a,\*</sup>, Zhiyuan Zhao<sup>a,\*</sup>, Jian Chen<sup>a</sup>, Yuzhen Sun<sup>a</sup>, Xiaowei Yang<sup>a</sup>, Jian

Wang<sup>a,b</sup>, Hao Shen<sup>b</sup>, Ye Jin<sup>b</sup>

<sup>a</sup> Institute of New Energy on Chemical Storage and Power Sources, College of

Applied Chemistry and Environmental Engineering, Yancheng Teachers University,

Yancheng, 224000, China

<sup>b</sup> College of Chemistry and Chemical Engineering, Nanjing Tech University, Nanjing,

210009, China



Figure S1. SEM images of electrochemical exfoliated GNSs@Ni electrode

$$C_m(F g^{-1}) = \frac{tIm}{\Delta V}$$

where t (h) is the discharge time, m (kg) is the mass of the active materials in the electrodes,  $\Delta V$  (V) is the range of potential, I (A) is the discharge current.



Figure S2, The typical mass capacitance  $(C_m)$  based on the Galvanostatic Charge-Discharge (GCD) curves were recorded at different current density,  $C_m$  of the electrode can be calculated through the following Eqs.(1).