

Supporting information

Controllable synthesis of Ni(OH)₂/Co(OH)₂ hollow nanohexagons wrapped by reduced graphene oxide for supercapacitors

Xinruo Su,¹ Changzhong Gao,¹ Ming Cheng,¹ Rongming Wang^{2,}*

¹ Department of Physics, Beihang University, Beijing 100191, P. R. China.

² School of Mathematics & Physics, University of Science and Technology Beijing,

Beijing 100083, P. R. China

Table S1. Specific capacitance, equivalent series resistance and charge transfer resistance of hollow nanohexagons with different rGO concentrations.

| <i>Concentration of rGO ($\mu\text{g/mL}$)</i> | <i>Specific capacitance (F/g)</i> | <i>Equivalent series resistance (Ω)</i> | <i>Charge transfer resistance (Ω)</i> |
|---|---------------------------------------|---|---|
| <i>0</i> | 358.7 | 1.519 | 0.210 |
| <i>0.6</i> | 504.9 | 0.553 | 0.142 |
| <i>1.0</i> | 1292.8 | 0.338 | 0.086 |
| <i>1.4</i> | 526.7 | 0.375 | 0.268 |
| <i>2.0</i> | 432.2 | 0.394 | 0.279 |

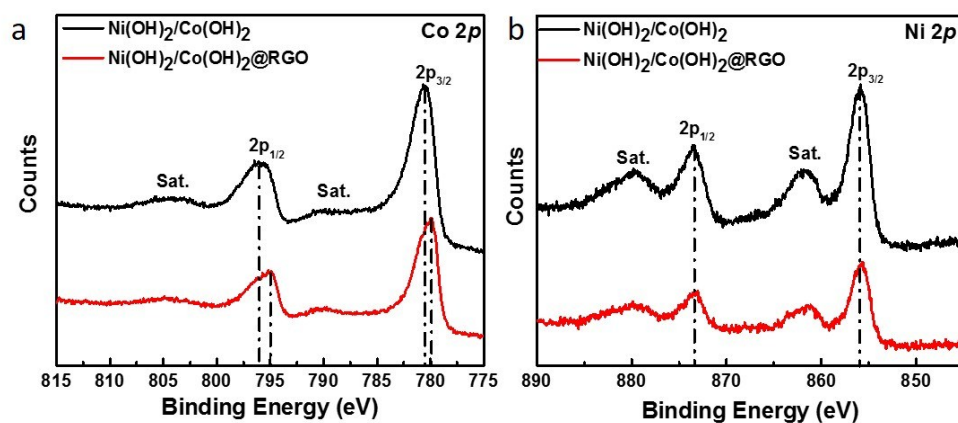


Figure S1. XPS spectrum of the Ni(OH)₂/Co(OH)₂ hollow nanohexagons with and without rGO, respectively.

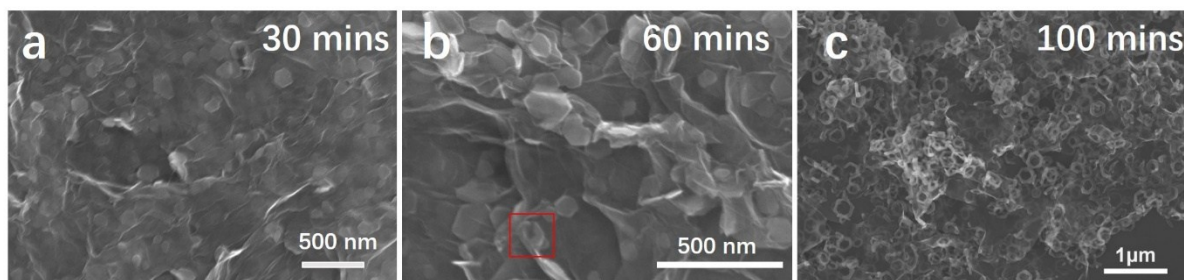


Figure S2. Time-dependent SEM images of the formation process of hollow nanohexagons wrapped by rGO.

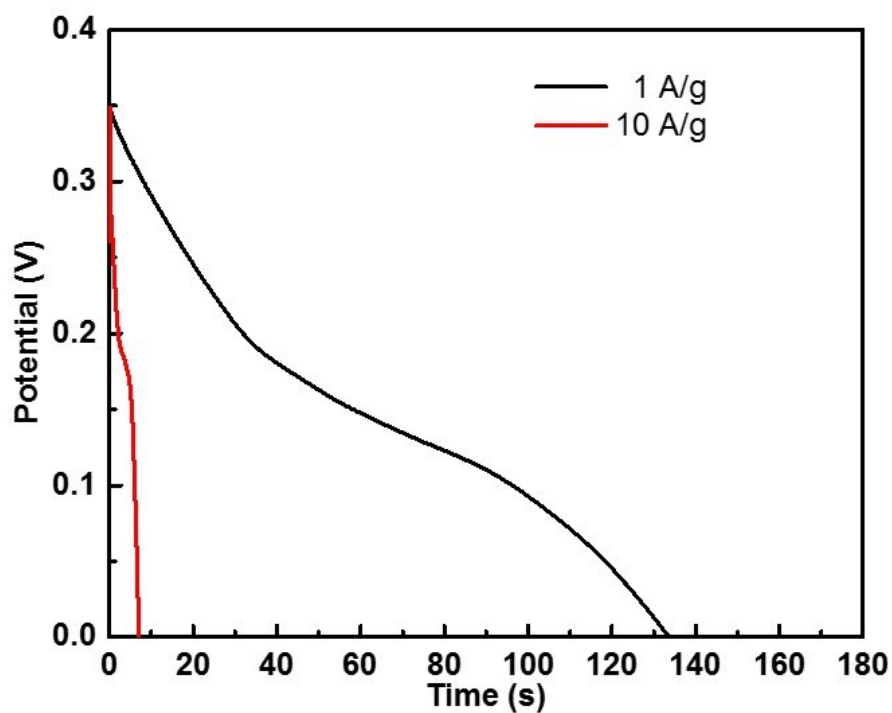


Figure S3. Galvanostatic discharge curves of hollow nanohexagons electrodes without rGO at a current density of 1 and 10 A/g, respectively;

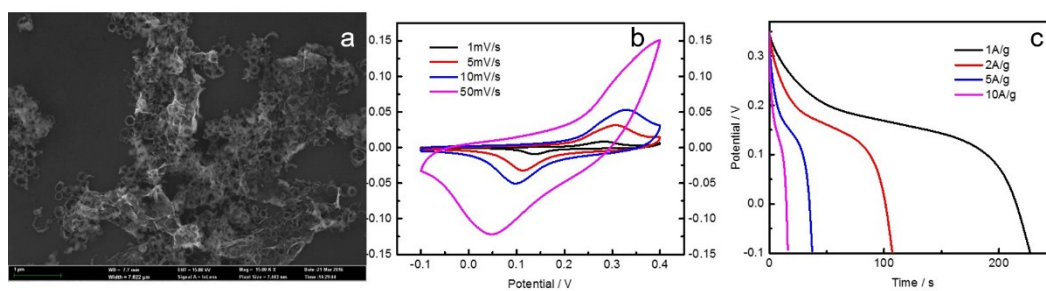


Figure S4. Morphology images of Ni(OH)₂/Co(OH)₂ hollow nanohexagons with 0.6 μg/mL rGO and its (b) CV curves in different scan rates and (c) CP curves in different current densities.

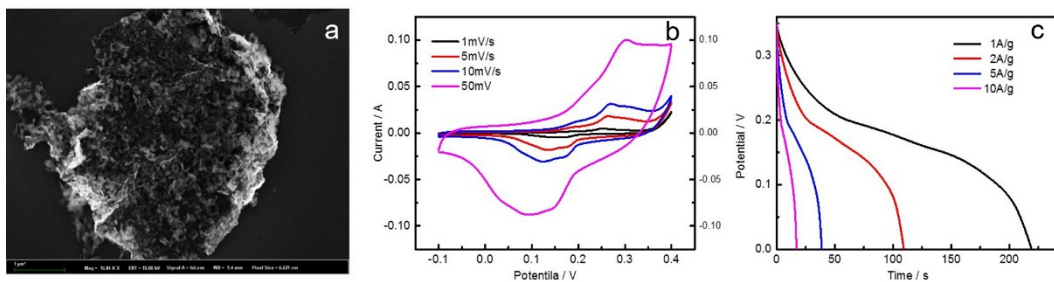


Figure S5. Morphology images of Ni(OH)₂/Co(OH)₂ hollow nanohexagons with 1.4 μg/mL rGO and its (b) CV curves in different scan rates and (c) CP curves in different current densities.

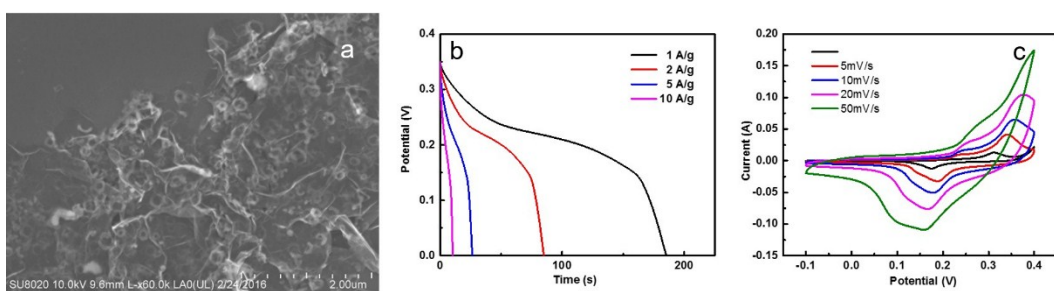


Figure S6. Morphology images of Ni(OH)₂/Co(OH)₂ hollow nanohexagons with 2.0 μg/mL rGO and its (b) CV curves in different scan rates and (c) CP curves in different current densities.