

Electronic Supplementary Information

Porous Nickel Oxide Nano-sheets for High Performance Pseudocapactiance Materials

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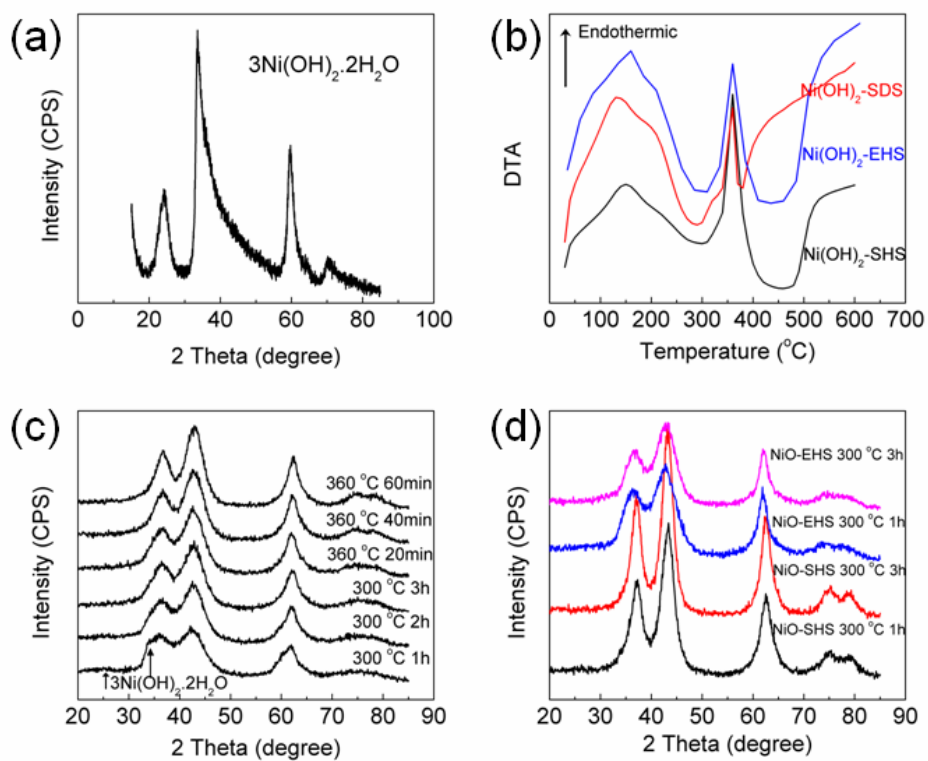


Figure S1. (a) X-ray diffraction pattern and (b) DTA of as-synthesized nickel hydroxide hydrate; XRD patterns of (c) NiO -SDS and (d) NiO -EHS, NiO -SHS, annealed at different temperature and time

Table S1. Crystal and structural parameters of nickel oxides obtained under various annealing conditions

| Samples | Crystal size (nm) | BET surface area (m ² /g) | Average pore diameter (nm) | Pore volume (cc/g) |
|----------------------|----------------------|---|-------------------------------|-----------------------|
| NiO-SDS 300 °C 1h | 1.9 | 318.29 | 6.95 | 0.553 |
| NiO-SDS 300 °C 2h | 2.1 | 382.23 | 7.08 | 0.677 |
| NiO-SDS 300 °C 3h | 2.2 | 382.56 | 7.08 | 0.677 |
| NiO-SDS 360 °C 20min | 2.3 | 361.82 | 7.47 | 0.675 |
| NiO-SDS 360 °C 40min | 2.5 | 357.57 | 7.48 | 0.668 |
| NiO-SDS 360 °C 60min | 2.8 | 341.25 | 8.09 | 0.689 |
| NiO-SHS 300 °C 1h | 3.5 | 344.49 | 6.86 | 0.524 |
| NiO-SHS 300 °C 3h | 4.3 | 254.83 | 6.34 | 0.384 |
| NiO-EHS 300 °C 1h | 2.2 | 351.46 | 8.33 | 0.732 |
| NiO-EHS 300 °C 3h | 2.5 | 394.03 | 8.49 | 0.836 |

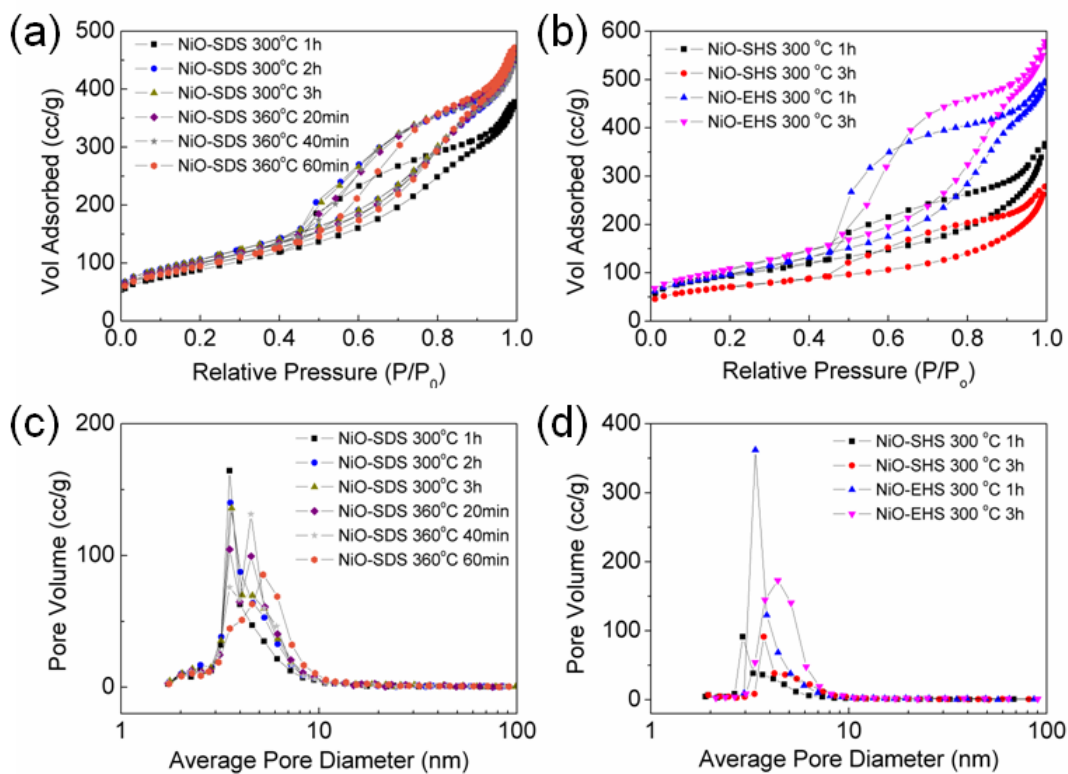


Figure S2. Nitrogen adsorption/desorption isotherms of the (a) NiO-SDS and (b) NiO-SHS & NiO-EHS, pore size distribution of (c) NiO-SDS and (d) NiO-SHS & NiO-EHS

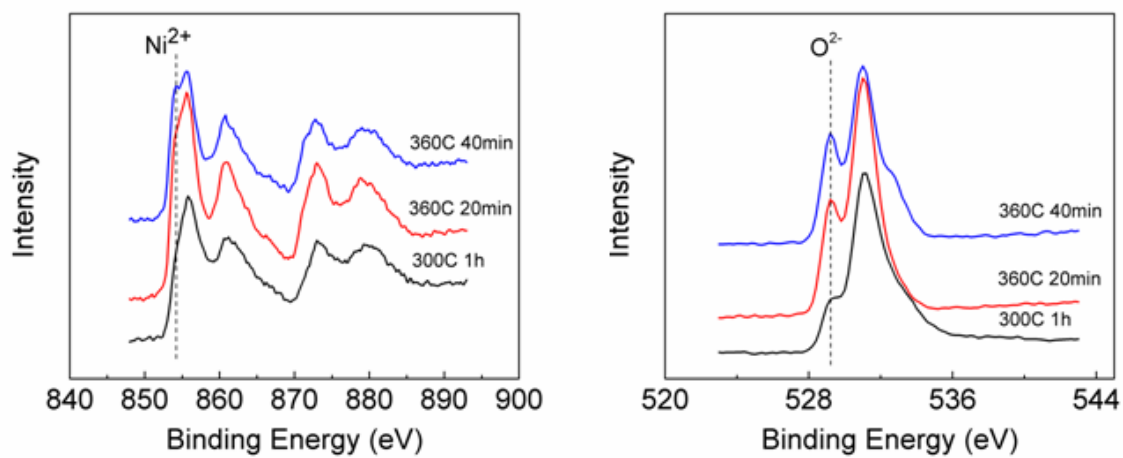


Figure S3. XPS spectra of Ni2p (left) and O1s (right) of nickel oxides