

## Supporting information

### Unique Hydrogenated Ni-NiO Core-Shell 1D Nano-heterostructures With Superior Electrochemical Performance as Supercapacitor

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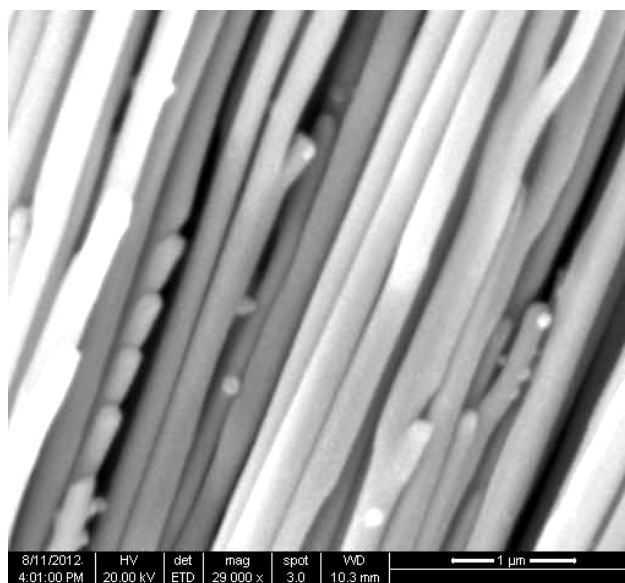
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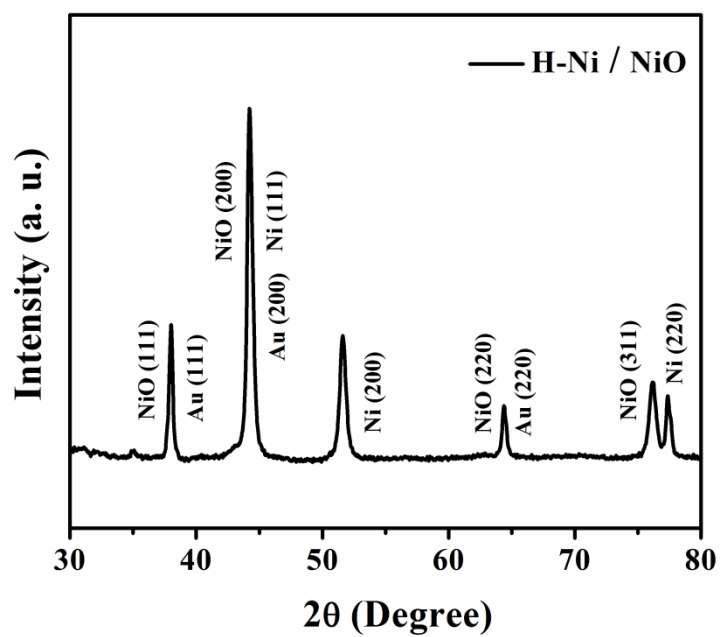
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## MATERIAL CHARACTERIZATION.



**Figure S1.** FESEM micrograph of the as prepared Ni NWs.



**Figure S2.** The XRD pattern of the as-prepared H-Ni/NiO core/shell NWs.

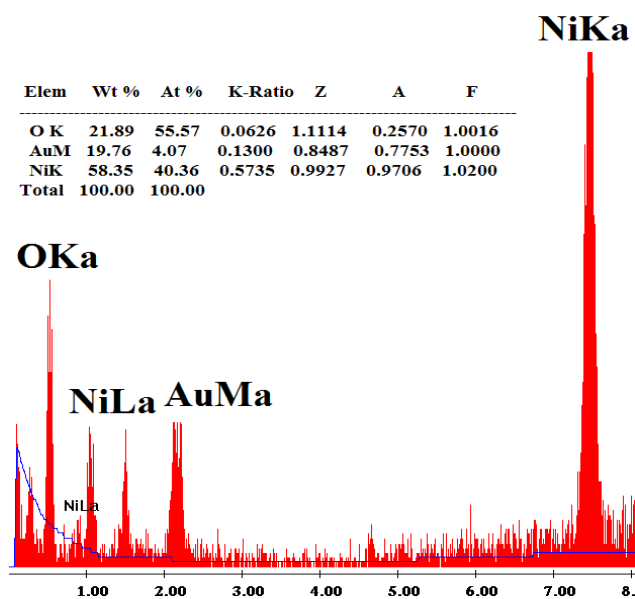


Figure S3. The EDAX spectrum of the H-Ni/NiO core/shell NHs.

## ELECTROCHEMICAL ANALYSIS

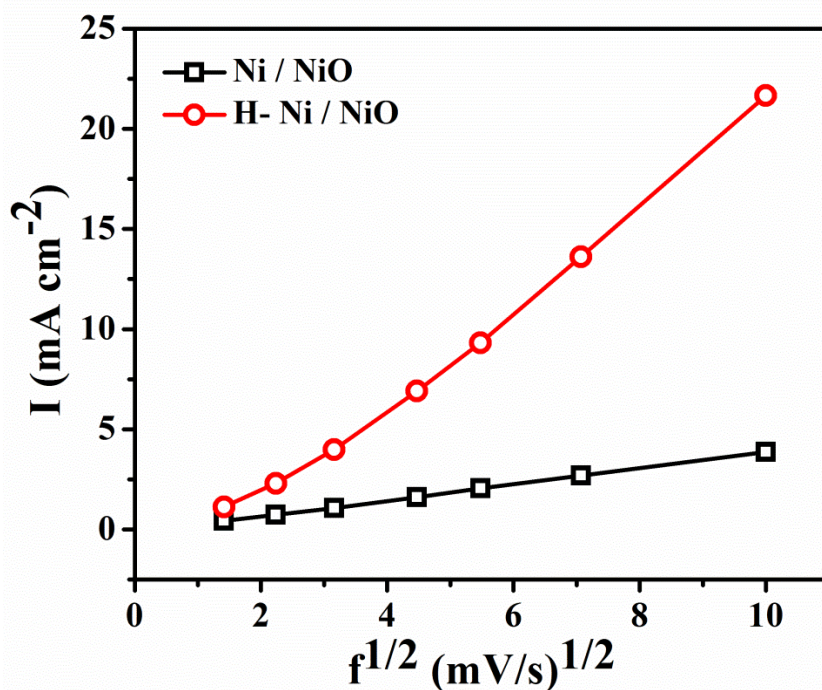
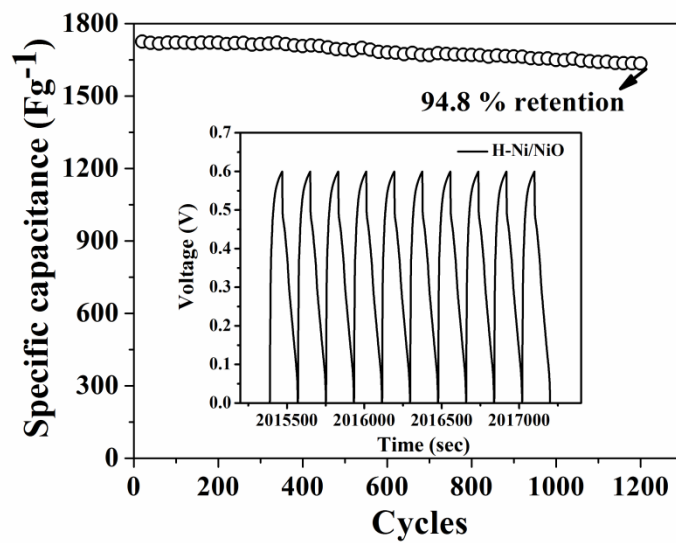


Figure S4. Peak current ( $I$ ) vs. square root of scan rate ( $f$ ) plot for both types of capacitors.



**Figure S5.** Cyclic performance of H-Ni/NiO core/shell NHs at a current density of  $8.6 \text{ Ag}^{-1}$ . The inset shows the charging/discharging curves for last 10 cycles of H-Ni/NiO core/shell NHs at a current density of  $8.6 \text{ Ag}^{-1}$