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## **Supplementary Data**

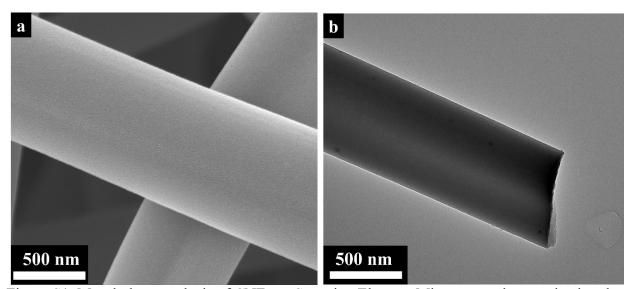


Figure S1. Morphology analysis of CNF: a - Scanning Electron Microscope characterization; b - High-Resolution Transmission Electron Microscope image.

Table S1. BET summary results.

| Composite  | BET Surface Area, m2 | Pore Volume, cm3 g-1 | Pore Diameter, nm |
|------------|----------------------|----------------------|-------------------|
|            | g-1                  |                      |                   |
| CNF        | 685.219              | 0.293                | 3.793             |
| Ni/NiO@CNF | 392.756              | 0.246                | 3.841             |

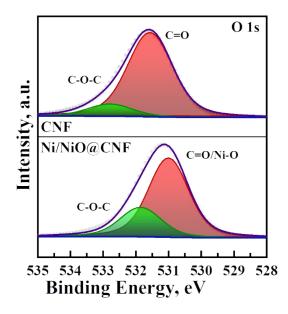


Figure S2. High-resolution O 1s XPS spectra of CNF and Ni/NiO@CNF.