

Supporting Information

Sulfur-Doped Carbon Nanotemplates for Sodium Metal Anodes

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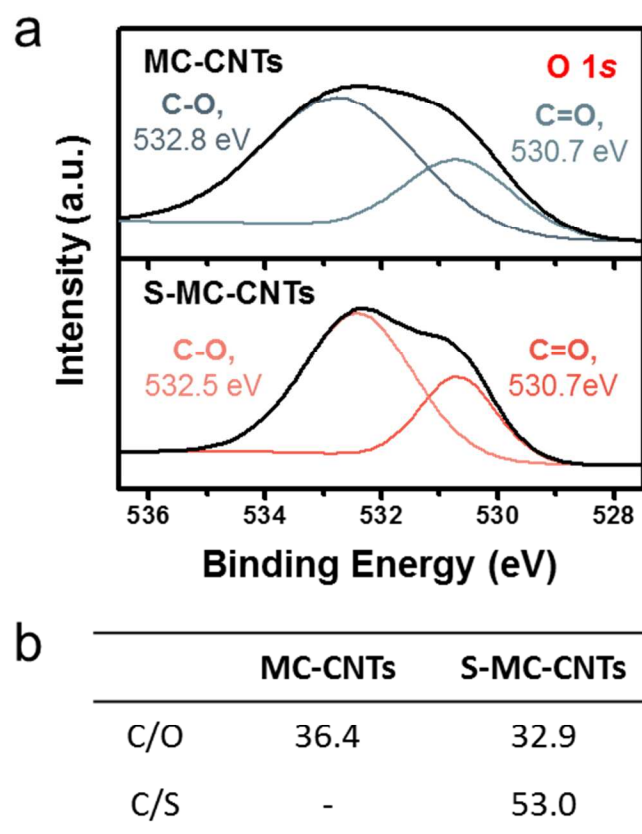


Figure S1. (a) XPS O 1s spectra of MC-CNTs and S-MC-CNTs, and (b) C/O and C/S ratios of MC-CNTs and S-MC-CNTs.

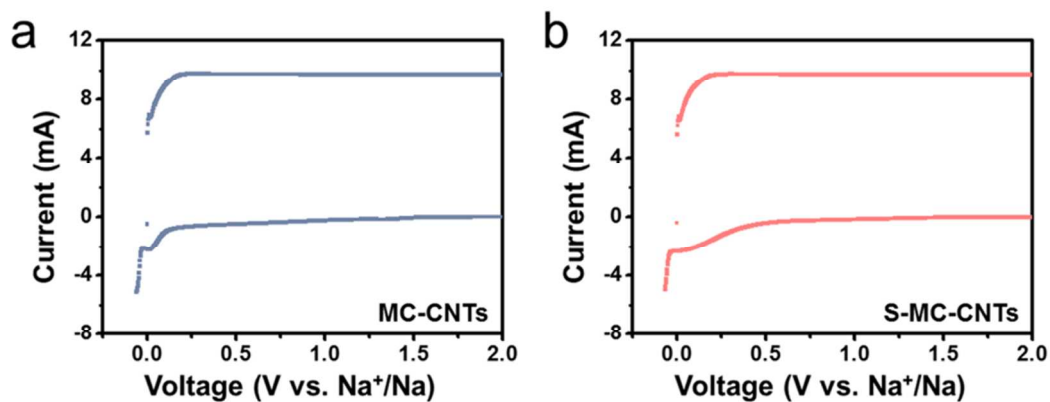


Figure S2. Cyclic voltammograms of (a) MC-CNTs and (b) S-MC-CNTs characterized at a scan rate of 1 mV s^{-1} in an electrolyte of 1 M NaPF₆ dissolved in DEGDME. The anodic scan was cut-off when the current reached $< -5 \text{ mA}$, while the cathodic scan was cut-off at a voltage above 2.0 V.

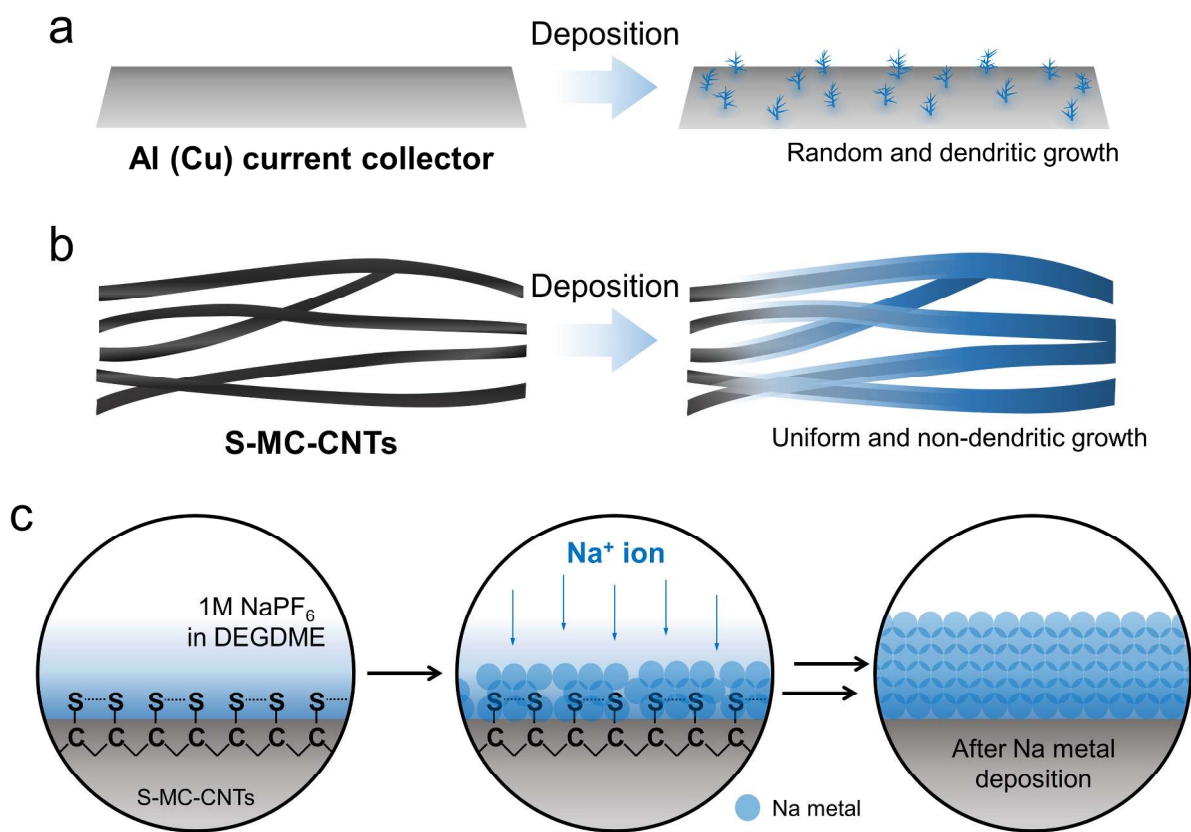


Figure S3. Schematic images exhibiting the sodium metal deposition/dissolution process on (a) a conventional metal current collector and (b) S-MC-CNTs on which specific the sodium metal deposition process is depicted in (c).

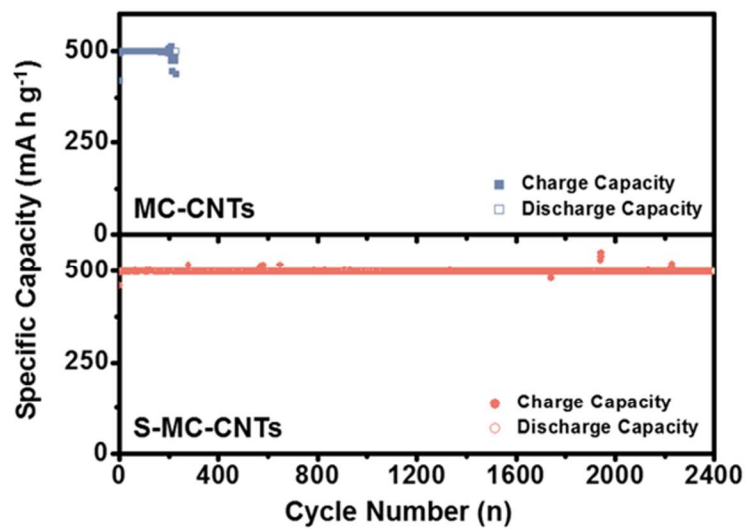


Figure S4. Cycling performances of MC-CNTs and S-MC-CNT-based anodes tested at a current rate of 2 A cm^{-2} with a cut-off capacity of 500 mA h g^{-1} .

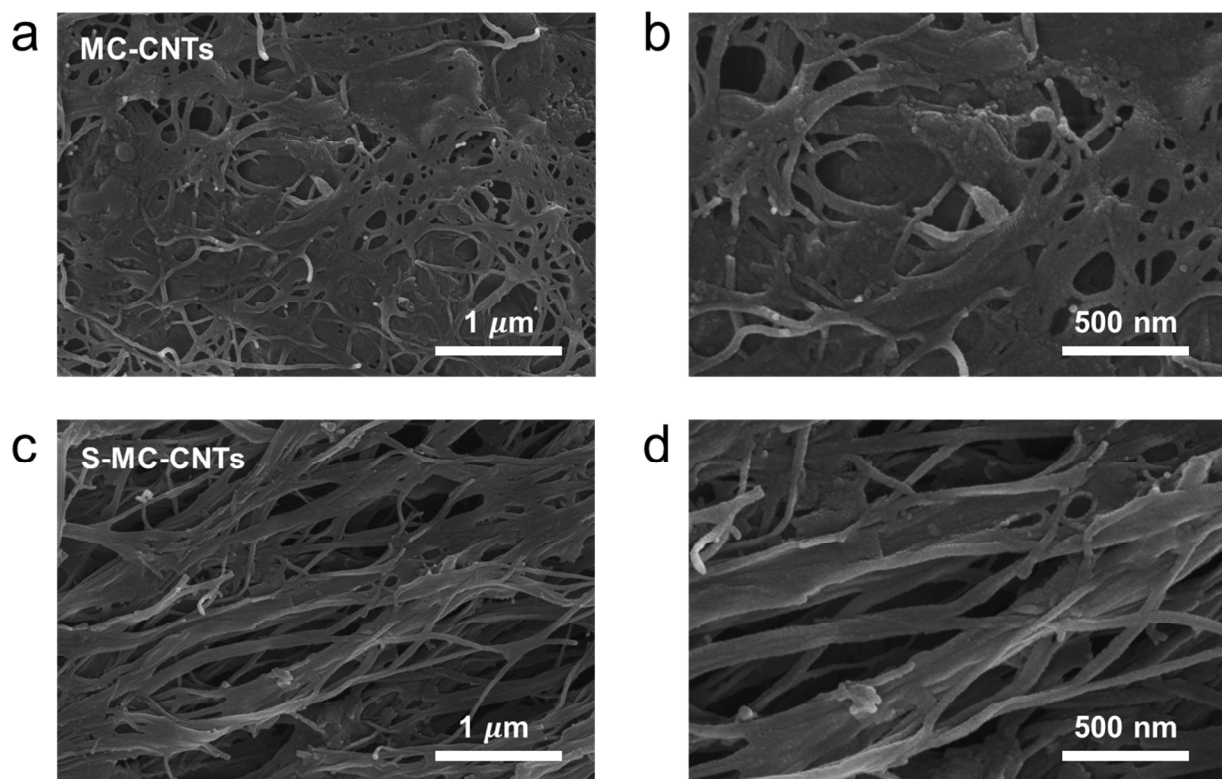


Figure S5. Ex-situ FE-SEM images of (a, b) MC-CNTs and (c, d) S-MC-CNTs after the 200th galvanostatic sodium metal deposition/stripping cycle.

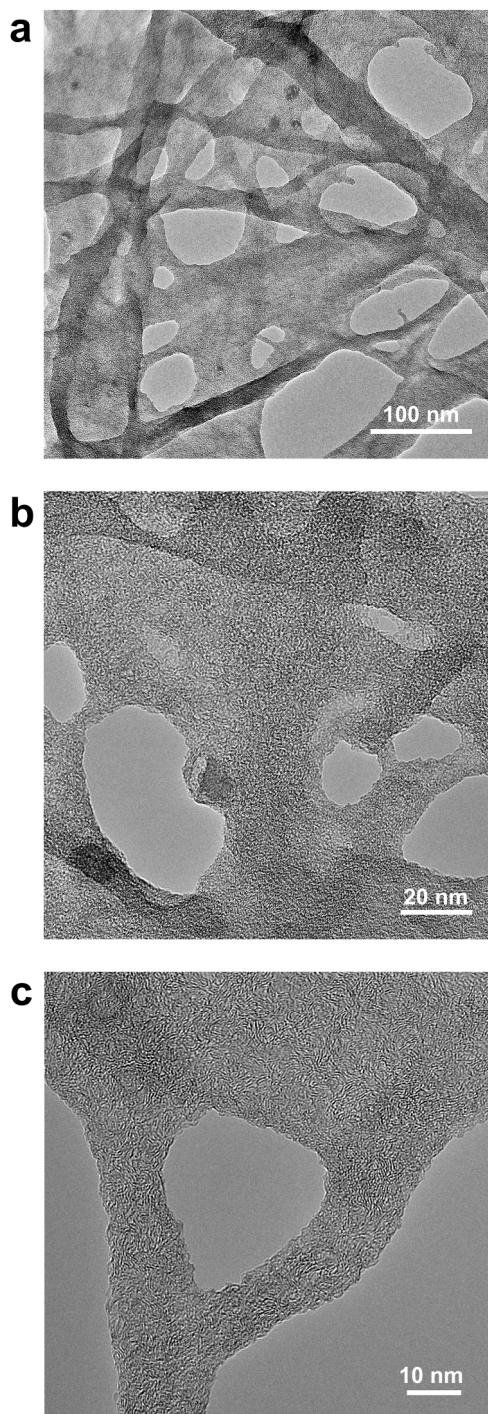


Figure S6. (a-c) Ex-situ FE-TEM images of MC-CNTs after 200th cycle, characterized at different magnifications.

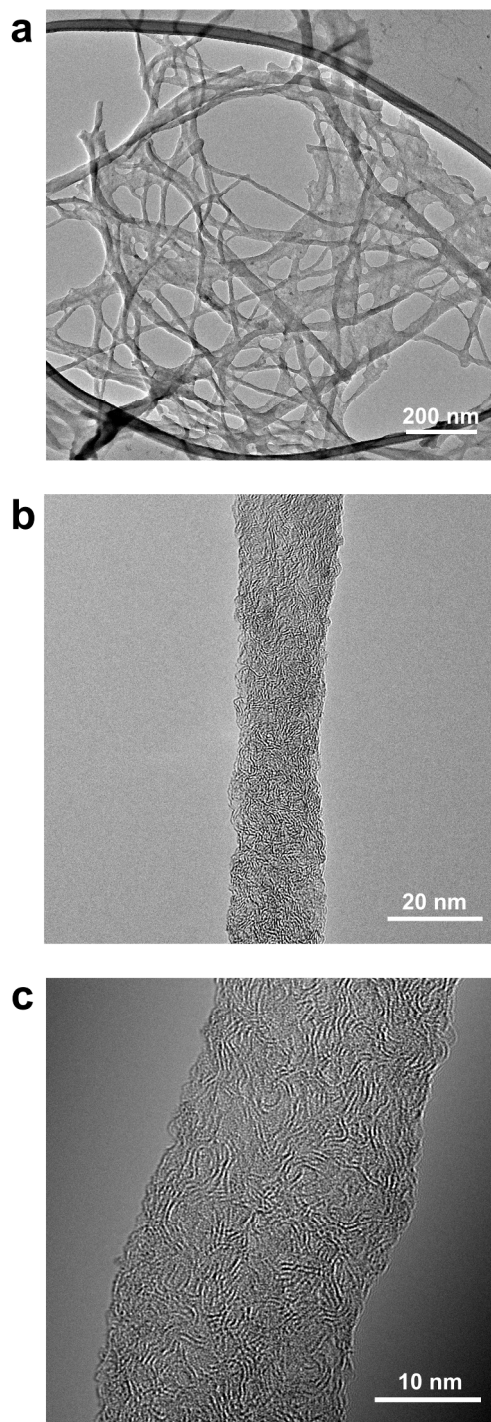


Figure S7. (a-c) Ex-situ FE-TEM images of S-MC-CNTs after 200th cycle, characterized at different magnifications.