

Efficient Faradaic $\text{Li}_4\text{Ti}_5\text{O}_{12}@\text{C}$ Electrode Enabling Exceeding Membrane Capacitive Desalination Performance

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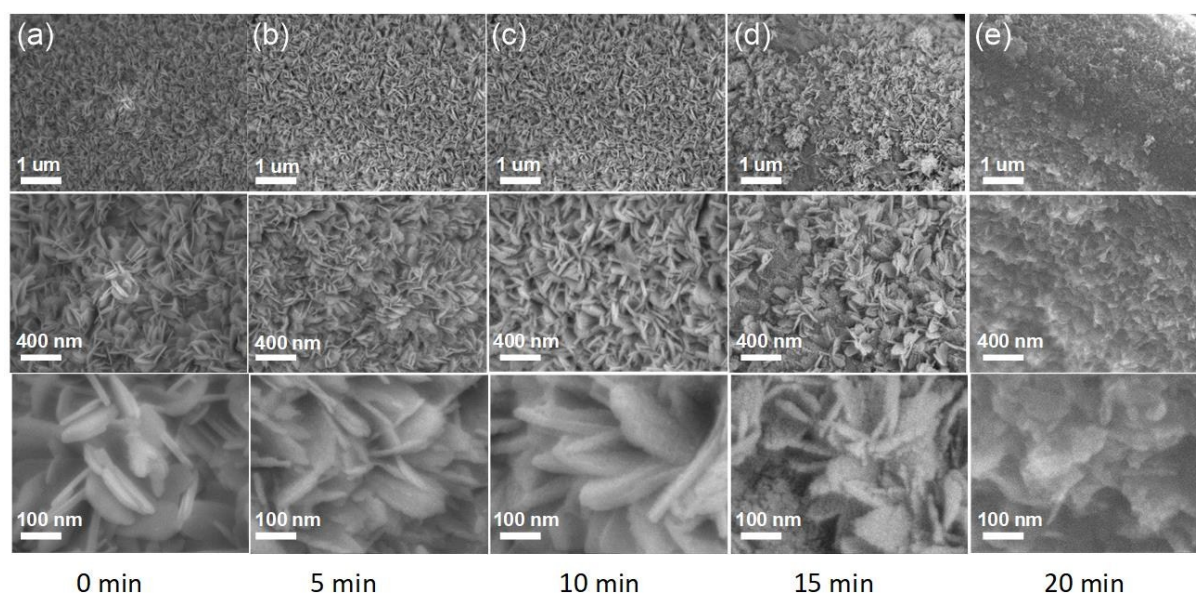


Fig S1. SEM images of LTO@C NFAs under various deposition times of PPy layer.

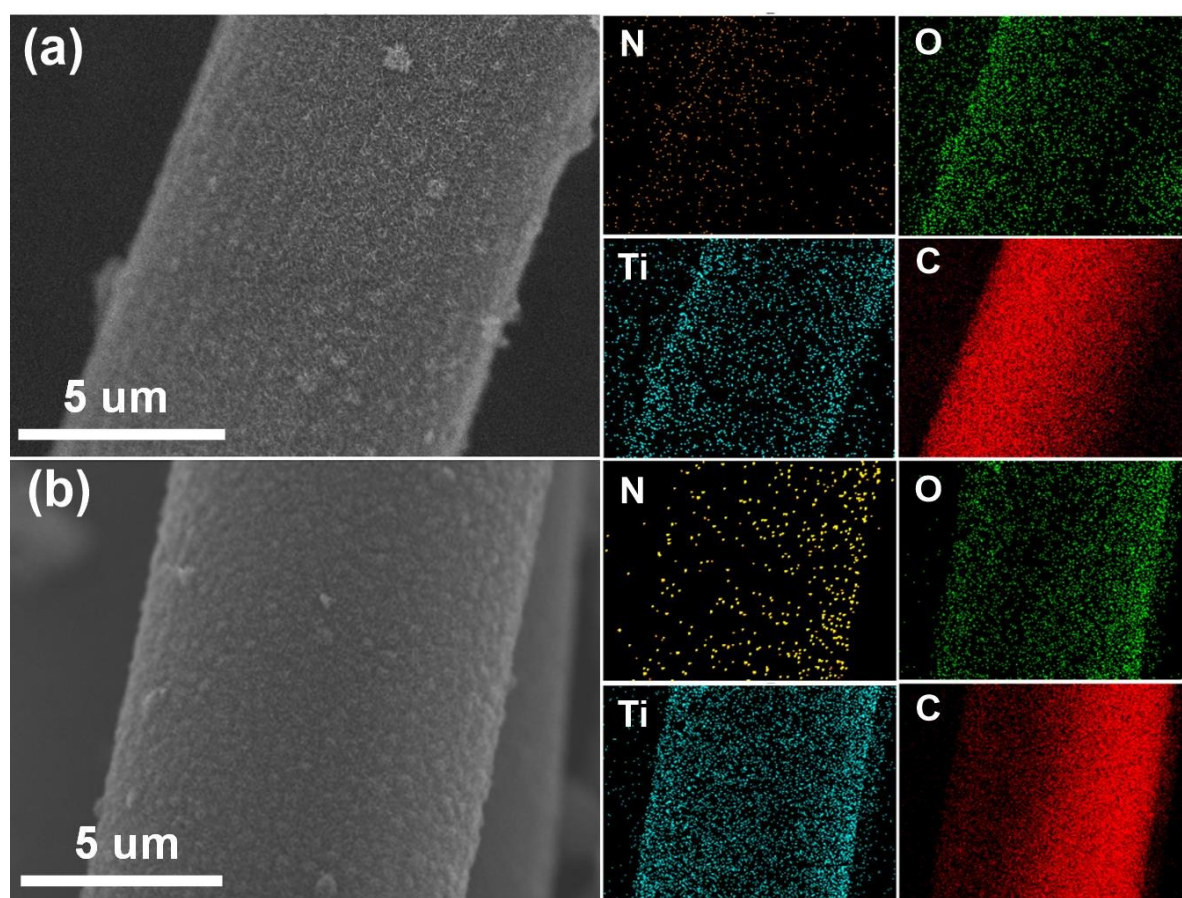


Fig S2. SEM images and EDX elemental mappings of N, O, Ti, C for LTO NFAs (a) and LTO@C NFAs (b).

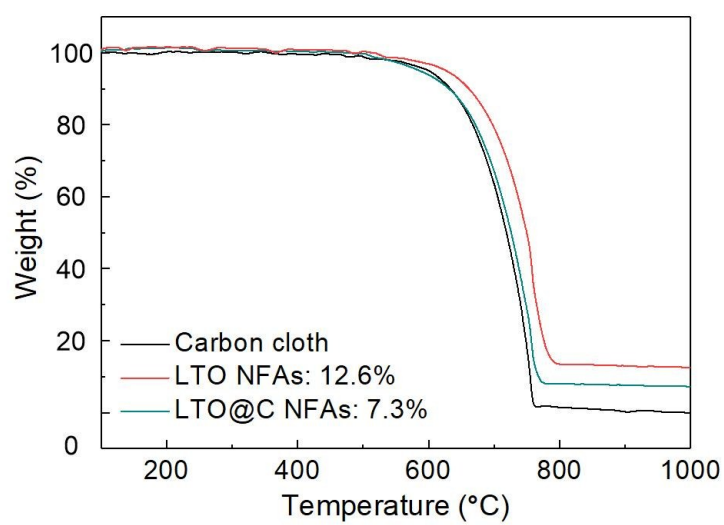


Fig S3. Thermogravimetric analysis (TGA) curves of carbon cloth, LTO NFAs and LTO@C NFAs at 5 °C min⁻¹ for the thermal decomposition in air atmosphere.

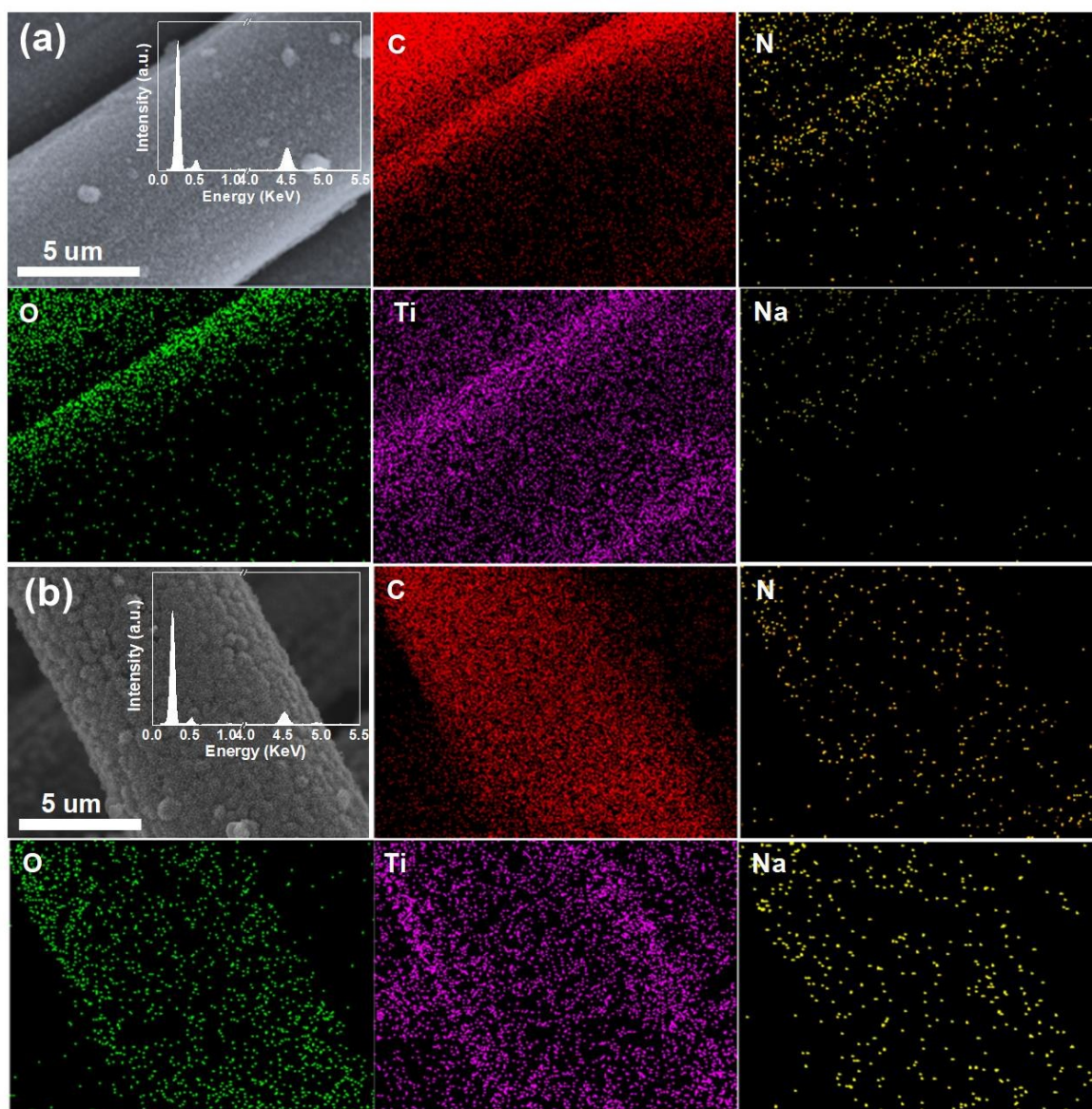


Fig S4. SEM images and EDS elemental mappings of N, O, Ti, C for LTO@C NFAs after sodium adsorption under CV (a) and CC (b) operational mode.

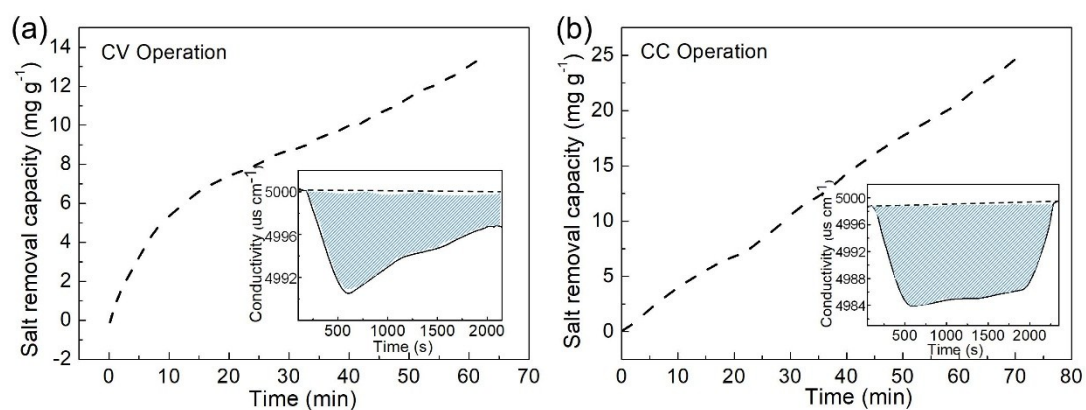


Fig S5. The salt adsorption performance of single-pass operational mode under CV and CC operational mode with LTO@C NFAs electrode.

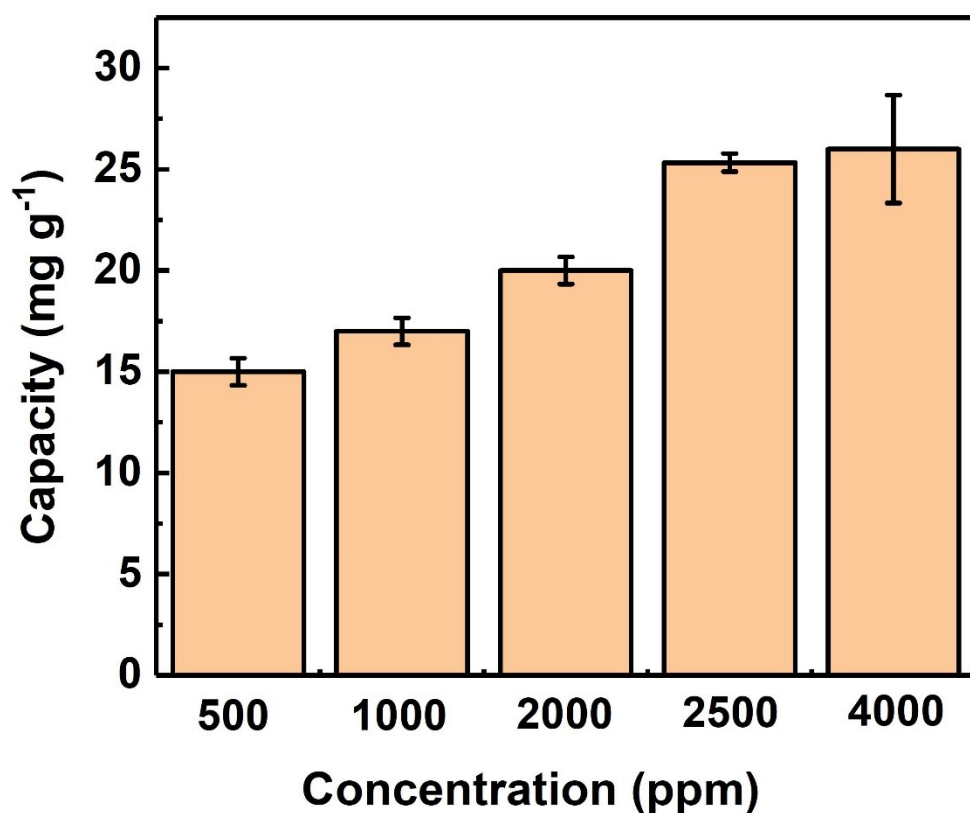


Fig S6. Desalination performance of LTO@C NFAs electrode with only AEM applied under different feed concentration.

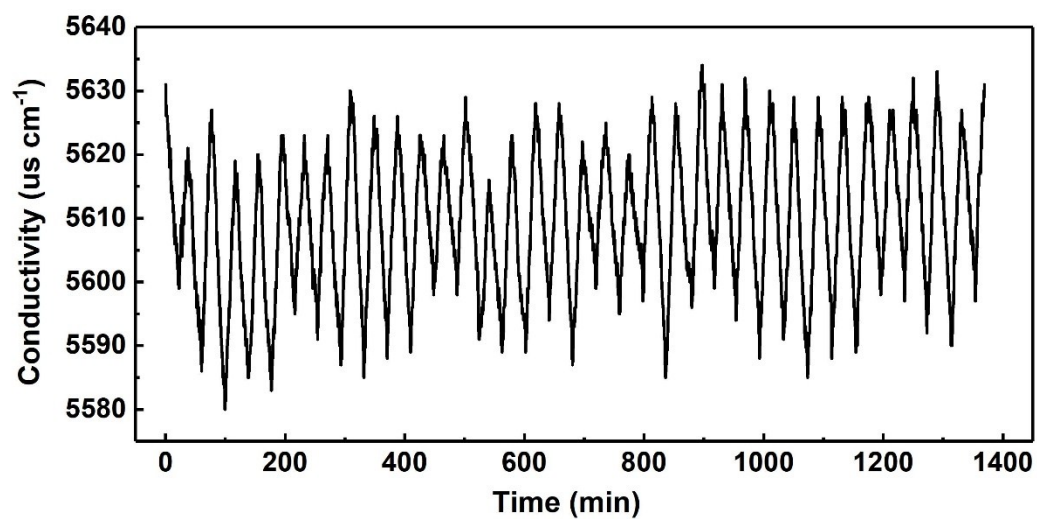


Fig S7. Cycling performance of LTO@C NFAs electrode with only AEM applied.

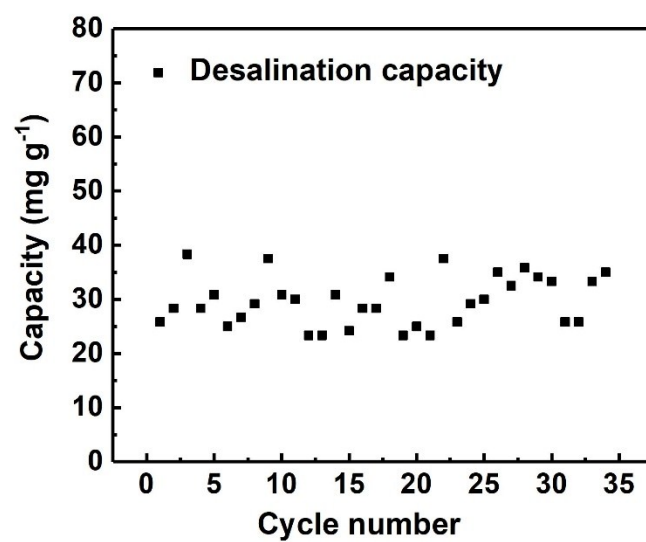


Fig S8. Cycling performance of LTO@C NFAs electrode with only AEM applied.