
Supporting Information

Amorphous, Highly Disordered Carbon Fluorides as a Novel Cathode for Sodium Secondary Batteries

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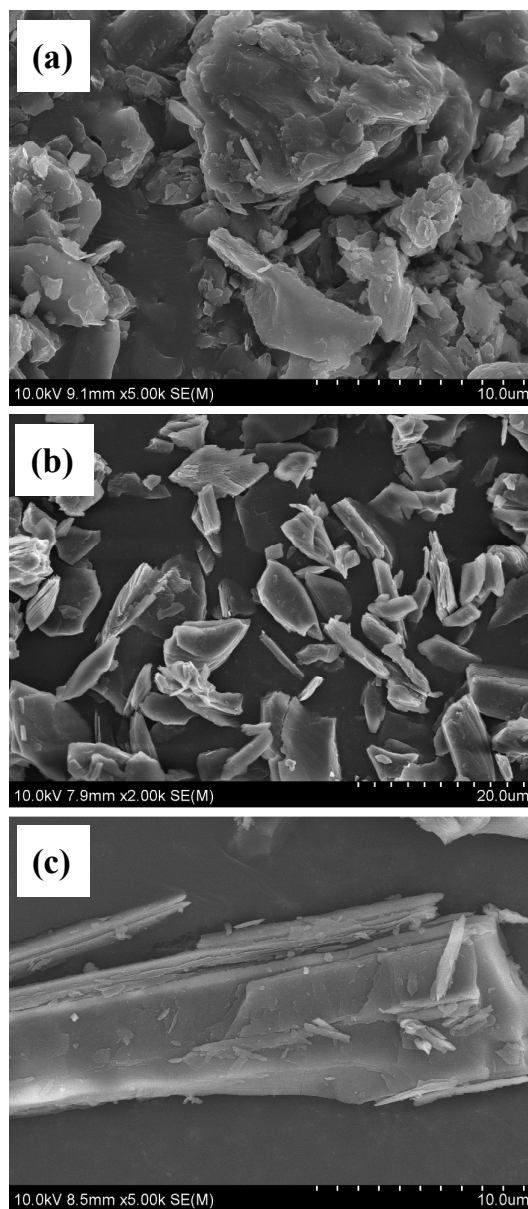


Figure S1. SEM images of different magnifications: (a-b) as-prepared d-CF_x particles; (c) pristine CF_x particles.

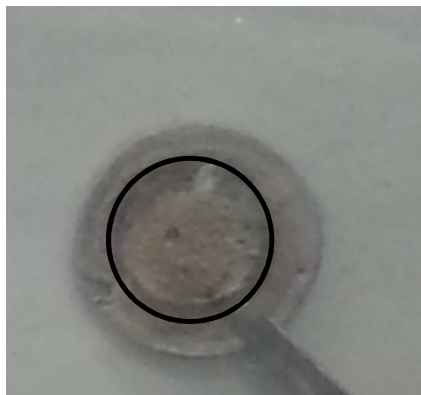


Figure S2. The optical image of the surface of sodium anode after 12 cycles. The black circle shows the size of the cathode, on which the surface of sodium anode was rough and with numbers of holes.

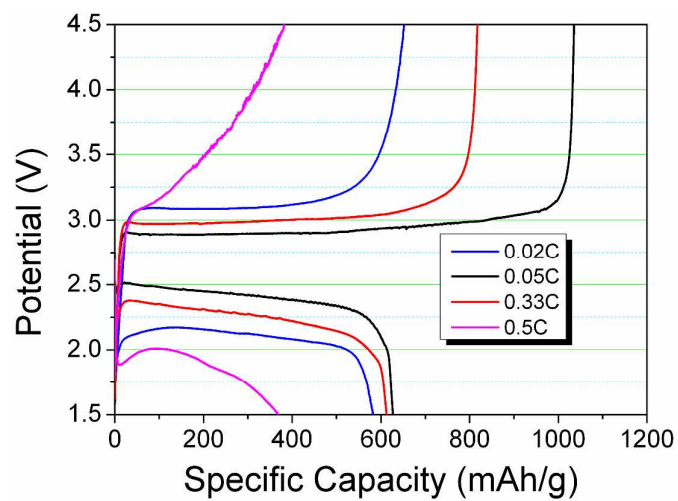


Figure S3. The rate performance of Na/d-CF_x cells. Here, 0.33C coincides with the current density of 200 mA/g in this work.

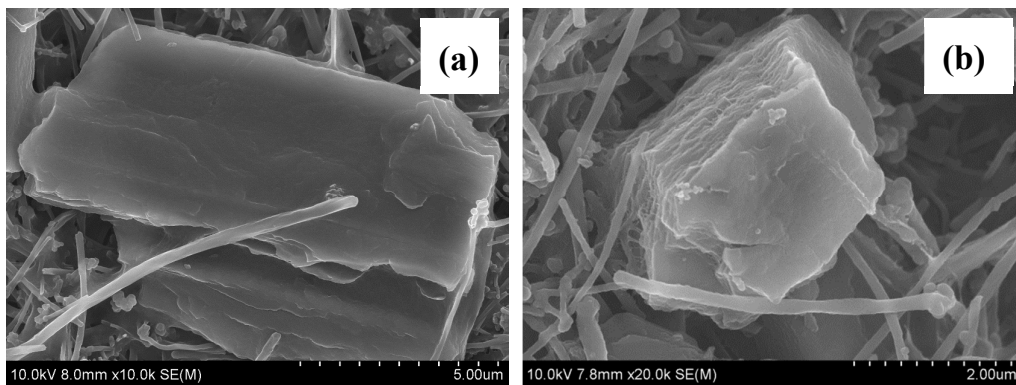


Figure S4. SEM images of d-CF_x electrodes: (a) pristine d-CF_x electrode; (b) d-CF_x electrode after the first charging process.

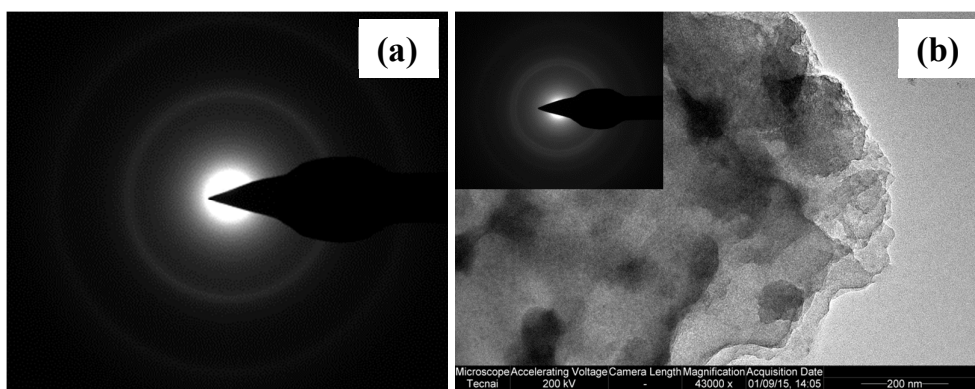


Figure S5. (a) SAED pattern of pristine d-CF_x electrode; (b) TEM of d-CF_x electrode in charged state, the inset is the corresponding SAED pattern.

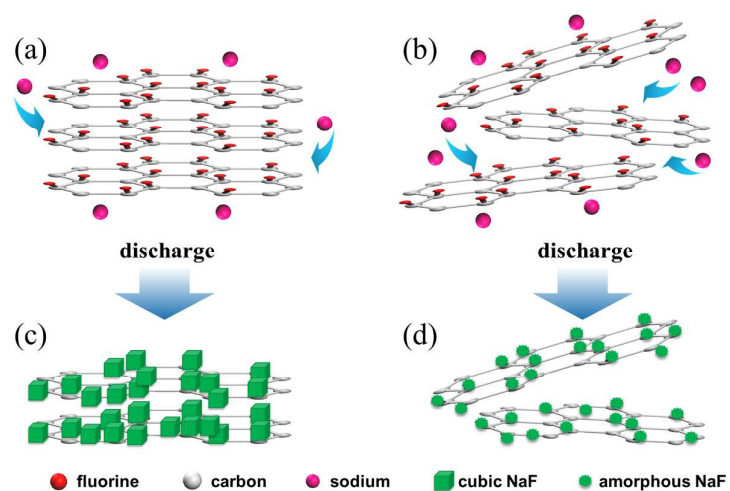


Figure S6. Proposed electrochemical reaction mechanism of Na/d-CF_x battery (b, d), in comparison with that of Na/CF_x battery (a, c).

Reference

- (6) Shao, Y.; Yue, H.; Qiao, R.; Hu, J.; Zhong, G.; Wu, S.; McDonald, M. J.; Gong, Z.; Zhu, Z.; Yang, W.; Yang, Y. Synthesis and Reaction Mechanism of Novel Fluorinated Carbon Fiber as A High-Voltage Cathode Material for Rechargeable Na Batteries. *Chem. Mater.* **2016**, 28, 1026-1033.