

Supporting Information

Purified Molybdenite Encapsulated in N-doped Carbon Nanofibers as Binder-Free Anodes for Flexible Lithium-Ion Hybrid Capacitors

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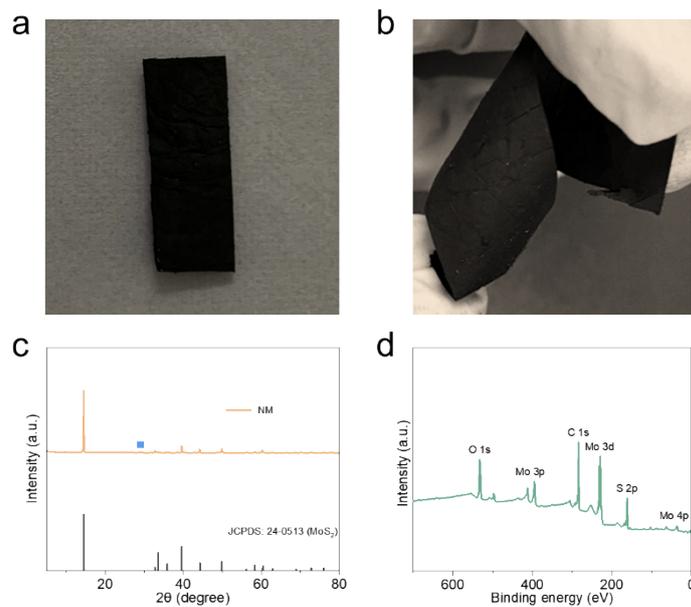


Figure S1. (a, b) Digital photos showing the flexibility of the MoS₂@CNF membrane, (c) the XRD pattern of NM, and (d) the XPS full spectrum of MoS₂@CNF.

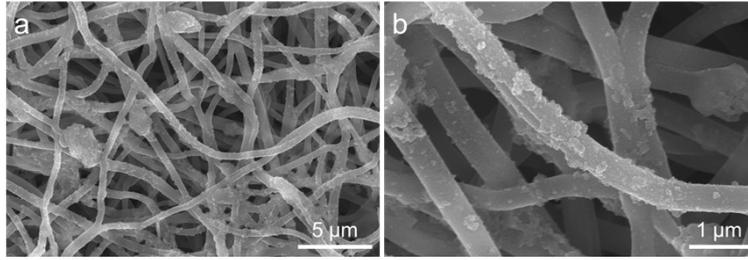


Figure S2. SEM images of the MoS₂@CNF film after 100 cycles at 1 A g⁻¹.

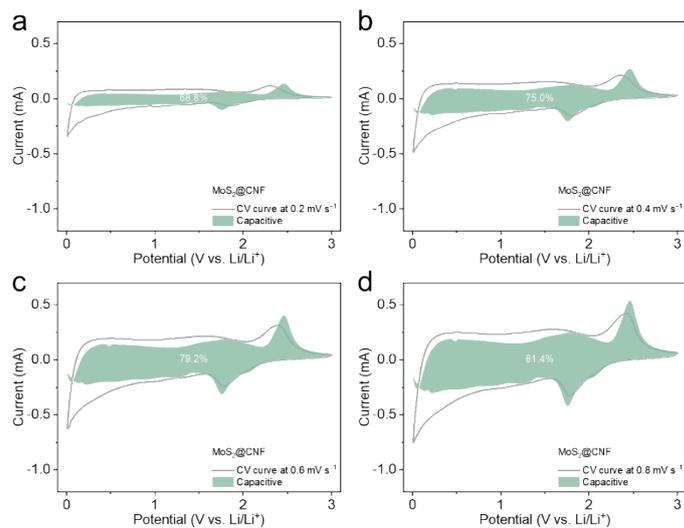


Figure S3. The pseudocapacitive contribution of MoS₂@CNF at the scan rate of (a) 0.2, (b) 0.4, (c) 0.6, and (d) 0.8 mV s⁻¹.

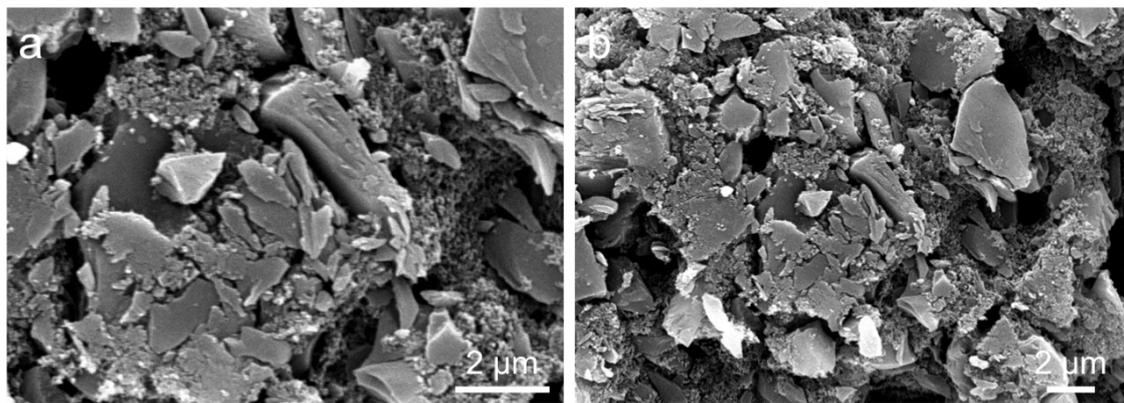


Figure S4. SEM images of the CNF@AC cathode.

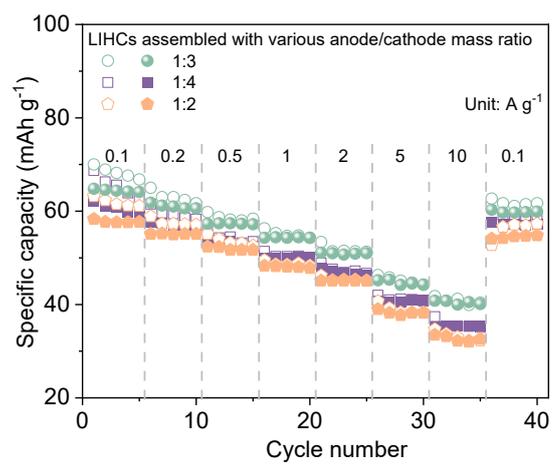


Figure S5. The electrochemical performance of various LIHCs with different anode/cathode mass ratios.

Table S1. Electrochemical performance of the assembled MoS₂@CNF//CNF@AC LIHC device and other reported energy storage devices.

Energy storage devices (Anode//Cathode)	Power density (W kg ⁻¹)	Energy density (Wh kg ⁻¹)	Ref.
C-LiTi ₂ (PO ₄) ₃ //AC	180	14	1
CNT@V ₂ O ₅ //AC	210	40	2
Graphene-Li ₄ Ti ₅ O ₁₂ //Graphene	45	95	3
	3000	32	
PF16//FRGO	141	148.3	4
	7800	71.5	
SnO ₂ -C//C	190	110	5
	2960	45	
HC//AC	7600	85.7	6
Nb ₂ O ₅ -graphene paper//AC	393	47	7
	18000	15	
Nb ₂ O ₅ -C//AC	70	63	8
	16528	5	
TiO ₂ -rGO//AC	800	42	9
	8000	8.9	
MoS ₂ @CNF//CNF@AC	250	105.7	This work
	10000	84.3	

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