Supporting Information

Carbon nanotubes-embedded hollow carbon nanofibers as efficient host for advanced lithium-sulfur batteries

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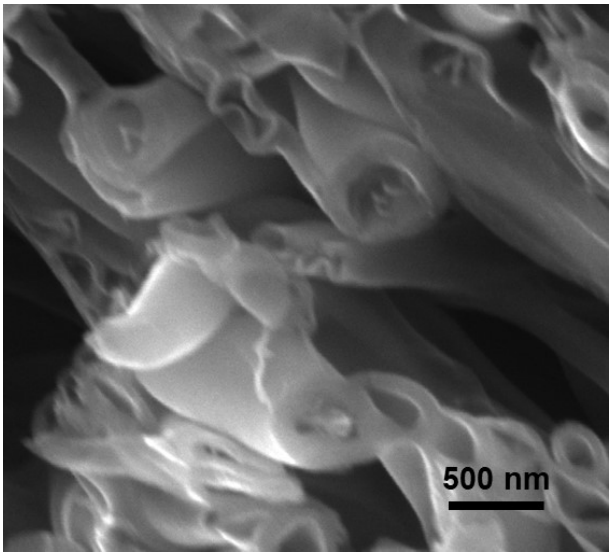

Fig. S1 SEM image of HCNF/CNT.

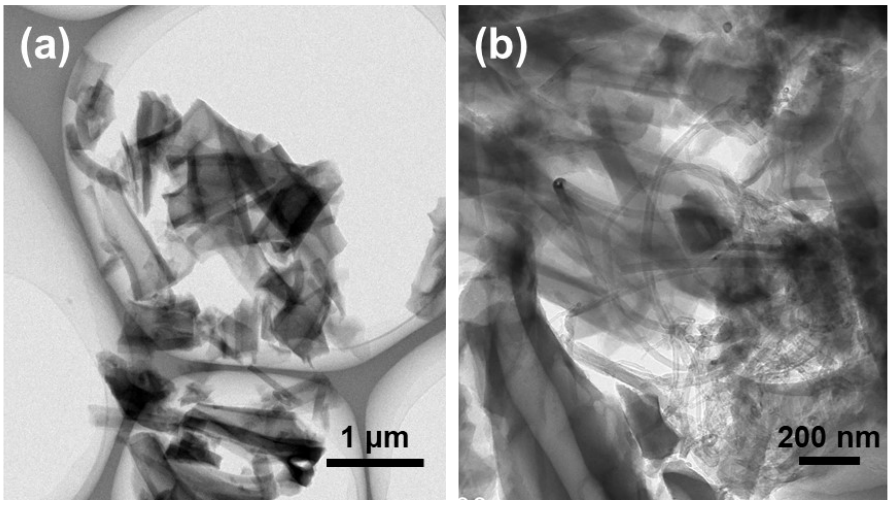

Fig. S2 TEM images of HCNF (a) and HCNF/CNT (b).

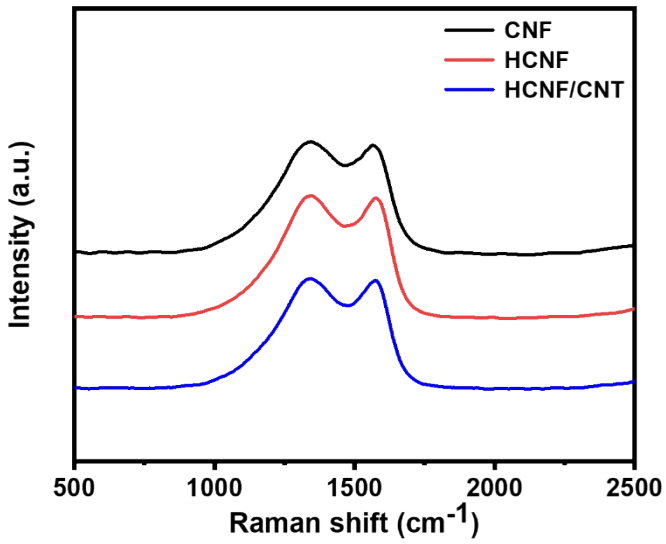

Fig. S3 Raman spectra of CNF, HCNF and HCNF/CNT.

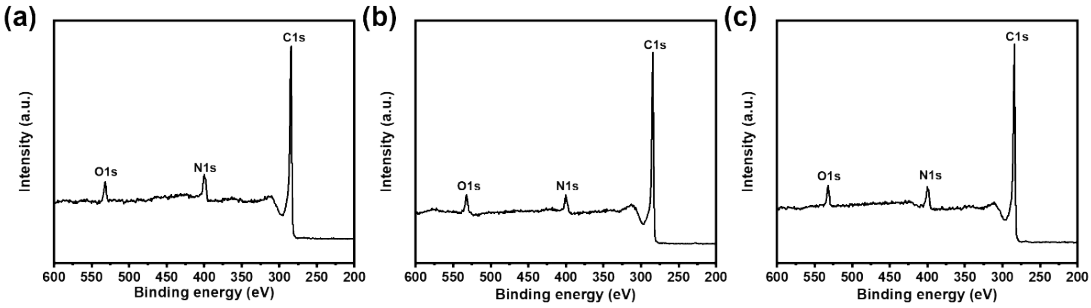

Fig. S4 XPS spectra of CNF (a), HCNF (b) and HCNF/CNT (c).

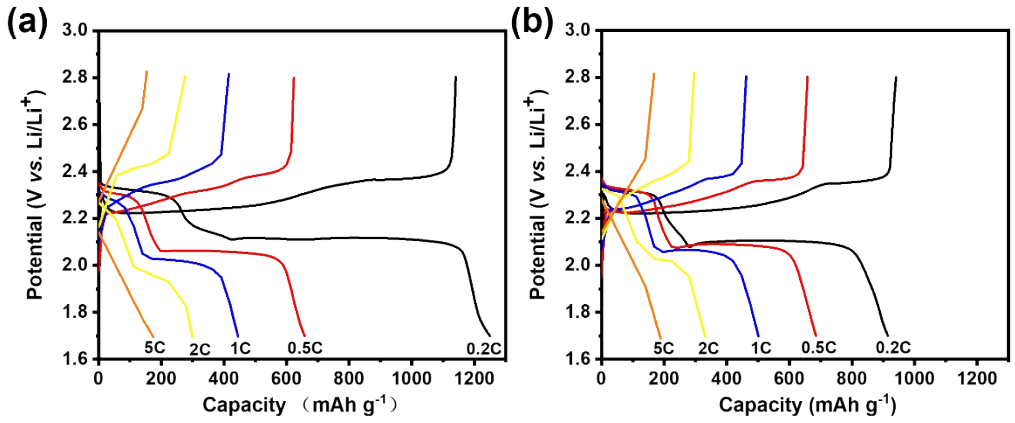

Fig. S5 Galvanostatic discharge−charge profiles at various current rates of CNF-S (a) and of HCNF-S (b).

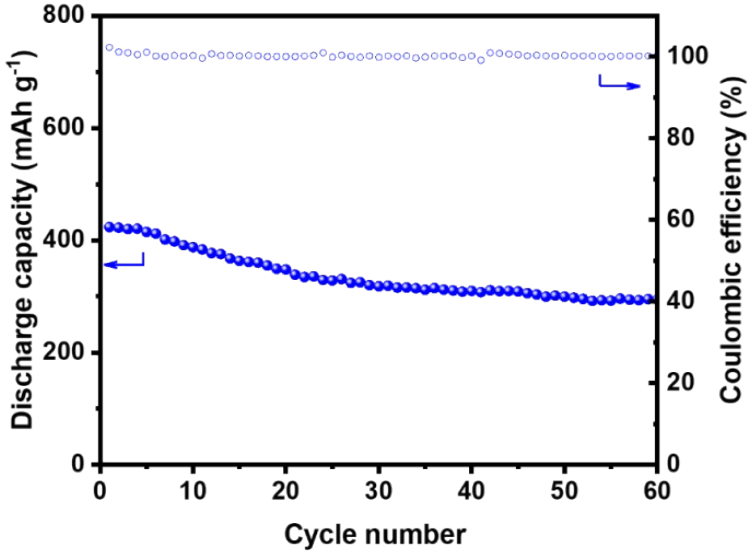

Fig. S6 Cycling performance of HCNF/CNT-S with sulfur loading of 3 mg cm^{-2} at 1C.

Table S1 The cycling performance of carbon and sulfur compound materials reported in the literature is compared with this work.

Materials	**Sulfur content (wt%)**	**Current density**	**Cycle times**	**Cycle performance (mA h g^{-1})**
PC@RGO/S[1]	71.2	0.2 A g^{-1}	100	543
CFS@graphene[2]	33	0.2 A	50	611
N-doped CNT@ highly porous carbon /S[3]	57.5	0.2 C	250	613
phosphorus codoped hierarchically porous carbon /S[4]	73	1 C	200	575
AC-RH/S_1[5]	80	0.2 C	100	679
SiCN-S[6]	66	0.2 C	40	310
carbon aerogel /GNs0.1-S[7]	58.86	0.1 C	100	471
HCNF/CNT-S (This work)	67.8	0.2 C 2 C	100 200	679 522

References

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