

## Supplementary Files

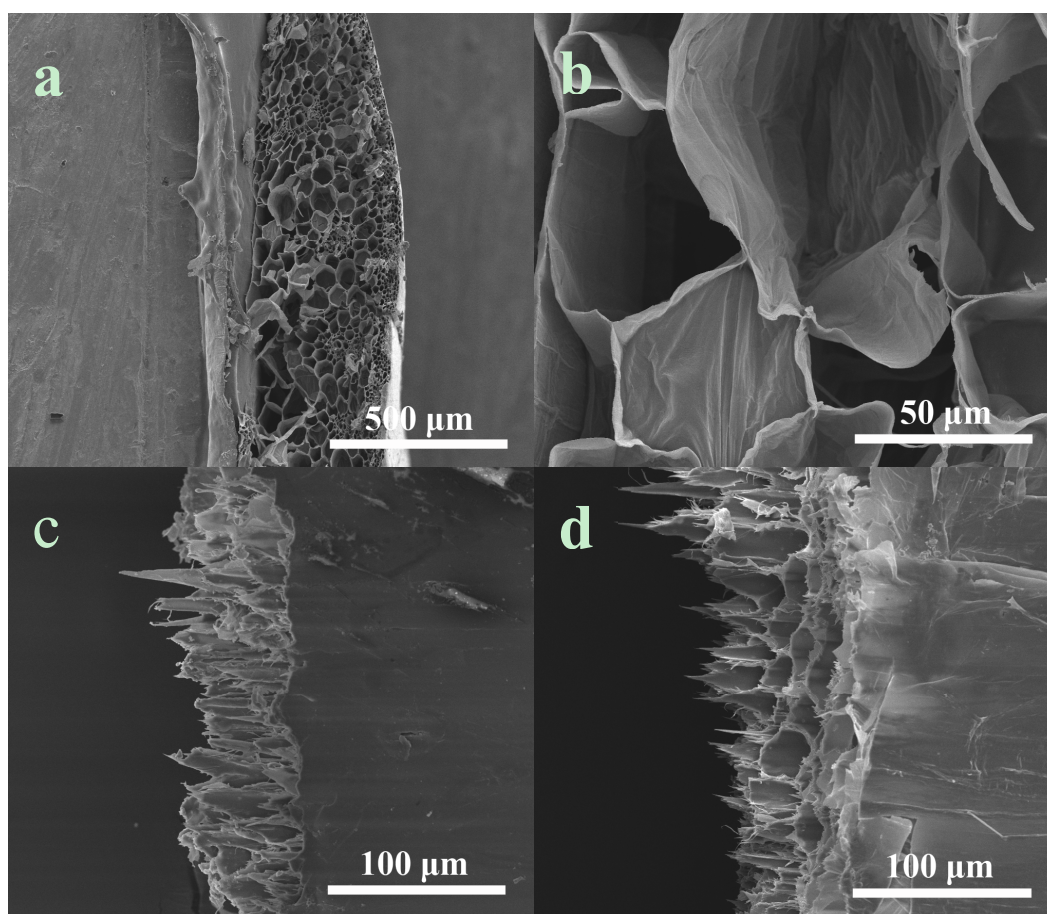
# Wheat straw-derived N-, O-, and S-tridoped porous carbon with ultrahigh specific surface area for lithium-sulfur batteries

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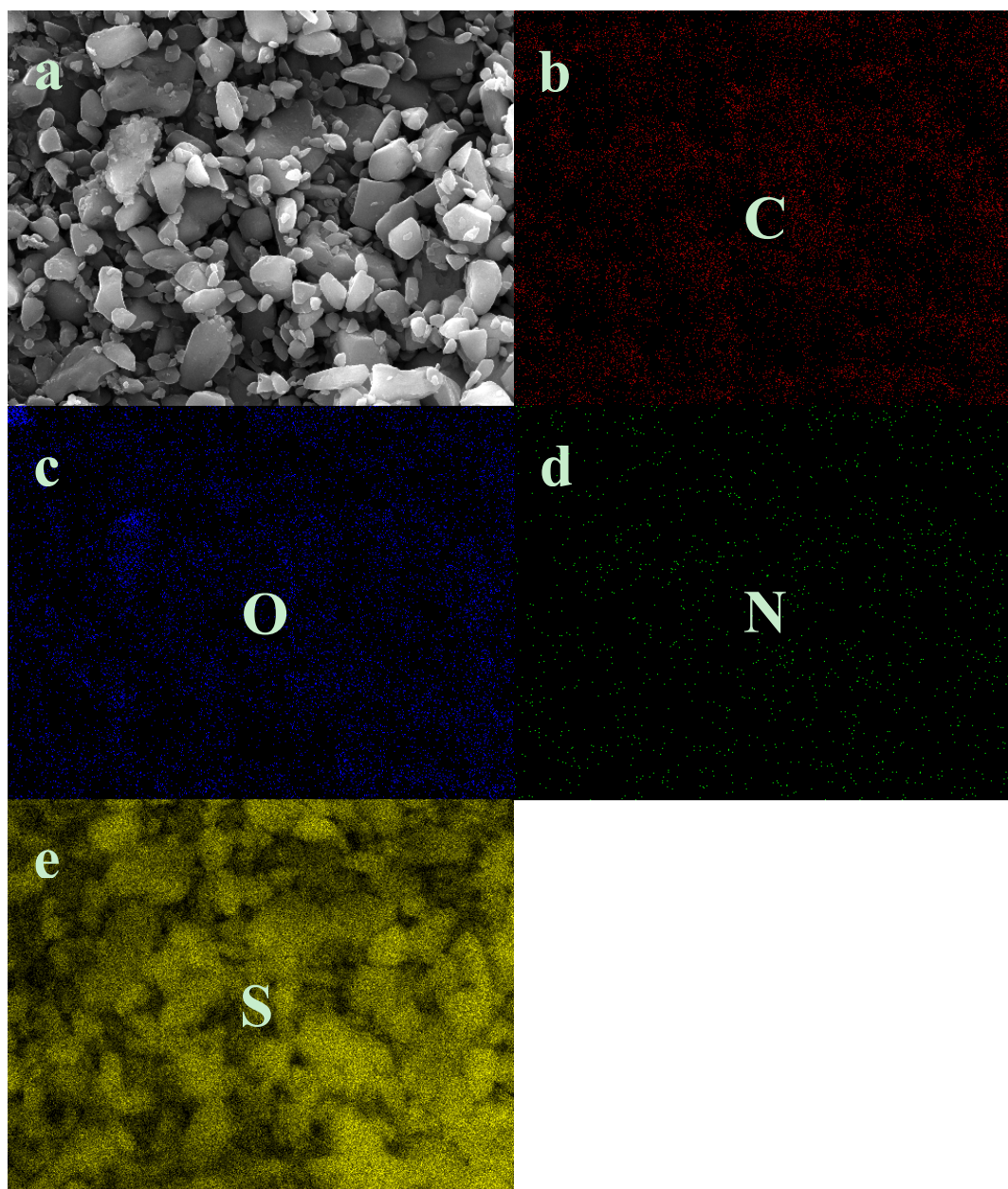
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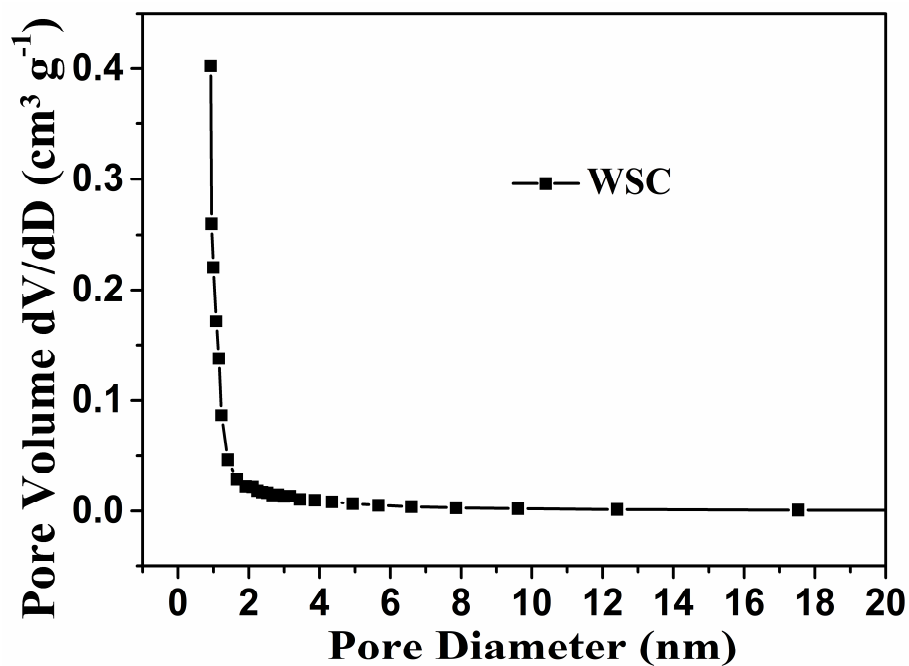
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**Figure S1.** SEM images of cross section (a-b), outside surface (c), and internal surface (d) for wheat straw.



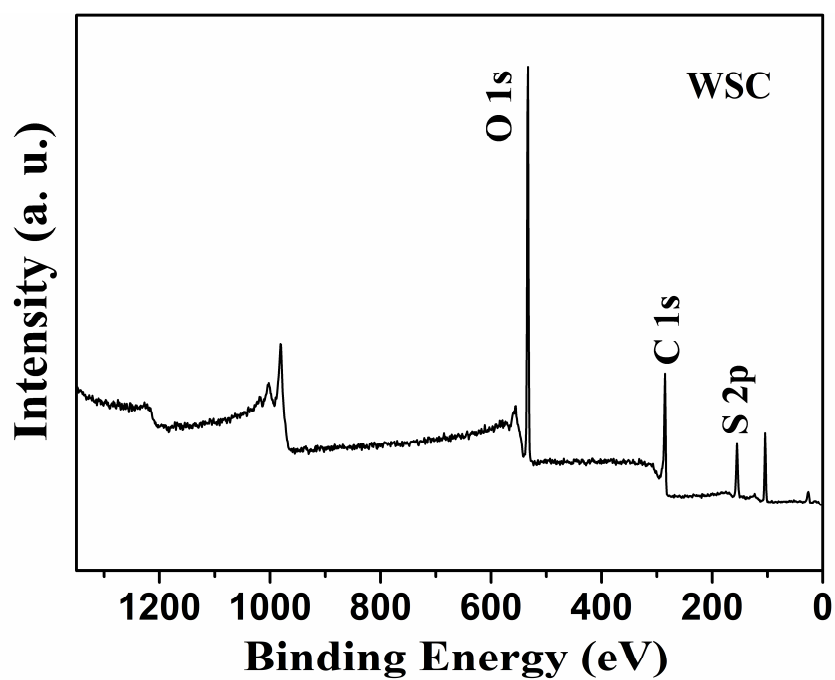
**Figure S2.** SEM image of NOSPC/S (a) and corresponding elemental maps of C (b), O (c), N (d), and S (e).



**Figure S3.** Pore size distribution curve of WSC.

**Table S1.** The combustion elemental analysis for NOSPC.

Samples	C [wt%]	H [wt%]	O [wt%]	N [wt%]	S [wt%]
NOSPC	80.59	0.18	9.12	1.01	1.35



**Figure S4.** XPS spectrum of WSC.

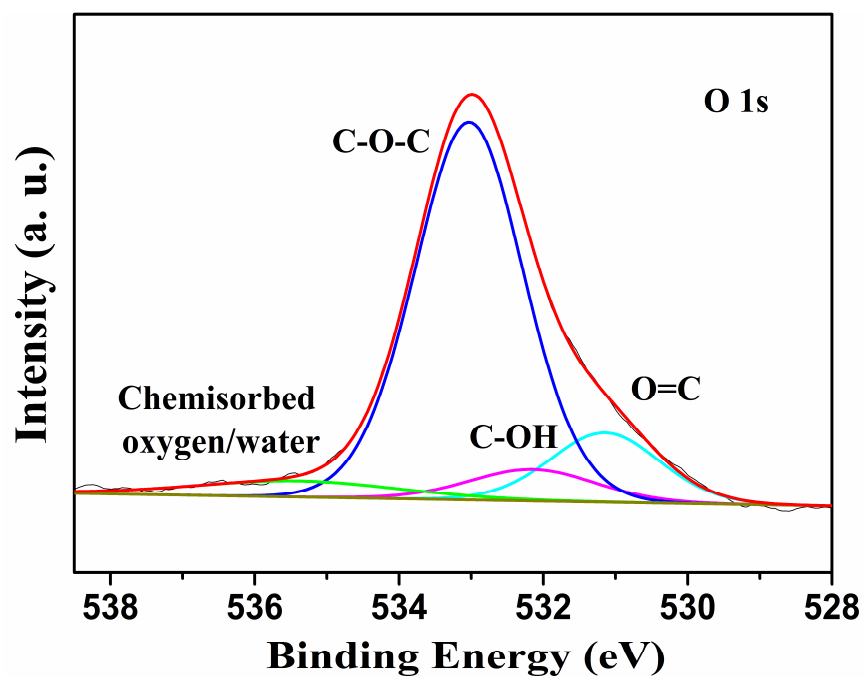


Figure S5. High-resolution XPS spectrum of O 1s for NOSPC.

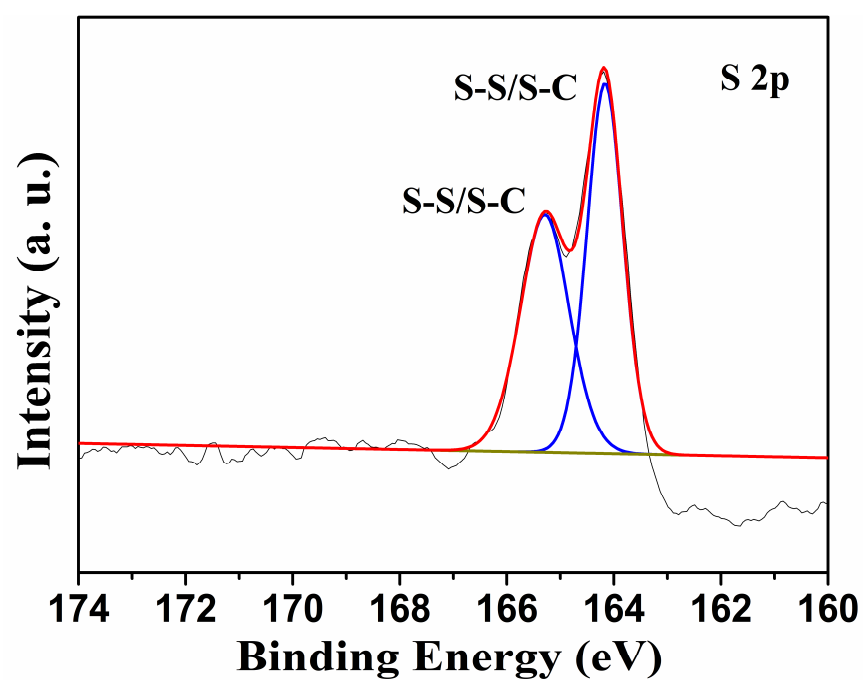
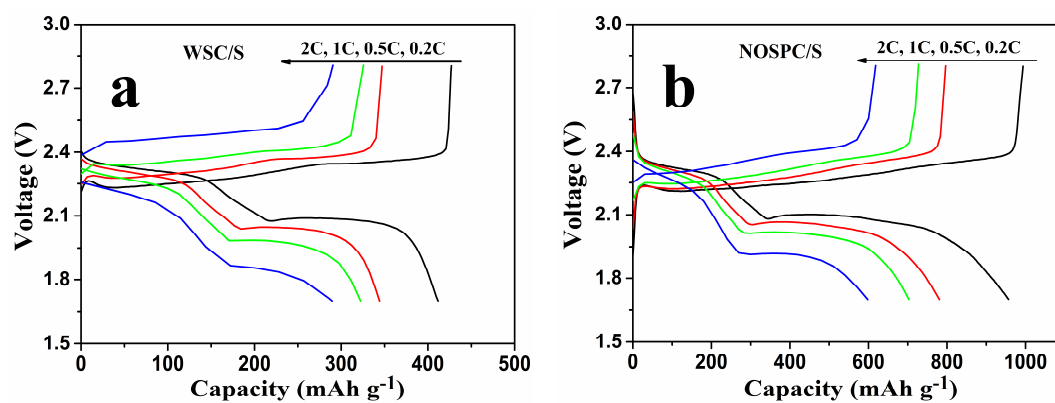


Figure S6. High-resolution XPS spectrum of S 2p for NOSPC.



**Figure S7.** Charge and discharge voltage profiles of WSC/S (a) and NOSPC/S (b) at different current densities from 0.2 to 2 C.



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