



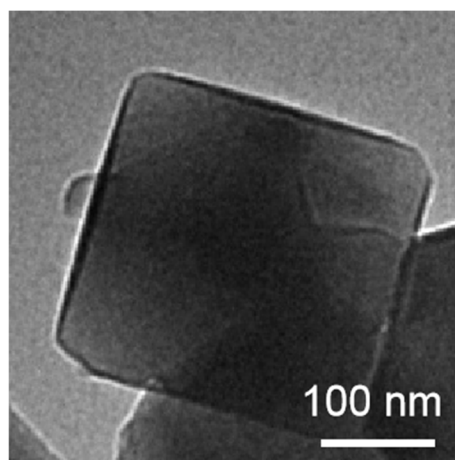
## Supporting information

# Nanoporous Co and N-Codoped Carbon Composite Derived from ZIF-67 for High-Performance Lithium-Sulfur Batteries

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**Figure S1.** TEM image of ZIF-67 nanocubes.

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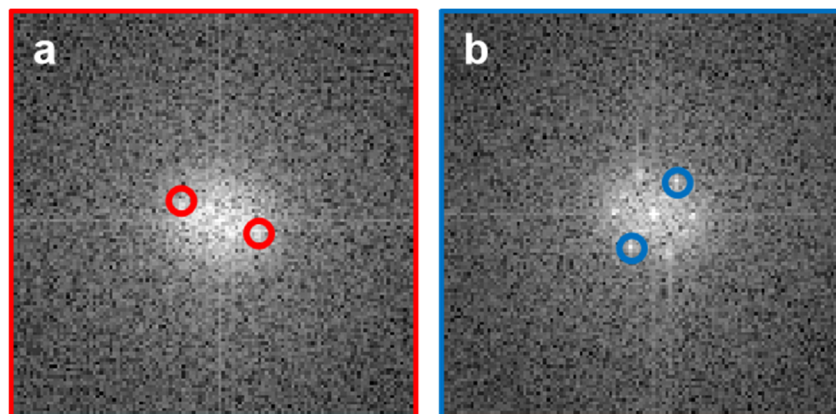
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**Figure S2.** FFT patterns of (a) red square and (b) blue square in the HRTEM image of Co-NC600.

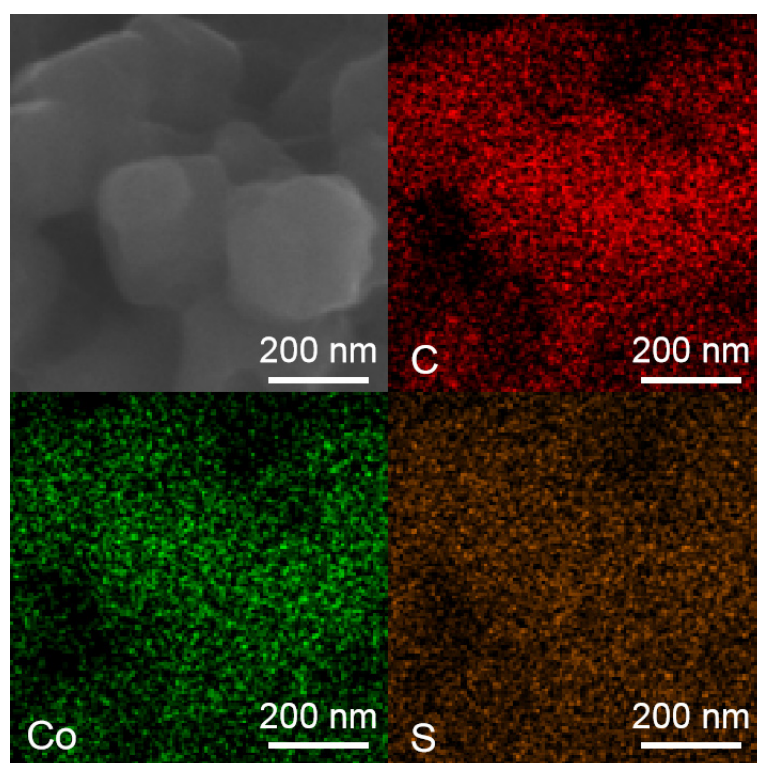


Figure S3. Elemental mapping of S/Co-NC600.

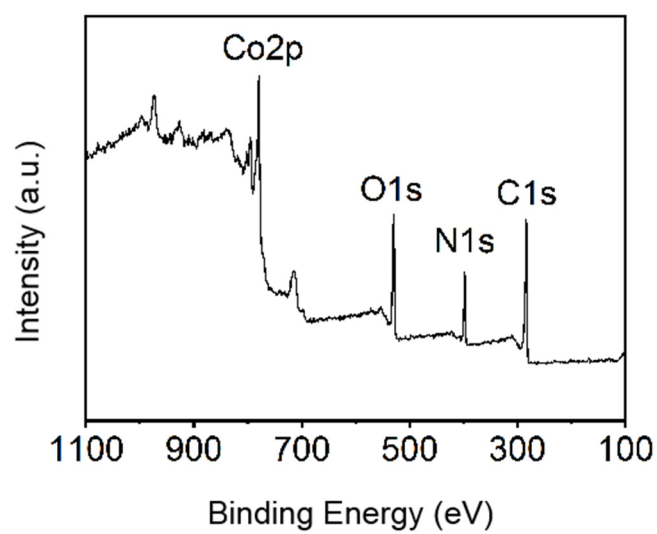
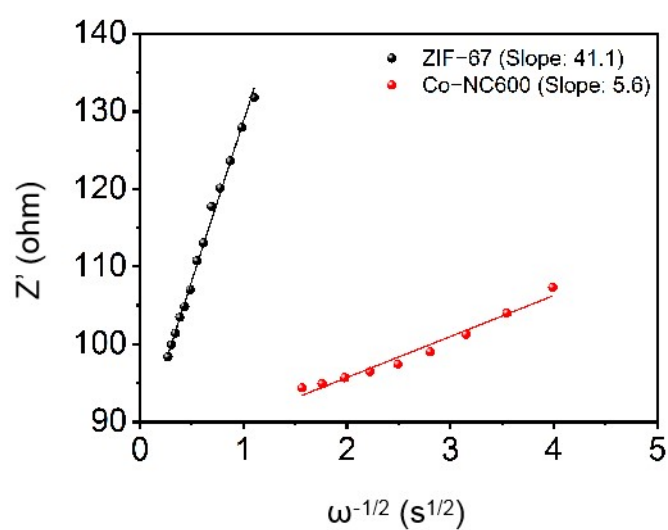


Figure S4. XPS spectra of S/Co-NC600 after annealed at 350 °C under Ar flow.



**Figure S5.** The liner fit between  $Z'$  and  $\omega^{-1/2}$  in the batteries with S/ZIF-67 and S/Co-NC600 electrodes.

**Table S1.** Electrode resistances data of S/ZIF-67 and S/Co-NC600 cathodes obtained from the equivalent circuit.

Sulfur-carrier materials	S/ZIF-67	S/Co-NC600
$R_0$ ( $\Omega$ )	3.7	3.8
$R_{ct}$ ( $\Omega$ )	72.2	27.9
$Z_w$ ( $\Omega$ )	147.5	60.8
CPE-P	0.83	0.72