

Supplementary Materials:

# Electrospun 3D Structured Carbon Current Collector for Li/S Batteries

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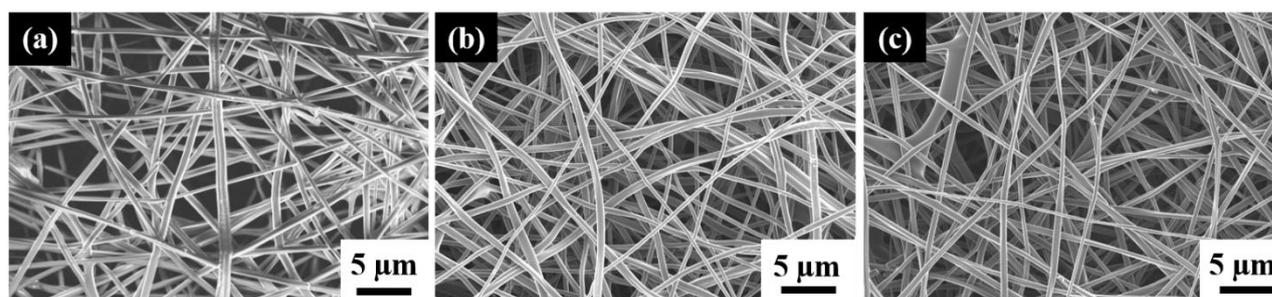
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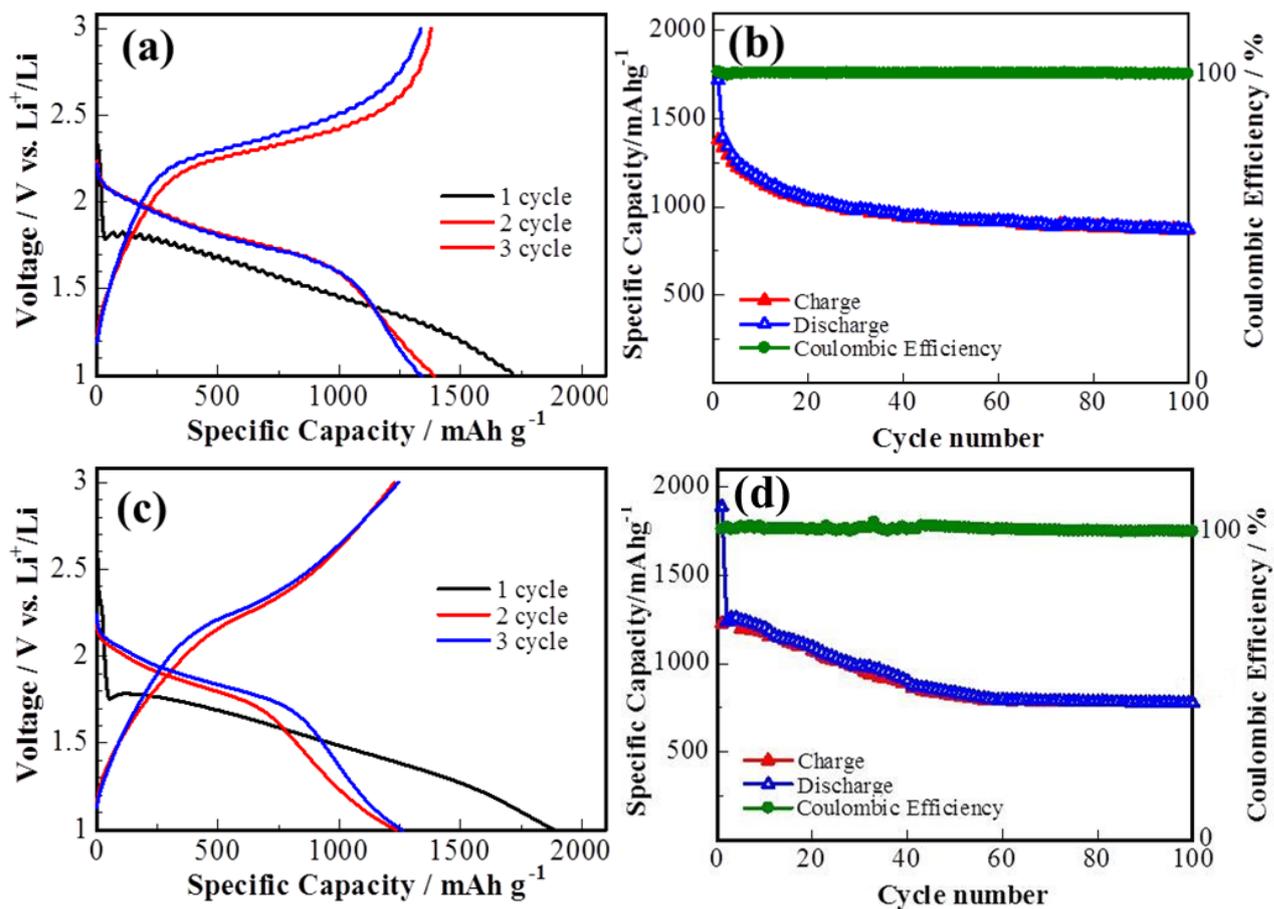
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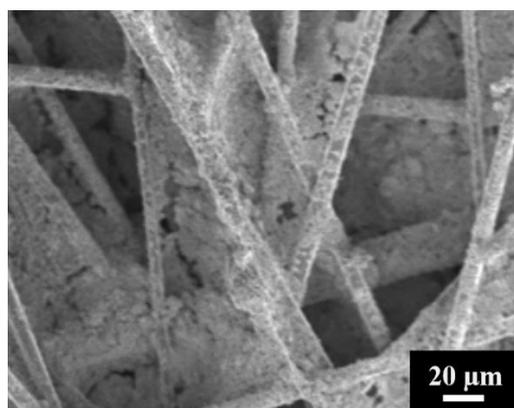
**Figure S1.** SEM images of (a) stabilized at 280 °C, carbonized at (b) 600 °C and (c) 700 °C PAN12 nanofibers.

**Table S1.** Diameter and void size of prepared nanofibers.

Name	Diameter of fiber, nm	Void distance, μm	Areal density, mg cm <sup>-2</sup>	Thickness, μm
PAN10	~500	-		
PAN12	~1300	-		
PAN14	~2500	-		
cPAN10	~300	≤ 1	0.85	
cPAN12	~800	≤ 1.5		~25
cPAN14	~1500	≤ 3		
Commercial carbon fibers	~7000	≤ 20	6.03	
	S/DPAN/CNT particle size ≤ 1.5 μm			
	Al current collector		4.9	~15



**Figure S2.** (a, b) Potential profile and cycle performance of sulfur composite on Al foil, and (c, d) on commercial CFs at 0.1 C, respectively.



**Figure S3.** SEM image of sulfur based composite cathode on commercial CF current collector.