

Green Synthesis of Hierarchically Porous Carbon Derived from Coal Tar Pitch for Enhanced Lithium Storage

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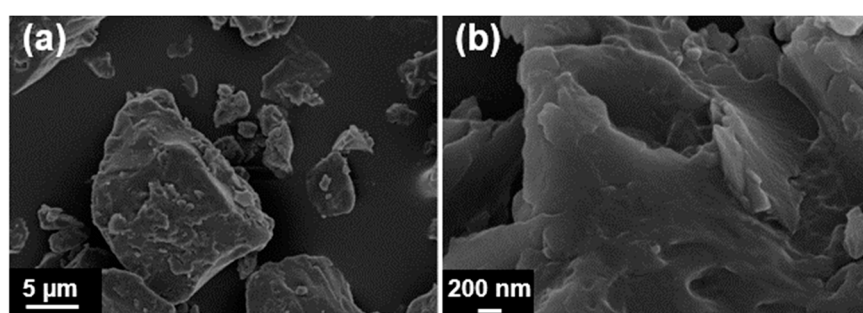


Figure S1. (a, b) SEM images of coal tar pitch.

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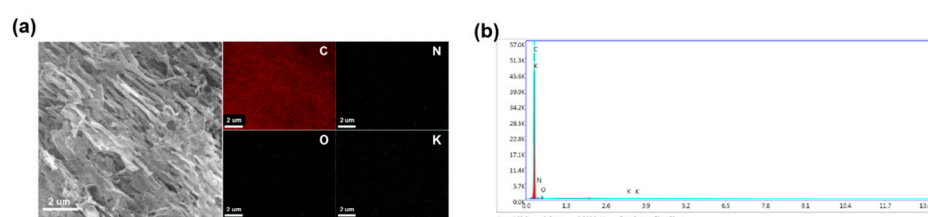


Figure S2. (a) SEM image and the corresponding EDS elemental mapping and (b) EDS spectrum of HPC-3.

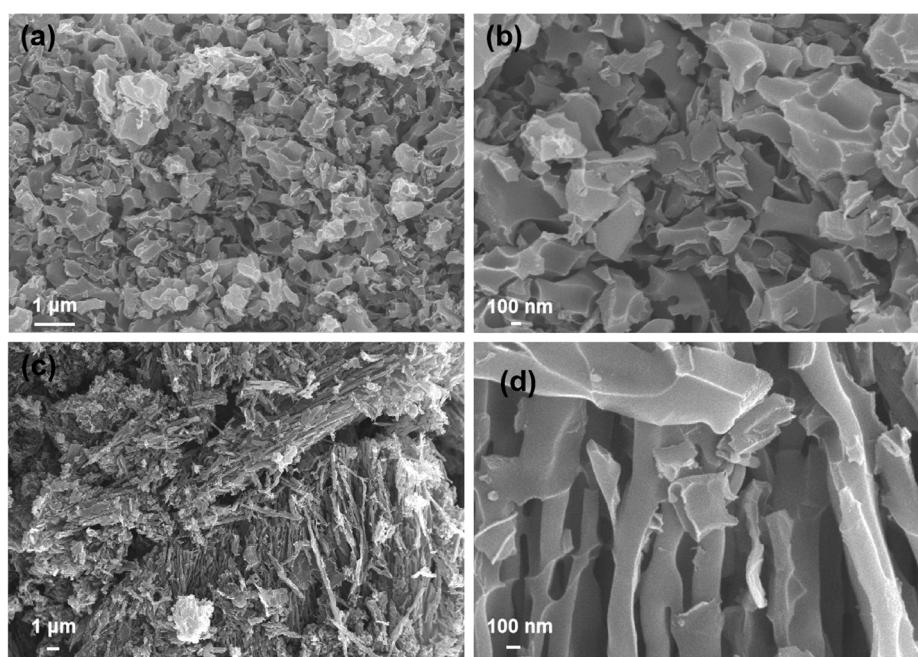


Figure S3. (a, b) SEM images of HPC-2. (c, d) SEM images of HPC-4.

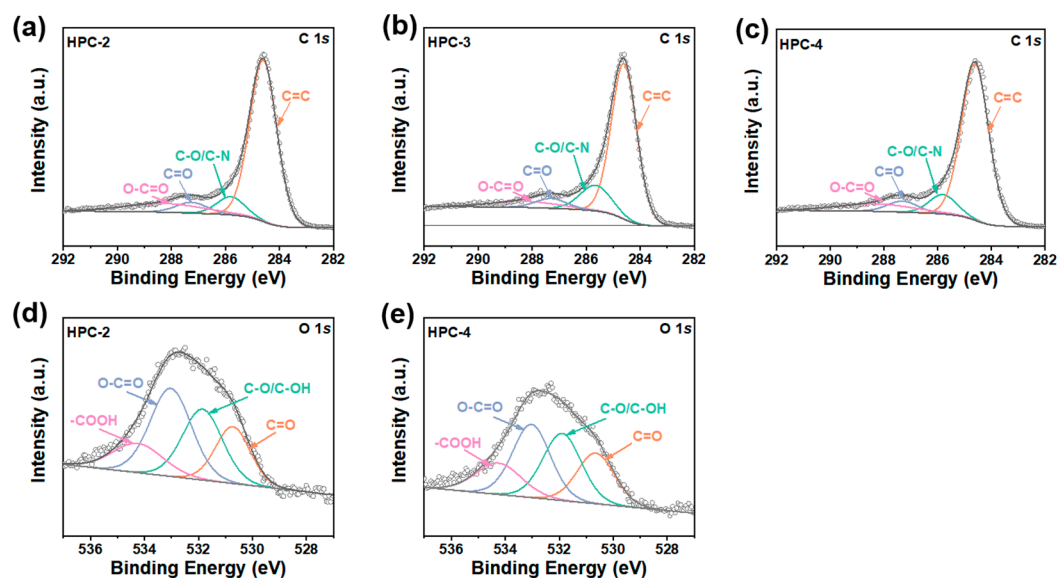


Figure S4. High-resolution XPS spectra of C 1s in (a) HPC-2, (b) HPC-3, and (c) HPC-4. High-resolution XPS spectra of O 1s in (d) HPC-2 and (e) HPC-4.

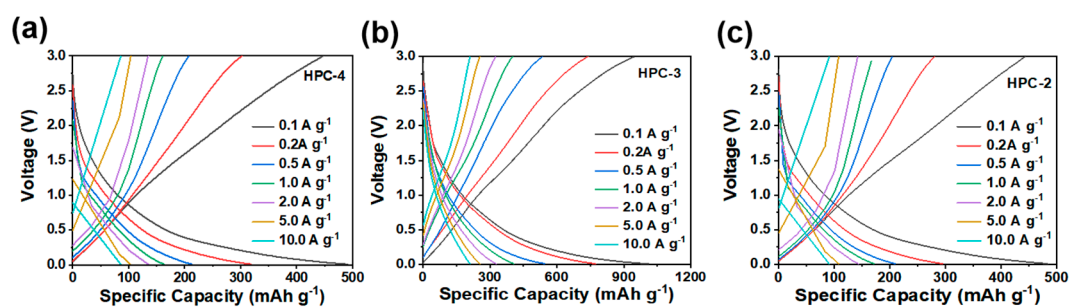


Figure S5. Galvanostatic charge/discharge profiles of (a) HPC-2, (b) HPC-3, and (c) HPC-4.

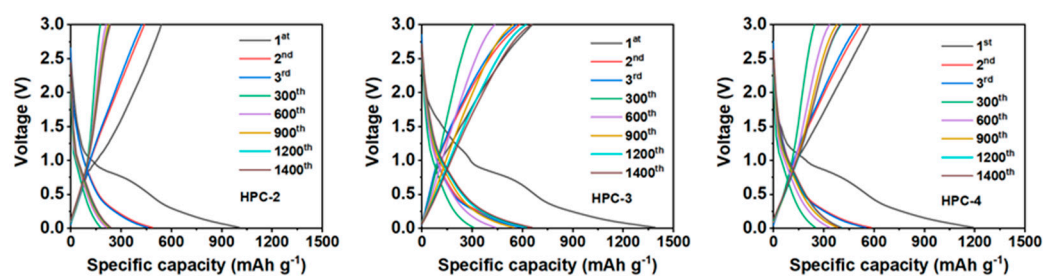


Figure S6. GCD profiles of (a) HPC-2, (b) HPC-3, and (c) HPC-4 during cycling.

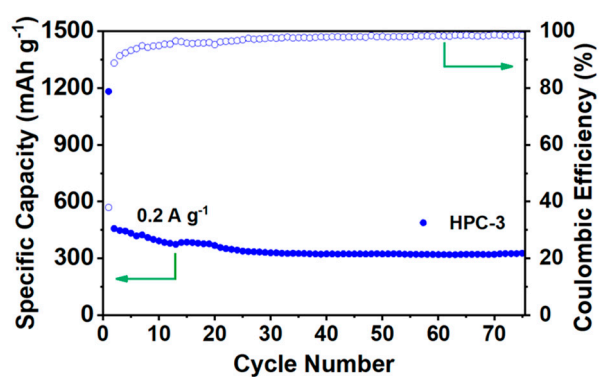


Figure S7. Cycling performance of HPC-3 at a current density of 0.2 A g⁻¹.

Table S1. Element contents and O element configuration in HPC-X.

Samples	C (at.%)	O (at.%)	N (at.%)	O 1s			
				C=O	C-O/C-	O=C-O-	-COOH
				(%)	N(%)	(%)	(%)
				(%)	N(%)	(%)	(%)
HPC-2	93.9	5.5	0.6	19.8	28.5	36.7	14.9
HPC-3	94.4	4.7	0.9	25.4	24.8	33.1	16.7
HPC-4	94.3	4.9	0.8	21.8	29.7	31.9	16.6