

**Porous carbon nanoflakes with a high specific surface area
derived from kapok fiber for high-performance electrode
materials of supercapacitor**

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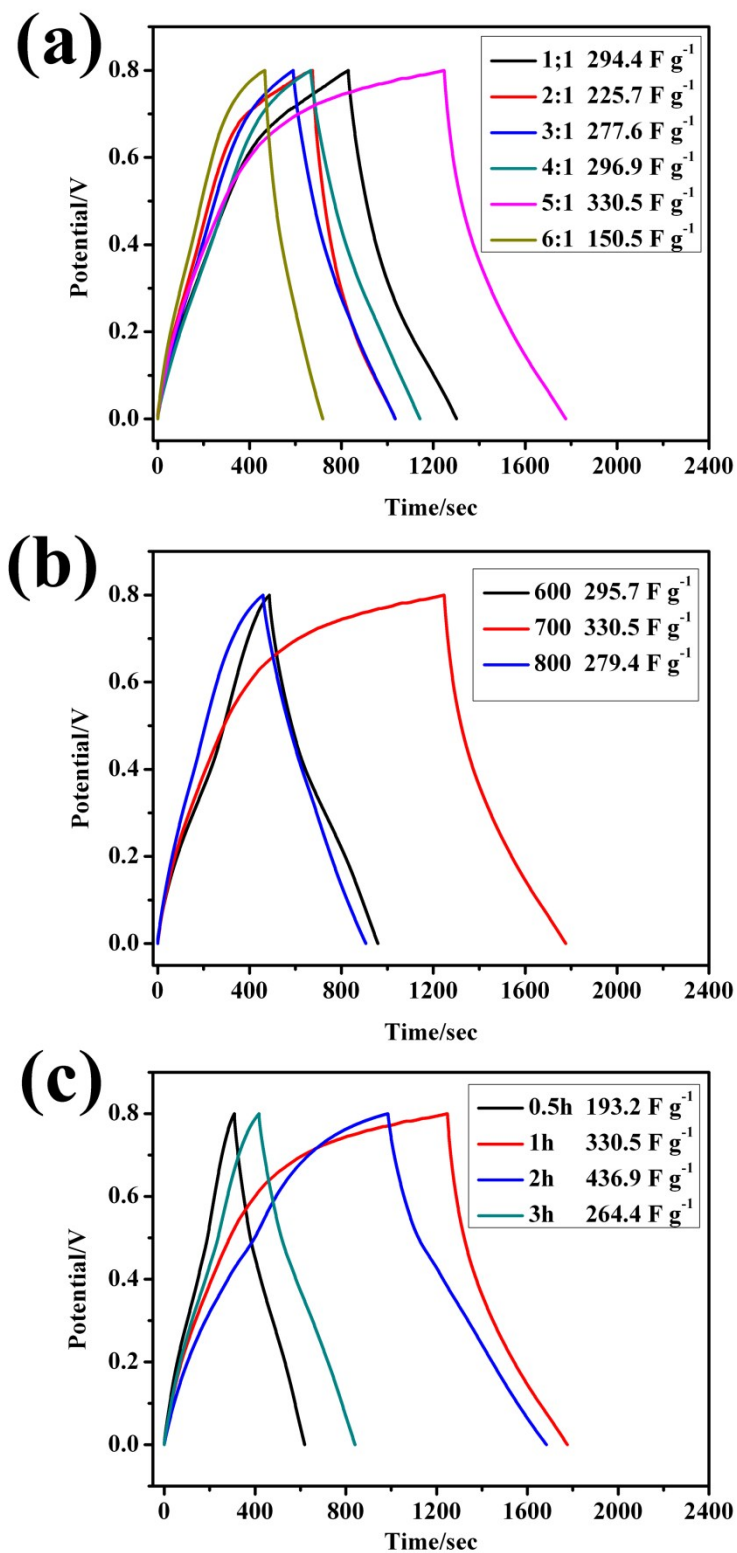


Fig. S1 GCD curves of the samples of (a) CNF-1 ~ 6, (b) CNF-5, 7, and 8, (c) CNF-5, 10 ~ 12 in 1.0 M H_2SO_4 electrolyte at current density $0.5 A g^{-1}$.

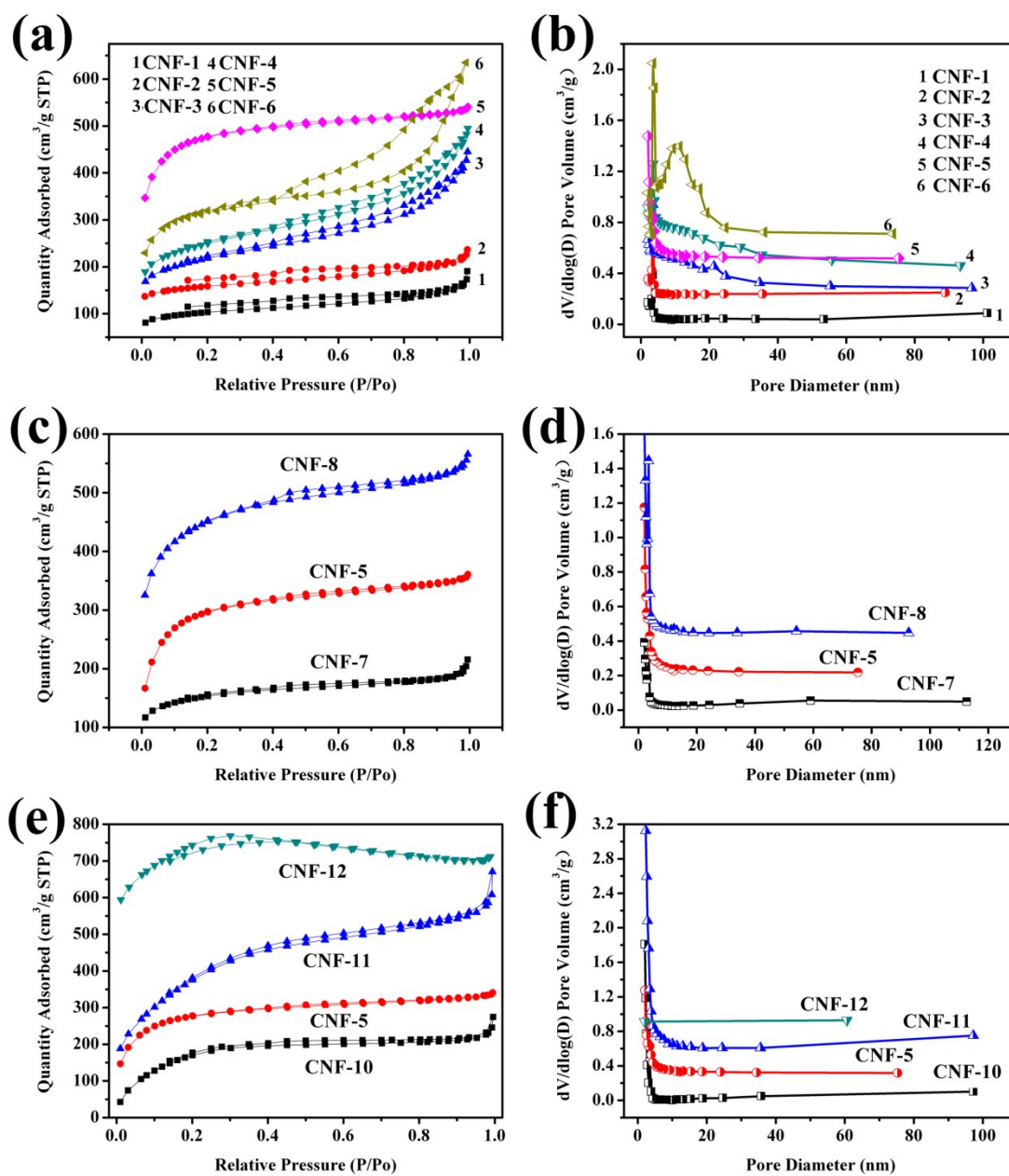


Fig. S2 N_2 adsorption-desorption isotherm and the pore size distribution of (a and b) CNF-1 ~ 6, (c and d) CNF-5, 7, and 8, and (e and f) CNF-5, 10 ~ 12.

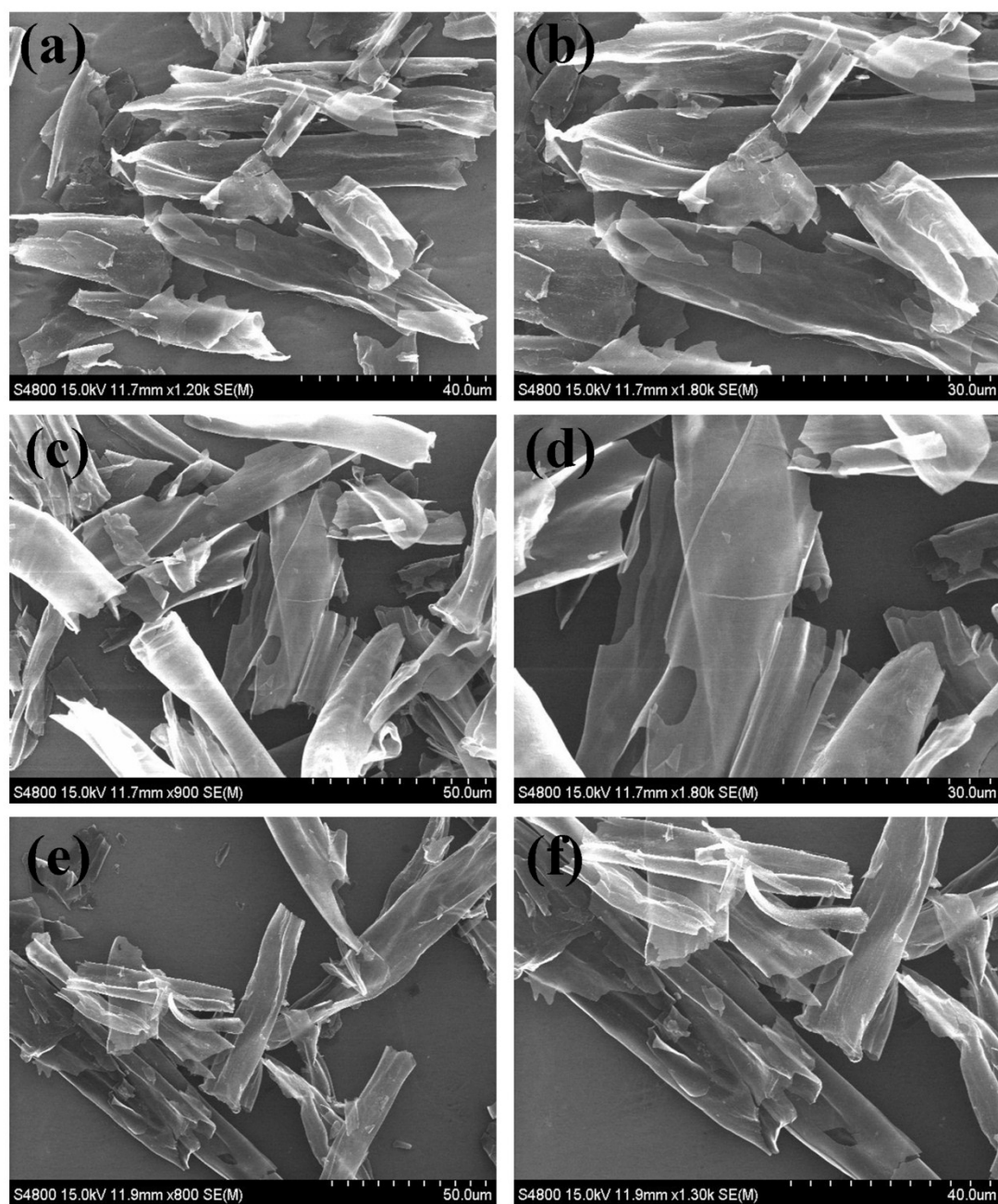


Fig. S3 SEM images of (a and b) CNF-10, (c and d) CNF-5, and (e and f) CNF-12.

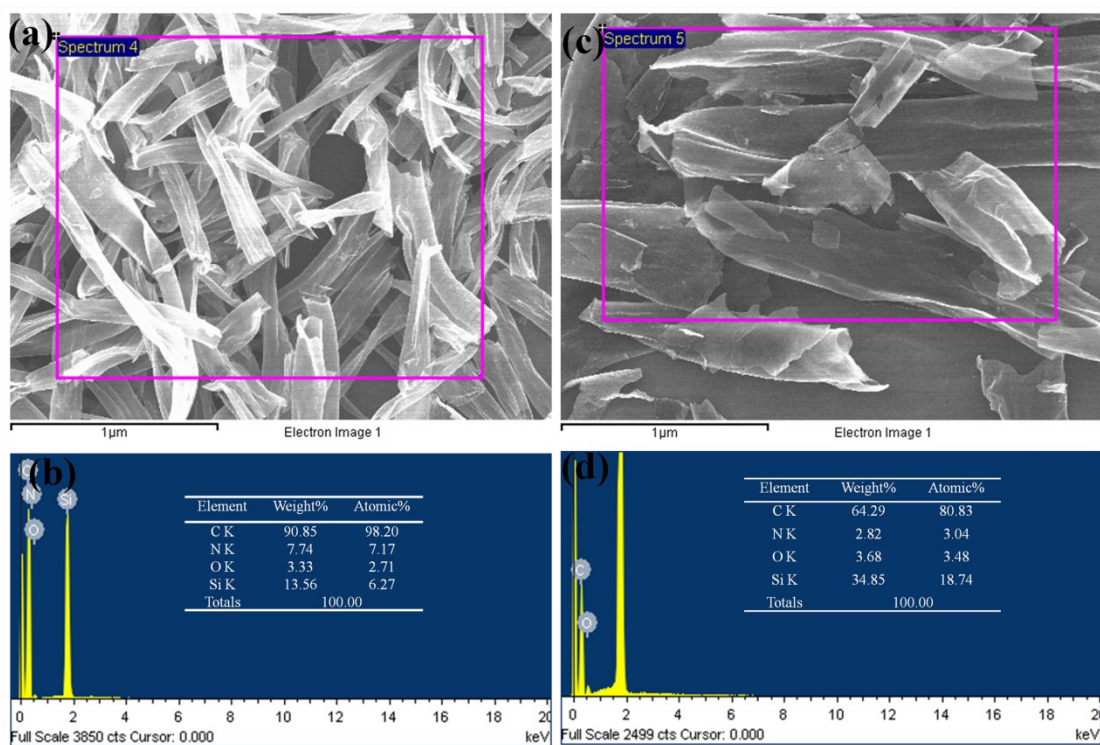


Fig. S4 The selected area EDS curves of (a and b) CKF and (c and d) CNF-10.

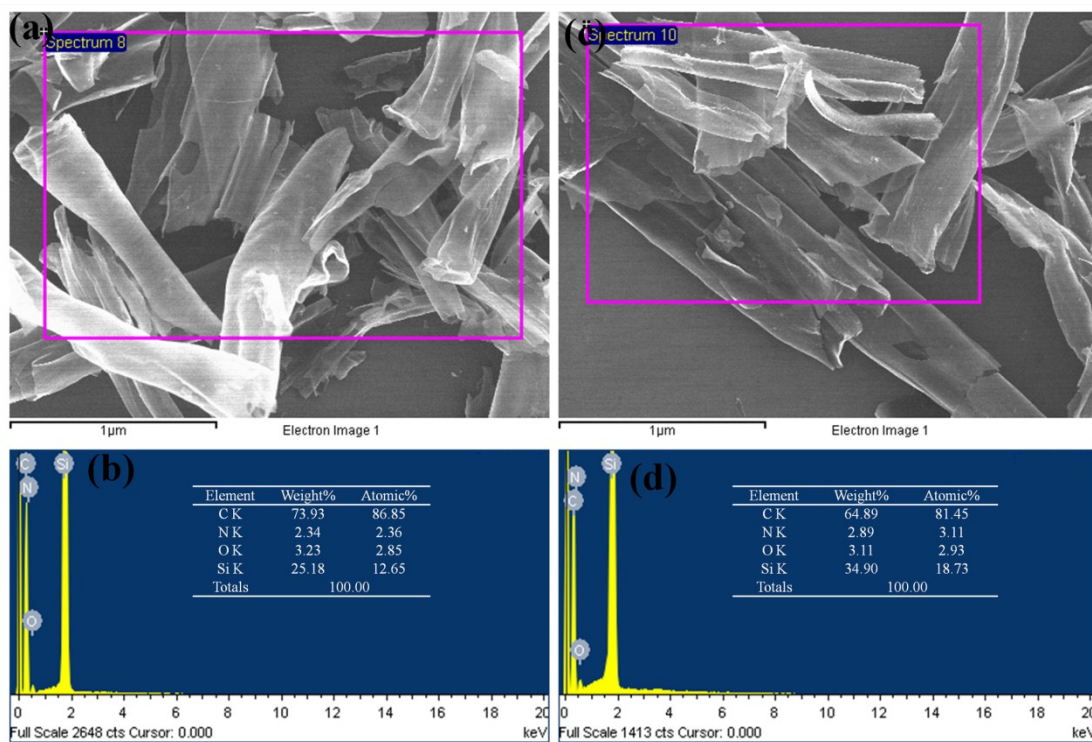


Fig. S5 The selected area EDS curves of (a and b) CNF-5 and (c and d) CNF-12.

Table S1 Comparison of energy density and power density of various carbon materials with KF derived carbon

Material	Electrolyte	ED ^a	PD ^b	Ref
			200 W kg ⁻¹	
Commercial carbon	6 M KOH	7.4 Wh kg ⁻¹	¹	1
		7.96 Wh kg ⁻¹	500 W kg ⁻¹	
Renewable chicken feather biopolymer	1 M H ₂ SO ₄	¹	¹	2
		9.58 Wh kg ⁻¹	500 W kg ⁻¹	
Coconut-Shell-based Porous Carbons	6 M KOH	¹	¹	3
		8.03 Wh kg ⁻¹	100 W kg ⁻¹	
Carbons derived from humic acid	1 M H ₂ SO ₄	¹	¹	4
		6.43 Wh kg ⁻¹	100 W kg ⁻¹	
Carbon from sunflower seed shell	6 M KOH	¹	¹	5
		7.11 Wh kg ⁻¹	125 W kg ⁻¹	
Carbon from CNFs@PPY	6 M KOH	¹	¹	6
			500 W kg ⁻¹	
Carbon derived from Fungi	6 M KOH	8.0 Wh kg ⁻¹	¹	7
			114 W kg ⁻¹	
Carbonized pine wood	2 M KOH	6.1 Wh kg ⁻¹	¹	8
		7.84 Wh kg ⁻¹	125 W kg ⁻¹	
KF derived carbon	1 M H ₂ SO ₄	¹	¹	This work

^a Energy density is the highest value in literature. ^b Power density corresponding to highest energy density.

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