Supporting Information:

Nanosheet Carbon from Nature Waste: Insights into the role of Controlled Pore Structure for Energy-storage

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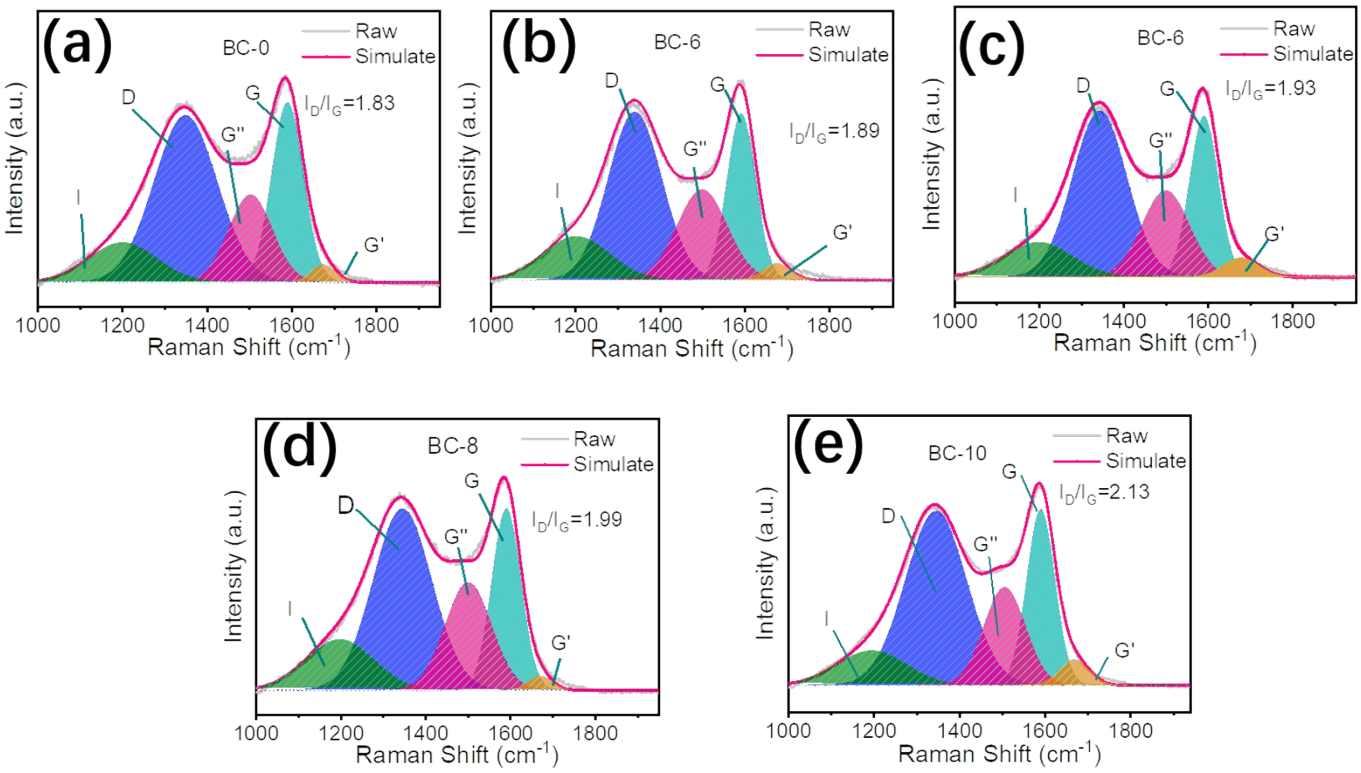

Fig. S1 Fitting of the Raman spectra of BC-0(a), BC-4(b), BC-6(c), BC-8(d) and BC-10(e) using five Gaussian peaks.

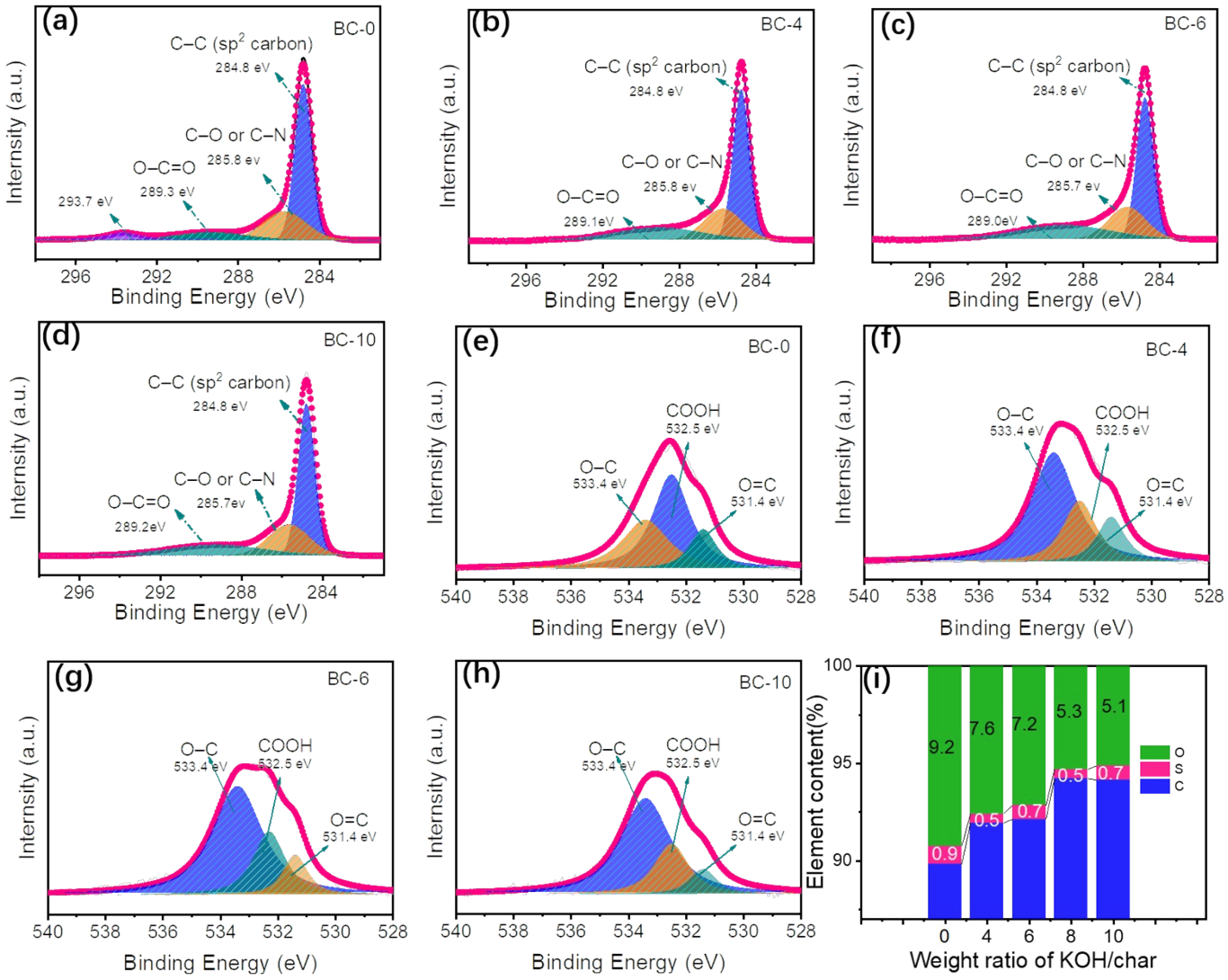

Fig S2 XPS C1S spectra of BC-4(a), BC-6(b), BC-8(c) and BC-10(d), XPS O1S spectra of BC-4(e), BC-6(f), BC-8(g) and BC-10(h) and element content of as-obtained samples(i).

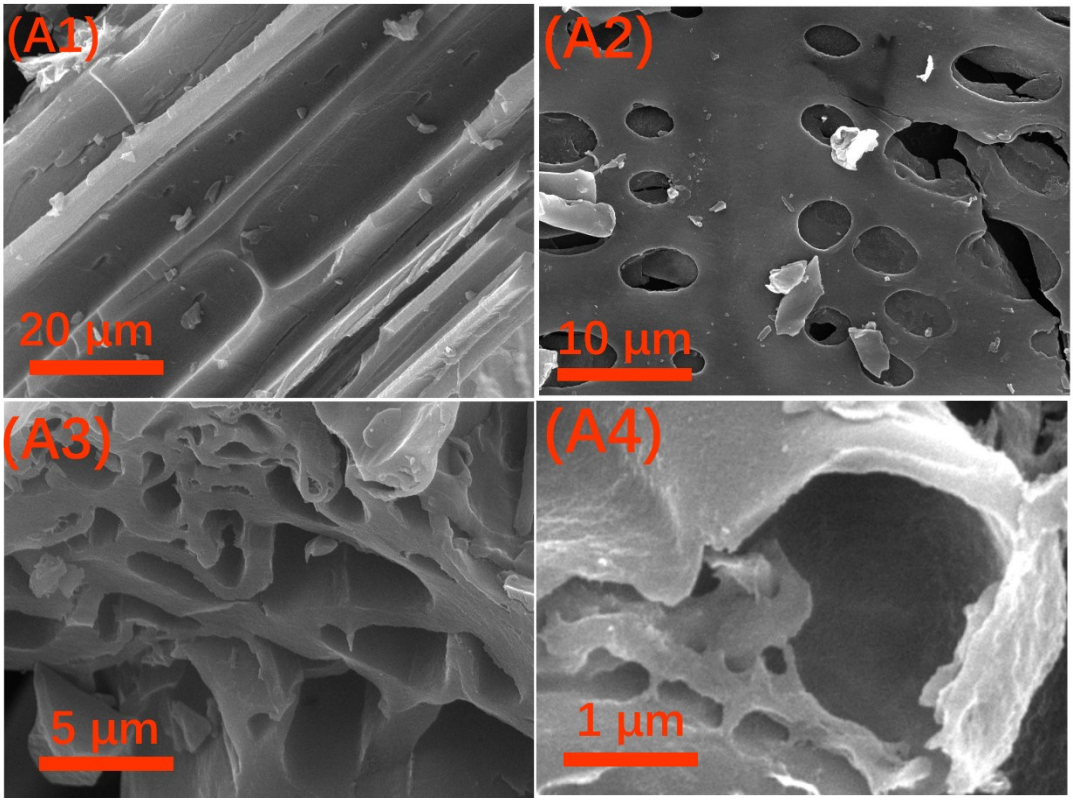

Fig S3 SEM images of BC-0

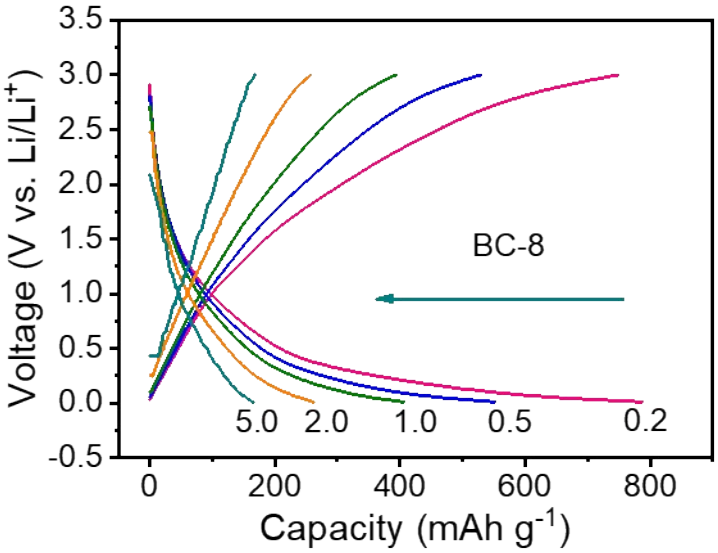

Fig S4 charge-discharge curves of BC-8 for the 5th cycle at various current densities.

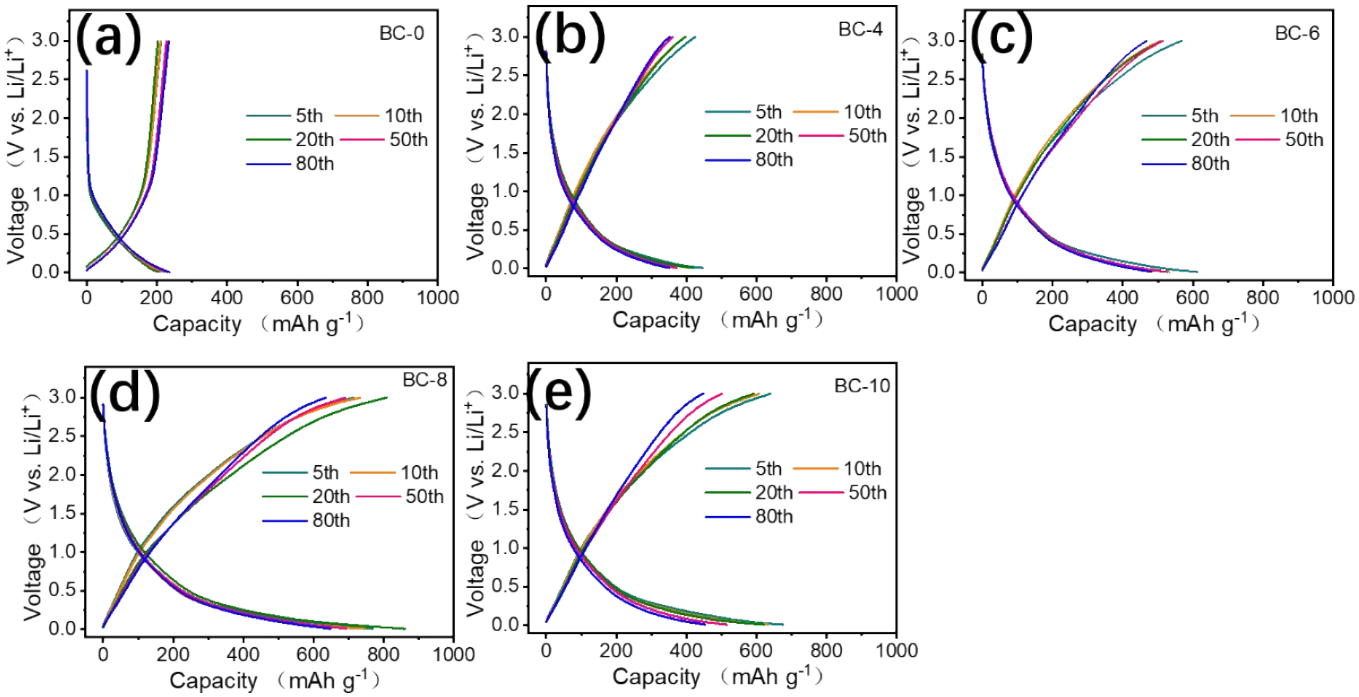

Fig. S5 Galvanostatic charge and discharge profiles of the BC-0(a), BC-4(b), BC-6(c), BC-8 (d) and BC-10 (e) at 100 mA g^{-1} between 0.01 V and 3.00 V for the 5th, 10th, 20th, 50th and 80th cycles.

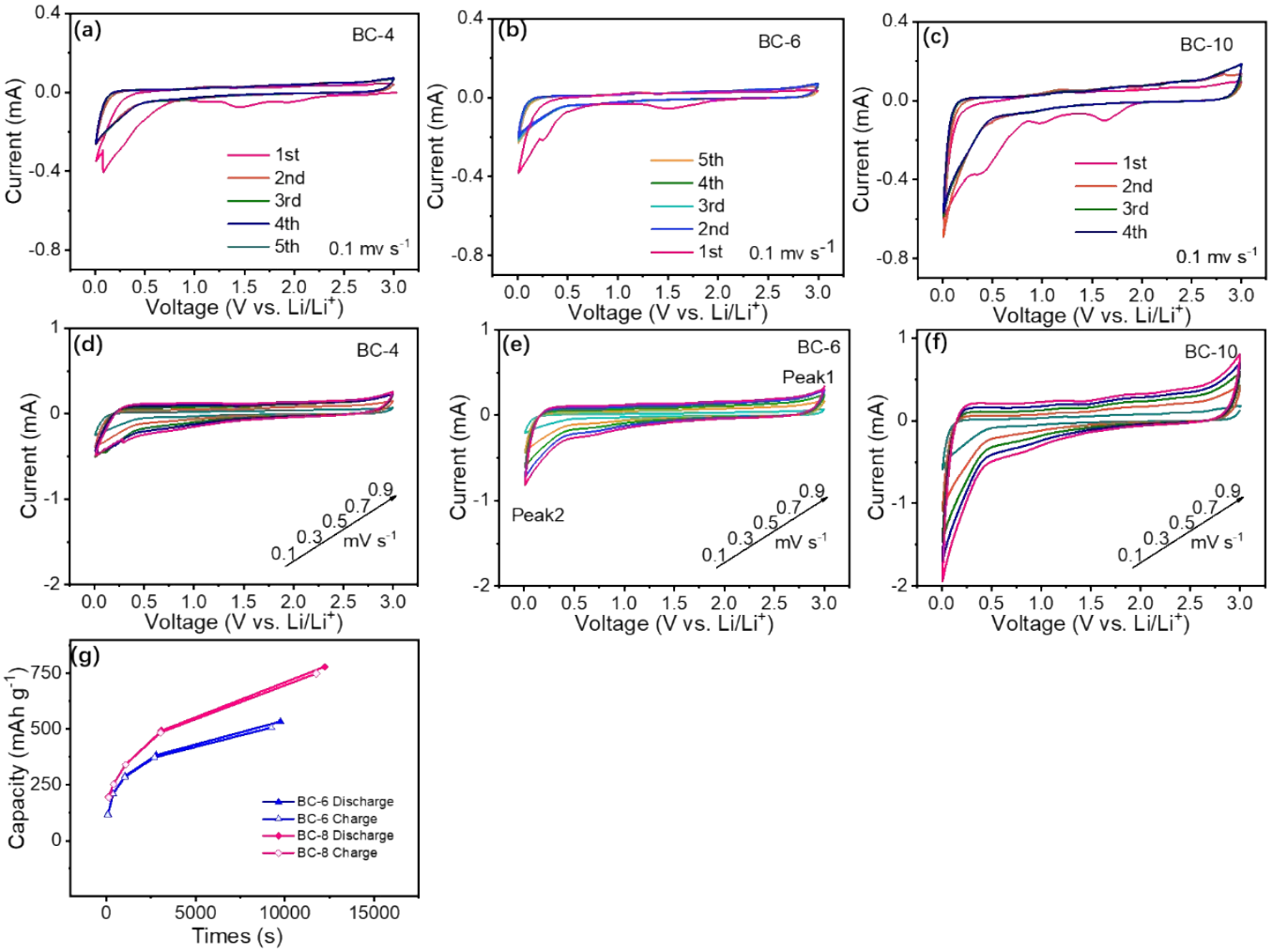

Fig.S6 The CV curves of BC-4(a), BC-6(b) and BC-10(c) at first five cycling at 0.1 mV s^{-1}, the CV curves of BC-4(d), BC-6(e) and BC-10(f) at different sweep rates, Li-storage capacity vs. charge/discharge time of BCs (g).

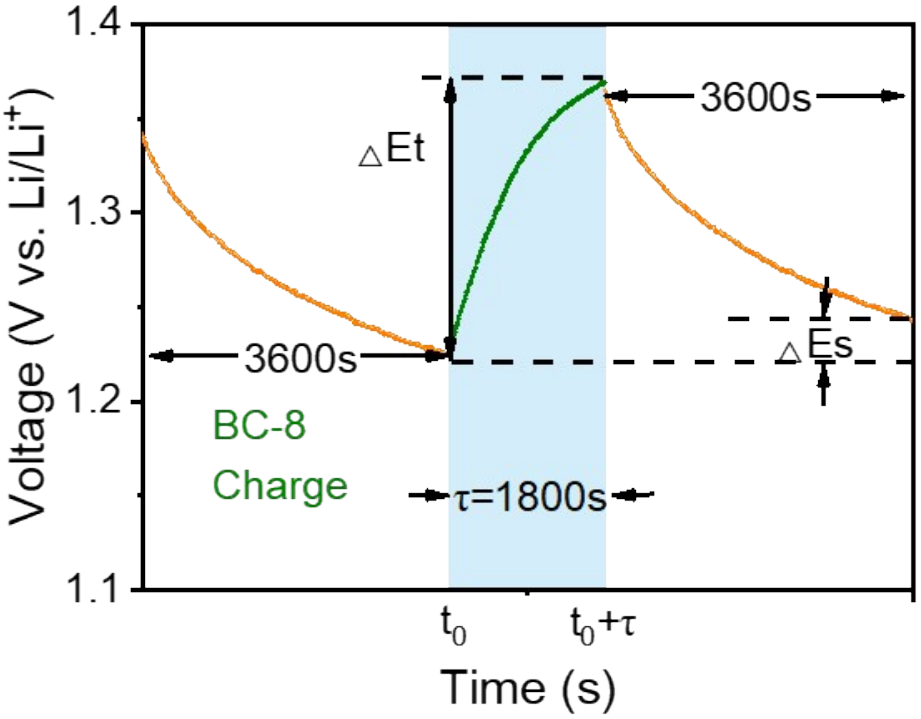

Fig. S7 Linear behavior of the potential vs. $\tau^{1/2}$ in discharge of BC-8

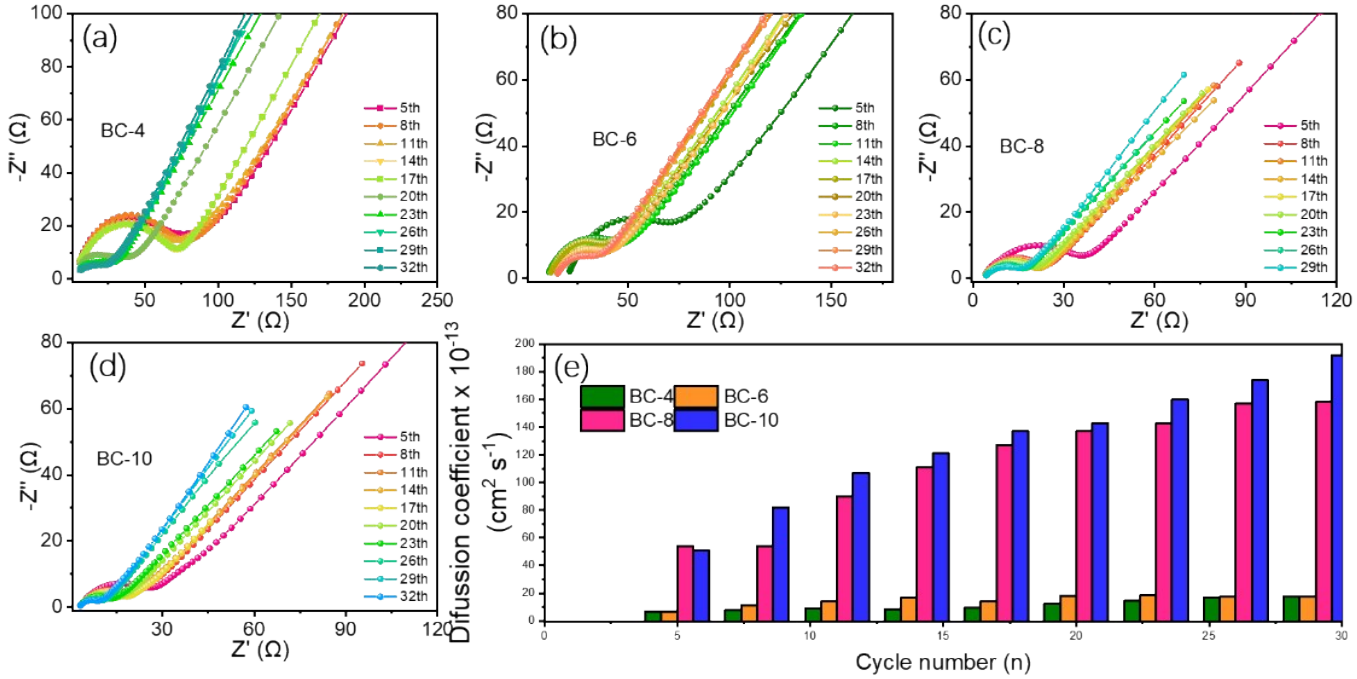

Fig.S8 The Nyquist plots at various cycling of BC-4 (a), BC-6 (b) ,BC-8(c) and BC-10 (d), the diffusion coefficients at different cycling (e),.

Table S1 Characterization results of as-obtained samples samples through N_2 gas sorption, X-ray diffraction and Raman spectroscopy

Material	d002/ nm	Lc/ nm	La/ nm	BET Surface Area (m^2 g^{-1})	DFT Pore Volume (cm^3 g^{-1})	BJH Adsorption Pore Volume (cm^3 g^{-1})			
						Micropores < 2 nm	Mesopores 2 nm – 20 nm	Macropores 20 nm <	Microporosity
BC-0	0.364	1.03	3.07	183	0.079	0.004	0.001	0.184	2.11
BC-4	0.384	0.90	2.68	2822	1.318	0.81	0.33	0.01	70.43
BC-6	0.397	0.84	2.78	3558	1.612	1.00	0.41	0.03	68.03
BC-8	0.398	0.79	2.54	2698	1.540	0.59	0.96	0.08	36.19
BC-10	0.419	0.68	2.35	2042	1.180	0.46	0.68	0.09	37.39