Electronic Supplementary Material (ESI) for Journal of Materials Chemistry A.

Supporting Information

Generation of bimodal porosity via self-extra porogenes in nanoporous carbons for supercapacitor application

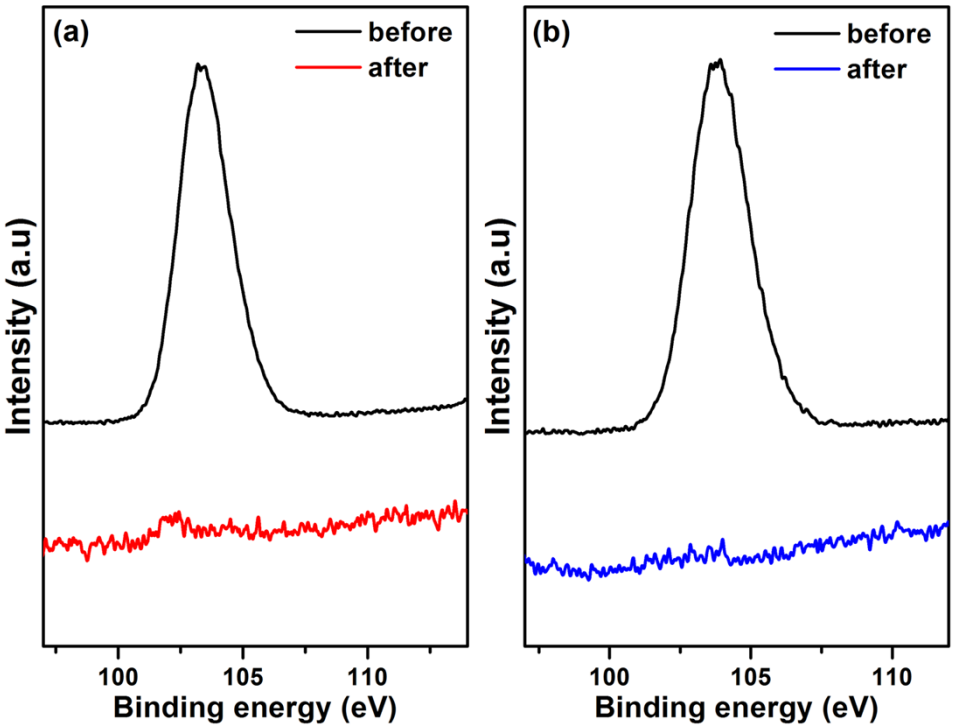

Fig. S1 XPS spectra of L-ZIF-8 (a) and F-ZIF-8 (b) before and after silica removal.

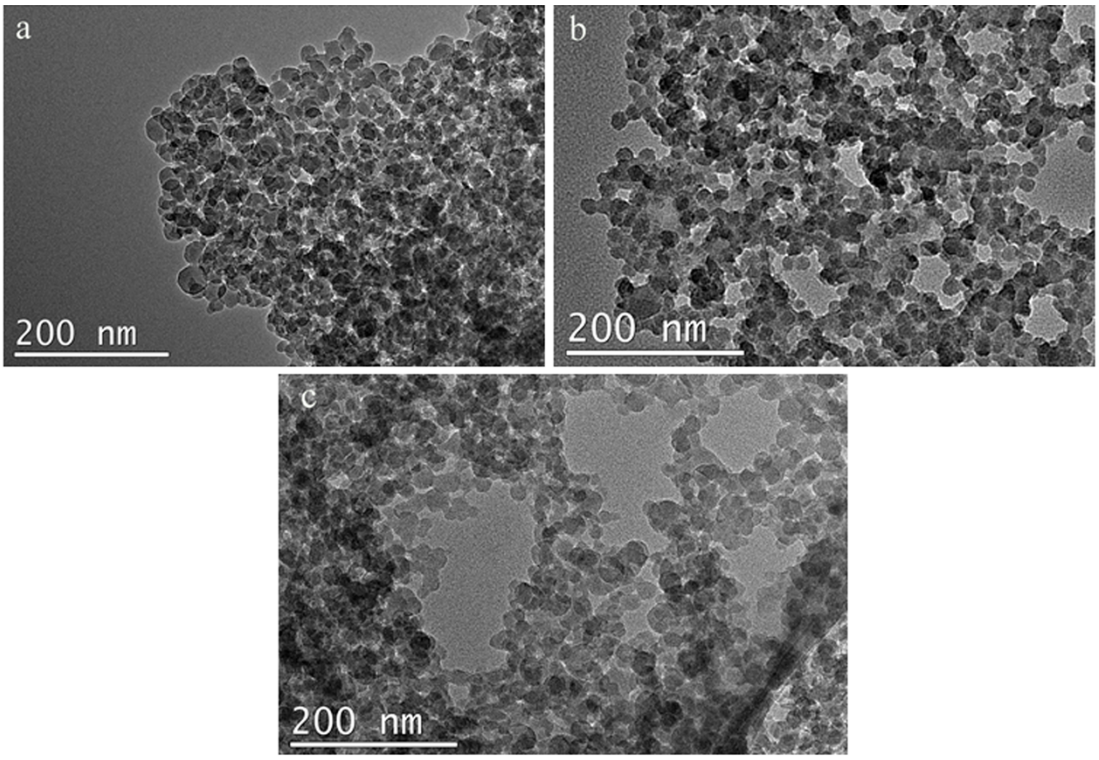

Fig. S2 TEM images of neat ZIF-8 (a), L-ZIF-8 (b) and F-ZIF-8 (c) samples at a low magnification.

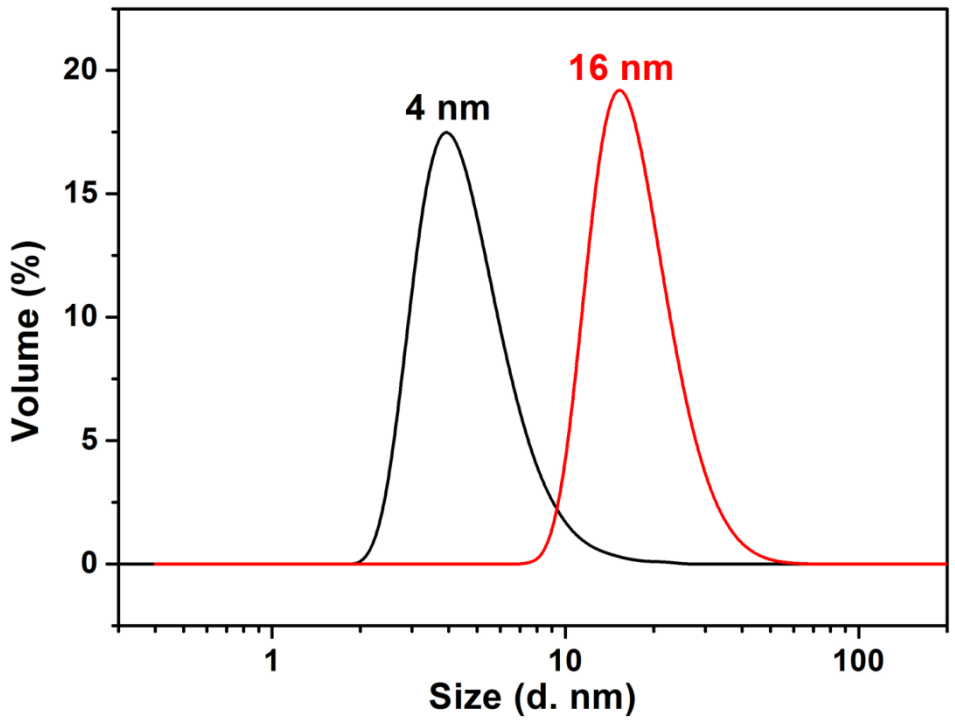

Fig. S3 DLS curves of silica suspensions of ludox (black) and fumed silica (red).

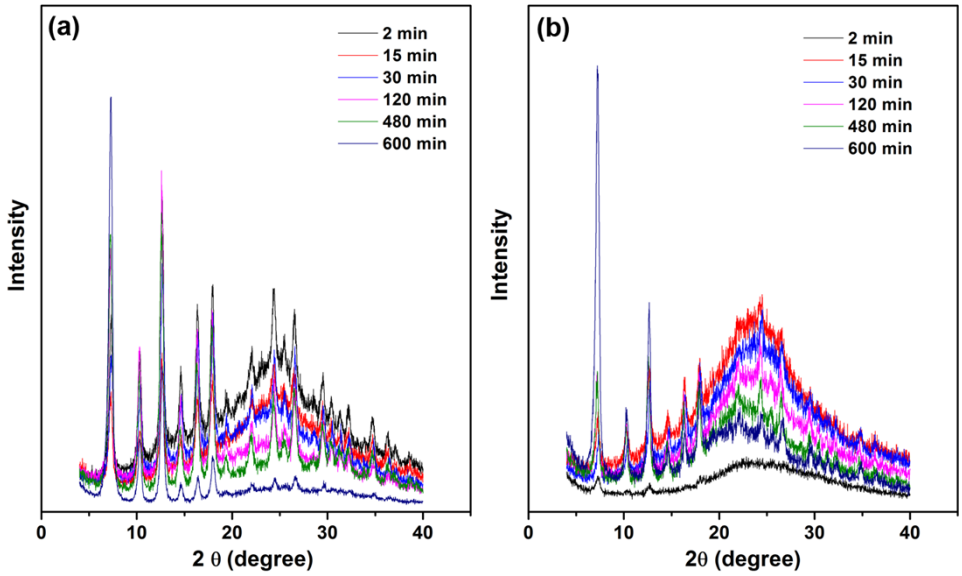

Fig. S4 Time-dependent XRD patterns of (a) neat ZIF-8, (b) L-ZIF-8.

Table S1 - Results from N_2-sorption measurements for the obtained carbon materials.

Sample	S_{BET} ($m^2\ g^{-1}$)	S_{micro}[a] ($m^2\ g^{-1}$)	V_{total}[b] ($cm^3\ g^{-1}$)	V_{micro}[c] ($cm^3\ g^{-1}$)	V_{meso}[d] ($cm^3\ g^{-1}$)	V_{meso}/V_{total}
C-ZIF-8	745	563	0.83	0.23	0.6	0.72
LC-ZIF-8	1026	351	1.71	0.16	1.54	0.9
FC-ZIF-8	721	342	1.68	0.15	1.5	0.89

[a] micropore areas calculated using t-plot method.

[b] total pore volumes at P/P_0=0.99.

[c] micropore volumes calculated by t-plot method.

[d] mesopore volumes using BJH method.

Table S2 - Textural data, contents of graphitic phase and equivalent series resistance (ESR) for C-ZIF-8 carbons prepared at three carbonization temperatures.

Sample	S_{BET} ($m^2\ g^{-1}$)	S_{micro} ($m^2\ g^{-1}$)	Pore sizes (nm)	Graphitic phase (%)	ESR ($\Omega\ cm^2$)
C-ZIF-8(1073)	745	536	1.0, 8.0	25.0	0.42
C-ZIF-8(1173)	811	520	1.1, 8.1	29.6	0.30
C-ZIF-8(1273)	877	506	1.2, 8.3	34.2	0.28