Electronic Supplementary Information

Facile Simulation of Electric Double Layer Capacitance for Carbons with Wide Pore Size Distributions Based on Helmholtz Models

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Electronic Supplementary Information available:

1. The pore size distributions of the carbons on the basis of incremental pore volume;
2. the incremental capacitance values contributed by pores of varying sizes;
3. the ion radii of electrolyte ions.

1. The pore size distributions of the carbons on the basis of incremental pore volume

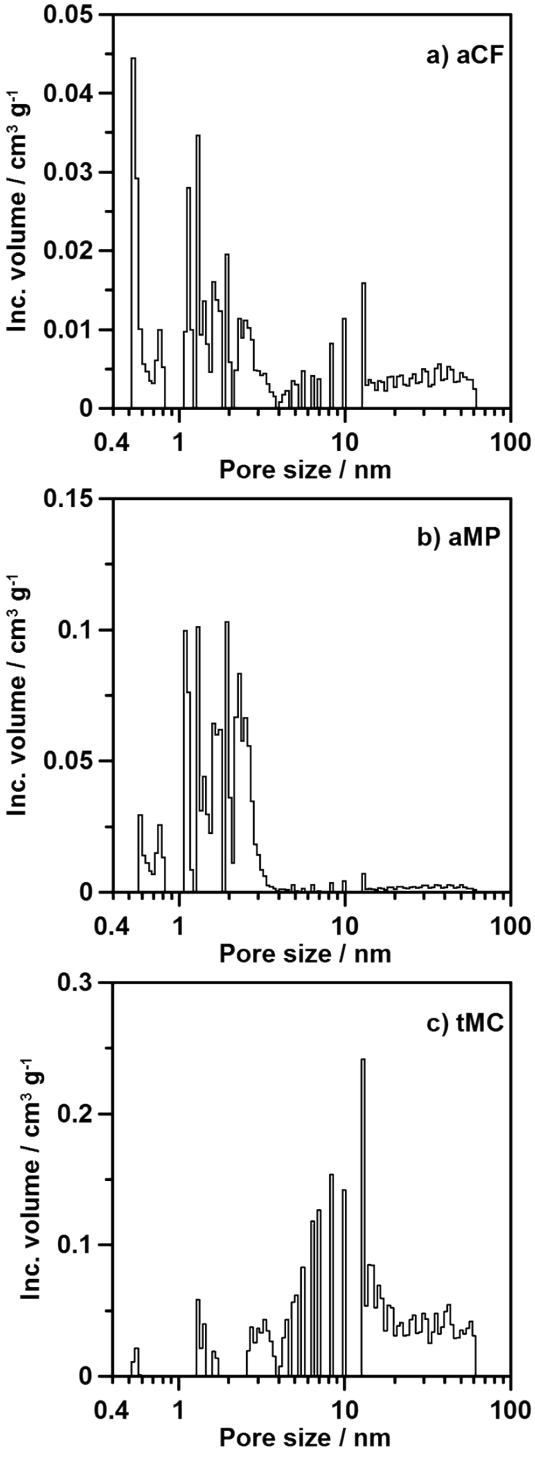

Fig. S1 The pore size distributions of the carbons presented in terms of incremental pore volume: (a) aCF; (b) aMP; (c) tMC.

2. The incremental capacitance values contributed by pores of varying sizes

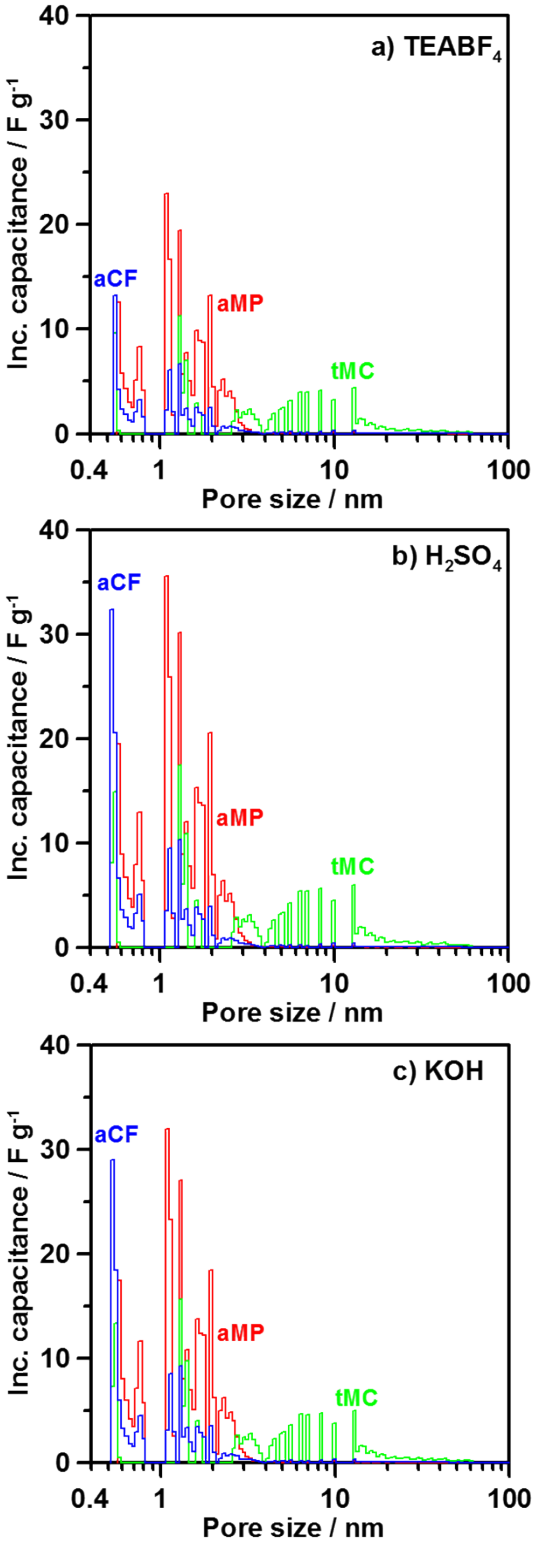

Fig. S2 The incremental capacitance values contributed by pores of varying sizes for different carbons: (a) aCF; (b) aMP; (c) tMC.

3. The ion radii of electrolyte ions

Table S1 The ion radii and mean ion radii of the electrolyte ions used in the present study

	Ion radius (nm)		Mean ion radius, a_0 (nm)
	cation	anion	
$TEABF_4$[1-4]	0.337	0.218,	0.278
H_2SO_4[1,2]	0.028	0.240	0.134
KOH[1,2]	0.138	0.133	0.136

References

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4. G. Feng, J. Huang, B. G. Sumpter, V. Meunier and R. Qiao, *Phys. Chem. Chem. Phys.*, 2010, **12**, 5468-5479