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

Supporting Information

Hierarchical porous carbon microrods composed of vertically aligned graphene-like nanosheets for Li-ion batteries

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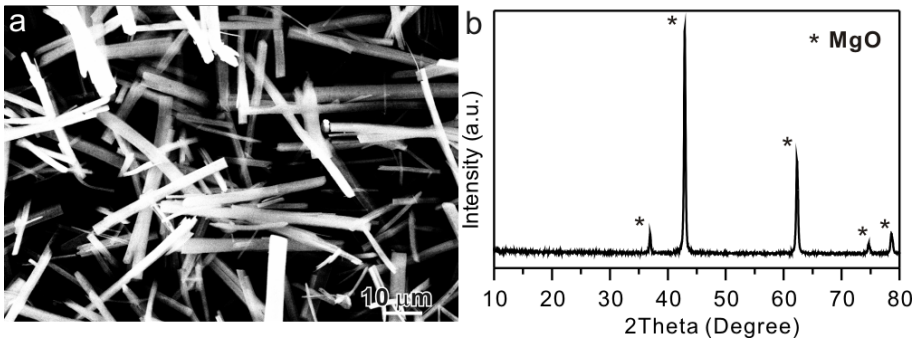

Fig. S1 SEM image and XRD pattern of the MgO microrods.

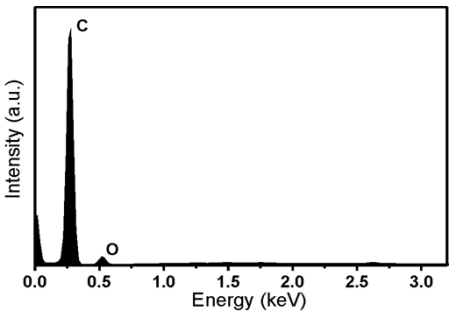

Fig. S2 EDX spectrum of HPCM-900.

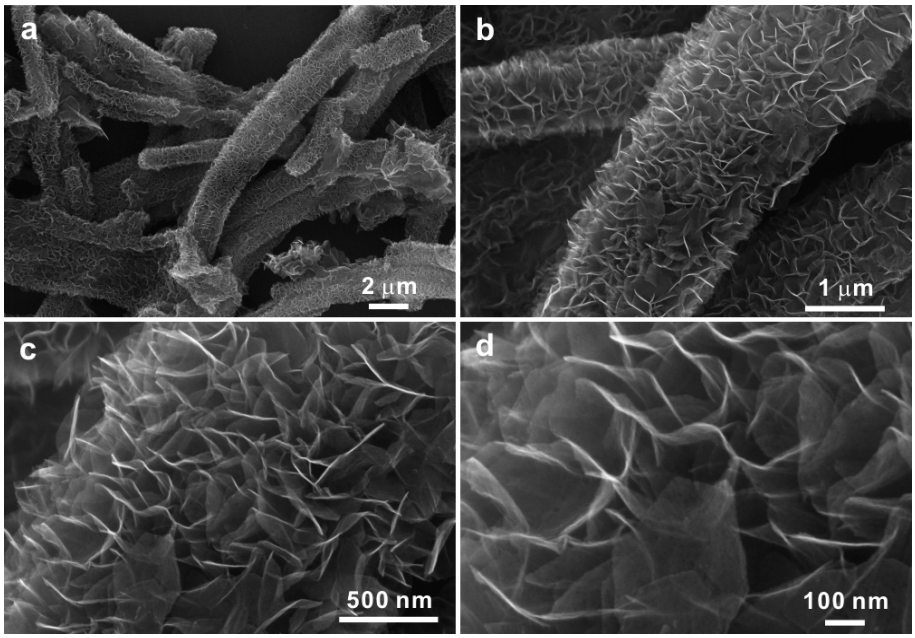

Fig. S3 SEM images of HPCM-800.

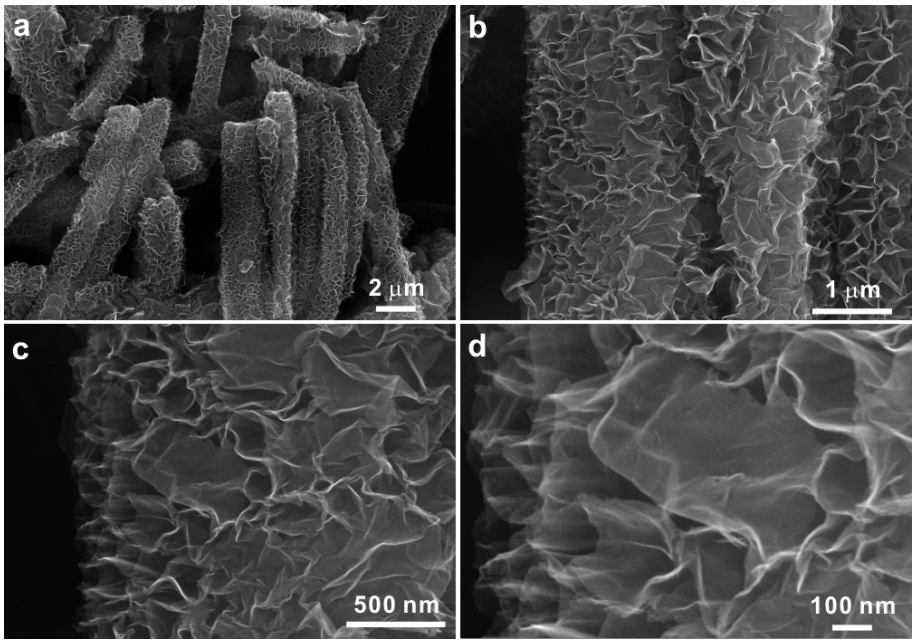

Fig. S4 SEM images of HPCM-700.

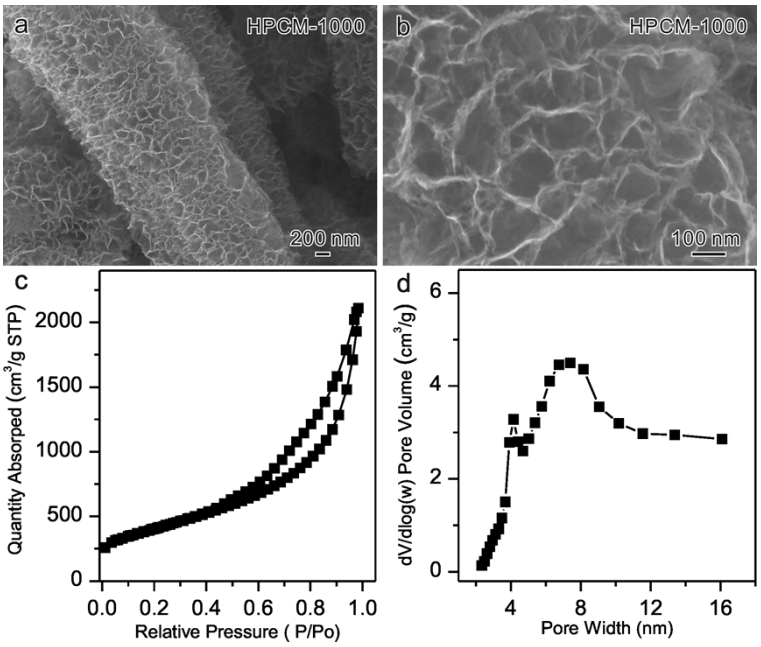

Fig. S5 SEM images (a, b), N_2 sorption isotherm (c) and pore size distribution (d) of HPCM-1000.

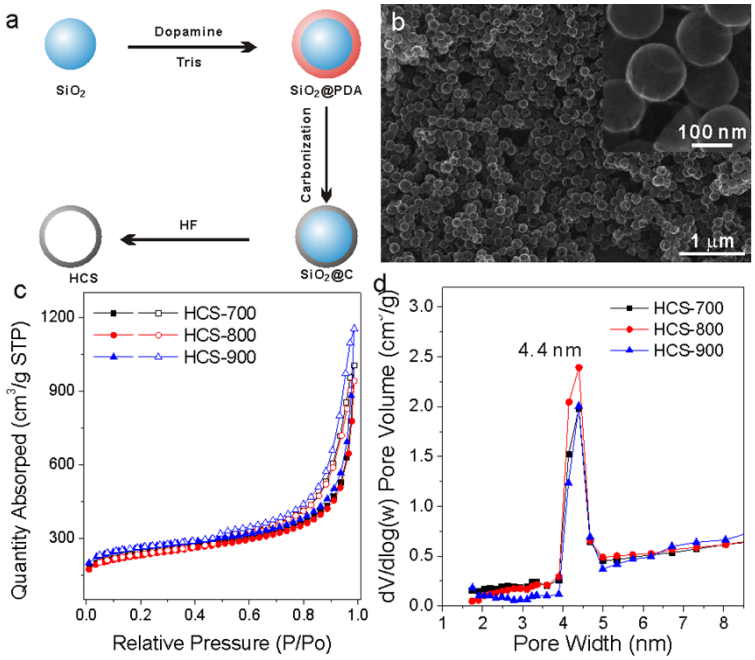

Fig. S6 (a) Schematic illustration for the synthesis of HCS, (b) SEM image of HCS-900, N_2 sorption isotherms (c) and pore size distributions (d) of HCS obtained at the different temperatures.

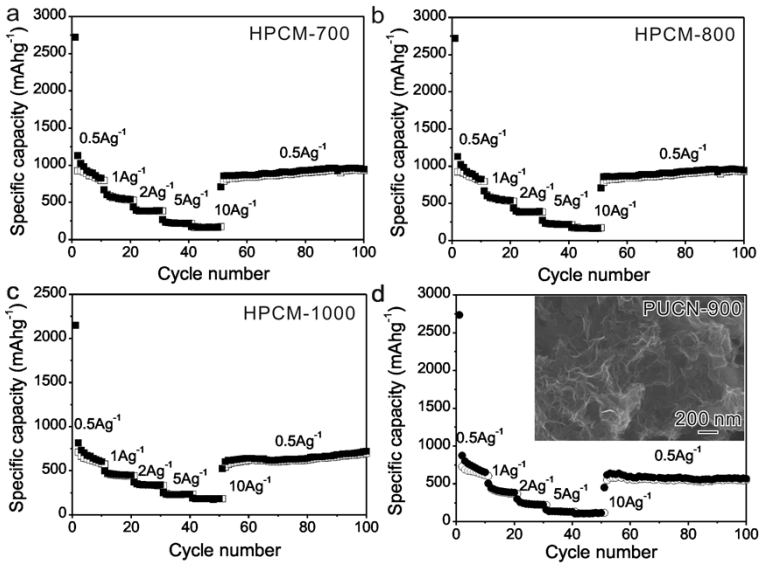

Fig. S7 The rate performances: (a) HPCM-700, (b) HPCM-800, (c) HPCM-1000, (d) PUCN-900, (the inset: SEM image of PUCN-900).

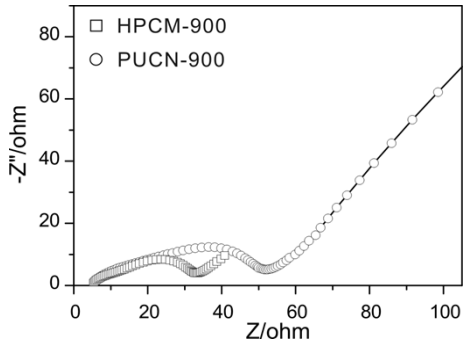

Fig. S8 Nyquist plots of the HPCM-900 and PUCN-900 electrodes after 50 cycles.

Table S1. Graphene and graphene-like carbon anodes evaluated at high rate

Carbon anode	charge/discharge rate	capacity (mAh/g)	References
HPCM-900	5A/g	312	This work
	10A/g	246	
MgO-templated graphene nanocages	10A/g	48	Ref. S1
PECVD growth of VAGNs	1.5A/g (4C)	297	Ref. S2
MgO-templated PUCNs	7.44 A/g(20C)	240	Ref. S3
Holey graphene papers	10A/g	~75	Ref. S4
N-doped graphene	5A/g	296	Ref. S5
	10A/g	~250	
Hollow mesoporous graphene Spheres	7.44A/g	~200	Ref. S6
mesoporous graphene nanosheets	5A/g	255	Ref. S7
Slat-templated VAGNs	5A/g	265	Ref. S8
Ordered mesoporous graphene frameworks	5A/g	127	Ref. S9
	10A/g	87	

References

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