Electronic Supplementary Material (ESI) for Inorganic Chemistry Frontiers.

Supporting Information

Manganese hexacyanoferrate/graphene cathodes for sodium-ion batteries with superior rate capability and ultralong cycle life

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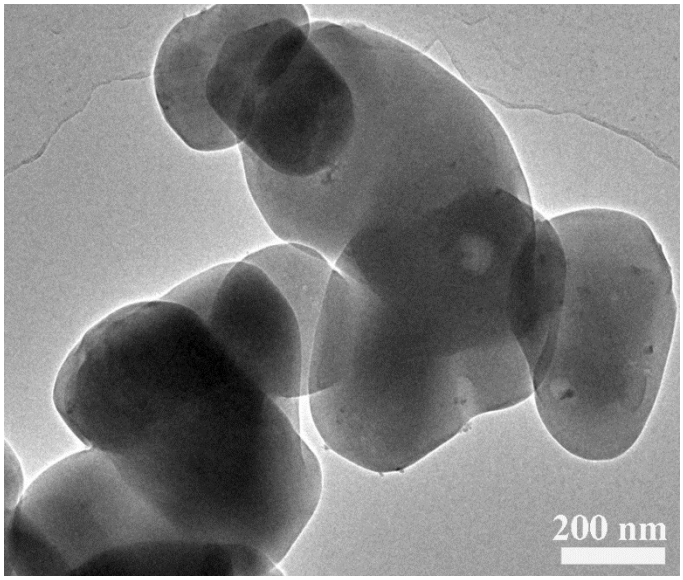

Fig. S1 TEM image of MnHCF.

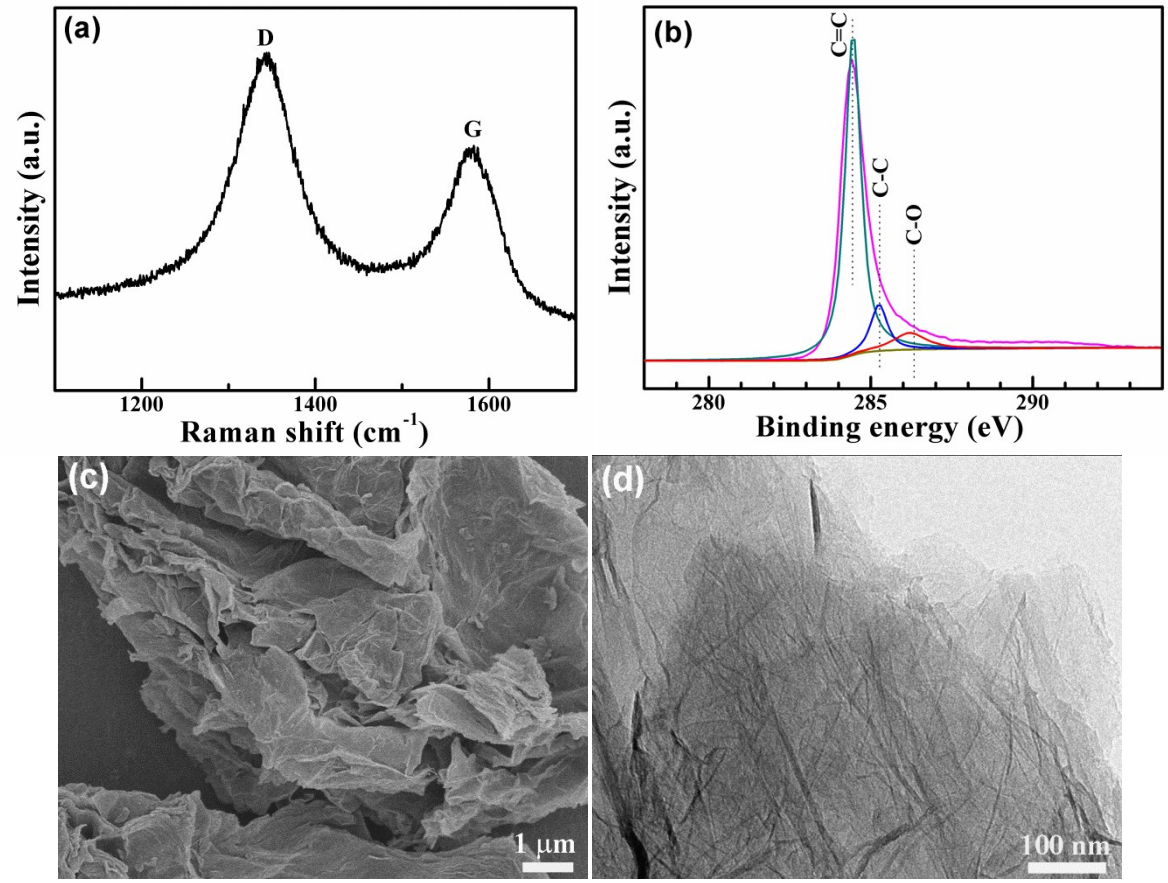

Fig. S2 (a) Raman, (b) C1s XPS, (c) SEM, and (d) TEM of the graphene.

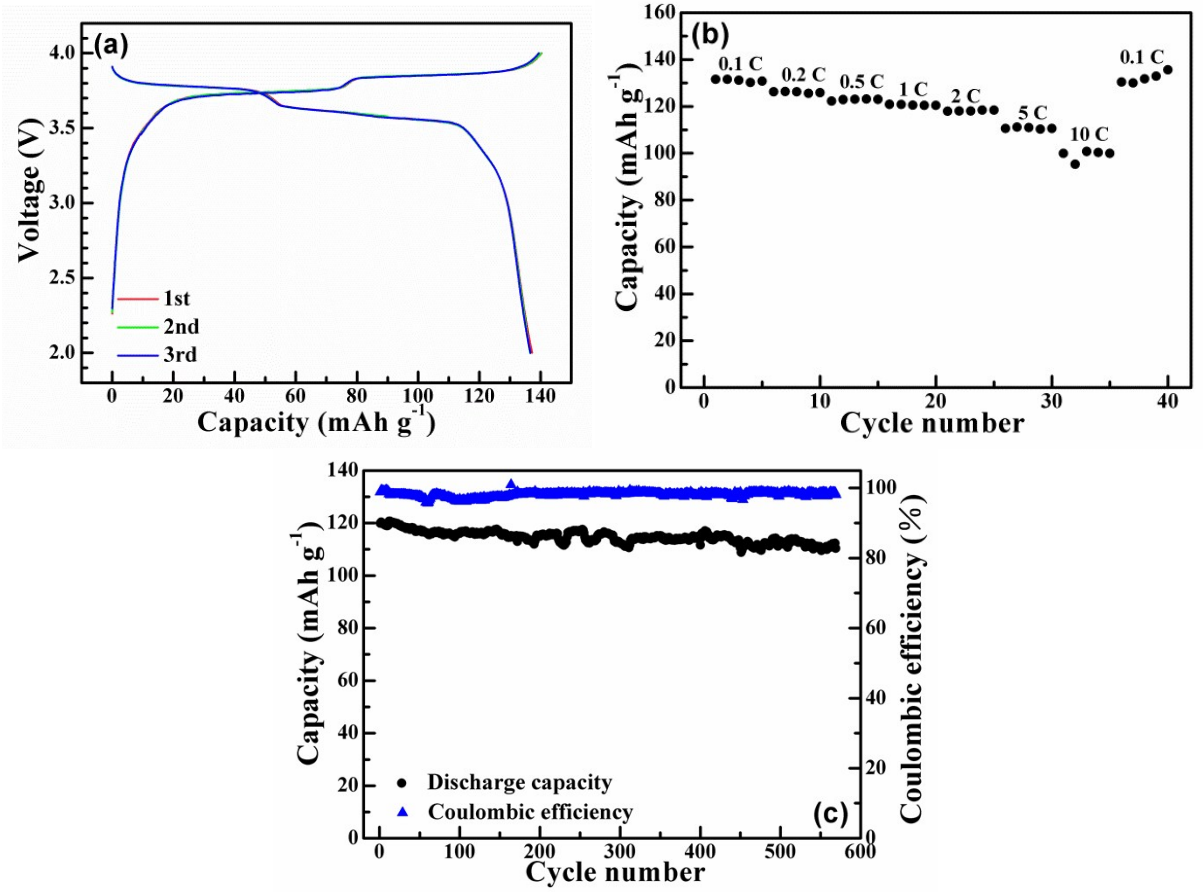

Fig. S3 (a) Voltage profiles, (b) rate capability and (c) cycling stability of another MnHCF/G sample. In this sample, the mass ratio of MnHCF and graphene is 15:1.

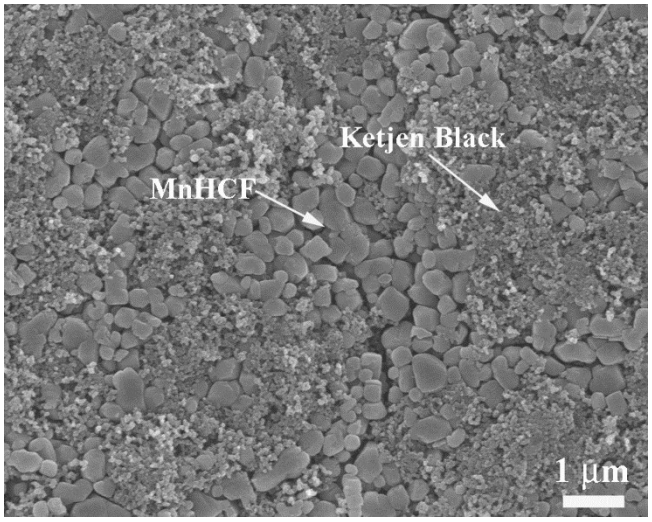

Fig. S4 SEM images of the pristine MnHCF electrode.

Table S1. Fitting results of the Nyquist plots using the equivalent circuit.

Sample	R_e (Ω)	R_f (Ω)	Q_1		R_{ct} (Ω)	Q_2	
			Y	n		Y	n
MnHCF	34.7	357.3	2.7×10^{-5}	0.67	304.4	2.2×10^{-5}	0.91
MnHCF/G	28.5	194.0	5.3×10^{-5}	0.62	148.0	2.6×10^{-5}	0.90

Table S2. Comparison of electrochemical performance of PBA/graphene composites.

Material	**Current density (mA g^{-1})**	**Initial capacity (mAh g^{-1})**	**Cycle number**	**Capacity retention**	**Reference**
MnHCF/G	**150**	**126.6**	**500**	**90.6%**	**This work**
MnHCF/G	**1500**	**116.5**	**2000**	**86.0%**	**This work**
Fe-HCF/G	150	~122	500	~90%	[1]
3DG/PB	1000	~89	1000	90%	[2]
RGOPC	200	149.7	500	91.9%	[3]
$K_{0.33}FeFe(CN)_6$/RGO	1200	~ 134	500	90.1%	[4]
$NaFe_2(CN)_6$/graphene	200	83.3	3000	61%	[5]

Note: G=graphene, HCF= hexacyanoferrate, 3DG=three-dimensional graphene, PB= Prussian blue, RGOPC= reduced graphene oxide–PB composite, RGO= reduced graphene oxide

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