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

An extremely stable MnO_2 anode incorporated with 3D porous graphene-like networks for lithium-ion batteries

Yunyong Li[a], Qinwei Zhang[a], Jinliang Zhu[a], Xiao-Lin Wei[b,]*, Pei Kang Shen[a,]*

[a] *State Key Laboratory of Optoelectronic Materials and Technologies, and Key Laboratory of Low-carbon Chemistry & Energy Conservation of Guangdong Province, School of Physics and Engineering, Sun Yat-sen University, 135 Xingang Road, Guangzhou, 510275, PR China. Fax: (+8620)-84036736; Tel: (+8620)-84036736. E-mail: stsspk@mail.sysu.edu.cn*
[b] *Laboratory for Quantum Engineering and Micro-Nano Energy Technology, Department of Physics, Xiantan University, Xiantan 411105, PR China. E-mail: xlw@xtu.edu.cn.*

Additional data:

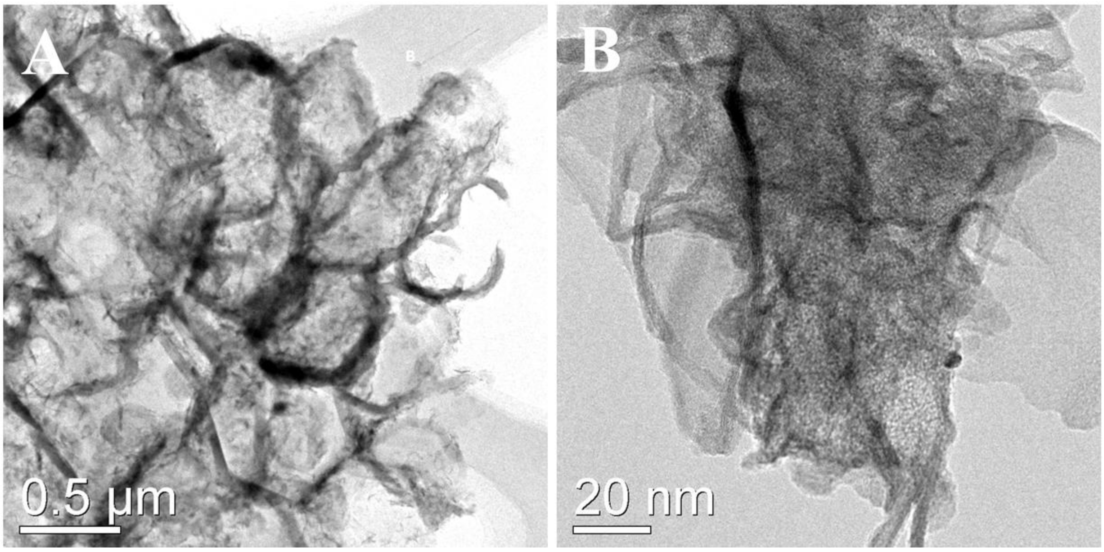

Fig. S1 TEM images of 3D PG-1.5Mn composite.

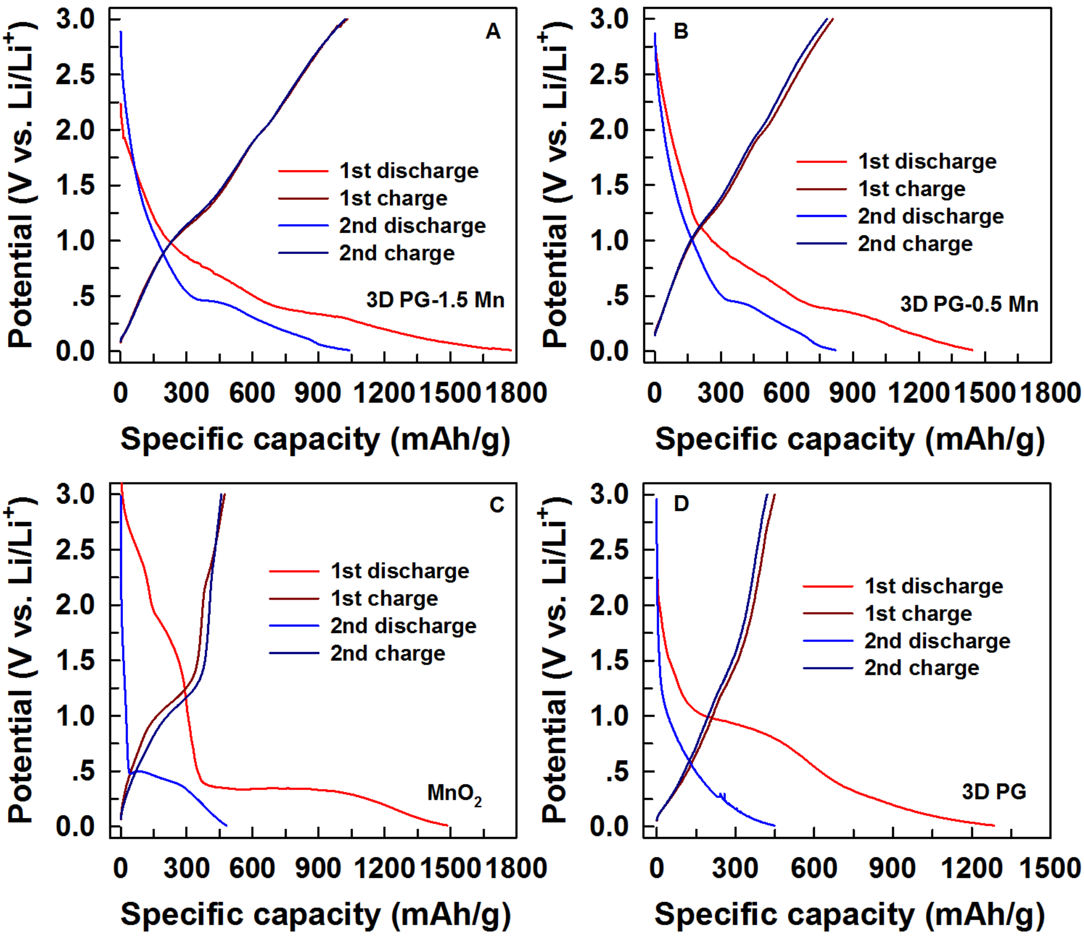

Fig. S2 The galvanostatic discharge/charge profiles of various anode materials between 0.01 and 3 V at a current density of 100 mA h g^{-1}.

Table S1 Physical characteristics of 3D PG and 3D PG-xMn composites.

Samples	Content of MnO_2 (wt%)	BET total surface area (m^2 g^{-1})	Total pore volume (cm^3 g^{-1})	Conductivity ($\times10^3$ S m^{-1})
3D PG	0	1211	0.84	1.52
3D PG-0.5Mn	49.8	357	0.39	1.41
3D PG-1Mn	62.7	58	0.20	1.22
3D PG-1.5Mn	70.1	32	0.12	0.72

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Table S2 The comparison of the capacity of every composition in the 3D PG and 3D PG-xMn composites.

Samples	Content of MnO_2 (wt%)	Total capacity of composite (mAh g^{-1})	Contributed capacity of 3D PG in the composite (mAh g^{-1})	Contributed capacity of MnO_2 in the composite (mAh g^{-1})
3D MG	0	320		0
3D MG-0.5Mn	49.8	736	160.6	575.4
3D MG-1Mn	62.7	836	119.4	716.6
3D MG-1.5Mn	70.9	786	93.1	692.9