Supporting information

MnO@graphene nanopeapods derived via a one-pot hydrothermal

process for high performance anode in Li-ion batteries

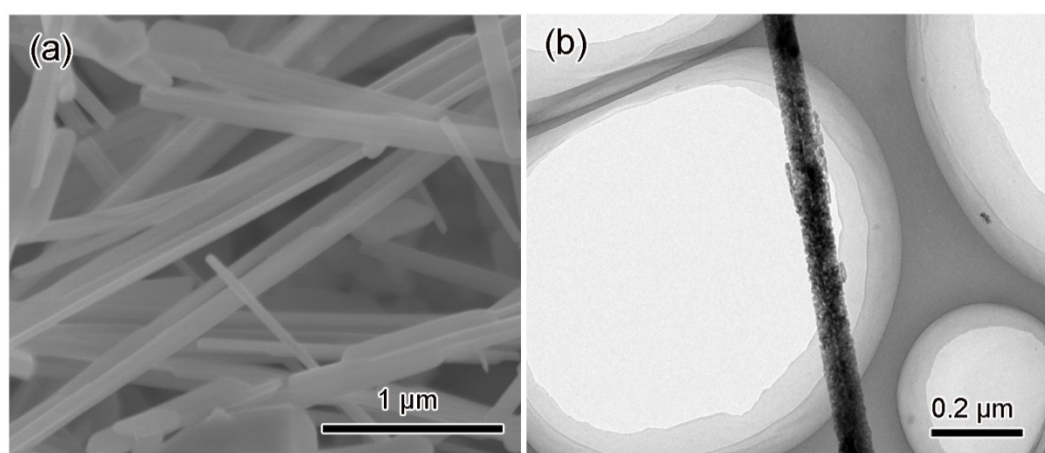*Zhihua Xiao*[1]*, Guoqing Ning*[1]*,*, Zhiqing Yu,* Chuanlei Qi**, *Lu Zhao, Yun Li, Xinlong*
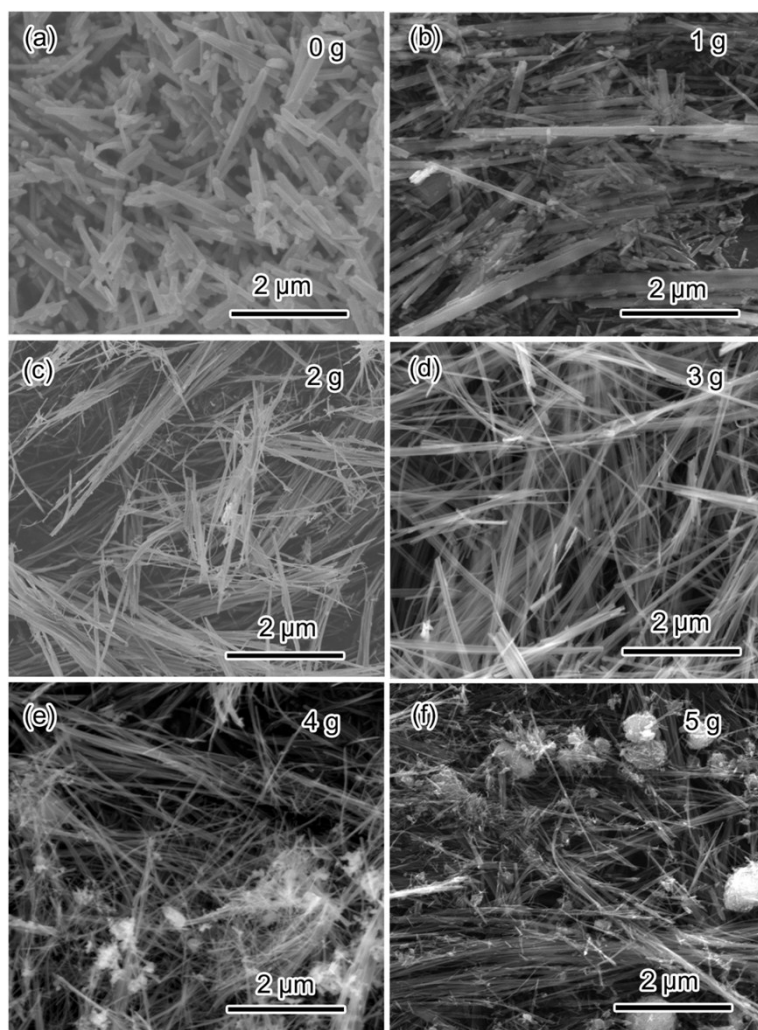
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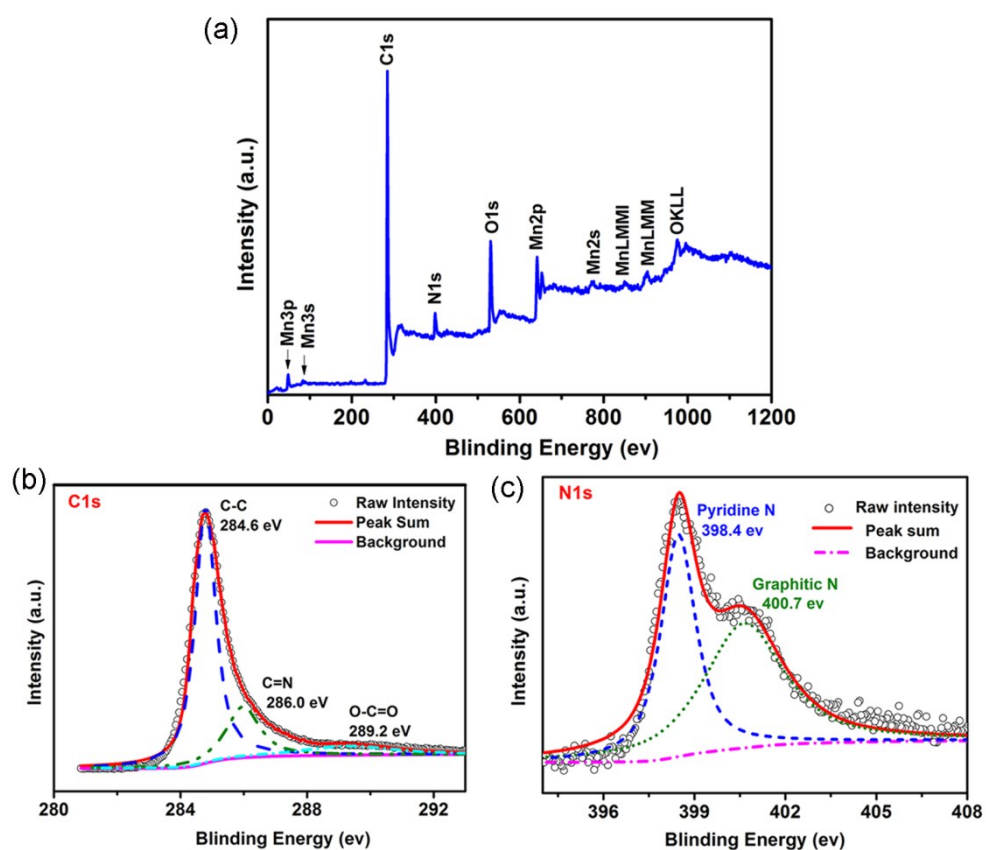
[1]These author contributed equally.

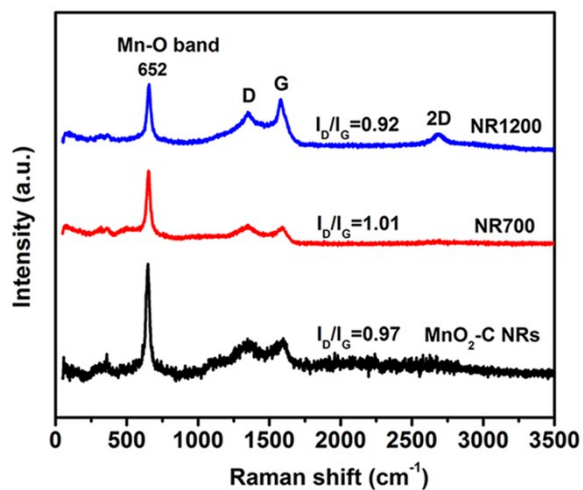*Corresponding author. E-mail: ngq@cup.edu.cn

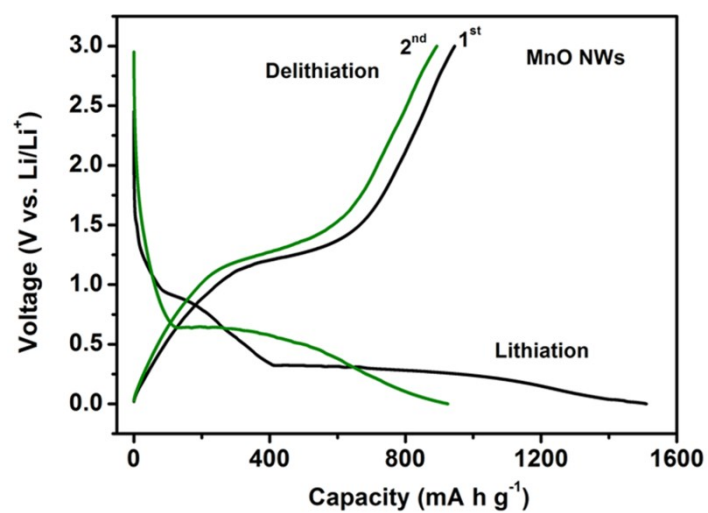**Figure S1** SEM (a) and TEM (b) images of MnO nano-wires.

Figure S2 SEM images of the prepared MnO$_2$-C composites by the hydrothermal processes with different amount of SDBS.
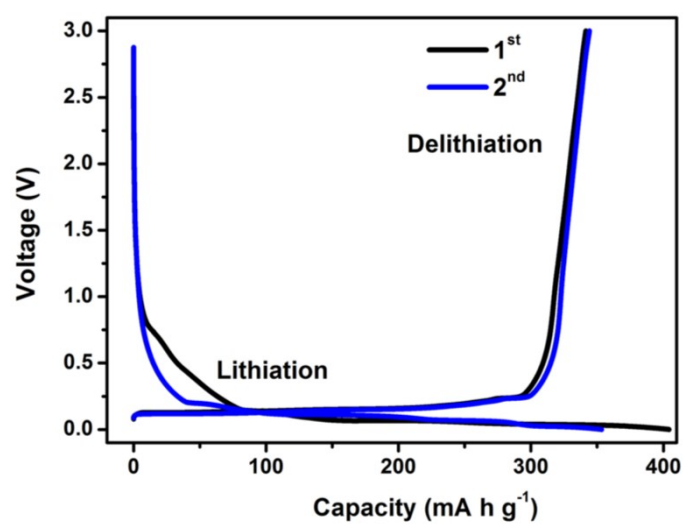
Figure S3 XPS survey (a), C1s (b) and N1s (c) spectra of NP1200.
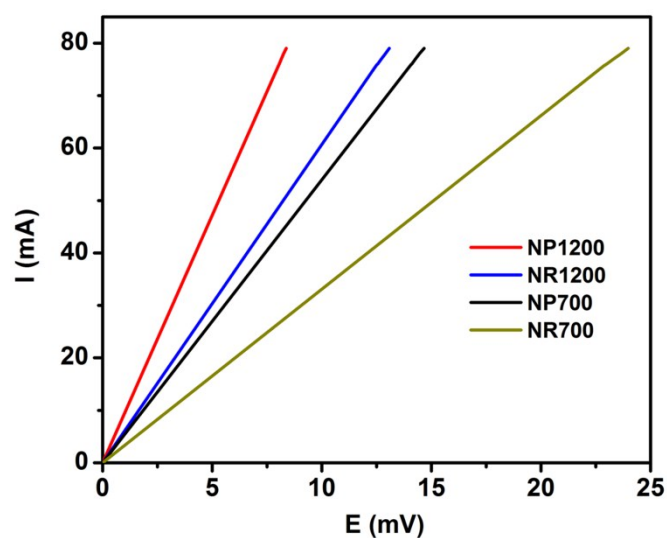

Figure S4 Raman spectra of MnO$_2$-C NRs, NR700 and NR1200.

Figure S5 The first and second discharge/charge curves of MnO NWs.

Figure S6 Typical discharge/charge profiles of the commercial graphite at the current density of 50 mA g^{-1}.

Figure S7 I-V profiles of NP1200, NR1200, NP700 and NR700.

Table S1 SEI and charge-transfer resistances of NP1200 after 1000 cycles.

After 1000 cycles	R_e (Ω)	R_f (Ω)	R_{ct} (Ω)
NR700	3.035	23.67	287
NR1200	2.974	15.35	137.8
NP700	2.893	17.82	144.4
NP1200	2.819	10.79	58.6