Electronic Supplementary Material (ESI) for RSC Advances.


*Supporting Materials*

# Structurally Confined Ultrafine NiO Nanoparticles on Graphene as Highly Efficient and Durable Electrode Material for Supercapacitors

Yi Cheng[a], Jian Pan[a], Martin Saunders[b], Shikui Yao[a], Pei Kang Shen[c], Huanting Wang[d], San Ping Jiang[a*]

[a]Fuels and Energy Technology Institute & Department of Chemical Engineering, Curtin University, Perth, WA 6102, Australia

S.Jiang@curtin.edu.au (SP Jiang)

[b]Centre for Microscopy, Characterisation and Analysis (CMCA), The University of Western Australia, Clawley, WA 6009, Australia

[c]Collaborative Innovation Center of Sustainable Energy Materials, Guangxi University, Nanning 530004, China

Yi Cheng[a], Jian Pan[a], Martin Saunders[b], Shikui Yao[a], Pei Kang Shen[c], San Ping Jiang[a*]

**Figures.**

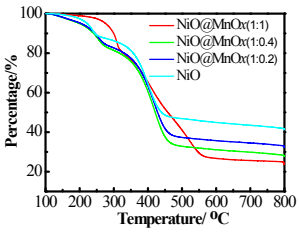


**Figure S1.** TGA curves of NiO and NiO@$MnO_x$

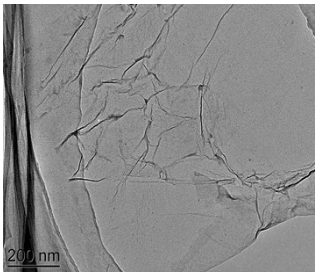


**Figure S2.** The typical TEM images of as received graphene sheet.

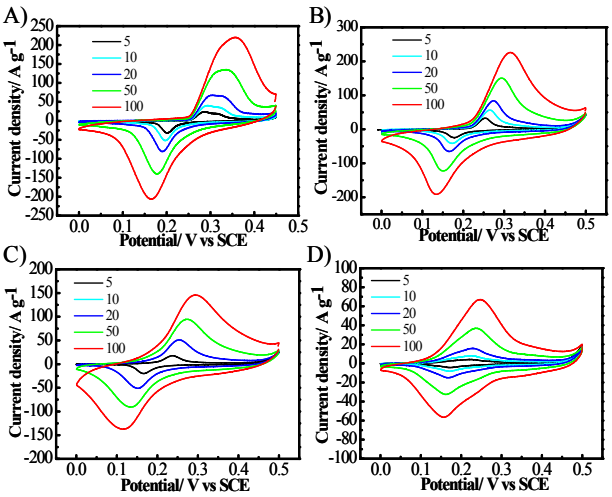


**Figure S3.** CV curves at different scan rate of A) NiO, B) NiO@$MnO_x$(1:0.2), C) NiO@$MnO_x$(1:0.4), and D) NiO@$MnO_x$(1:1).

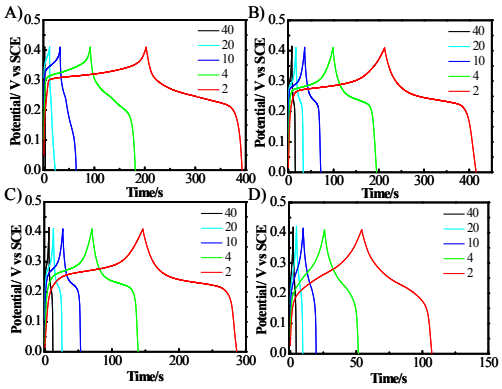


**Figure S4.** Charge and discharge curves at different current densities of A) NiO, B) NiO@$MnO_x$(1:0.2), C) NiO@$MnO_x$(1:0.4), and D) NiO@$MnO_x$(1:1).