Accepted Manuscript

Fe_2O_3 amorphous nanoparticles/graphene composite as high-performance anode materials for lithium-ion batteries

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PII: S0925-8388(17)31027-7

DOI: 10.1016/j.jallcom.2017.03.235

Reference: JALCOM 41273

To appear in: *Journal of Alloys and Compounds*

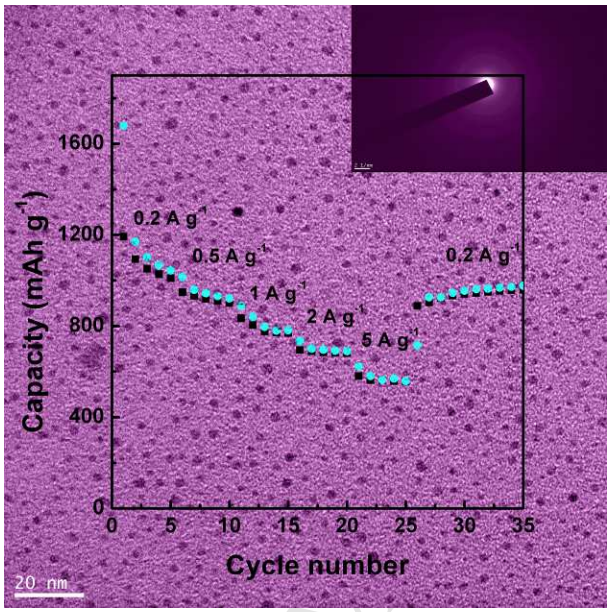
Received Date: 8 December 2016

Revised Date: 22 February 2017

Accepted Date: 20 March 2017

Please cite this article as: X. Zhu, X. Jiang, X. Chen, X. Liu, L. Xiao, Y. Cao, Fe_2O_3 amorphous nanoparticles/graphene composite as high-performance anode materials for lithium-ion batteries, *Journal of Alloys and Compounds* (2017), doi: 10.1016/j.jallcom.2017.03.235.

Graphical Abstract



Amorphous Fe_2O_3 nanospheres anchored on reduced graphene oxide (Fe_2O_3/rGO) were prepared by the electron beam radiation approach. The Fe_2O_3/rGO exhibits a highly reversible capacity of 1064 mA h g^{-1} after 100 cycles at 200 mA g^{-1} with 88% of capacity retention and a superior rate capacity of 580 mA h g^{-1} at 5000 mA g^{-1} for Li ion storage.