

Highlights:

CoFe₂O₄-graphene nanocomposites were prepared by sonication-assisted process combined with calcination.

The obtained materials show high reversible capacities of (1257 mAh g⁻¹ at 0.1 A g⁻¹) and improved rate capability (596 mAh g⁻¹ at 1 A g⁻¹).

The improvement can be attributed to well disperse CoFe₂O₄ and enhanced conductivity derived from the combined fabrication process.

Supporting Information for

CoFe₂O₄-graphene Nanocomposites Synthesized through An Ultrasonic Method with Enhanced Performances as Anode Materials for Li-ion Batteries

Yinglin Xiao, Xiaomin Li, Jiantao Zai*, Kaixue Wang, Yong Gong, Bo Li, Qianyan Han and Xuefeng Qian*

School of Chemistry and Chemical Engineering and State Key Laboratory of Metal Matrix Composites, Shanghai Jiao Tong University, Shanghai, 200240, P.R. China

*Corresponding authors. E-mail: xfqian@sjtu.edu.cn

Figure S1 The crystal structure of CoFe₂O₄.

Figure S2 HRTEM image of CoFe₂O₄-GNSs-350 based electrode materials after 50 discharge-charge processes.

Figure S3 Circle stability at 0.1 A g⁻¹ for CoFe₂O₄-GNSs-350 (a); and 1 A g⁻¹ for

CoFe₂O₄, CoFe₂O₄-GNSs, CoFe₂O₄-GNSs-350 and CoFe₂O₄-GNSs-550 (b).

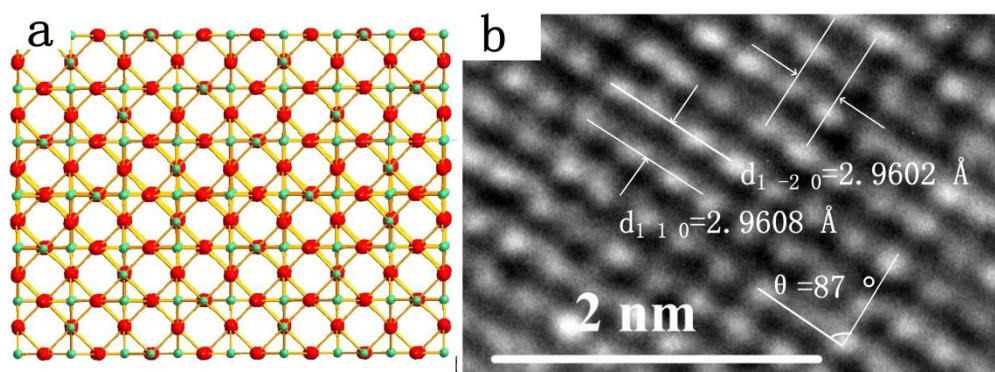


Fig. S1

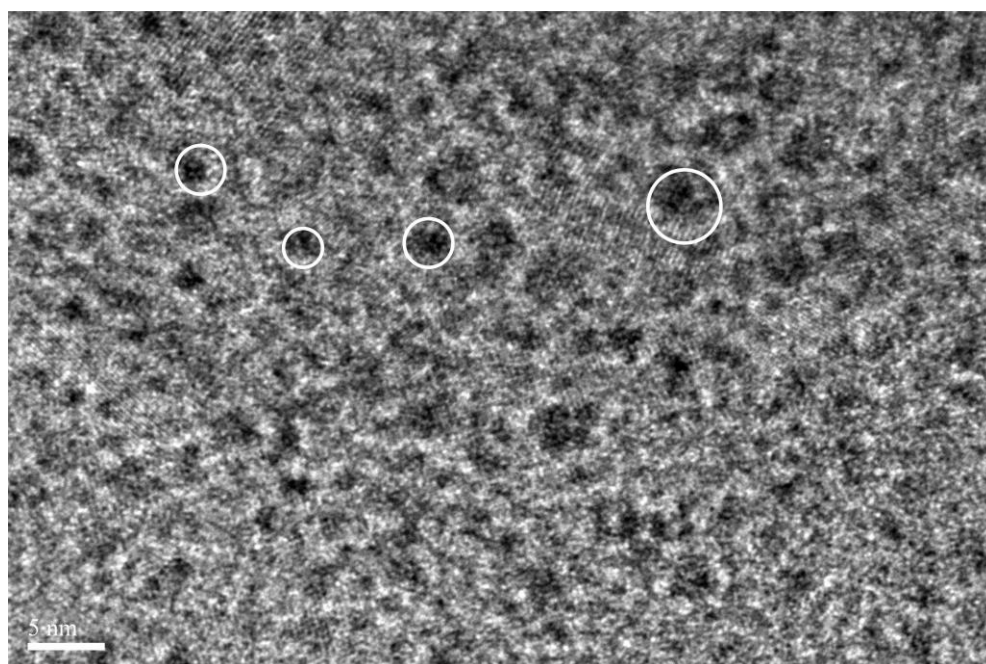


Fig. S2

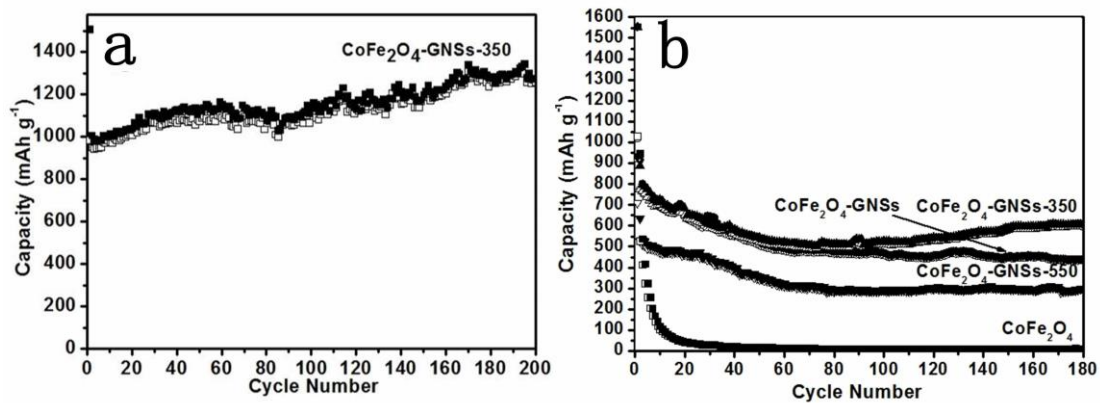


Fig. S3