

Accepted Manuscript

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PII: S0169-4332(18)32162-7
DOI: <https://doi.org/10.1016/j.apsusc.2018.08.043>
Reference: APSUSC 40080

To appear in: *Applied Surface Science*

Received Date: 4 May 2018
Revised Date: 6 July 2018
Accepted Date: 4 August 2018

Please cite this article as: C. Zhang, G. Jiao, F. Kong, J. Wang, S. Tao, L. Zhang, B. Qian, Y. Chao, Hierarchical Co₂P Microspheres Assembled from Nanorods Grown On Reduced Graphene Oxide as Anode Material for Lithium-ion Batteries, *Applied Surface Science* (2018), doi: <https://doi.org/10.1016/j.apsusc.2018.08.043>

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Hierarchical Co₂P Microspheres Assembled from Nanorods Grown On Reduced Graphene Oxide as Anode Material for Lithium-ion Batteries

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ABSTRACT

Transition metal phosphides (TMPs) have been studied as promising electrodes for energy storage and conversion due to their large theoretical capacities and high activities. Herein, a hierarchically structured Co₂P coupling with the reduced graphene oxide (RGO) composite (Co₂P/RGO) was synthesized by a simple solid state method for Li storage. The Co₂P/RGO hybrid composite exhibits a high reversible capacity of 610 mAh g⁻¹ at 60 mA g⁻¹, good rate capability of 327 mAh g⁻¹ at 3000 mA g⁻¹ and long cycle life (397

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