

Electronic Supplementary Information for

Non-sacrificial template synthesis of Cr₂O₃-C hierarchical core/shell nanospheres and their application as anode materials in lithium-ion batteries

Ling-Yan Jiang,^a Sen Xin,^a Xing-Long Wu,^a Hong Li,^b Yu-Guo Guo^{a*} and Li-Jun Wan^a

^a *CAS Key Laboratory of Molecular Nanostructure and Nanotechnology, Institute of Chemistry, Chinese Academy of Sciences (CAS), Beijing 100190, China.*

Beijing National Laboratory for Molecular Sciences (BNLMS), Beijing 100190, China

^b *Beijing National Laboratory for Condensed Matter Physics, Institute of Physics, Chinese Academy of Sciences, Beijing 100190, China.*

^{*} *Corresponding author. E-mail: ygguo@iccas.ac.cn, Tel. & Fax: (86)10-62557908*

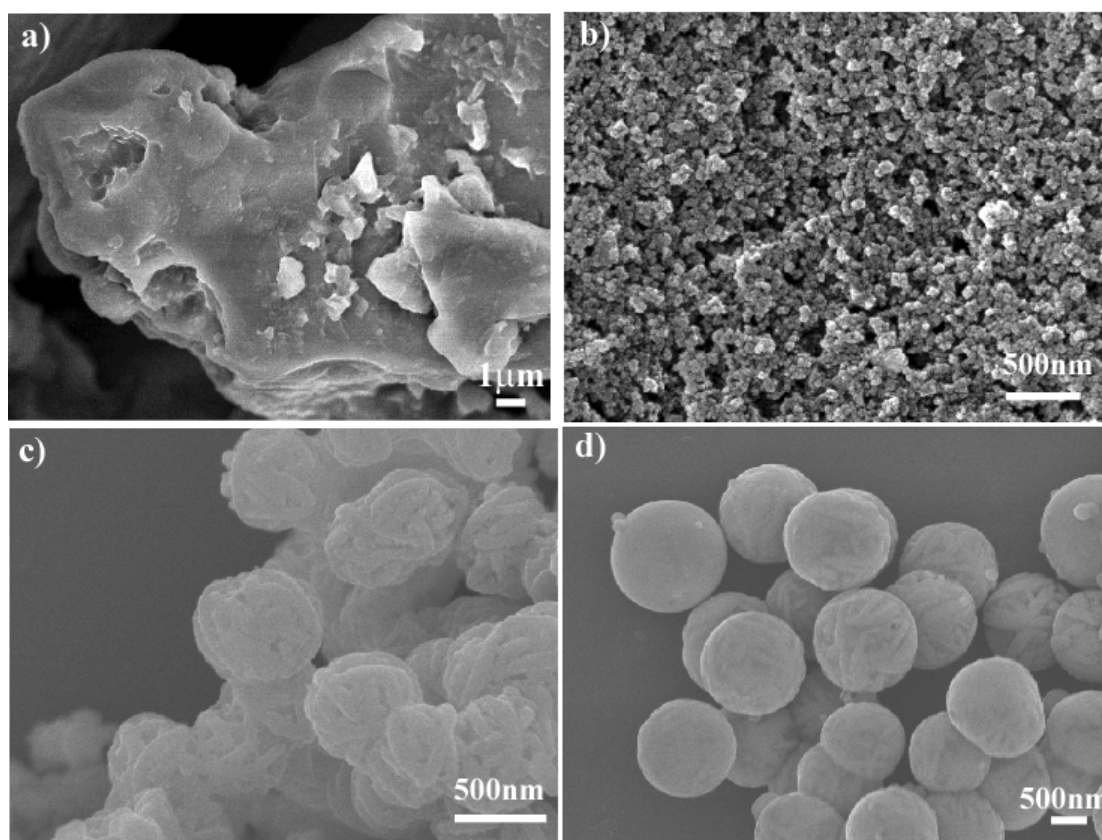


Figure S1. SEM images of a) as-prepared product without PEG, b) as-prepared product without $\text{H}_2\text{C}_2\text{O}_4$, c) as-prepared product without H_2O , and d) as-prepared product without ethanol annealed under N_2 .

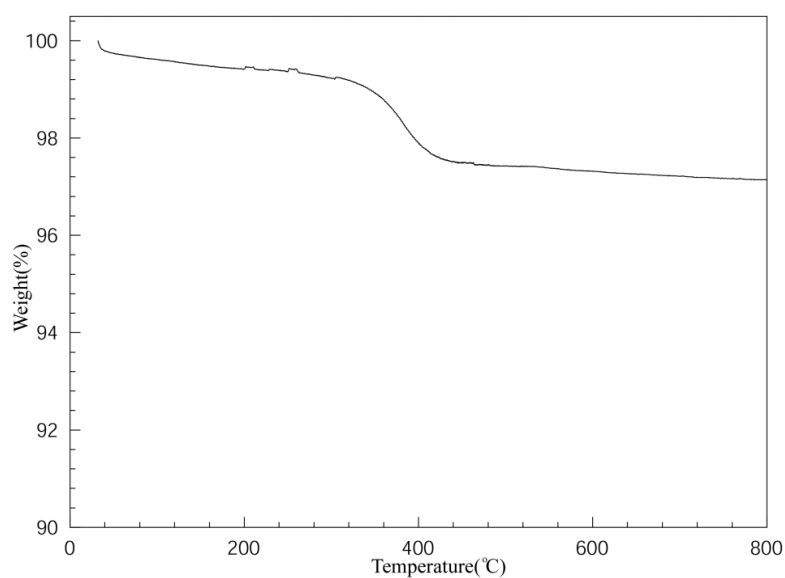


Figure S2. TG curve of the $\text{Cr}_2\text{O}_3\text{-C}$ sample. (Tested in air with the temperature raising speed of $10\text{ }^\circ\text{C}$

min⁻¹).

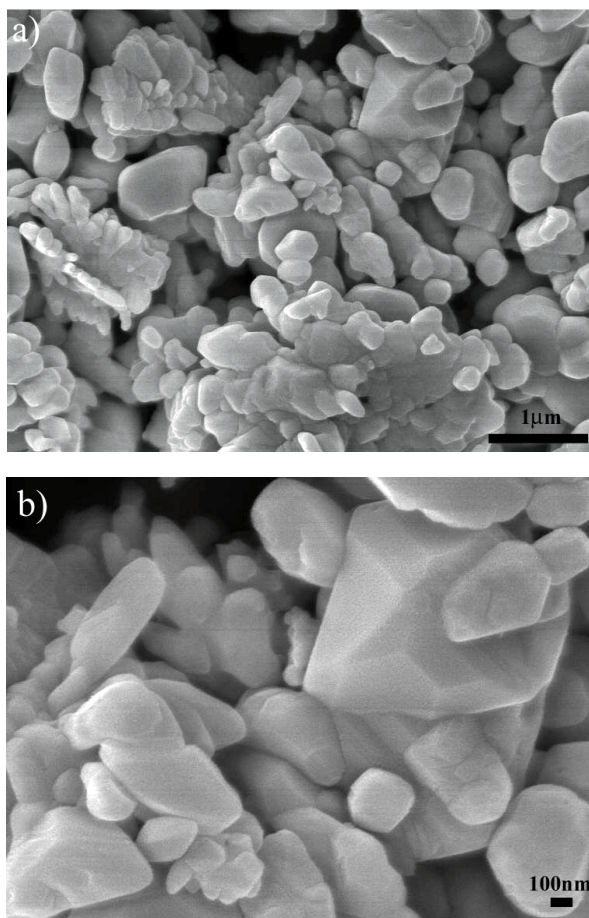


Figure S3. a) SEM and b) high-magnification SEM images of the Cr₂O₃-com.

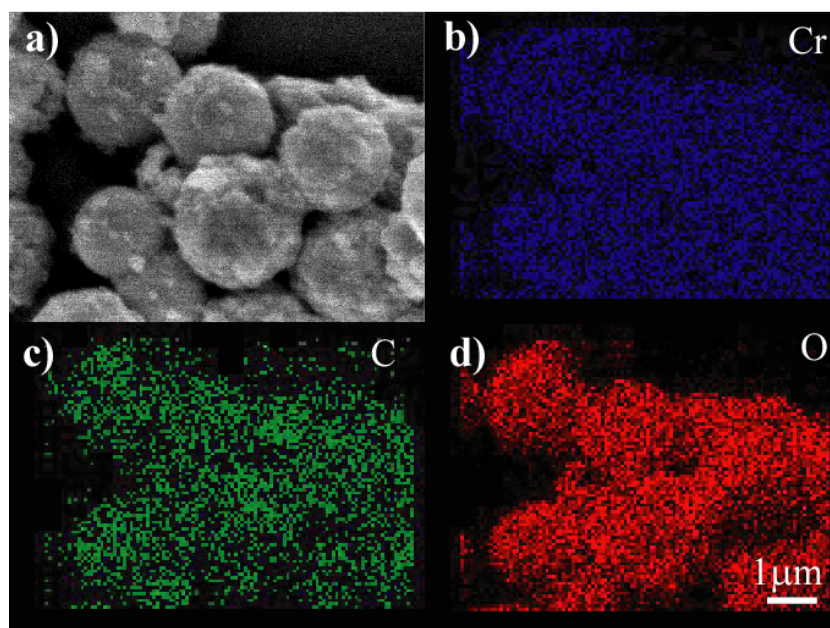


Figure S4. a) SEM image of the Cr_2O_3 -C composite and corresponding b) Cr, c) C and d) O EDX maps.

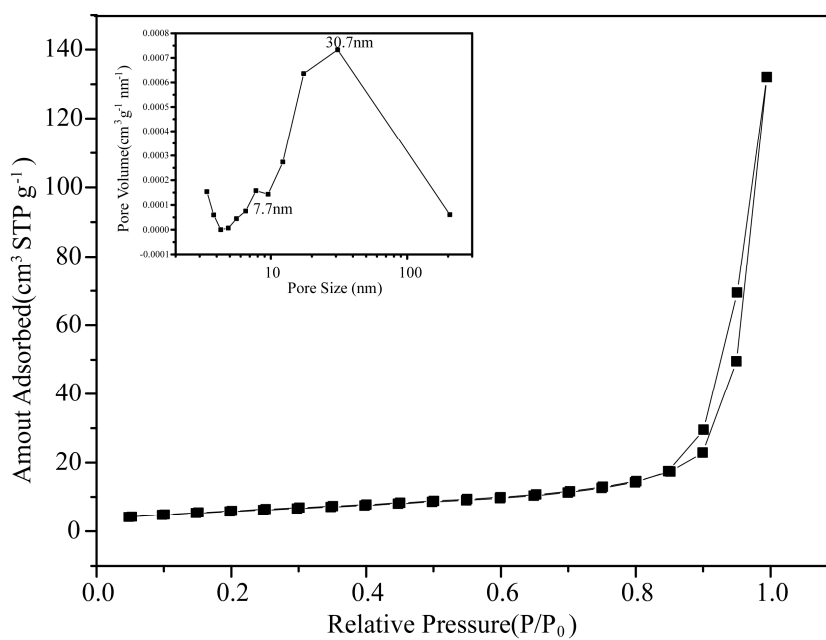


Figure S5. Nitrogen adsorption/desorption isotherms of mesoporous Cr_2O_3 . Inset shows the pore size distribution plot which was calculated according to the BJH formula.