

Supporting Information

3D Heterostructured Architectures of Co_3O_4 Nanoparticles Deposited on Porous Graphene Surface for High Performance of Lithium Ion Batteries

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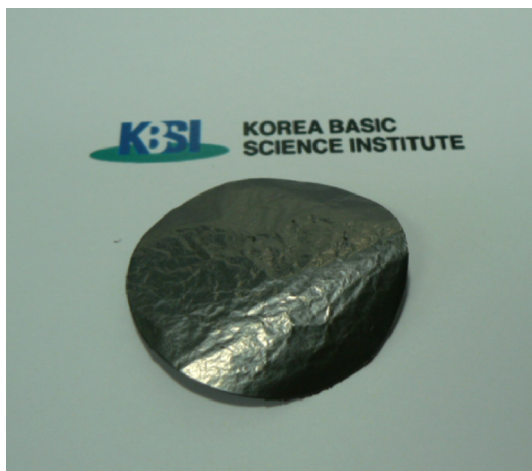


Fig. S1 Photograph of free-standing porous rGO film.

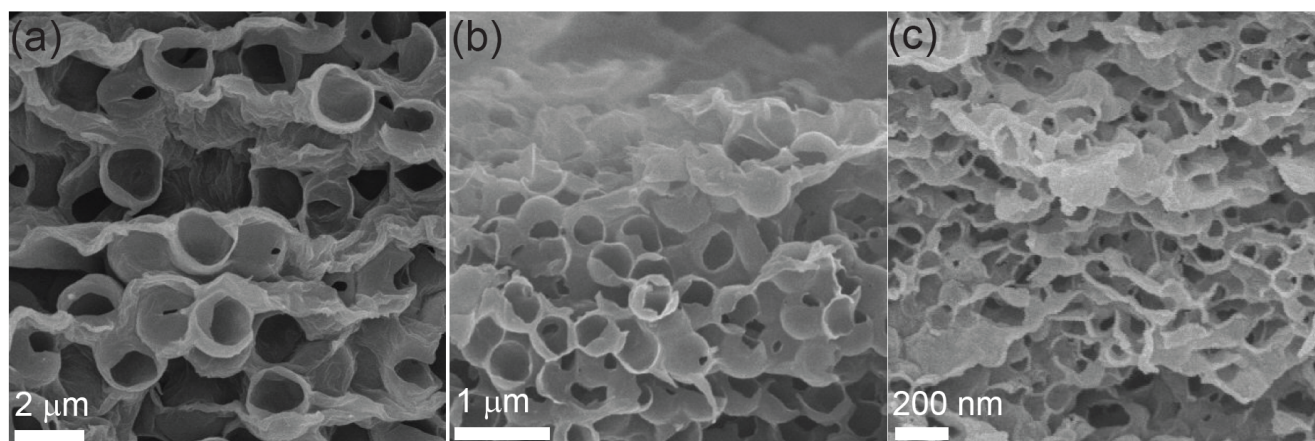


Fig. S2 Cross-sectional SEM images of porous rGO films created using different PS spheres with diameters of (a) 2 μm , (b) 500 nm, and (c) 100 nm.

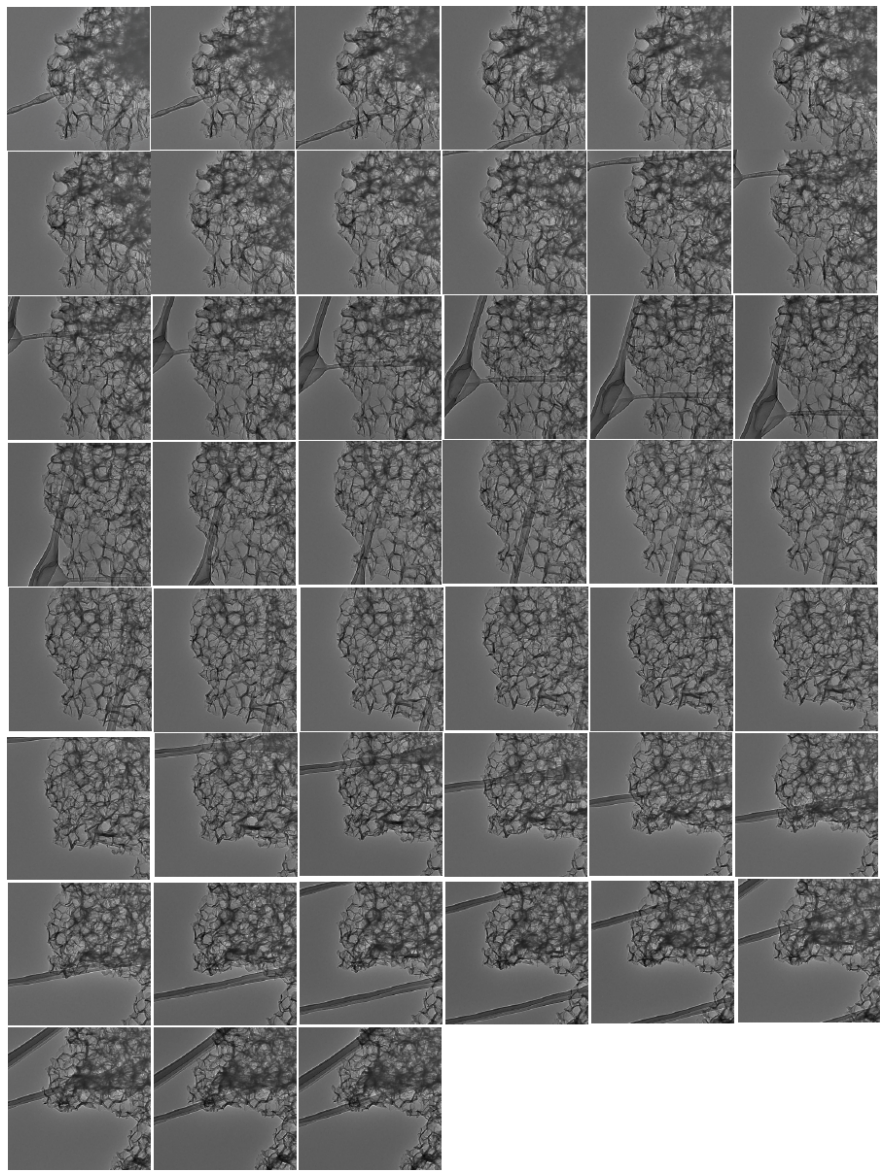


Fig. S3 Electron tomographs of porous rGO film at a tilt range of +70° to −70° with incremental steps of 3°.

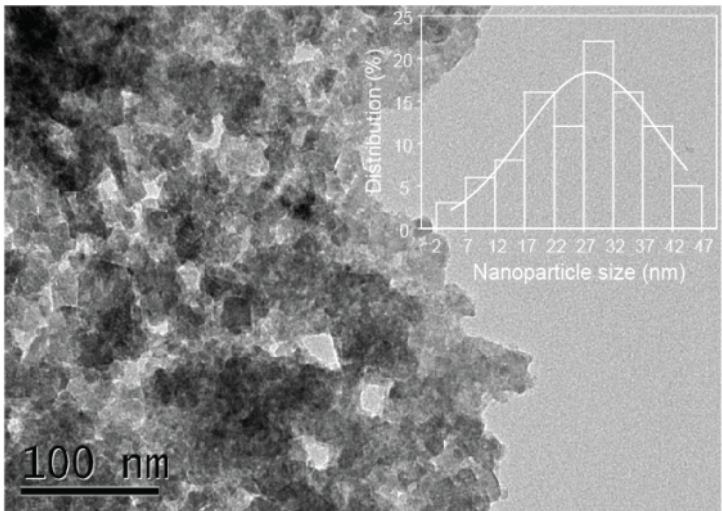


Fig. S4 TEM image of bare Co₃O₄ (Inset is the histogram of the size distribution of Co₃O₄).

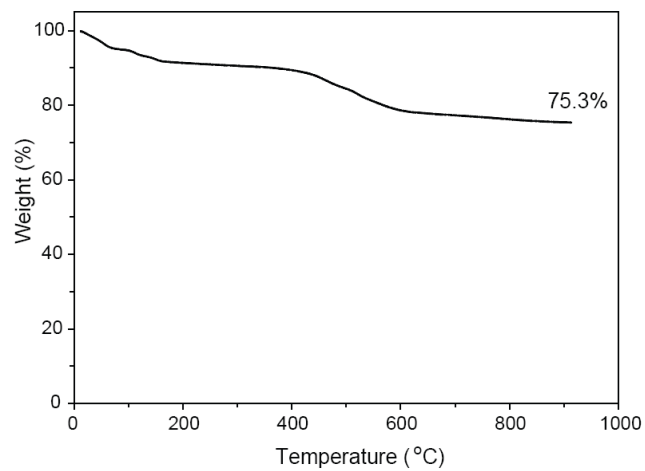


Fig. S5 TGA curves of $\text{Co}_3\text{O}_4/\text{rGO}$ film.

Table S1. Surface area of rGO film and porous rGO films obtained from different PS spheres with diameters 100 nm, 500 nm and 2 μm .

	rGO film	Porous rGO film (100 nm of PS)	Porous rGO film (500 nm of PS)	Porous rGO film (2 μm of PS)
Surface area [$\text{m}^2 \text{g}^{-1}$] ^[a,b]	20.56	289.47	229.63	187.30

[a] Properties determined with a gas sorption analyzer.

[b] Calculated by using the Brunauer-Emmett-Teller (BET) equation.