

Supporting Information

Seed-assisted Synthesis of $\text{Co}_3\text{O}_4@-\alpha\text{-Fe}_2\text{O}_3$ Core/Shell Nanoneedle Arrays for Lithium-ion Battery Anode with High Capacity

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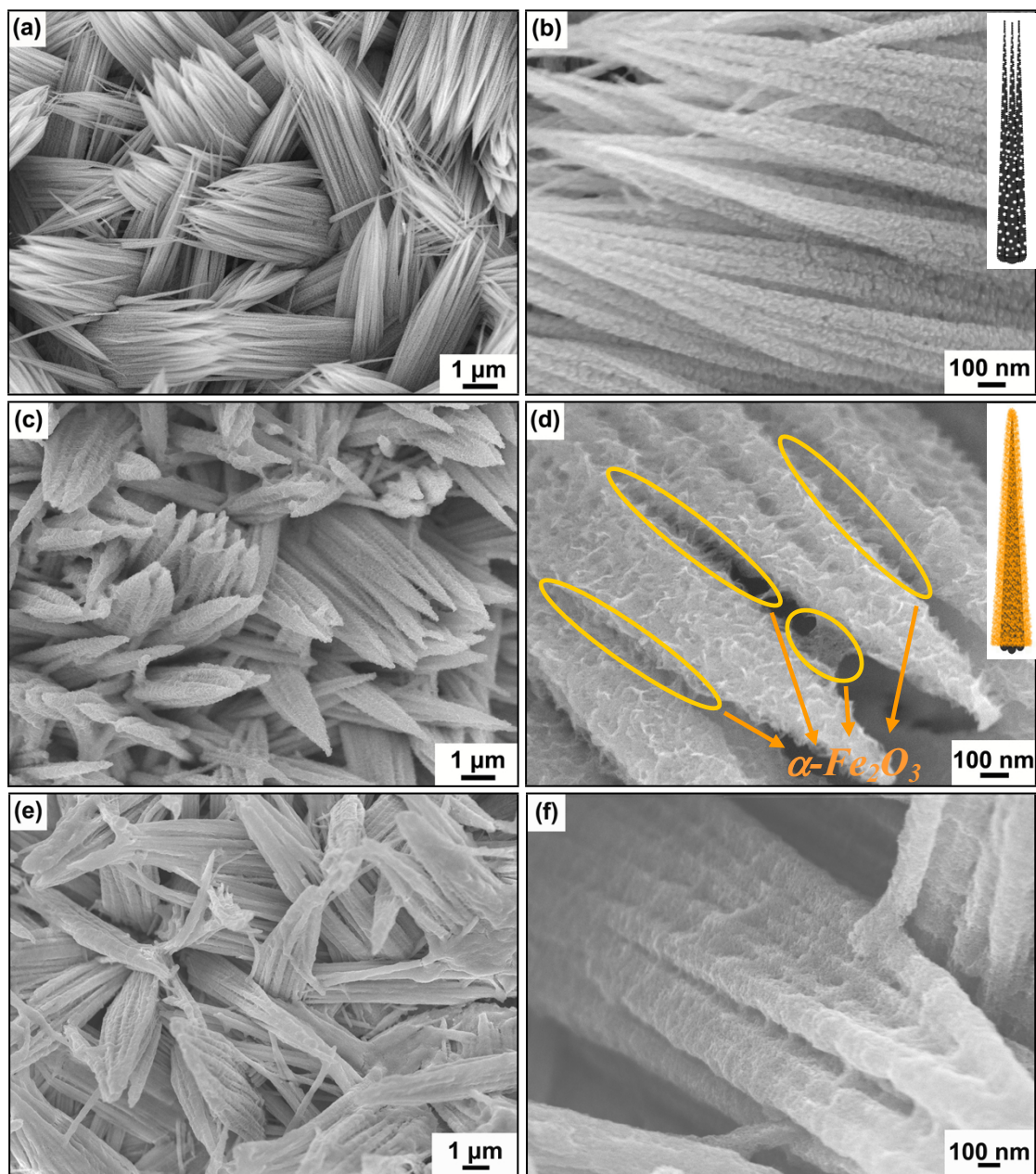


Fig. S1 (a,b) Low-magnification and enlarged SEM images of the Co_3O_4 NAs; (c,d) Low-magnification and enlarged SEM images of the $\text{Co}_3\text{O}_4@ \alpha\text{-Fe}_2\text{O}_3$ NAs; (e,f) Low-magnification and enlarged SEM images of the $\text{Co}_3\text{O}_4@ \alpha\text{-Fe}_2\text{O}_3$ NAs after 100 discharge-charge cycles. The inset shows the sketch maps.

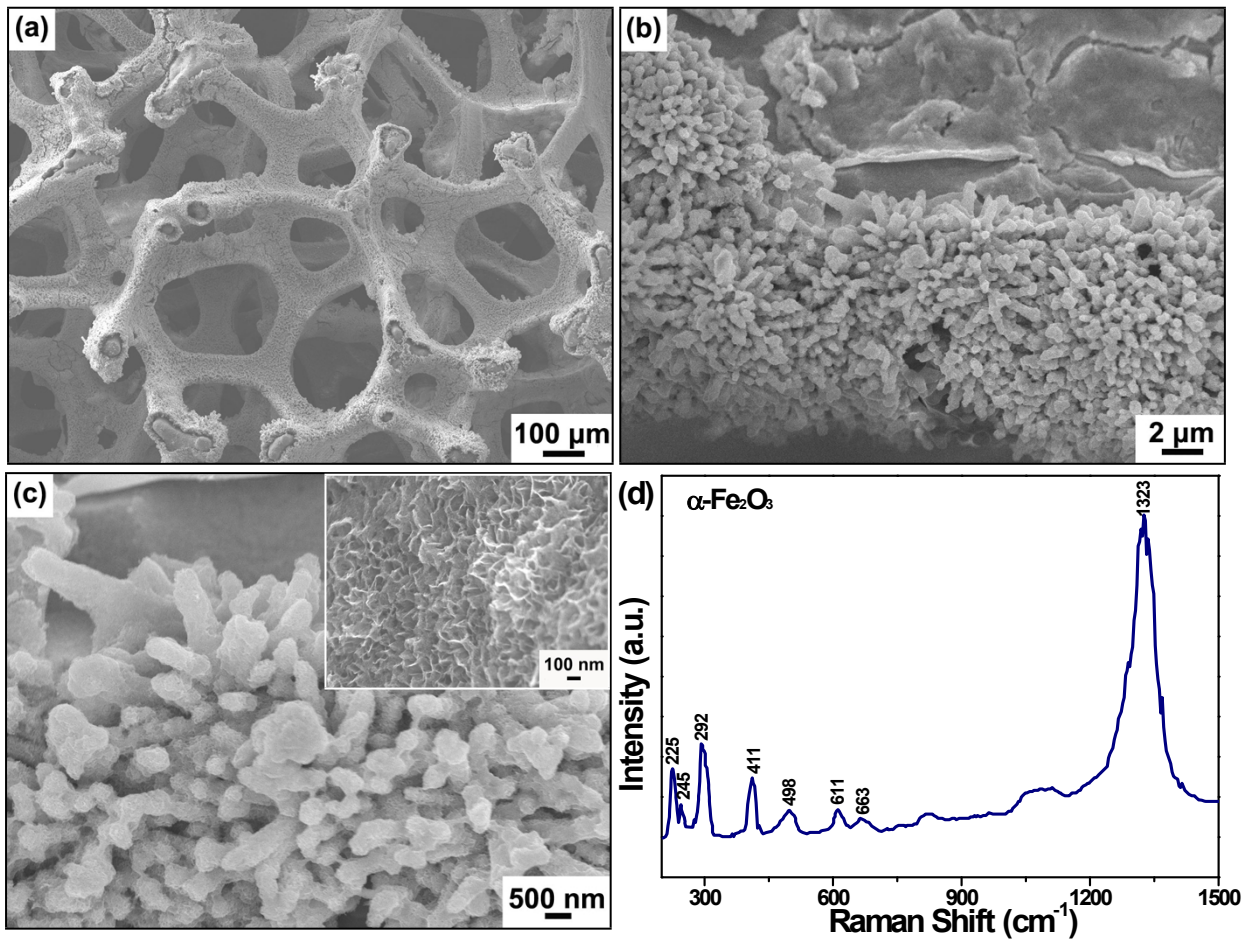


Fig. S2 (a,b,c) Low-magnification and enlarged SEM images of as-annealed α -Fe₂O₃ film directly grown on a Ni foam; (d) Raman spectra of the α -Fe₂O₃ film.

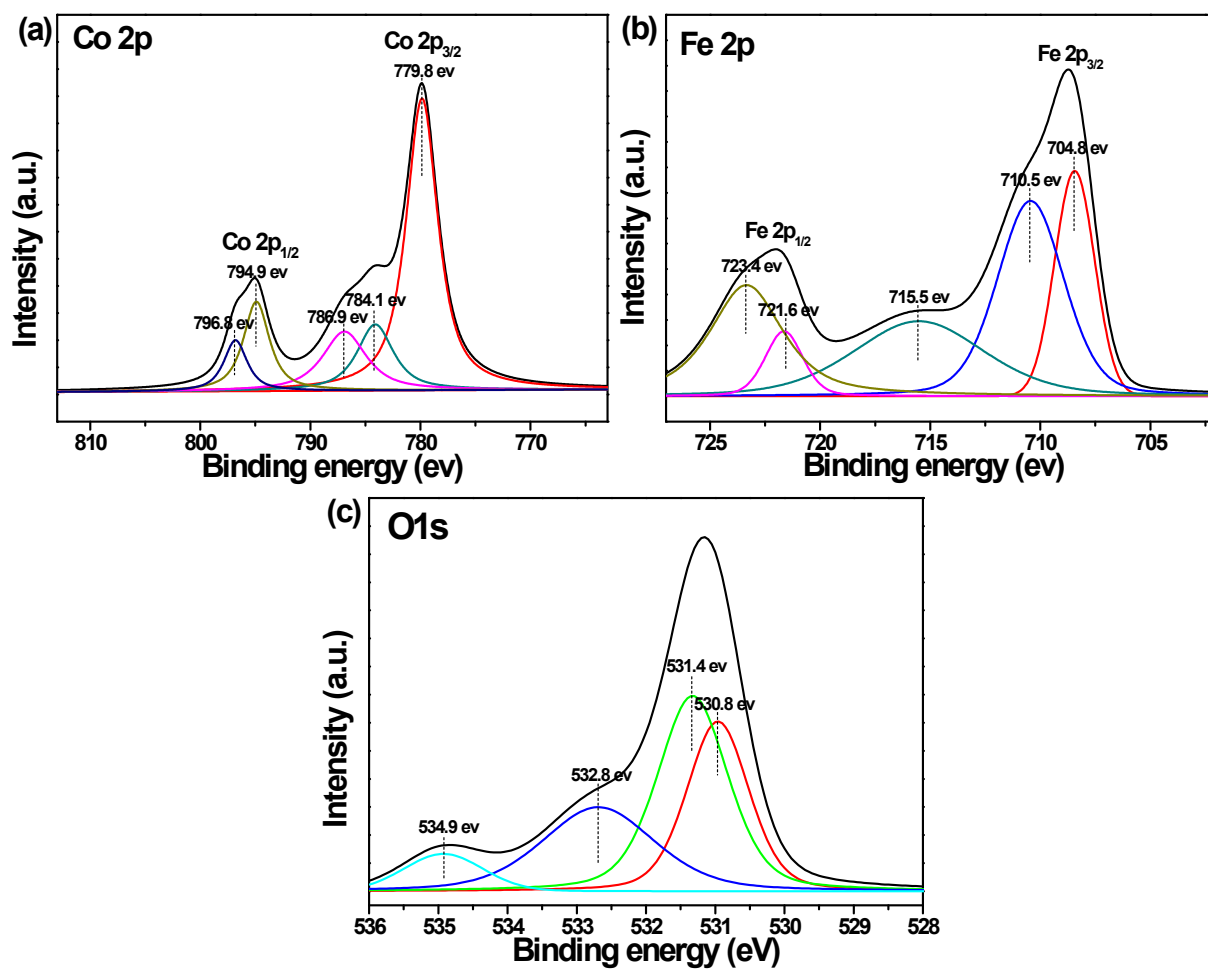


Fig. S3 XPS spectra of (a) Co 2p, (b) Fe 2p, (c) O 1s regions of the $\text{Co}_3\text{O}_4@ \alpha\text{-Fe}_2\text{O}_3$ NAs.