Supporting Information

3D Hierarchical Rose-like Ni_2P@rGO Assembled from Interconnected Nanoflakes as Anode for Lithium Ion Batteries

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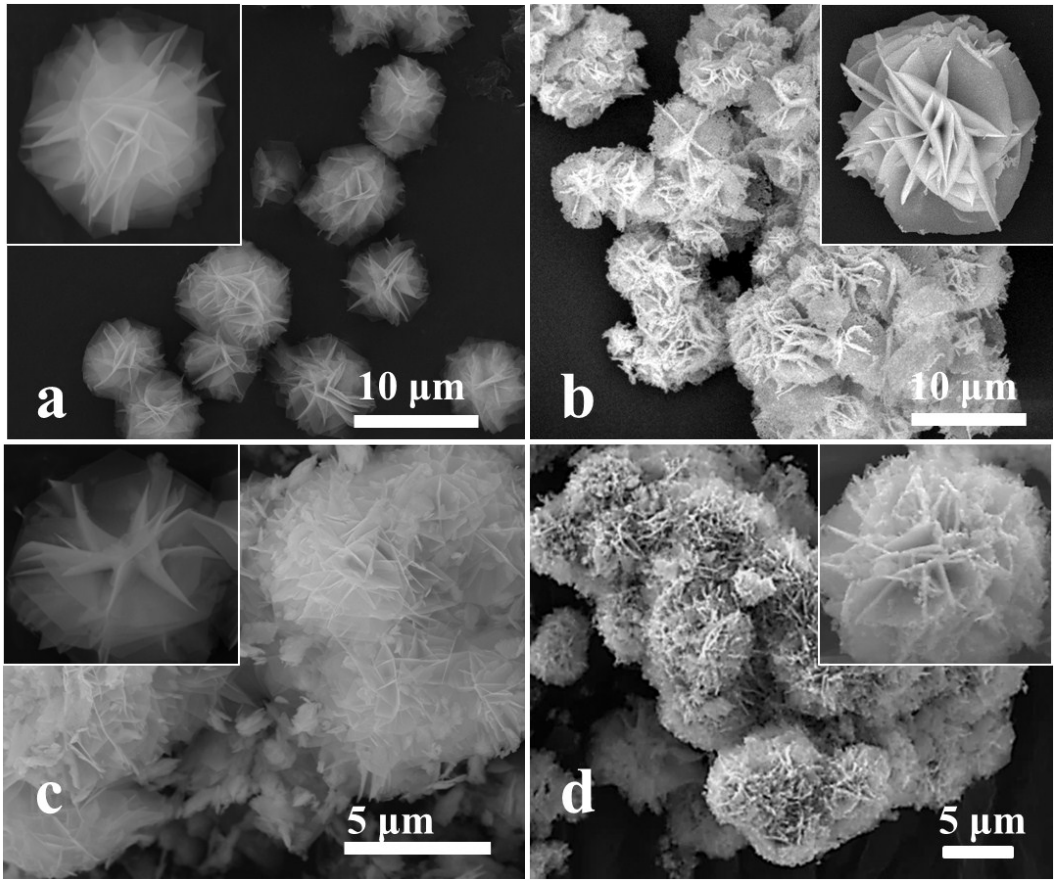

Fig. S1. SEM images of the precursor and product for Ni_2P and Ni_2P@G samples. (a) $Ni(OH)_2$ precursor of Ni_2P sample, (b) Ni_2P sample, (c) $Ni(OH)_2$@G precursor of Ni_2P@G sample, and (d) Ni_2P@G sample.

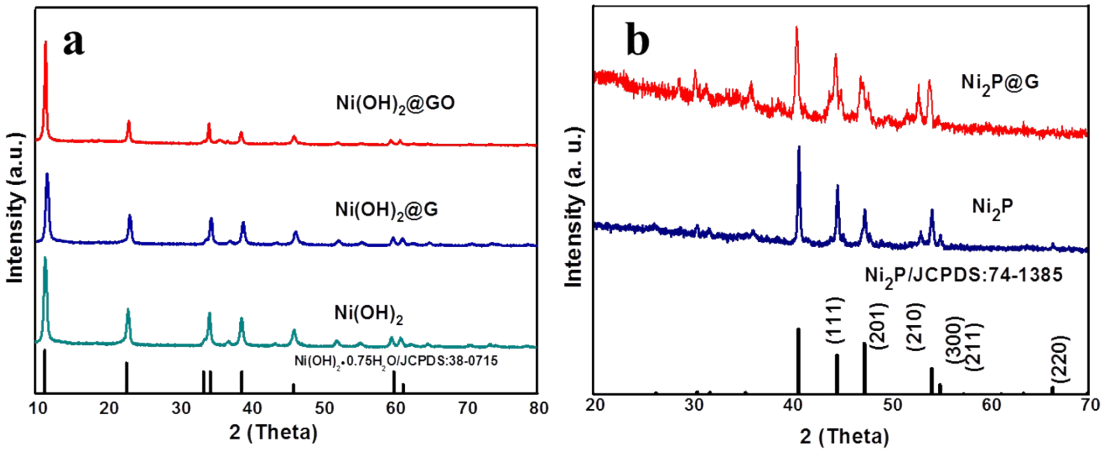

Fig. S2. XRD patterns of the (a) $Ni(OH)_2$ precursor, $Ni(OH)_2$@G precursor and $Ni(OH)_2$@GO precursor, and (b) Ni_2P and Ni_2P@G samples.

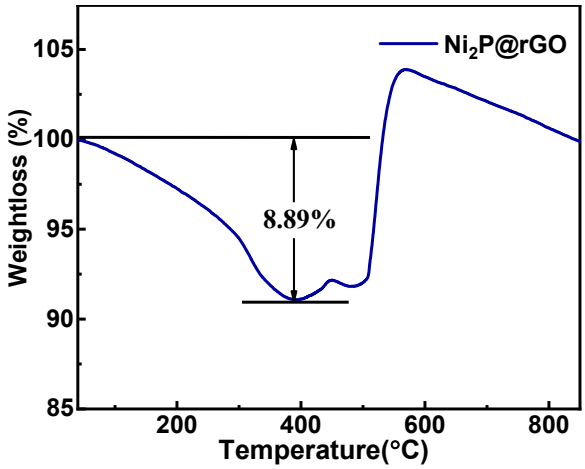

Fig. S3 TGA curve of Ni_2P@rGO

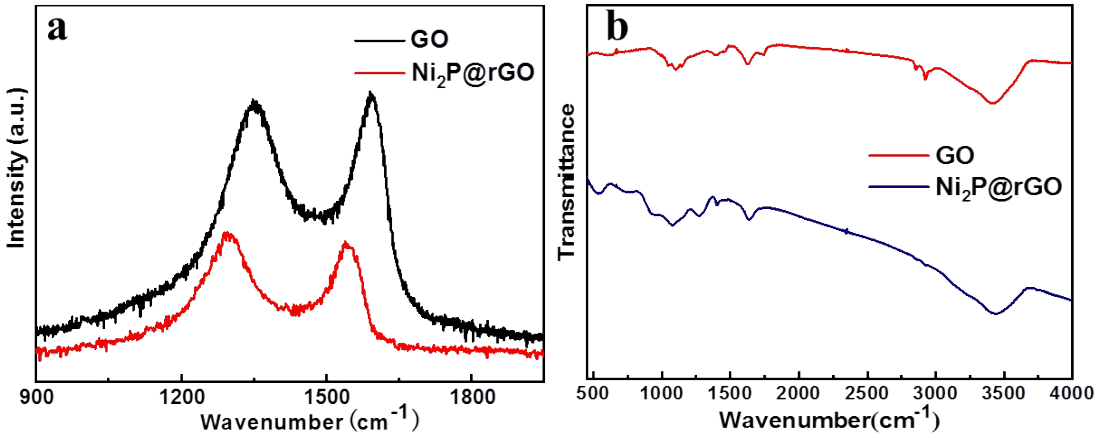

Fig. S4 (a) Raman spectra of GO and Ni_2P@rGO (b) FTIR spectra of GO and Ni_2P@rGO

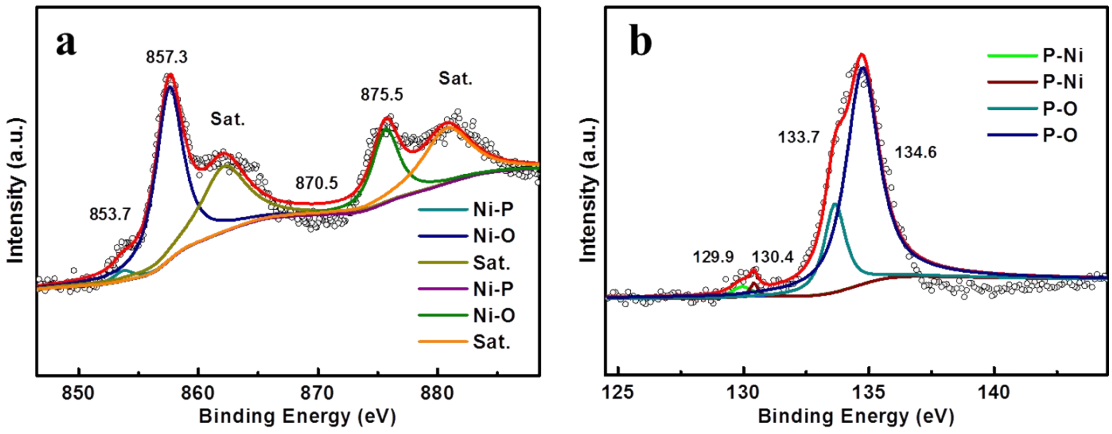

Fig. S5 XPS spectra of as-prepared Ni_2P sample: (a) Ni 2p and (b) P 2p.

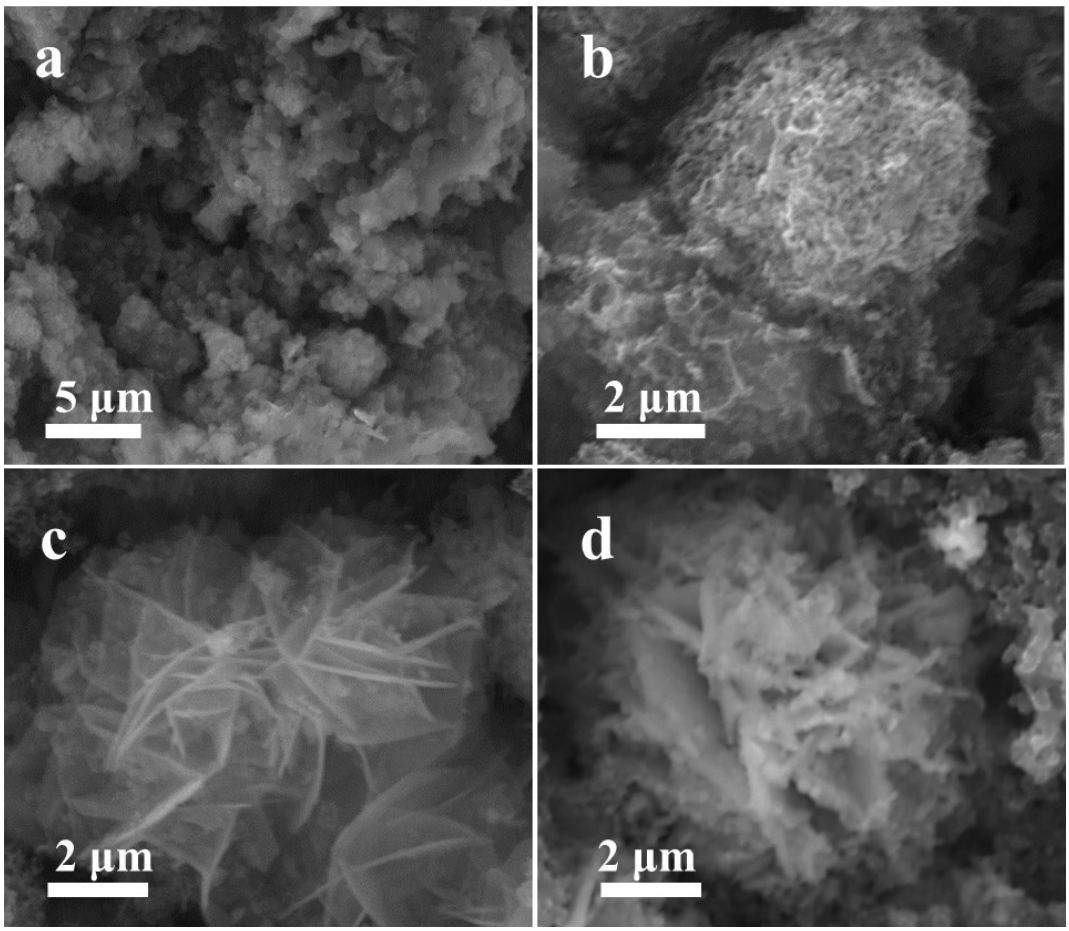

Fig. S6 SEM images of electrode material (a) Ni_2P, (b) Ni_2P@G and (c) Ni_2P@rGO after 100 cycles at 100 mA g^{-1} of, and (d) Ni_2P@rGO after 300 cycles at 300mA g^{-1}