

Supporting Information

A Novel Ni₃N/Graphene Nanocomposite as Supercapacitor Electrode Material with High Capacitance and Energy Density

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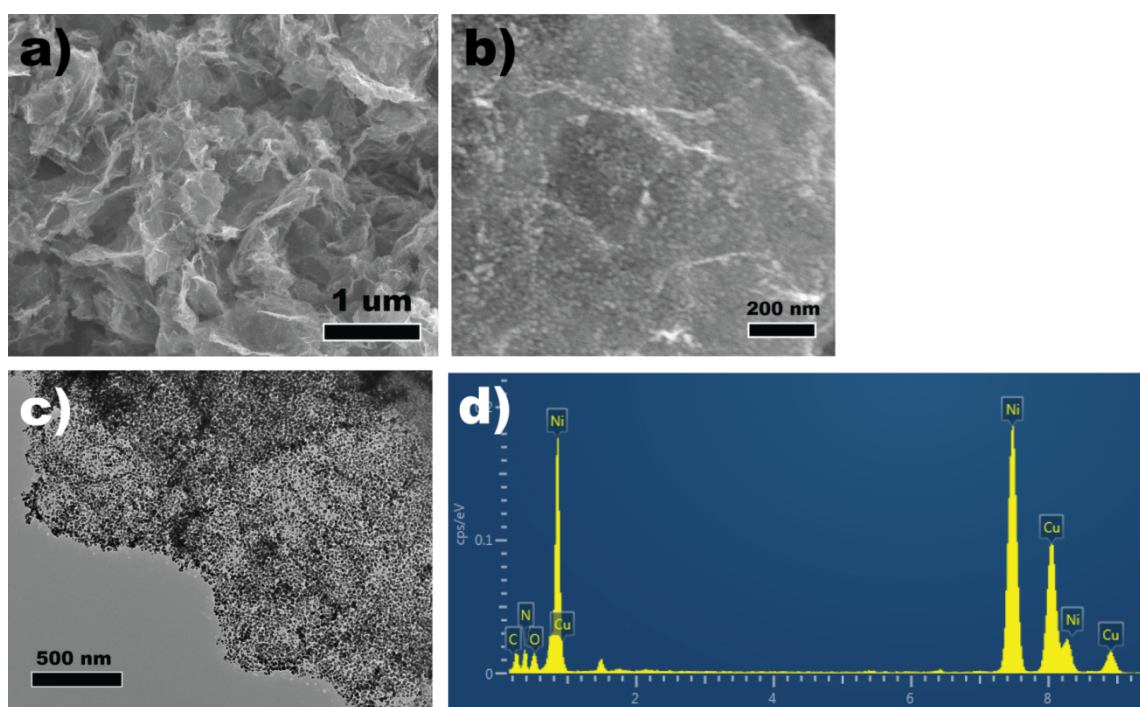


Figure S1 a, b) Low resolution SEM, c) TEM images and d) EDS spectrum of Ni₃N/RGO nanocomposite.

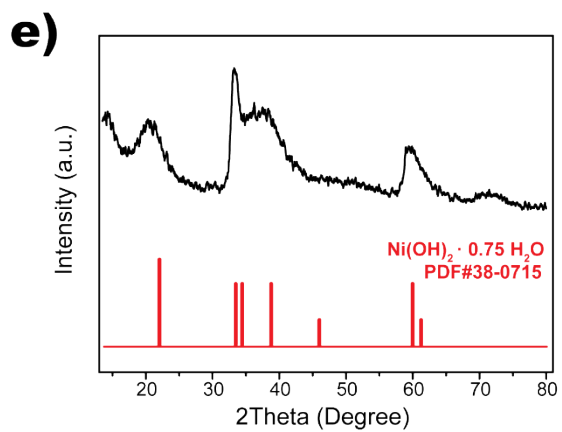
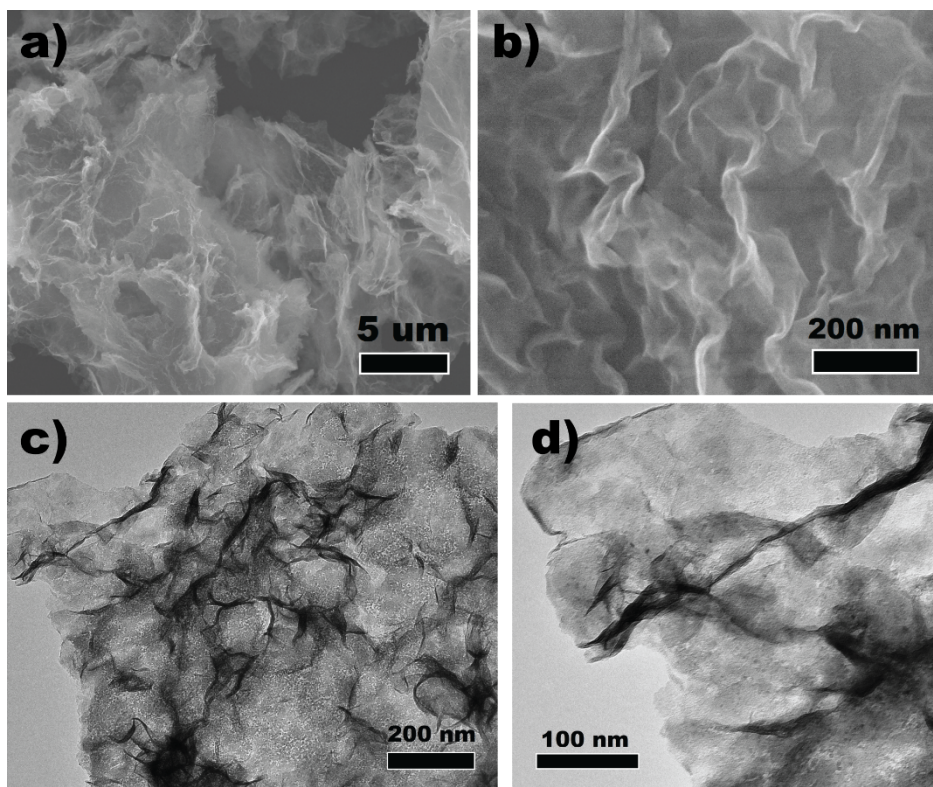


Figure S2 a, b) SEM, c, d) TEM image, and e) XRD pattern of nickel hydroxide hydrate/RGO precursor.

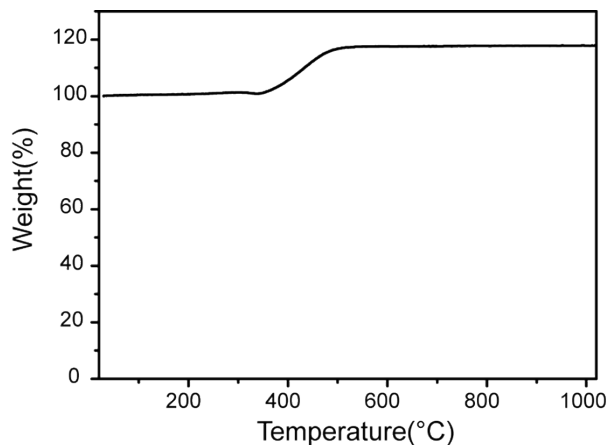


Figure S3 TGA result of pure Ni₃N nanoparticles.

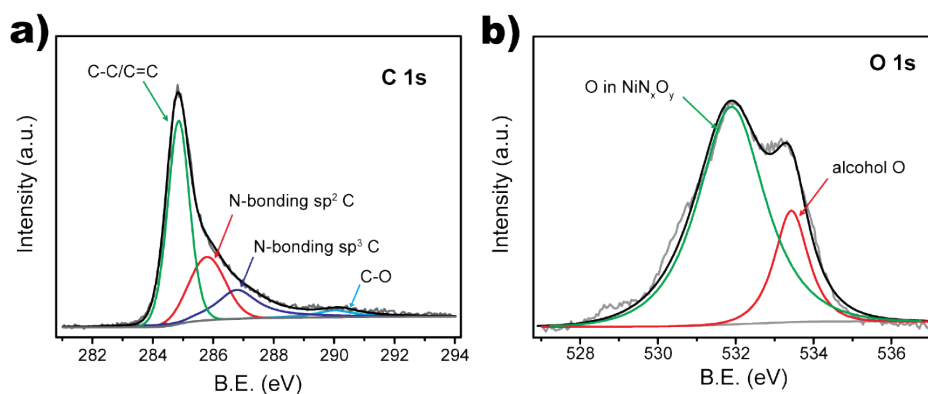


Figure S4 a) C 1s and d) O 1s XPS spectra of Ni₃N/RGO nanocomposite.

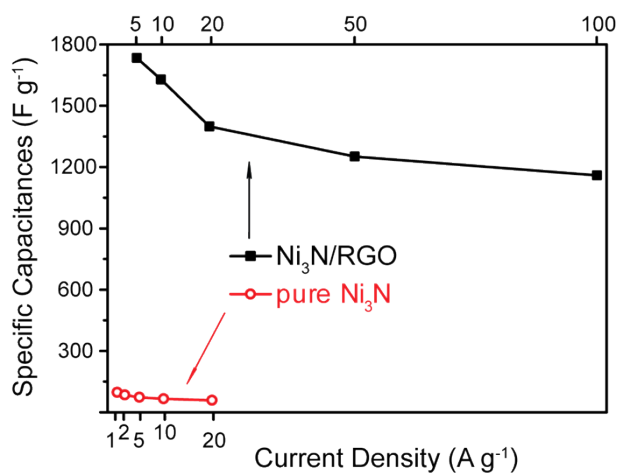


Figure S5 The comparison of specific capacitance of Ni₃N/RGO nanocomposite and pure Ni₃N nanoparticles.

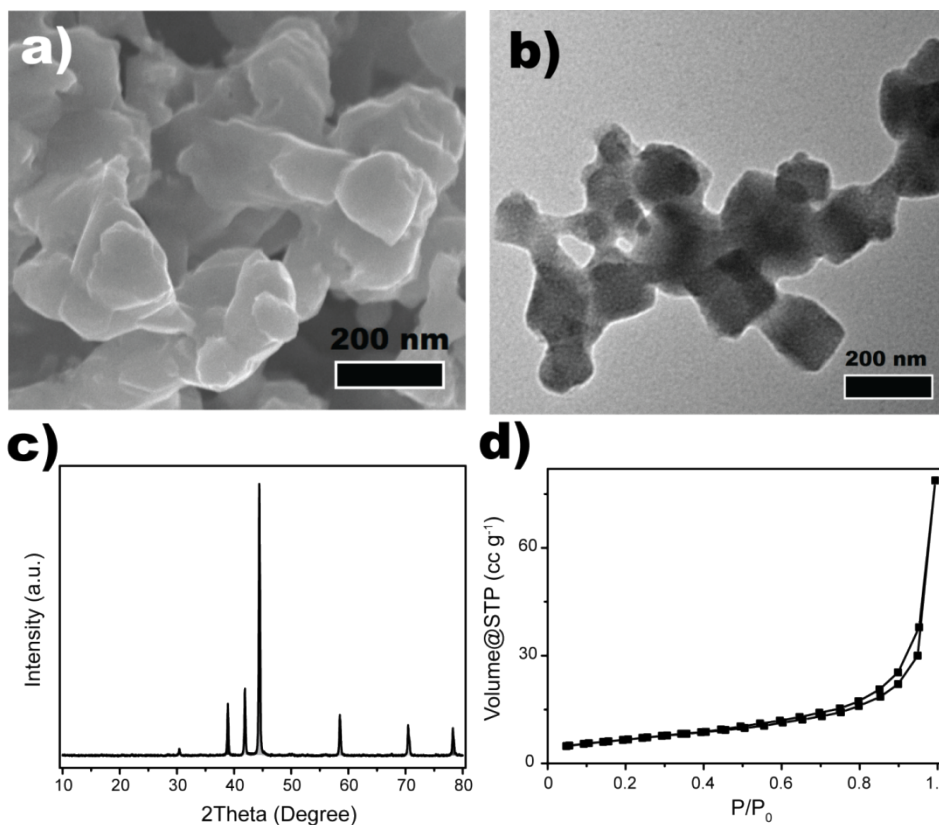


Figure S6 a) SEM, b) TEM image, c) XRD pattern, and d) N_2 adsorption-desorption isotherm curve of pure Ni_3N nanoparticles.

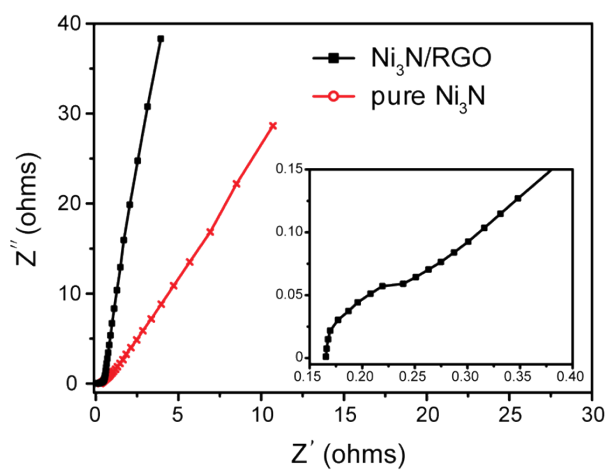


Figure S7 Ragone plots of Ni_3N/RGO nanocomposite materials and pure Ni_3N nanoparticles in the three-electrode system, and the inset shows EIS information of Ni_3N/RGO in the high frequency region.

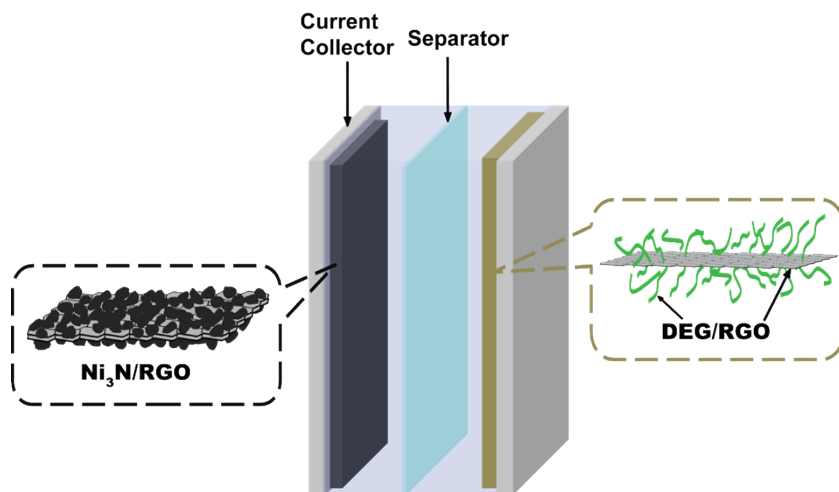


Figure S8 Graphical structure of Ni₃N/RGO//DEG/RGO asymmetric supercapacitor.