Supporting Information

Intercalated reduced graphene oxide and its content effect on the supercapacitance performance of the three dimensional flower-like β-Ni(OH)$_2$ architecture

Nazish Parveen[1], Sajid Ali Ansari[1*], S. G. Ansari[2], H. Fouad[3], and Moo Hwan Cho[1*]

[1]School of Chemical Engineering, Yeungnam University, Gyeongsan-si, Gyeongbuk 712-749, South Korea, Phone: +82-53-810-2517; Fax: +82-53- 810-4631

[2]Centre for Interdisciplinary Research in Basic Sciences, Jamia Millia Islamia, New Delhi, 110025 India

[3]Department of Applied Medical Science, Riyadh Community College, King Saud University, Riyadh, 11437 Saudi Arabia

*Corresponding authors: mhcho@ynu.ac.kr, sajidansari@ynu.ac.kr

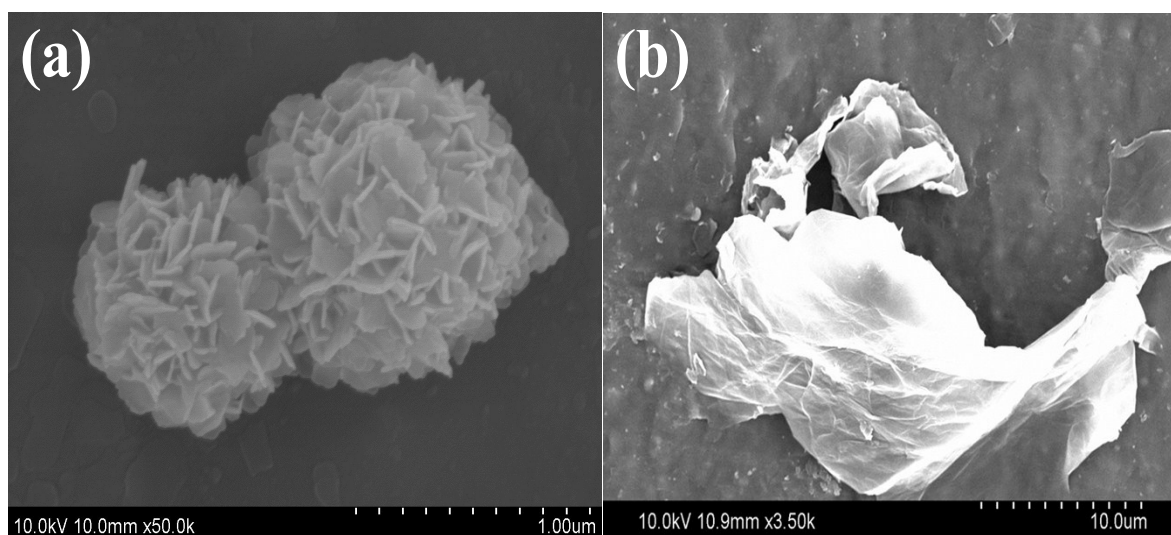**SEM image of 3D-FL-NiH and rGO sheet**

Fig. S1 SEM image of (**a**) 3D-FL-NiH and (**b**) rGO sheet.

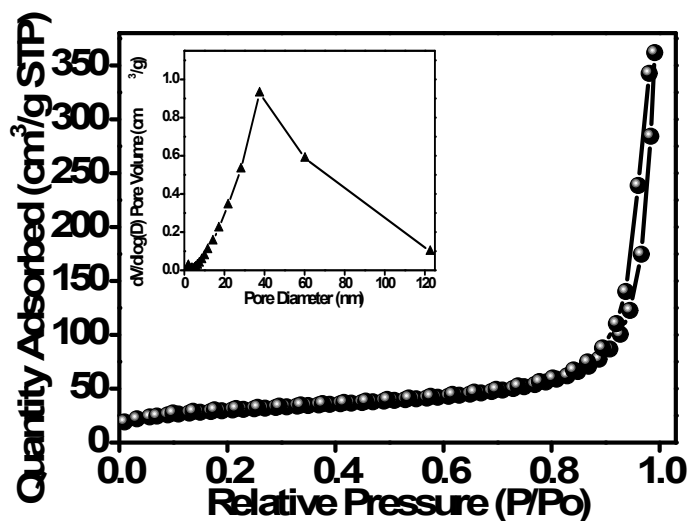**Nitrogen adsorption-desorption isotherm**

Fig. S2. Nitrogen adsorption-desorption isotherm and pore size distribution of 3D-FL-NiH.
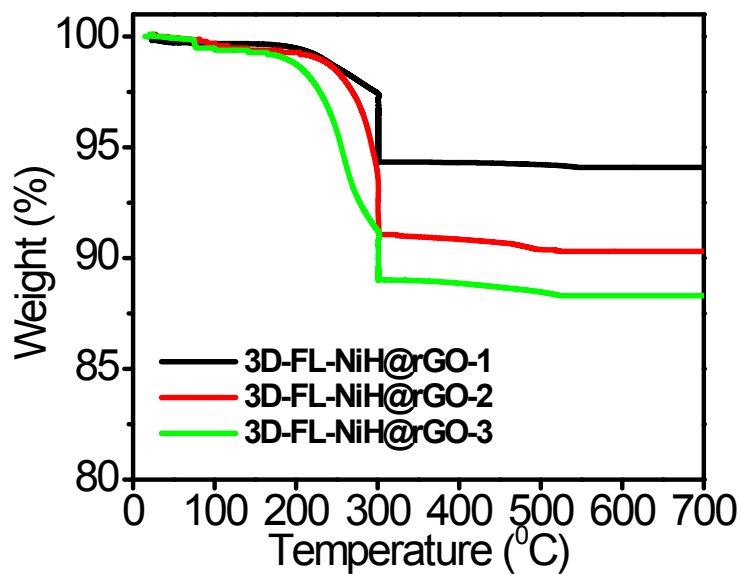
Thermogravimetric analysis

Fig. S3 Thermogravimetric analysis of 3D-FL-NiH@rGO composites.
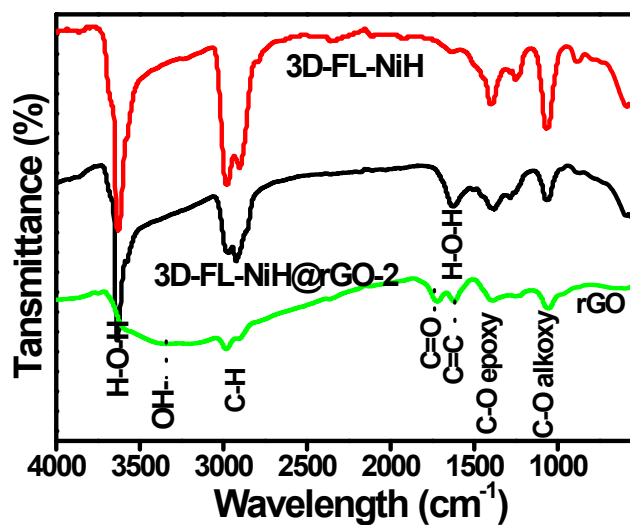
FTIR spectra

Fig. S4. FTIR spectra of rGO, 3D-FL-NiH and 3D-FL-NiH@rGO-2 composite.

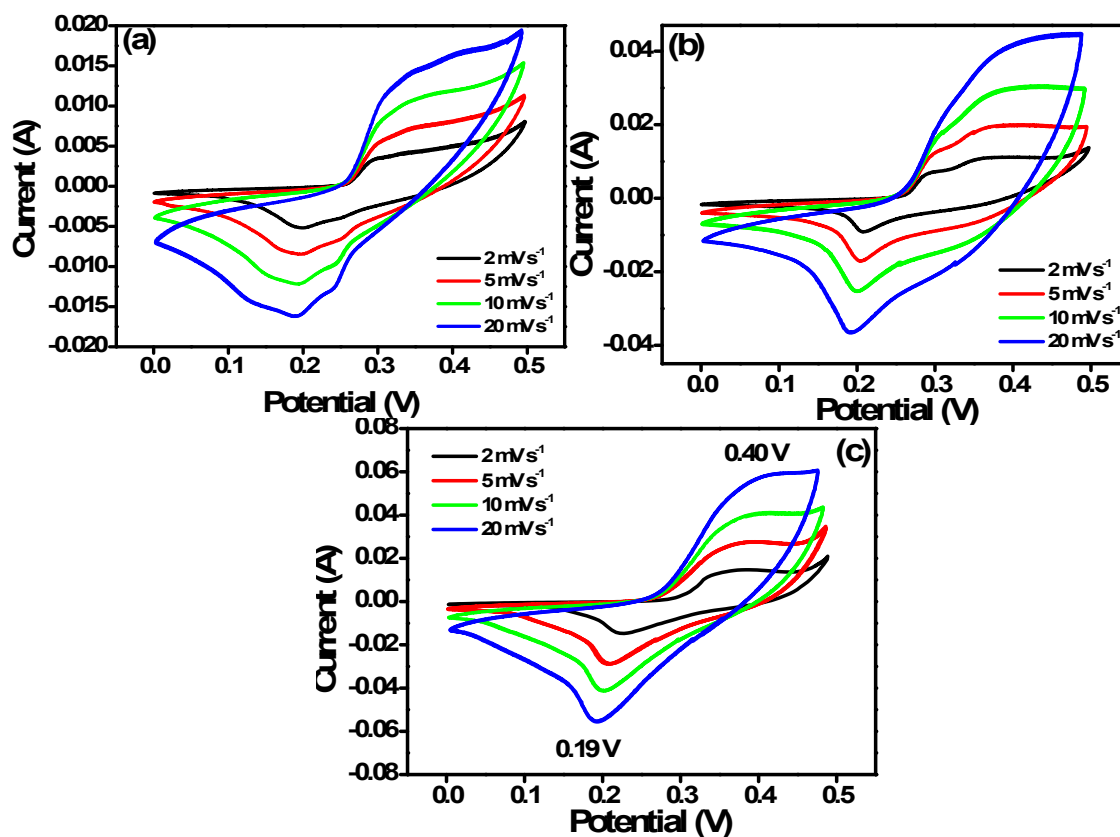**Cyclic voltammograms of 3D-FL-NiH@rGO composites**

Fig. S5 Cyclic voltammograms of 3D-FL-NiH@rGO-1, 3D-FL-NiH@rGO-2, 3D-FL-NiH@rGO-3 composites.
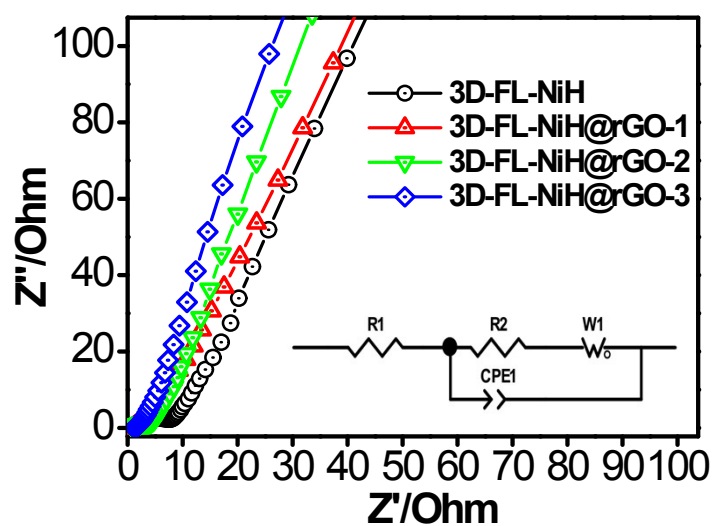
Nyquist plot of 3D-FL-NiH@rGO composites

Fig. S6 EIS Nyquist plots of 3D-FL-NiH and 3D-FL-NiH@rGO composites**.**