Controllable synthesis of aluminum doped peony-like α-$Ni(OH)_2$ with ultrahigh rate capability for asymmetric supercapacitors

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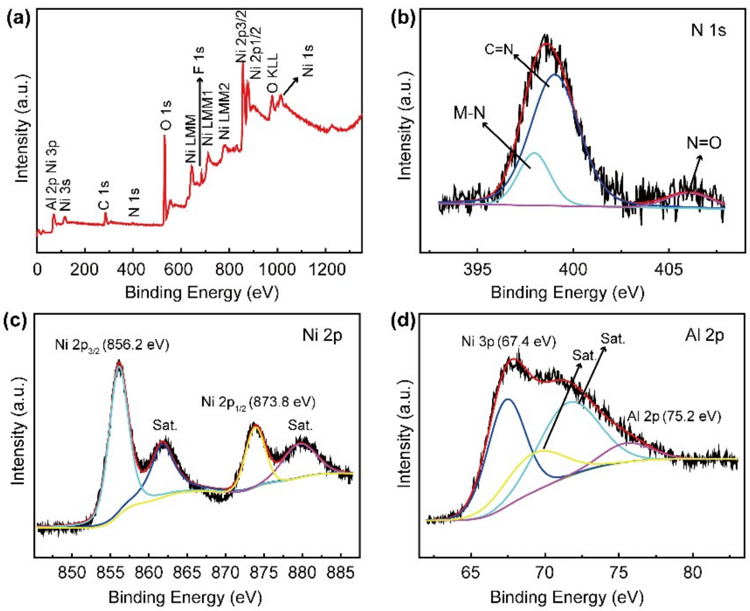

Figure. S1 (a) XPS spectra of as-synthesized NIA-0.1 (b-d) XPS survey scan of N 1s, Ni 2p, Al 2p regions, respectively.

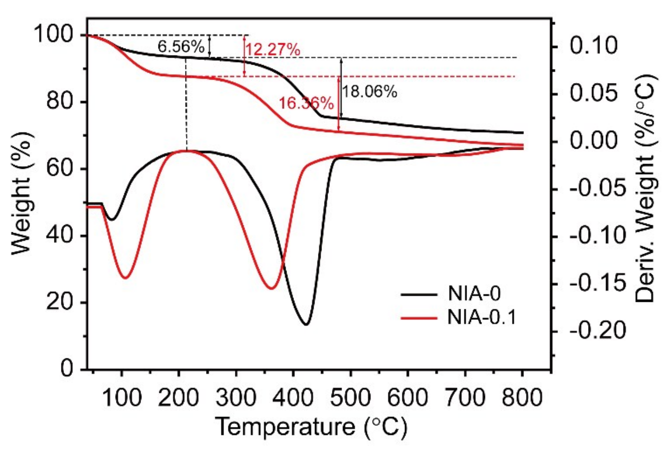

Figure. S2 TGA and DTG of NIA-0 and NIA-0.1 tested in air.

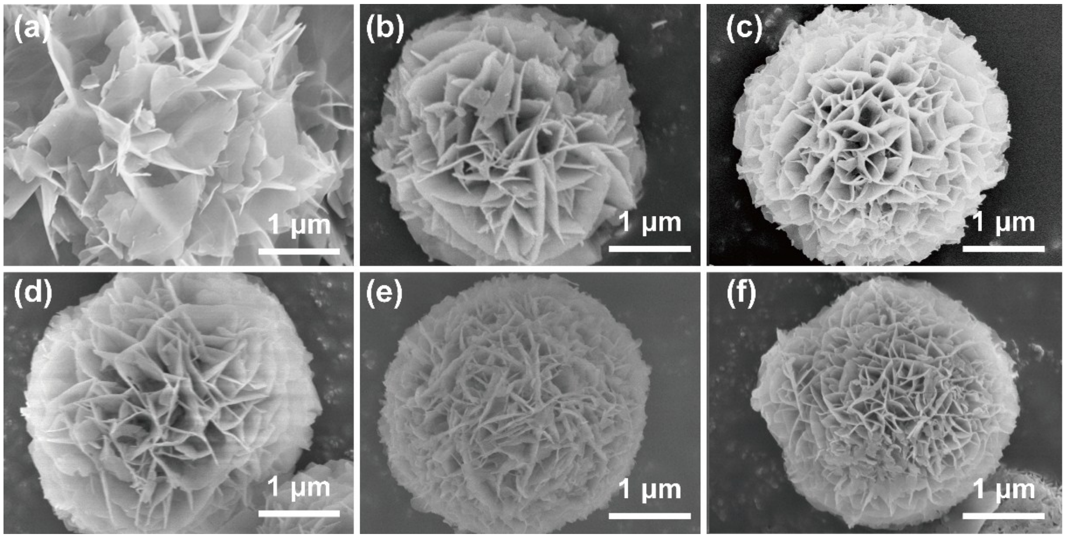

Figure. S3 SEM images of as-synthesized NIA-*x*: (a) NIA-0, (b) NIA-0.05, (c) NIA-0.1, (d) NIA-0.15, (e) NIA-0.2, (f) NIA-0.25.

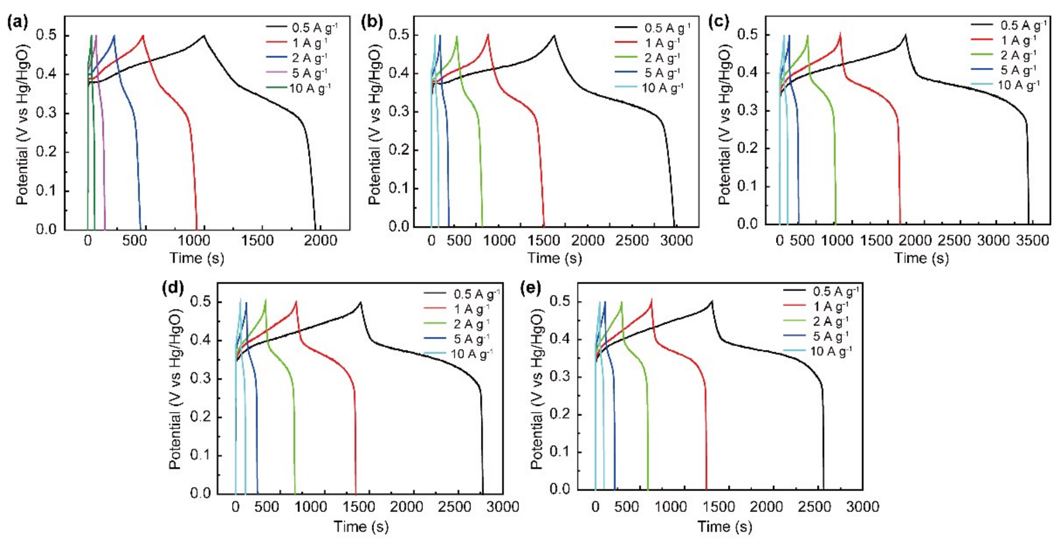

Figure. S4 GCD curves of as-synthesized NIA-*x* at different current densities: (a) NIA-0, (b) NIA-0.05, (c) NIA-0.1, (d) NIA-0.15, (e) NIA-0.2, (f) NIA-0.25.

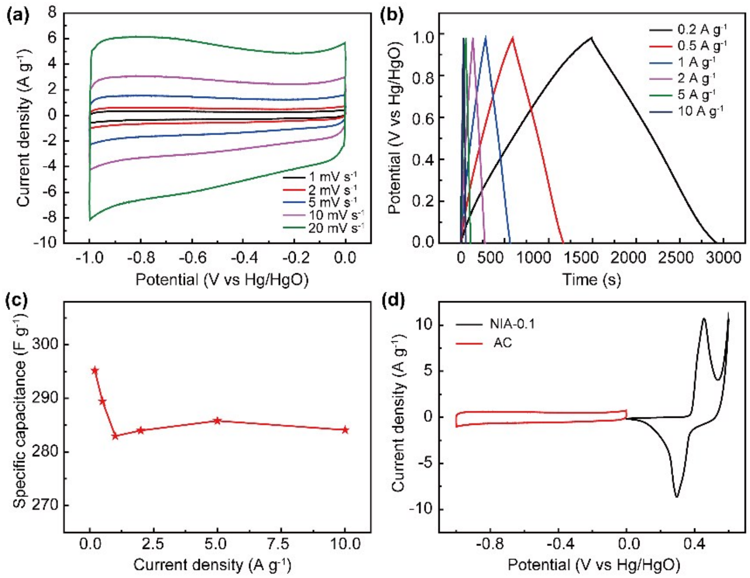

Figure. S5 (a) CV curves of HCP at scan rates from 1 to 20 mV s^{-1}. (b) GCD curves of HCP at different current densities. (c) Specific capacitance values of HCP at different current densities. (d) Potential windows of NIA-0.1 and HCP at a scan rate of 2 mV s^{-1}.