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Electrode engineering begins from live biomass: a "smart" way to construct smart pregnant hybrids for sustainable charge storage devices

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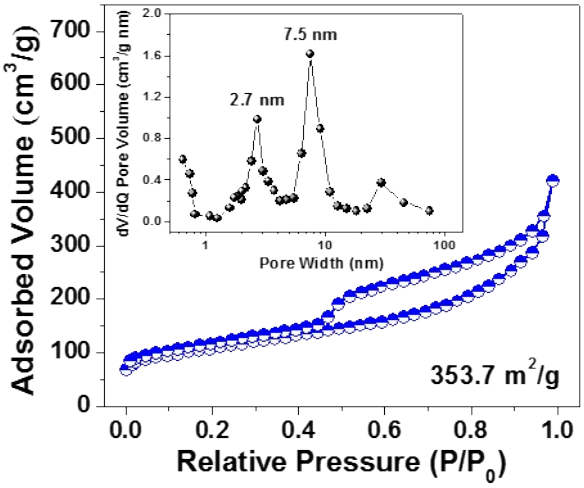

Fig. S1. N_2 adsorption/desorption isotherm and pore-size distribution plot of Fe_3O_4@YE-C.

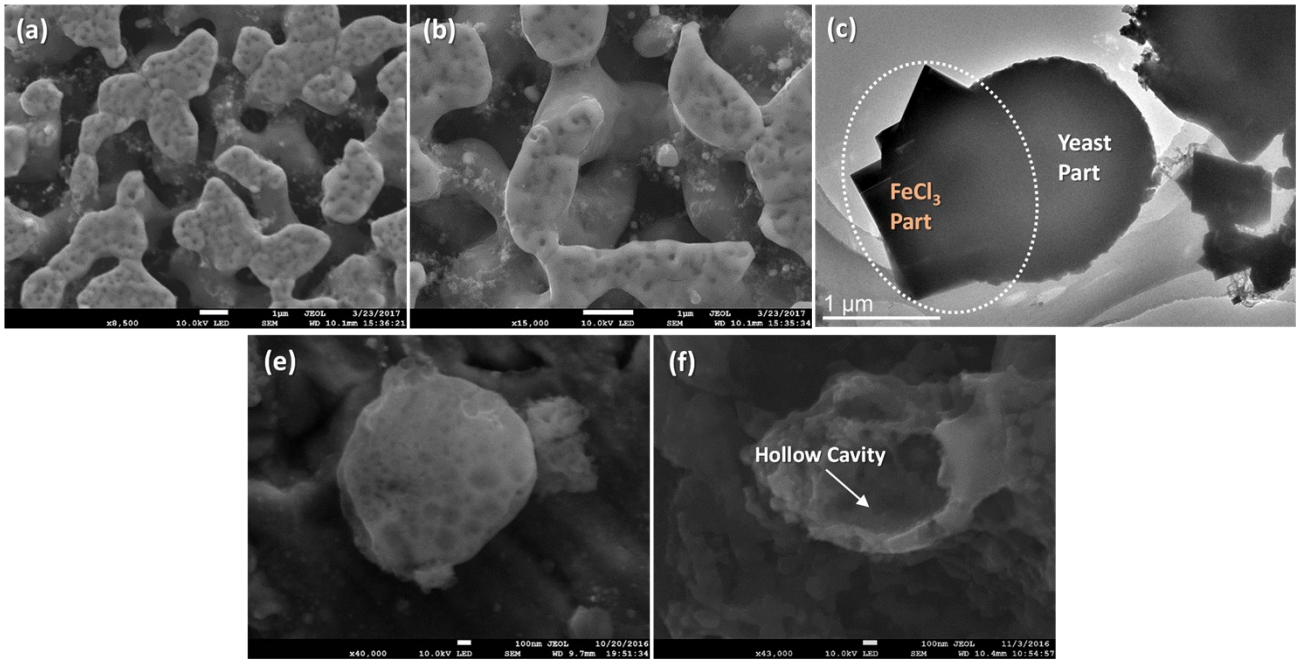

Fig. S2. (a-b) SEM and (c) TEM images of unclean samples after the ion-diffusion procedure. (e-f) SEM observations of remained products after an acid washing treatment toward Fe_3O_4@YE-C.

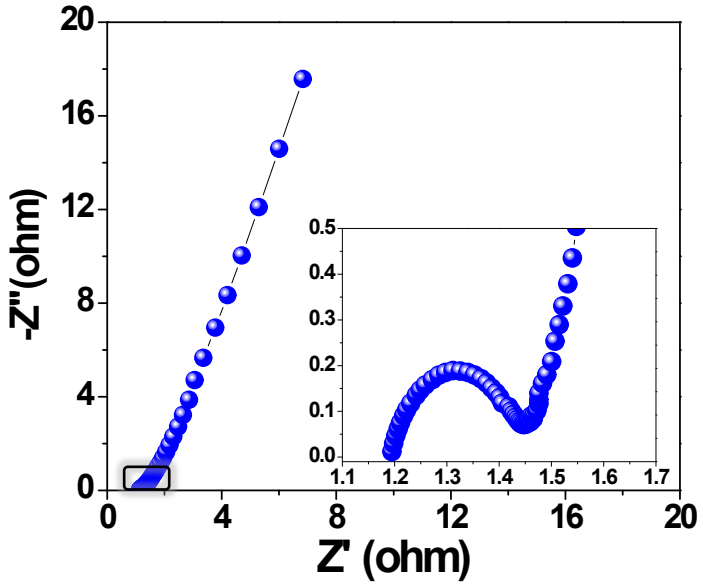

Fig. S3. EIS spectrum of single Fe_3O_4@YE-C electrode.

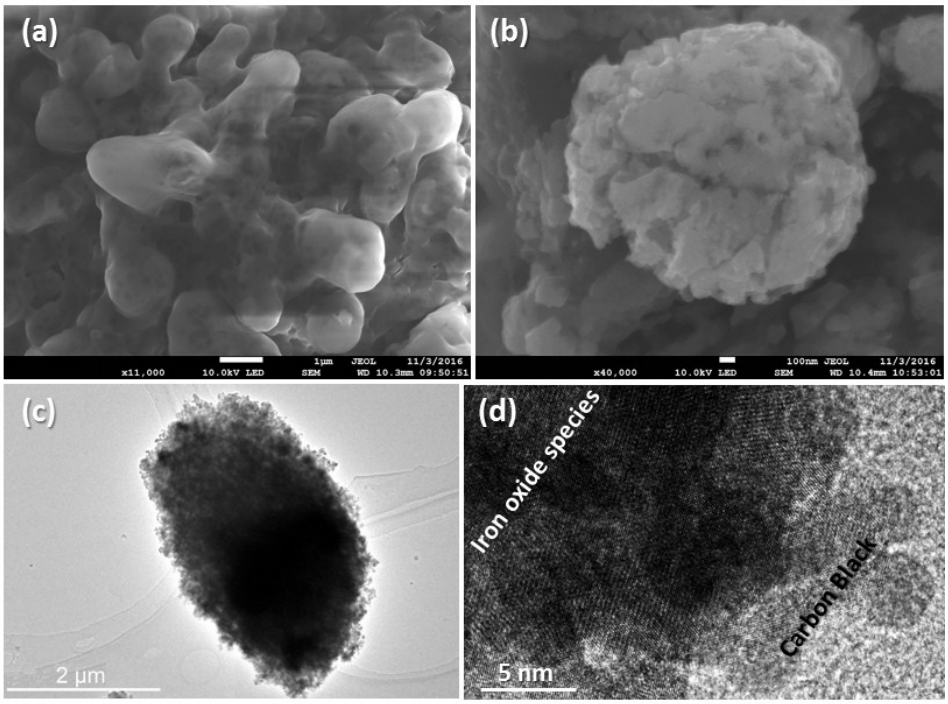

Fig. S4. (a-b) SEM and (c-d) TEM images of cycled Fe_3O_4@YE-C electrodes.

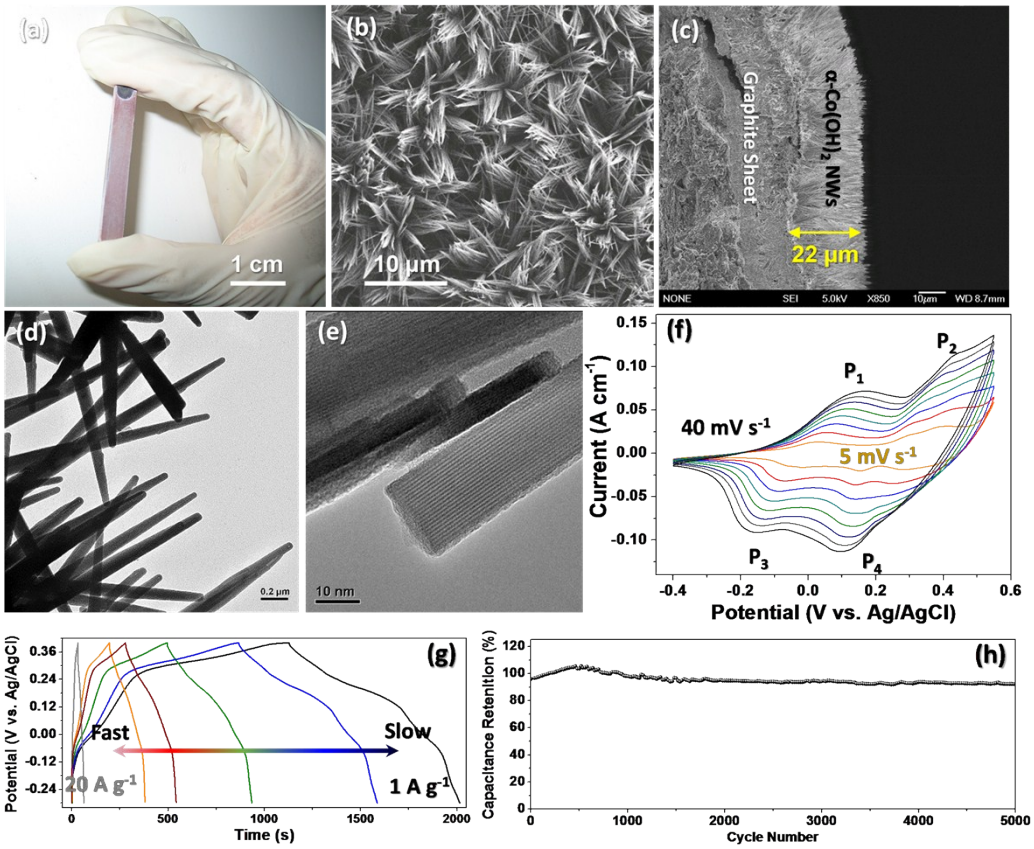

Fig. S5. (a) Optical, (b-c) SEM and (d-e) TEM images of $Co(OH)_2$ NWs grown on the graphite sheet. (f) CV plots, (g) constant charge/discharge profiles and (h) long-term cyclic performance of $Co(OH)_2$ NWs cathode.