Electronic Supplementary Information for

LDH Nanocages Synthesized by MOF Templates and the High Performance as Supercapacitor

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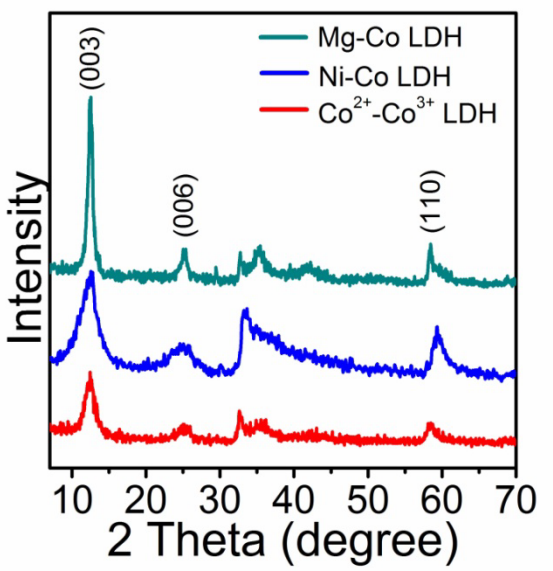

Fig. S1 XRD patterns of the as-prepared LDH nanocages.

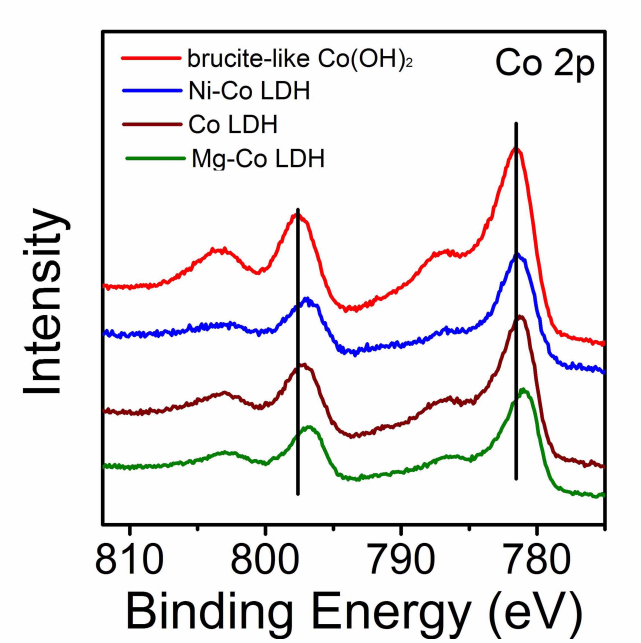

Fig. S2 XPS patterns of brucite-like $Co(OH)_2$, Ni-Co LDH, Co LDH and Mg-Co LDH nanocages.

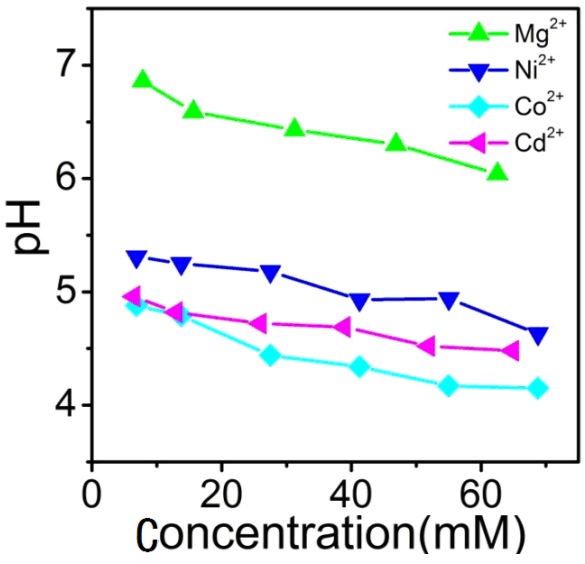

Fig. S3 pH values of different nitrates in ethanol.

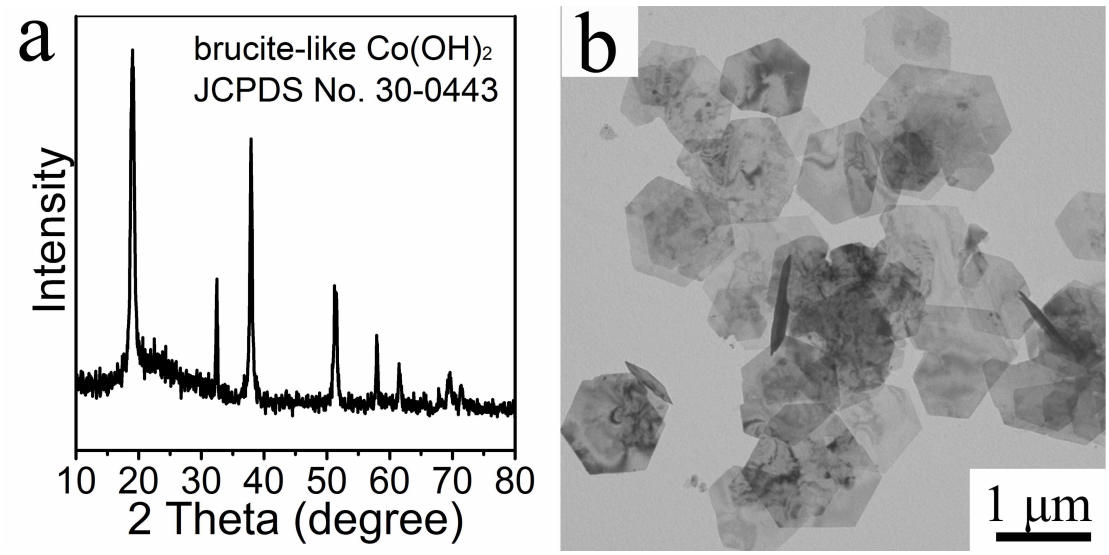

Fig. S4 XRD pattern and TEM image of brucite-like $Co(OH)_2$ nanoplatelets with water as solvent.

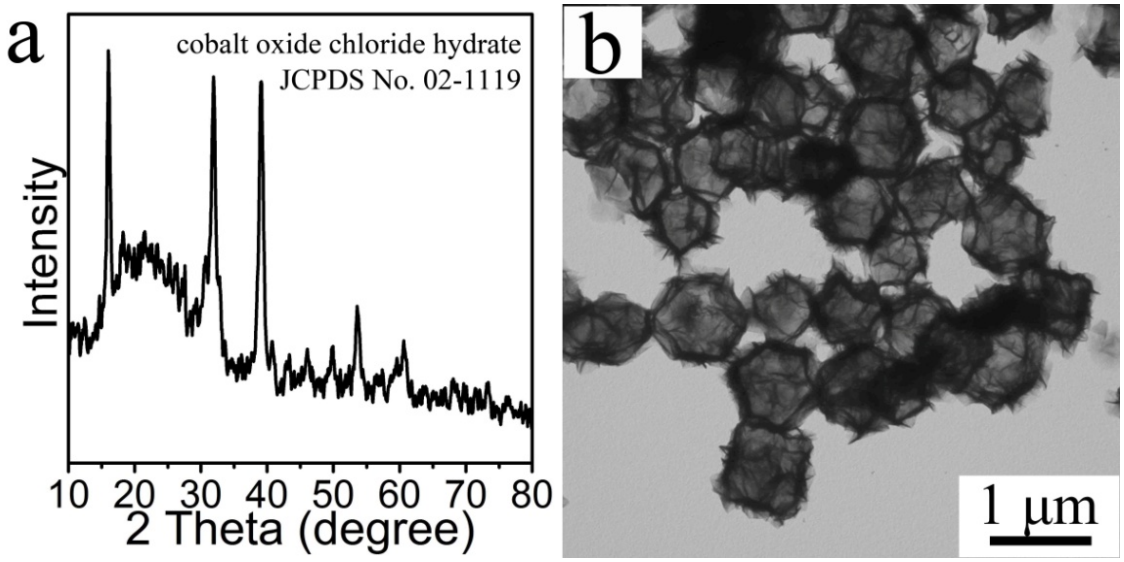

Fig. S5 XRD pattern and TEM image of nanocages obtained with the cobalt chlorate instead of cobalt.

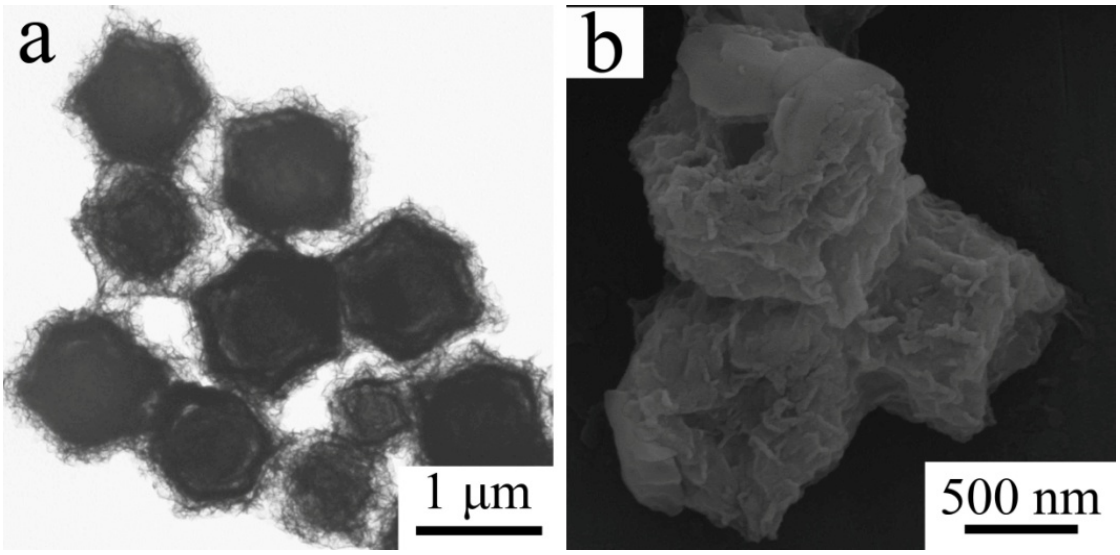

Fig. S6 TEM images of the sample with cadmium nitrate added and reacted in the same condition.

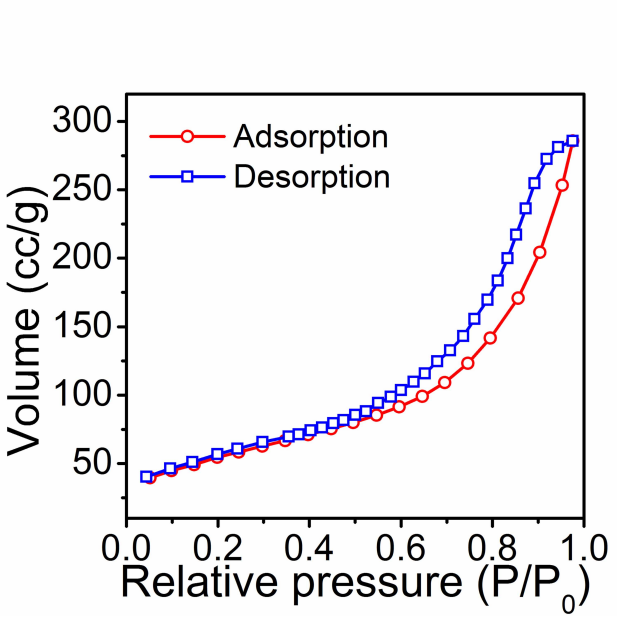

Fig. S7 N_2 adsorption/desorption isotherm of the Ni-Co LDH nanocages.

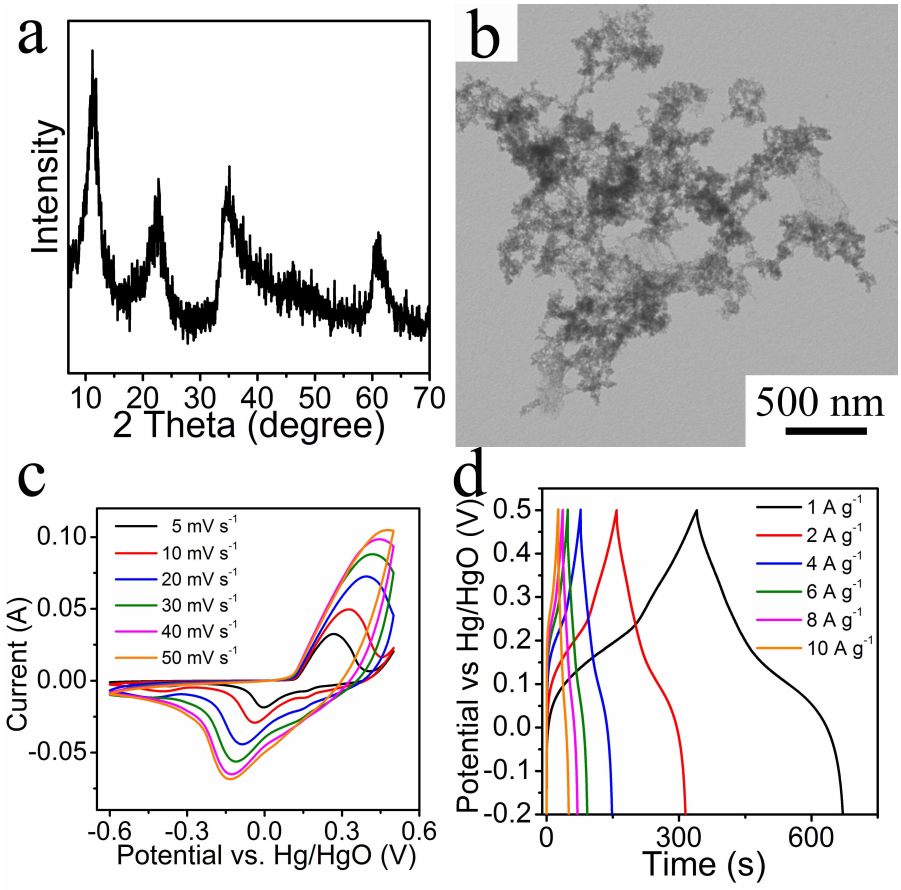

Fig. S8 XRD pattern (a) and TEM image (b) of the individual Ni-Co LDH nanoparticles. Electrochemical characterizations of the particles: (c) CV curves at various scan rates ranged from 5 to 50 $mV \cdot s^{-1}$, (d) charge/discharge voltage curves at various current densities ranged from 1 to 10 $A \cdot g^{-1}$.

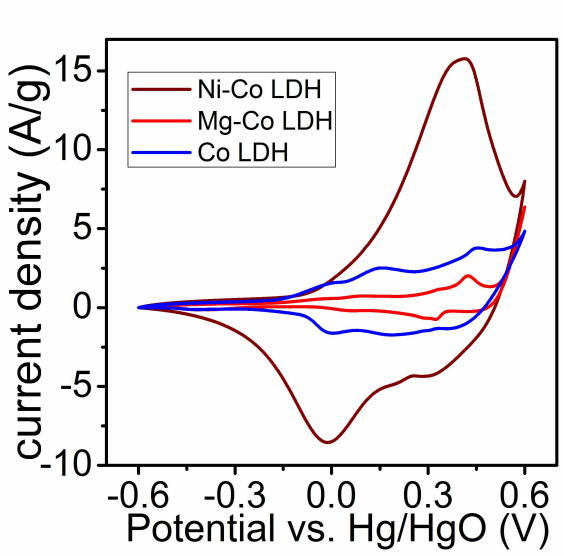

Fig. S9 CV curves of three LDH nanocages at 10 $mV \cdot s^{-1}$

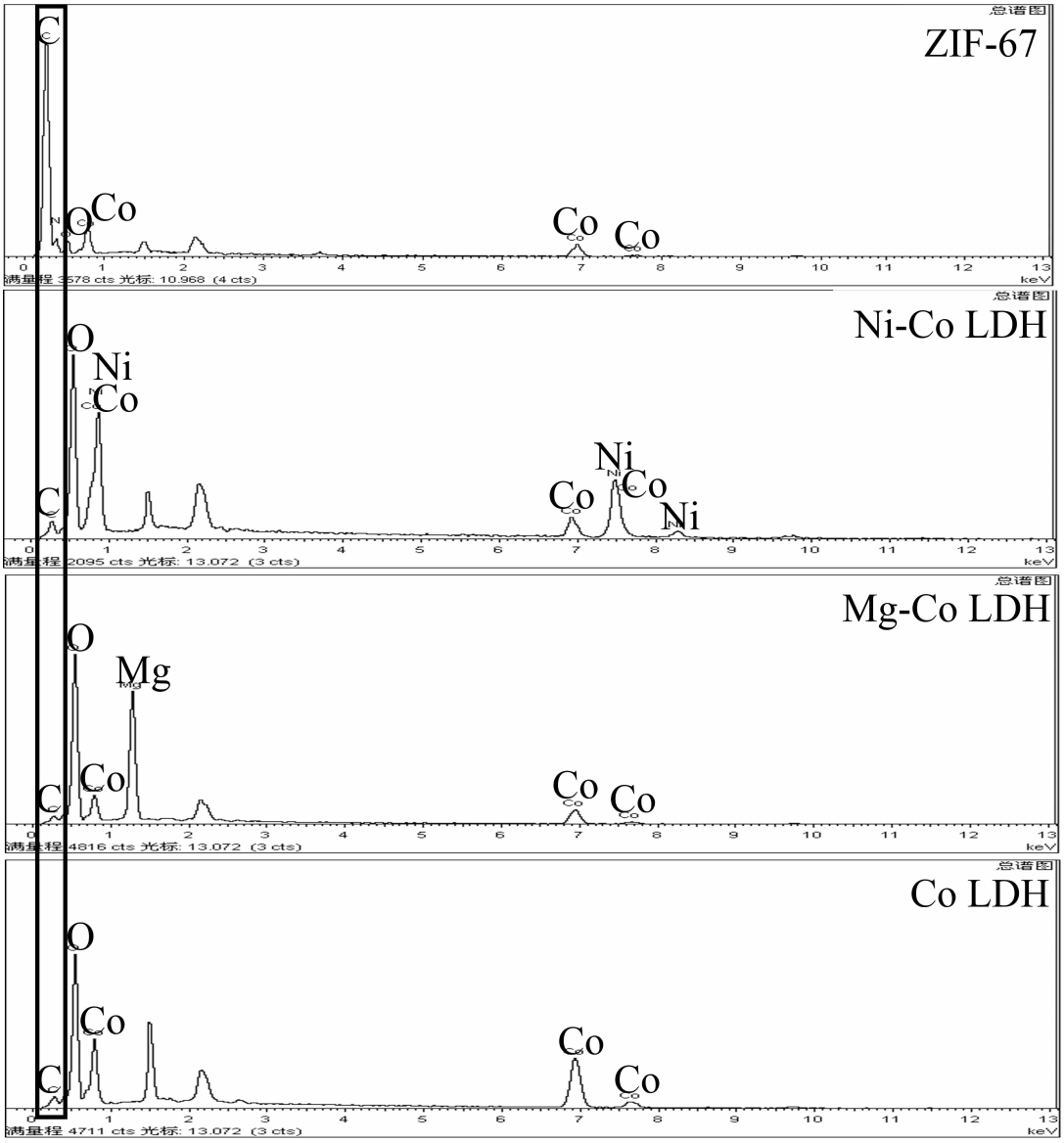

Fig. S10 EDS patterns of ZIF-67 templates and three LDH nanocages.