Electronic Supplementary Information (ESI) for

Highly-Ordered Polypyrrole Coated $Co(OH)_2$ Architectures for High-Performance Asymmetric Supercapacitors

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1. SAED pattern of $Co(OH)_2$

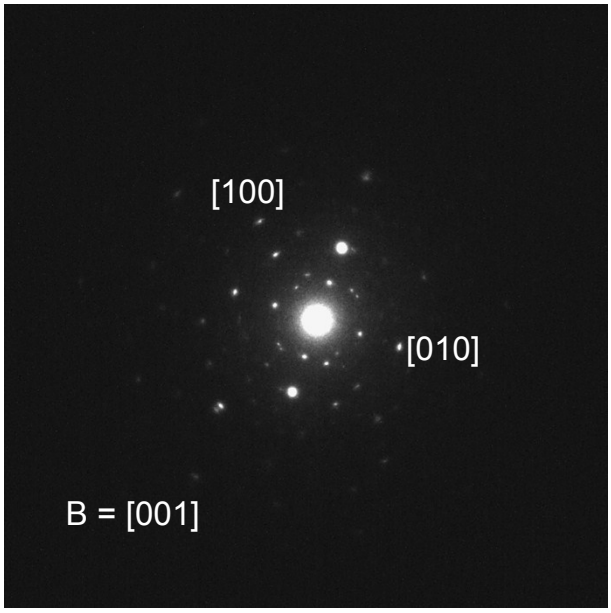

Figure S1. Selected area electron diffraction (SAED) pattern of $Co(OH)_2$NSs.

2. XRD spectrum of the $Co(OH)_2$ architectures

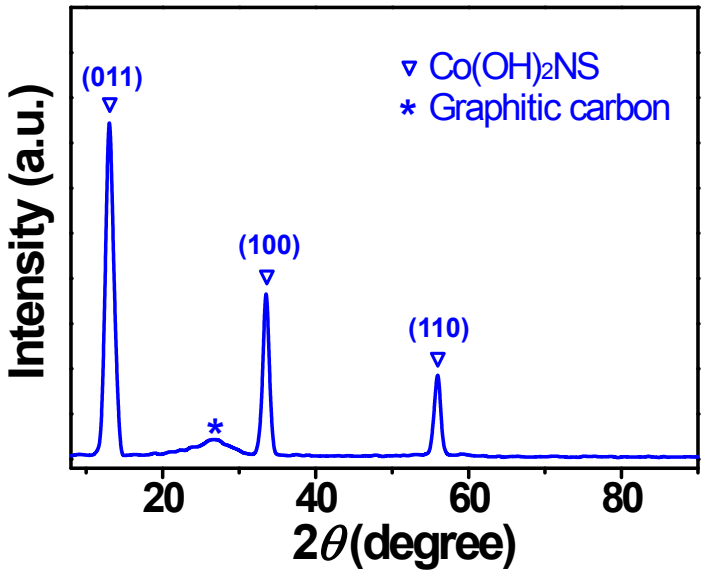

Figure S2. X-ray diffraction (XRD) pattern of $Co(OH)_2$ architectures and pristine carbon cloth (black: pristine carbon cloth; red: $Co(OH)_2$MP; blue: $Co(OH)_2$MF; green: $Co(OH)_2$NS).

3. Gravimetric capacitance of each electrode

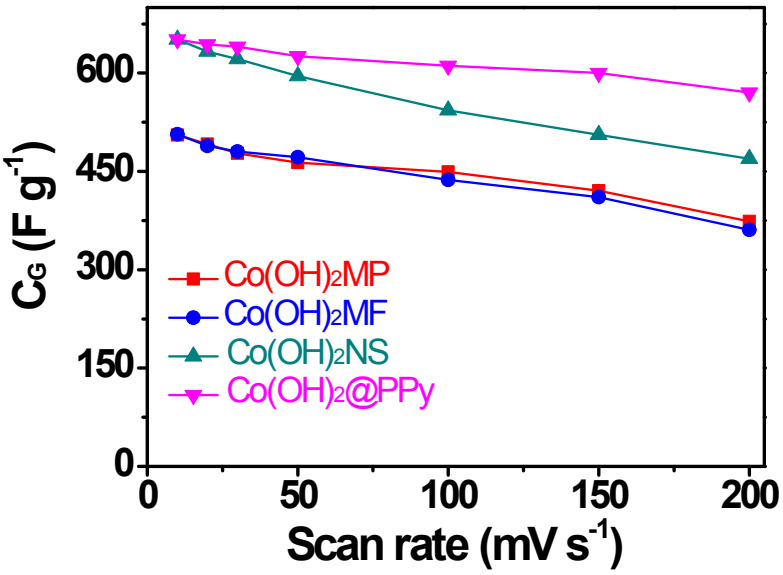

Figure S3. Calculated gravimetric capacitance (F g^{-1}) of each electrode for various scan rates (10 to 200 mV s^{-1}).

4. Structure of the ASCs

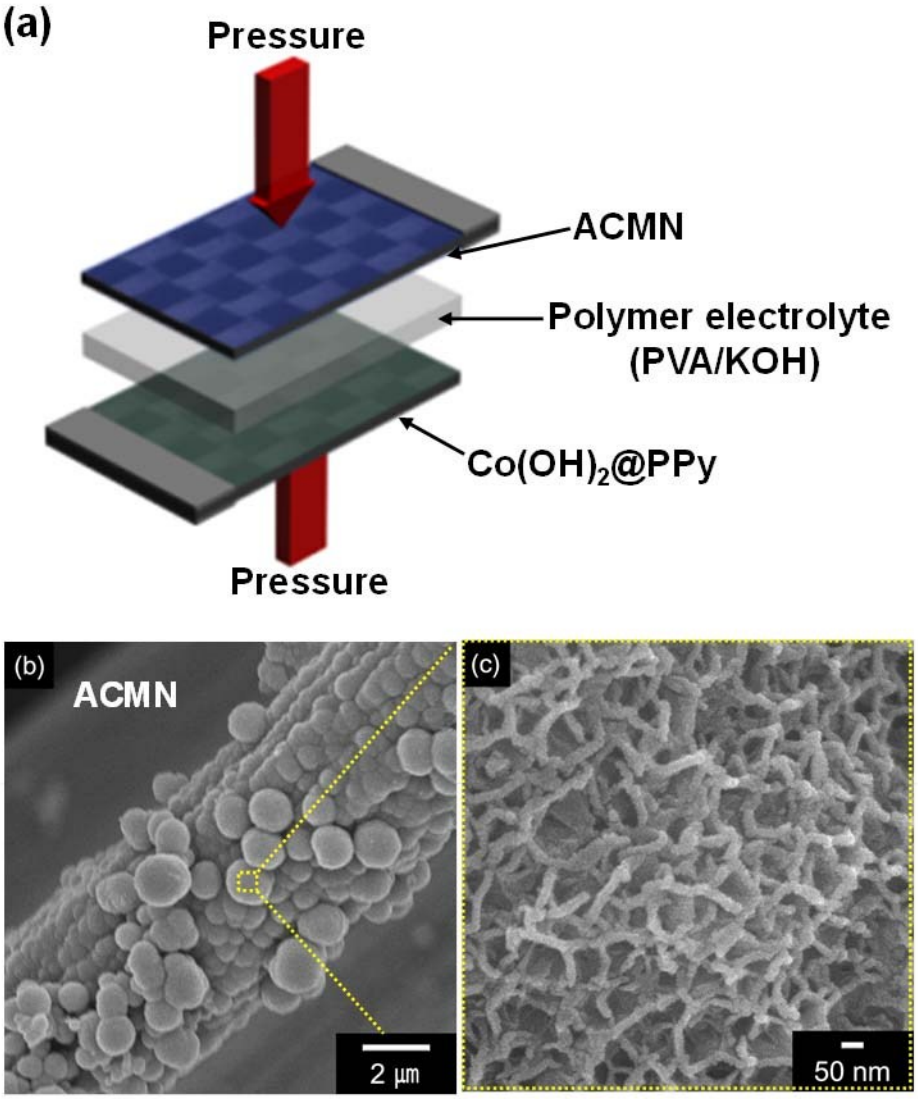

Figure S4. (a) Schematic diagram of asymmetric supercapacitors (ASCs) composed of two different electrodes ($Co(OH)_2$@PPy: positive; CNTMN: negative) and polymer-gel electrolyte. (b) Low- and (c) high-magnification of FE-SEM images of the CNTMN decorated carbon cloth.

5. Deformations of the ASCs

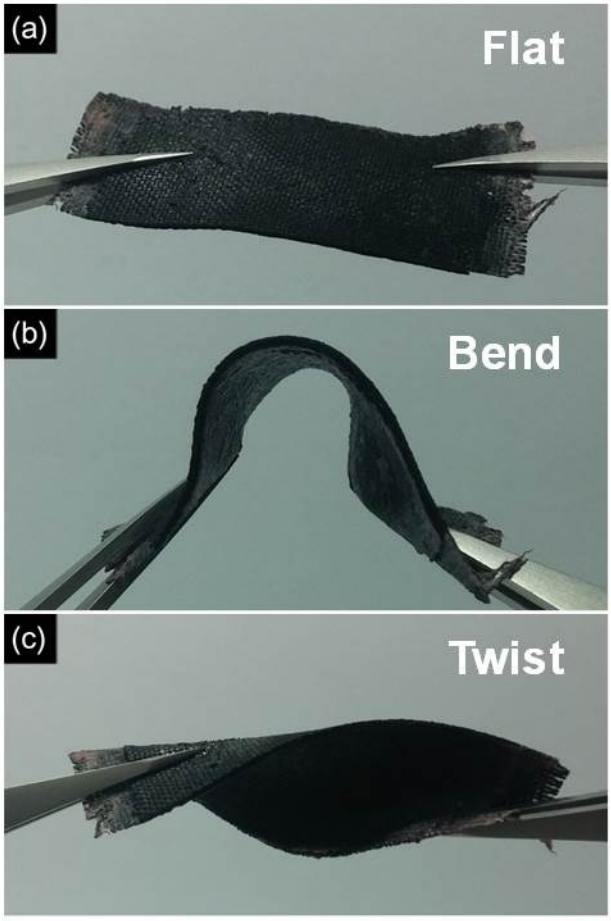

Figure S5. Digital photographs of (a) flat-, (b) bended-, and (c) twisted-ASCs.

6. Volumetric and gravimetric capacitance of the ASCs

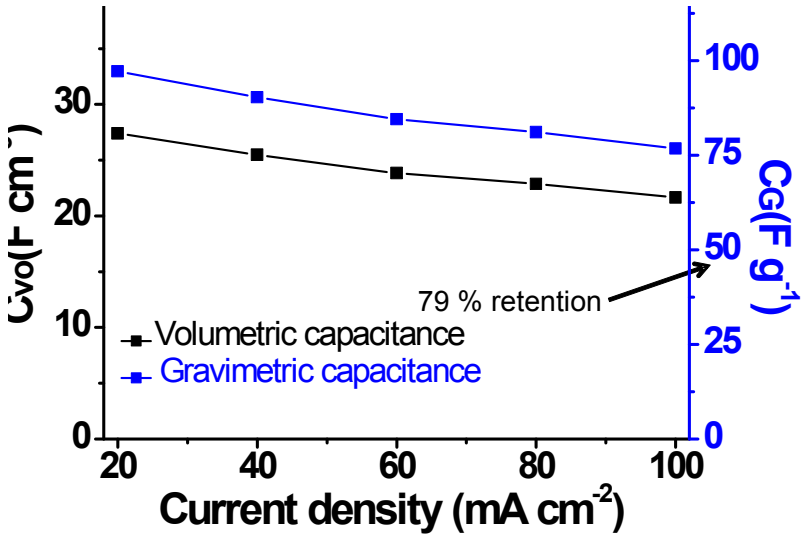

Figure S6. Volumetric (left) and gravimetric (right) capacitances of the ASCs calculated from the galvanostatic charge-discharge curves as a function of current density.

7. Real application of the ASCs

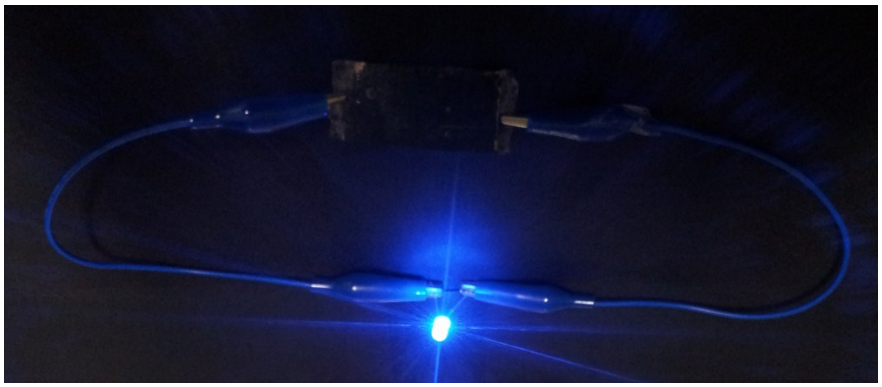

Figure S7. Blue light-emitting diode (LED) powered by the fabricated ASC.

8. CV curves of the ASCs with deformations

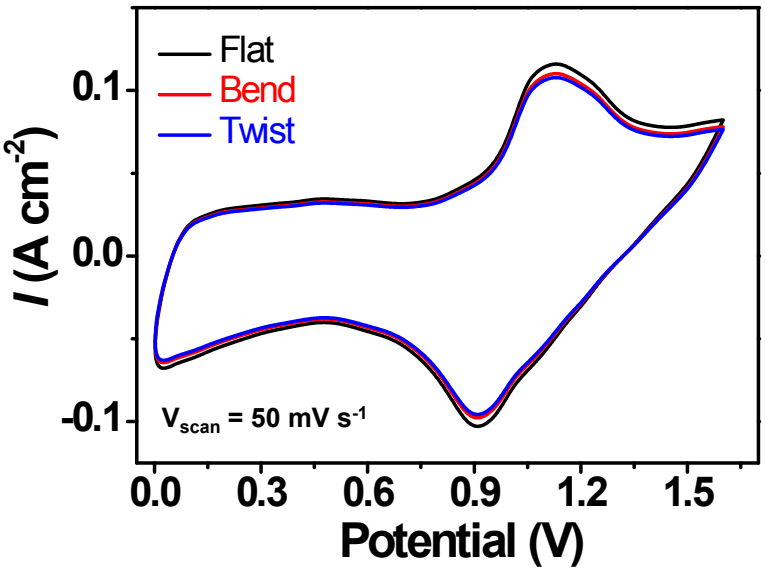

Figure S8. CV curves (scan rate: 50 mV s^{-1}) of ASCs for various deformations (black: flat; red: bend; blue: twist).