## Comparative supercapacitance performance of CuO nanostructures for energy storage device applications

V. Senthilkumar,<sup>1</sup> Yong Soo Kim,<sup>1\*</sup> S.Chandrasekaran,<sup>2</sup> Balasubramaniyan Rajagopalan,<sup>2</sup> Eui Jung Kim,<sup>2</sup> and Jin Suk Chung<sup>2</sup>

<sup>1</sup> Department of Physics and Energy Harvest Storage Research Center (EHSRC), University of Ulsan, Ulsan 680-749, South Korea.

<sup>2</sup>School of Chemical Engineering, University of Ulsan, Ulsan 680-749, South Korea.

\*Corresponding Authors: yskim2@ulsan.ac.kr (Y.S. Kim)

## Supplementary Information



Fig. S1 Digital photographs of the device structure.



Fig. S2 (a) Cyclic voltammogram results of the prepared Cu/CuO-2 and Ni/CuO symmetrical devices with different scan rates, (b) capacitance and (c) ED-PD values of the devices were derived from the charge/discharge measurements with different current densities.



Fig. S3 Electrochemical performance results of the Cu/CuO-2 and Ni/CuO asymmetrical devices. (a) cyclic voltammogram and (b) capacitance values of the devices were derived from the charge/discharge measurements with different current densities.