

Hierarchical mesoporous 3D-CuCo<sub>2</sub>O<sub>4</sub> for high performance electrochemical storage

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Consideration of new electrode materials with high capacity is one of the most important research direction for lithium ion batteries (LIBs) and supercapacitors (SCs). Transition metal oxides based materials showed synergistic improvements in chemical activity and stability for energy storage applications. CuCo<sub>2</sub>O<sub>4</sub> have been widely used as a very promising electrode material for LIBs and supercapacitors. In present study hierarchical mesoporous 3D-CuCo<sub>2</sub>O<sub>4</sub> deposited directly on conducting substrate by hydrothermal method. The important properties of electrode material such as morphology, size, surface area, porosity, pore size distribution highly desirable for its high performance. The desirable electrochemical performance of 3D-CuCo<sub>2</sub>O<sub>4</sub>, clearly indicates it is promising candidates as electrode material for LIBs and SCs. This work was supported by the National Research Foundation of Korea (NRF) funded by the Ministry of Education (Grant number: NRF-2013R1A1A2060638).