

Mini Review

Highly Enhanced Electrochemical Performance of Novel based Electrode Materials for Supercapacitor Applications – An Overview

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The research and recent progress of electrochemical energy storage devices applied to various applications during the past two decades are reviewed. Different electrode materials (carbon-based materials, metal oxides, conducting polymers, metal nanoparticles and nanocomposites), can be used as the most important features for supercapacitors. Recently, research efforts of supercapacitor electrodes have been used to increase the specific capacitance and its cyclic stability. In this review designate current efforts energy storage preparation methods, materials and different morphological structure for electrochemical capacitor applications. The principle of design, extended surface area, improve the capacitance properties and long-durability of the electrochemical capacitor are discussed.

Keywords: Nanocomposite, Morphology, Electrochemical properties, Ultracapacitors, Electrode stability.

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