

Aug 31, 2023&ensp;&#0183;&ensp;As Ulm explained, the production of cement results in carbon emissions, and the scale of the industry--cement is a major component in ...

Feb 1, 2015&ensp;&#0183;&ensp;The surface functional groups changes the electrochemical performance (such as capacitance, electrical conductivity, and self-discharge) of carbon materials in two different ...

Feb 20, 2025&ensp;&#0183;&ensp;Of prime importance for renewable energy development, supercapacitors have excellent merit in producing superior power ...

Swift developments in electronic devices and future transportation/energy production directions have forced researchers to develop new and contemporary devices with higher power ...

May 14, 2024&ensp;&#0183;&ensp;Herein, we reported wet impregnation method to incorporate Nickel Ferrite (NiFe<sub>2</sub>O<sub>4</sub>) to multiwalled carbon nanotubes (MWCNTs) for improved electrochemical ...

Feb 1, 2025&ensp;&#0183;&ensp;Finally, the applications of nickel-carbon composites-based supercapacitors in the field of self-charging energy storage are demonstrated. We believe this paper can provide ...

The 2024 summit in Azerbaijan comes amid fresh reports showing that global warming levels are accelerating.

Feb 20, 2025&ensp;&#0183;&ensp;Of prime importance for renewable energy development, supercapacitors have excellent merit in producing superior power densities and long-cycle stability. The well ...

Feb 7, 2023&ensp;&#0183;&ensp;Of nickel oxide/active carbon composites as electrode materials for supercapacitors are examined in this review article.

Some Ni-based materials, such as nickel hydroxide, exhibit pseudocapacitance. This property leads to higher specific capacitance and overall energy storage capacity. Ni is a relatively ...

Dec 23, 2024&ensp;&#0183;&ensp;However, carbon materials alone exhibit limitations, such as low energy density and low specific capacitance. To address this ...

Oct 1, 2018&ensp;&#0183;&ensp;The capacitance of 2 separated arrays of charges should increase reciprocally with their distance. Generally, it is assumed that EDLCs follow the same capacitive behavior as ...

Novel fabrication strategies of carbon-based materials are highlighted with tailoring the geometrical

morphologies, pore structures, and surface ...

May 1, 2019&ensp;&#0183;&ensp;The disadvantages of carbon-based current collectors, e.g., incompatibility between carbon and nickel-based materials or the hydrophobic nature of carbon or the low wettability in ...

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