Carbon nanotubes for large-scale energy storage

A perspective: carbon nanotube macro-films for energy storage Z. Cao and B. (B. Q.) Wei, Energy Environ.Sci., 2013, 6, 3183 DOI: 10.1039/C3EE42261E This article is licensed under a Creative Commons Attribution 3.0 Unported ...

In recent years, nitrogen-doped carbons show great application potentials in the fields of electrochemical energy storage and conversion. Here, the ultrafast and green preparation of nitrogen-doped carbon nanotubes (N ...

Sodium-ion batteries (SIBs) have been proposed as a potential substitute for commercial lithium-ion batteries due to their excellent storage performance and cost-effectiveness. However, due to the substantial radius of ...

Long cycle life and high energy/power density are imperative for energy storage systems. Similarly, flexible and free-standing electrodes are important for supercapacitor applications. Herein, we report, for the first time, use of ...

Carbon is invaluable for energy storage owing to its properties, such as low specific weight and high abundance, coupled with the high electronic conductivity of graphitic carbons. ... Large-scale implementation of Si ...

Carbon nanotubes (CNTs) are cylindrical-shaped materials composed of hexagonally arranged hybridized carbon atoms with versatility in synthesis methods and diverse applications. This review is focused on the fabrication, ...

Although the number of studies of various phenomena related to the performance of nanomaterials in energy storage is increasing year by year, only a few of them--such as graphene sheets, carbon nanotubes (CNTs), ...

There are different kinds of carbon nanotubes which have been successfully used in batteries, supercapacitors, fuel cells and other energy storage systems. This chapter focuses on the role of CNTs in the different ...

Carbon nanotubes for large-scale energy storage

Web: https://purelysolar.co.za