

The acceleration of energy storage technology transfer and transformation holds critical importance for China in addressing global climate change and advancing sustainable energy transition [1]. This urgency stems from the pivotal role that energy storage technology plays in supporting the growth of local new energy industries [2] and in providing essential ...

Analysis of China's patent landscape for new energy storage technologies Yi CHEN 1 (), Qi QEN 1, Long ZHAO 1, Zikun CHEN 2, Anning WANG 2 () 1. State Grid Anhui Electric ...

An example flywheel energy storage device includes a fiber-resin composite shell having an elliptical ovoid shape. The example device also includes an axially oriented internal compressive support between the axial walls of the shell. The example device also includes an inner boss plate and an outer boss plate on each side of the shell.

Key words: energy storage technology; high-quality patents; technical activity; technical impact; market layout ?????????????????? ?????? ...

In 2023, the new energy storage market, China, the United States and Europe continue to dominate, accounting for 87% of the global market, of which China accounts for about 48% of the ...

Patents provide a clear framework for protecting various aspects of energy storage technologies, from new battery chemistries to advanced control systems. For instance, if a company develops a novel method for increasing the efficiency of a lithium-ion battery, obtaining a patent ensures that competitors cannot simply replicate this method without facing legal ...

Research into energy storage solutions has resulted in high levels of innovation across multiple technology fields, which in turn has significantly increased global patent activity. Energy storage solutions encompass numerous technologies, including batteries, such as lithium-ion batteries for electric mobility, grid-scale electricity storage, hydrogen production, and wind and wave ...

On September 24 this year, the joint research center of key technologies of electrochemical energy storage system network established by Haibo Sichuang and Tsinghua University (power state heavy) was officially unveiled, the joint research center will focus on three core issues: key technology research and product development of new energy ...

The patent surge is particularly noticeable in the new-energy vehicle and solid-state battery sectors, which can be attributed to Chinese companies' investments in innovation. ... Energy-storage patents dominated, with a 37.2 percent share ...

The range of sources of renewable energy requires a leap forward when it comes to innovation in energy storage and other enabling technologies that will help achieve the energy transition, including by balancing supply of and demand ...

This report analyses the worldwide patent landscape for energy and its storage. Energy and its storage encompasses many different technologies, but the current report has concentrated on...

An energy storage system includes a module housing and multiple battery cells with insulating material and discharge directing material positioned inside the module housing. Each of the battery cells has a first end and a second end. Further, each of the battery cells has a positive terminal and a negative terminal. The energy storage system includes a first interconnect and ...

In order to build and improve new energy consumption and storage systems, the scientific and industrial communities have promoted the development and large-scale application of energy storage technology. ... Analysis of patent publication ...

The commercialization process of energy storage patents affects the development of the energy storage industry. Clarifying the relationships between the characteristics of the applicants and patent transfer can facilitate technology transfer. In this study, China's energy storage patent data from 2009 to 2021 were divided by the rolling period.

Gravity energy storage is a new type of physical energy storage system that can effectively solve the problem of new energy consumption. This article examines the application of bibliometric, social network analysis, and information visualization technology to investigate topic discovery and clustering, utilizing the Web of Science database (SCI-Expanded and Derwent ...

The company filed 108 energy storage-related patents in the quarter, compared with 210 in the previous quarter. It was followed by Samsung SDI with 29 energy storage patent filings, State Grid Corporation of China (20 filings), and Ningde Times New Energy Technology (18 ...

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