

Are lithium-ion batteries patentable?

To be very clear: This especially means that the lithium-ion battery category does not contain any patent families tagged as solid-state battery inventions. The fourth step's purpose was to add patent data related to redox-flow and nickel-hydrogen batteries to the dataset.

What are the goals of a lithium battery patent?

According to the United States national blueprint for lithium batteries, one of the main goals is stated as to maintain and advance United States battery technology leadership by strongly supporting scientific R&D, STEM education, and workforce development which is directly aligned with the claim with the patent [109,174,176].

Are lithium-ion batteries still relevant today?

Less relevant today than lithium-ion batteries, but with considerably higher counts than other smaller battery technologies, are the four remaining categories presented in Fig. 5: patenting activity related to lithium-sulfur, solid-state, sodium-ion, and redox-flow batteries have seen a notable increase in IPF counts in 2010-2019.

Are all patents related to solid-state batteries tagged?

Please note that due to the considerable overlap of the concept of solid-state batteries with other technologies, especially lithium-ion batteries, all patent families that were classified as patents related to solid-state batteries were untagged in any other category in which they acquired tags through the process described here.

Can a patent proxy predict the price of lithium-ion batteries?

Kittner et al. and Ziegler and Trancik employed the patent proxy in their efforts to model the forces driving the prices of lithium-ion batteries, and found that cumulative patent filings is the best predictor of real prices scaled by energy capacity.

Are battery patents growing?

Overall, a considerable increase in annual battery patenting activity is observed from 2000-2009 to 2010-2019. Second, we also found that four battery technologies - redox-flow, solid-state, sodium-ion, and lithium-sulfur batteries - have displayed vibrant growth in recent years.

What do the latest patent statistics reveal about innovation in the battery power sector? What are the key areas suitable for patent protection? In this article we explore the ...

Lithium-ion Battery Direct Recycling Cathode Rejuvenation A Cleaner, Faster, and More Sustainable Li-ion Battery Recycling and Materials Production Solution Achieving a True ...

Xiang Zhang (2010) analysed the pure EVs; hybrid EV and fuel-cell vehicle distribution, the number of patent countries new energy patent distribution from Saic group co., ...

As the drive towards renewable energy use gains pace, there has been an increase in global patent filings relating to battery technology. While lithium-ion batteries ...

What do the latest patent statistics reveal about innovation in the battery power sector? What are the key areas suitable for patent protection? In this article we explore the newest patent trends and gain valuable insights ...

With the ever-growing energy demands, new battery chemistries beyond lithium ion technology are required to deal with an increased power consumption and promote ...

Huawei has recently issued a new patent regarding solid-state battery tech. It would be a wonderful implementation in the energy storage sector. It will further act as a vital ...

Presently, as the world advances rapidly towards achieving net-zero emissions, lithium-ion battery (LIB) energy storage systems (ESS) have emerged as a critical component ...

Battery Patents: Lithium Leaders and New Breakthroughs? This data-file tabulates the number of patents filed into different types of batteries, by year and by geography. Hence, we have identified the patent leaders in ...

As the drive towards renewable energy use gains pace, there has been an increase in global patent filings relating to battery technology. While lithium-ion batteries currently dominate the battery market, they have several ...

This study builds on battery patents that can roughly be characterized in the following way: (1) inventions related to the casing, wrapping, or covering, i.e., non-active parts ...

Preview of the "Li-ion Battery High-energy Cathode Innovation & Patent Review", including a decision tree on bulk chemical composition and structural classes of cathode materials, a ...

Over 40,000 engineers and technicians working on battery technology and new energy solutions; over 37,000 patent applications and around 25,000 owned patents: Overview: BYD has a rich history in the lithium-ion ...

The selected project is the "Preparation Method of Lithium-Ion Battery Anode Material" (Patent No. ZL202210400775.2). This patent solves the critical and common ...

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BUDAPEST, Hungary, May 30, 2024--Tulip Innovation Kft. today announced the launch of a new licensing

program aggregating patents related to lithium-ion battery technology from LG ...

Two patents have been published for solid-state batteries. One is "a positive electrode material and its preparation method, a solid-state lithium battery". The patent ...

Dragonfly Energy to be granted a new U.S. patent addressing the streamlined production of conventional Li-ion ion batteries and nonflammable solid-state lithium batteries in ...

Huawei's new patent on sulfide solid-state batteries addresses liquid battery degradation, promising high energy density, safety, long life, and stability for EVs and storage.

Sunrise New Energy's Lithium-Ion Battery Patent Granted Key Funding in Guizhou Province June 21, 2024 16:06 ET | Source: Sunrise New Energy Co., Ltd Sunrise ...

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