Announcement of new energy battery patent

Are lithium-ion batteries patentable?

To be very clear: This especially means that the lithium-ion battery category does not contain any patent familiestagged 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.

Are national battery patent applications considered in IEA & EPO?

Given the IPF constraint deployed for this study and the IEA and EPO report ,these solely nationally filed applications are not consideredin either one. In fact,in the current study's dataset,IPFs make up only 19.4% of all battery patent families.

How fast does patenting a battery grow?

Between 2005 and 2018,patenting activity in batteries and other electricity storage technologies grew at an average annual rate of 14%worldwide,four times faster than the average of all technology fields,according to a joint study published today by the European Patent Office (EPO) and the International Energy Agency (IEA).

Are battery patents growing?

Overall,a considerable increasein 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.

Why is battery patenting a global trend?

We find that global battery patenting activity grew significantly in the 2000-2019 period. This stylized fact means that the comparative advantages of secondary approaches (rechargeable, redeployable, reusable batteries) have been continuously on the rise driven by innovation, making a direct contribution to socio-technical circularity.

Which technologies grew in relevance to battery patenting?

We find that several battery-related technologies and applications, such as energy storage systems, battery management systems, wireless power transmission, electric vehicle charging, and uncrewed aerial vehicles (i.e., drones), grew in relevance both in absolute terms and relative to general battery patenting activity.

In this article, Nathaniel interrogates Toyota"s patent portfolio in the hunt for the technical details behind the breakthrough and poses that the solution might lie in the formation of a clay-like solid electrolyte composition for ...

Proportion of R& D personnel for new energy vehicle patents 2.4. The Direction of Technology Research and Development Is Mainly Concentrated in the Field of Power ...

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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 ...

According to the announcement from the China National Intellectual Property Administration, CATL has obtained a patent titled "Formation Device" with the authorization ...

Electricity storage inventions show annual growth of 14% over past decade, joint study by European Patent Office (EPO) and International Energy Agency (IEA) finds Amount ...

Facing t he energy c risis, the development of new energy technologies is imperative. As renewable energy sources, wind and solar power generation are affected by ...

If policies permit, atomic energy batteries can allow a mobile phone to never be charged, and drones that can only fly for 15 minutes can fly continuously. According to reports, ...

In this article, Nathaniel interrogates Toyota"s patent portfolio in the hunt for the technical details behind the breakthrough and poses that the solution might lie in the formation ...

The EPO"s Patent Index 2023 highlights that the field of electrical machinery, apparatus and energy, which includes clean energy inventions, was the fastest growing ...

A patent for a new battery that uses glass as a key component submitted by a team headed by John Goodenough, the part winner of the 2019 Nobel Prize in Chemistry for ...

New energy battery electric vehicles have attracted a lot of attention in recent years, and in the context of the global implementation of sustainable development and energy saving and ...

Most battery-powered devices, from smartphones and tablets to electric vehicles and energy storage systems, rely on lithium-ion battery technology. Because lithium-ion batteries are able to store a significant ...

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 ...

53 ????· LG Energy Solution has both experience with prismatic cell production and an extensive patent portfolio on battery design and manufacturing technologies, including ...

Abstract: Various embodiments provide a battery, a bulk energy storage system including the battery, and/or a method of operating the bulk energy storage system including ...

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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 ...

the patent ZL 201420030319.4 mentioned in the announcement on June 20 was applied by Ningde new energy on January 17, 2014. the summary shows that it can greatly ...

Innovations targeting improvements in lithium-ion batteries focused on alternative metals have boosted patent applications. Promising trends in the battery sector"s ...

Electricity storage inventions show annual growth of 14% over past decade, joint study by European Patent Office (EPO) and International Energy Agency (IEA) finds Amount of batteries and other energy storage ...

The report, Patents for Enhanced Electricity Grids, shows how patents for electricity grid technologies have surged over the past two decades as advances in digital ...

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