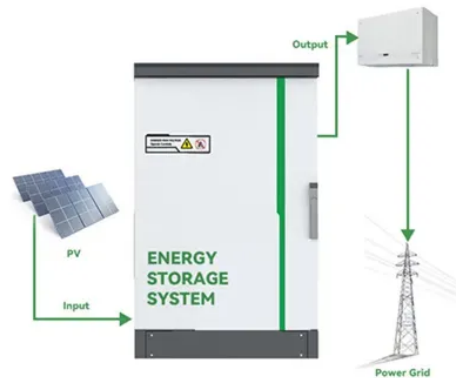




# What is the patent for battery storage materials



## Overview

This analysis of over 90,000 secondary battery innovations (measured by international patent families) provides a comprehensive account of the long-run progress of a knowledge base with a key role in the tra. ••Over 90,000 battery inventions from the period 2000-2019. Since the early days of the first Industrial Revolution in the late 18th century, global energy consumption has been on the rise. Two centuries later, by the time the informational rev. 2.1. The empirical study of industrial innovationInnovation is the process through which ideas and knowledge are converted into useful application. 3.1. Patents as an innovation indicatorPatents are intellectual property rights on inventions. A patent describes claims to useful ideals and assigns rights to new knowledge. As le. 4.1. Basic stylized factsThe global aggregate yearly volume of battery IPFs increased almost every year during the time frame assessed in this study. There wer.

## Article Content

RecycLiCo Battery Materials Secures Key European ...

RecycLiCo Battery Materials Inc. ("RecycLiCo" or the "Company"), TSX.V: AMY, OTCQB: AMYZF, FSE: ID4, a pioneer in sustainable lithium-ion battery recycling technology, is pleased to announce that the ...

10 Patent Highlights in Emerging Battery Technology ...

Innovations targeting improvements in lithium-ion batteries focused on alternative metals have boosted patent applications. Promising trends in the battery sector's future are evident in patent filings, as revealed by the ...

Zentek Provides Update on Battery Technology ...

Sain is the Endowed Ford Motor Canada Chair in Sustainable Materials where he is active in the field of light energy storage including cell chemistry and renewable fuel battery development at PERDC, and Prof. Yan is ...

Eight Great Technologies Energy Storage

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...

LG warns patent infringers as battery industry prepares for lawsuits

Clark was speaking on the "Cathodes, Anodes & Battery Innovation Panel: creating a European hub for mid stream capacity & next generation battery development" ...

Mapping the trends and prospects of battery cathode materials ...

Advancing portable electronics and electric vehicles is heavily dependent on the cutting-edge lithium-ion (Li-ion) battery technology, which is closely linked to the properties ...

Sodium-ion Batteries: Inexpensive and Sustainable Energy Storage ...

there are currently relatively few NIB patents, but the rate of filings is accelerating as innovation intensifies.<sup>9</sup> ... Sodium-Ion Battery Materials and Electrochemical Properties Reviewed. ...

Battery innovation and the Circular Economy: What are patents ...

The importance of batteries has been growing as a solution in a very dynamic puzzle. As a set of technologies at the intersection of the clean-digital transition, their role is ...

UK battery strategy (HTML version)

Primary uses include personal and commercial transportation and grid-scale battery energy storage ... patent, and research activity into battery chemistry optimisation, and ...

### Newcomers to the Solid-State Li-Ion Battery Patent Landscape

Its patent on solid-state batteries is related to graphene nanoribbons comprising polymer solid electrolytes as electrode materials in energy storage devices. Zymergen, ...

### Patenting battery technologies in Europe

For patent applicants with an interest in patent protection in Europe this is illustrated by recent case law for battery inventions which highlight pitfalls specific to European patent law. In the chemistry and materials area, T 0144/20 relates ...

### Sand Battery: An Innovative Solution for Renewable Energy Storage ...

Download Citation | On May 17, 2023, Abhay M Vyas and others published Sand Battery: An Innovative Solution for Renewable Energy Storage (A Review) | Find, read and cite all the ...

### Huawei plans to invent solid-state battery tech, reveals new patent

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 ...

### At the CORE of Umicore's Battery Materials Short to mid-term battery ...

Covered by liquid Li-ion batteries with highly specialized CAM At the CORE of Umicore's Battery Materials 4 ASS M RY Short- to mid-term battery and CAM technologies 2025 Next-generation ...

### Battery technology — leading innovations and how to patent them

Electric vehicle (EV) technology innovators are leading the race to find high performance battery materials. Here's a breakdown of current research and development efforts, and a look at how ...

### Recent progress in nanomaterials of battery energy storage: A patent ...

The world's energy demand has significantly increased as a result of the growing population and accompanying rise in energy usage. Fortunately, the innovation of nanomaterials (NMs) and ...

### US4121019A

1977-07-20 Priority to US05/817,492 priority Critical patent/US4121019A/en  
1978-10-17 Application granted granted Critical ... As is the case with all lead-acid storage batteries, active ...

A review of the publication and patent landscape of anode materials ...

DOI: 10.1016/j.est.2021.103231 Corpus ID: 239210608; A review of the publication and patent landscape of anode materials for lithium ion batteries  
@article{Sick2021ARO, title={A review of ...

Battery Material

The charge storage in battery-grade materials is due to the phase transformation of the materials, unlike pseudocapacitive materials where the phase of the crystal of the materials remains ...

Sodium-ion battery

In the early 2010s, sodium-ion batteries experienced a resurgence, driven largely by the increasing cost of lithium-ion battery raw materials. Also, the number of patent families ...

Status of the Battery Patents 2018

We show an overview of the recent patenting activity (new patent applications, granted patents, expired patents), the main patent applicants, the major patent litigations, and the hot ...

Recent progress in nanomaterials of battery energy ...

In this study, PLA of recent advancements in the NM-based BESS was critically analyzed, future technologies forecasted, and potential challenges outlined. A search was performed in the Lens database using "energy storage system," ...

Recent advances in hydrogen production, storage, and fuel cell ...

In contrast to this patent's focus on the storage material, EP3807211B1 focuses on the actual storage vessel and physical geometry of the metal hydride within. The ...

Intellectual Property for Battery Technology | Potter Clarkson

At the same time, super-fast charging, distributed energy storage networks, and over-the-air wireless charging options are advancing rapidly and a range of new alternatives to lithium are ...

A new concept for batteries made from inexpensive, ...

A new concept for batteries made from inexpensive, abundant materials Low-cost backup storage for renewable energy sources. ... which has licensed the patents to the system, co-founded by Sadoway and Luis Ortiz '96, ...

Salt Batteries: Opportunities and applications of storage systems ...

and non-critical raw materials. This study offers a general overview of this technology from its initial conceptualization, along with research and development perspectives and areas of use. ...

## Innovation in batteries and electricity storage

EPO's first joint study with the International Energy Agency underlines the key role that battery innovation is playing in the clean energy transition.

## Study on domestic battery energy storage

Domestic Battery Energy Storage Systems 8 . Glossary Term Definition Battery Generally taken to be the Battery Pack which comprises Modules connected in series or parallel to provide the ...

## Energy storage and other enabling technologies

Electrochemical inventions (e.g. batteries) account for 88% of all patenting activity in the field of electricity storage, far outweighing electrical (9%), thermal (5%) and mechanical (3%) solutions. Growth in the markets for electric vehicles and ...

## Huawei files patent for a new solid-state battery tech

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.

## Energy storage and batteries

Our expertise ranges from cell level battery chemistry and hydrogen production chemistry, to the engineering aspects of grid-scale storage, and solar, wind, and wave generated energy. FPA is ...

## Huawei plans to invent solid-state battery tech, reveals new patent

Inputs revealed that Huawei has applied for the solid-state battery patent with the title - "Doped Sulfide Materials and Preparation Methods, Lithium-ion Batteries." This ...

## Energy Storage: Battery Materials and Architectures ...

Energy storage materials and architectures at the nanoscale is a field of research with many challenges. Some of the design rules and incorporated materials as well as their fabrication strategies have been ...

## Strategic Patent Portfolio Management in the Sodium-Ion Battery ...

Furthermore, with their abundance of raw materials and potential for lower costs, sodium-ion batteries are attracting significant interest from researchers, manufacturers, ...

## Can I patent my battery technology innovation? | Insights

For larger applications, such as electric vehicles and energy storage, battery thermal management systems (BTMS) are significant. Research continues to push the ...

## Solid-State Battery Developments: A Cross-Sectional Patent ...

Solid-state batteries (SSBs) hold the potential to revolutionize energy storage systems by offering enhanced safety, higher energy density, and longer life cycles compared ...

## SK Innovation reinforces its solid-state battery patent

Up to 2021, SK Innovation filed only two patent applications linked to solid-state batteries. One of them is dedicated to a spinel lithium manganese oxide cathode material ...

## Tracking Patent Trends - A Window into the Future of the Energy Storage ...

While electrochemical batteries continue to lead in patent filings, mechanical and thermal energy storage technologies are rapidly gaining momentum. This growth is reflected in their increasing ...

## Electric Vehicles: Toyota's patents in battery ...

Solid State Batteries in EVs . Toyota have been slower than rivals to roll out electric vehicles. However, in June 2023, Toyota announced a significant technological breakthrough in relation to their solid-state batteries ...

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