

Lithium battery patent manufacturing enterprise qualification

How many NMC lithium-ion battery patent applicants are there?

More than 590 patent applicants can be found on the NMC Lithium-ion Battery patent landscape. The IP position of key players has been evaluated for precursor, material, electrode and battery manufacturing issues.

Can battery manufacturers test the limits of Lib technology?

Because of that, there is still a self-driven ambition to test the limits of LIB technology by battery manufacturers. Cost, energy density, reproducibility, modular battery design and manufacturing are key indicators to determine the future of the battery manufacturing industry.

How is the quality of the production of a lithium-ion battery cell ensured?

The products produced during this time are sorted according to the severity of the error. In summary, the quality of the production of a lithium-ion battery cell is ensured by monitoring numerous parameters along the process chain.

What are the production steps in lithium-ion battery cell manufacturing?

Production steps in lithium-ion battery cell manufacturing summarizing electrode manufacturing, cell assembly and cell finishing (formation) based on prismatic cell format. Electrode manufacturing starts with the reception of the materials in a dry room (environment with controlled humidity, temperature, and pressure).

Will NMC dominate the global lithium-ion battery market by 2022?

According to Yole Développement, NMC materials will dominate the global lithium-ion battery market. They should reach about 51% of the global cathode material market by 2022, driven by the increasing demand for electrical vehicle applications, according to Yole's "Status of the Rechargeable Li-ion Battery Industry" report, published in July 2017.

How relevant is the AI model for Li-ion batteries?

An AI model was defined for commercially relevant high-energy positive electrodes of Li-ion batteries. Patent documents were grouped into patent families and scored with the AI model. An AI relevancy score cutoff value of 40 was applied (100: very relevant, 0: not relevant).

For this report, we investigated the global patent landscape of NMC Lithium-ion Batteries including precursor, material, electrode and battery manufacturing issues, and all types of ...

This review focuses on the global innovation & patenting activity by companies in Li-ion battery high-energy positive electrode active materials for large scale, high-energy applications (key application: EVs). Patent families were classified into 5 categories:

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Frequently, patent filings for lithium-ion batteries cover a novel component material (e.g., an electrolyte formulation) or novel combination of component materials (e.g., solid-state battery ...

Contracted the project for building CHAM Headquarters in Suzhou Full launch of the bamboo battery program . 1st launch of the integrated bamboo battery CTP1.0 in the world. Released the industry's first large cylindrical ultra-fast-charging 32140 sodium-ion battery. Released 4680 series of large cylindrical quasi-solid bamboo lithium-ion batteries

This study reveals distinct emphases on technologies such as lithium-ion and waste battery recycling, highlighting notable differences in patent activities among key companies and countries.

LIB patents account for 44 % of the total number of battery patents and have been the subject of several studies [45]. Research interest ranged from holistic approaches that consider the influence on the energy [46] and mobility sectors [47] to a focus on materials in the cell, including electrodes [48, 49] and electrolytes [50, 51].

Constantly perfect along with the lithium ion battery technology, its range of application is also in continuous expansion, present lithium ion battery suitability for industrialized production scale progressively enlarges, lithium electricity manufacturing enterprise only improves and could obtain larger development space in reinforcement aspect production efficiency, qualification rate ...

6 ???· Preview of the "Solid-state / Semi-solid Li-ion Battery Innovation & Patent Review", including sections on commercially relevant patents, benchmarking and identification of product launch risk factors.

The pursuit of industrializing lithium-ion batteries (LIBs) with exceptional energy density and top-tier safety features presents a substantial growth opportunity.

RecycLiCo Battery Materials Inc. TSX.V: AMY, OTCQB: AMYZF, FSE: ID4, a pioneer in sustainable lithium-ion battery recycling technology, is pleased to announce that the European Patent Office has ...

In this review paper, we have provided an in-depth understanding of lithium-ion battery manufacturing in a chemistry-neutral approach starting with a brief overview of existing ...

Now it has become a leading enterprise in China's lithium battery industry; the company was listed on Shenzhen GEM in October 2009 and is one of the first 28 GEM companies. EVE Lithium Energy has become a national key high-tech enterprise and a provincial enterprise technology center. It has won the China Patent Excellence Award and the Guangdong Provincial Science ...

NMC Lithium-Ion Batteries Patent Landscape Analysis - July 2017 Lithium Nickel-Manganese-Cobalt (NMC) Oxides have become a key material for a wide range of battery applications - but who has the best IP

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position? REPORT OUTLINE oNMC Lithium-ion Batteries: Patent Landscape Analysis oJuly 2017 oPDF with >180 slides oExcel file detailing >8,980 patents oEUR5,990 for a ...

We propose the significance of patent claims in the technological trajectory of lithium battery manufacturing (LBM-Tra) research. And we construct a more robust attention mechanism of claim type and claim dependency (T& D-Mechanism).

The battery boasts an impressive energy density of 1070 Wh/L, well above the 800 Wh/L for current lithium-ion batteries. The manufacturing process, which is both cost-effective and adaptable to existing lithium-ion battery production lines, paves the way for commercially viable solid-state lithium-metal batteries for electromobility.

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