

Are lithium-ion batteries patentable?

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 architecture).

How many NMC lithium-ion battery patents are there?

Currently, more than 4,000 patents have been granted, mainly in Japan and China, and more than 3,600 patent applications are pending, mainly in the USA and China. More than 590 patent applicants can be found on the NMC Lithium-ion Battery patent landscape.

Which patents are related to batteries?

There are patents related to various battery technologies such as Li-ion, Lead-acid, Ni-MH, Redox-flow, Na-ion, Mg-ion, Li-Air, and others. Patents also cover battery components like materials, electrodes, electrolytes, separators, battery cells, battery packs and systems, thermal management systems in batteries, and Battery Management Systems.

Should you consider battery technology before filing a patent?

Considering certain key technical elements of battery technologies before pursuing a claim -- or even before filing a patent -- can help prepare patent holders and their legal teams to assert ownership of an intellectual property asset efficiently and effectively when it matters most.

Could lithium be patented as a drug?

As a natural salt that appears on the periodic table of the elements, lithium could never be patented as a drug. It would never be a money-maker for the drug companies. Still today, some argue (with good reason) that lithium is underprescribed in the U.S. in favor of the newer, more profitable mood stabilizers and neuroleptics.

Can you buy a lithium battery directly from a manufacturer?

However, a few lithium battery manufacturers sell their batteries direct to the public. Being able to buy direct from the manufacturer offers a few advantages. The battery manufacturer often knows more about their batteries than anyone and can answer any questions you have. They can even help you design the optimal system.

What to Know About Shipping Lithium Batteries by Air. While classified as a dangerous good, lithium battery shipping takes very specific requirements. that you can find inside the Dangerous Goods Regulations. ...

3 ???&#0183; "This study can inform the scale-up of battery recycling companies, like the importance of picking good locations for new facilities. California doesn't have a monopoly on aging lithium-ion batteries from cell phones and EVs." Looking ...

With 13,145 Lithium-Ion Batteries related patents published between 2002 and 2022, Samsung SDI Co Ltd holds the most number of Lithium-Ion Batteries patents across the world. The ...

A lithium battery includes a casing having at least one reacting trough in which at least one electrode device is installed and the at least one electrode device includes a first electrode ...

The lithium-ion (Li-ion) battery is fast becoming the dominant energy storage device owing to its many advantages compared with competing lead and nickel electrochemistries: capacity, power ...

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lithium battery can be buffered in time when the vibration problem occurs in the use process." Suzhou Dingxi Jucai Nano Tech Gets Patent for Graphene-Based Lithium Air Battery Battery ...

The origins of the lithium-ion battery can be traced back to the 1960s, when researchers at Ford's scientific lab were developing a sodium-sulfur battery for a potential ...

III. Cycle Life and Durability A. Lithium Batteries. Longer Cycle Life: Lithium-ion batteries can last hundreds to thousands of charge-discharge cycles before their performance deteriorates, depending on the type and usage conditions. This ...

It would be advantageous to provide a battery (e.g., a lithium-ion battery) that may be discharged to near zero volts without producing a subsequent decrease in the amount of deliverable...

Being free from the risk lithium plating, cells with lithium titanate negative electrodes may also be charged at rates that exceed those with carbon negative electrodes. For example, a common ...

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