

# Who owns the patent for solid state batteries





## Overview

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Out of the actual battery manufacturers, LG leads the pack with 5,539 solid-state battery patents, being second after Toyota, while other automakers like Hyundai, Kia, and Honda, round up the top five solid-state battery patent holders' ranking.

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This statistic shows the leading owners of solid-state battery patents in 2018 and the number of patent families published. Patents that only apply in China are not included, though. For the past several years, Japan has led the way in solid-state battery innovation, consistently publishing more.

Its two patent families on solid-state batteries are related to an all-solid-state battery cathode material and its preparation method. Cornex, also known as Chuneng New Energy, is a battery manufacturer founded in 2021. Its three patent families on solid-state batteries are related to a.

Q2 2025 marked a significant period for solid-state battery technology, with over 1,510 new patent applications published. Leading patent applicants included industry giants such as LG Energy Solution, Samsung, Toyota, and Chongqing Tailan New Energy. Meanwhile, 490 patent families were granted for.

Recent patent activity in this area has grown faster than most other aspects of lithium-ion battery technology, according to a 2020 report by the European Patent Office (EPO) and International Energy Agency (IEA), creating a crowded intellectual property landscape for solid-state batteries even.

Knowmade is a Technology Intelligence and IP company specialized in analysis of patents and scientific information. The company helps innovative companies and R&D organizations to understand their competitive landscape, follow technology trends, and find out opportunities and threats in terms of.



Believe it or not, Toyota is by far the leading holder of solid-state battery patents, according to a recent study by Nikkei. Other Japanese companies are also among the top patent-holders in this space. Solid-state batteries for EVs are still in the prototype stage, but they're widely expected to. Who has a patent on solid-state batteries?

Toyo Kohan's patent on solid-state batteries is co-filed with Toyota and is related to a sulfide all-solid-state battery. Nippon Denko's patents on solid-state batteries are related to a garnet lithium ion-conductive oxide material with high ionic conductivity.

Who invented solid-state batteries in 2022?

Several American companies entered the patent landscape in 2022, with the first patent on solid-state batteries being published that year. These companies include material manufacturers Ntherma, Zymergen, Ascend Element, PIDC, NEI Corporation and Huntsman, as well as the battery manufacturer EnPower Greentech.

Does Toyota have a solid-state battery patent?

Toyota's leaders speak against EVs in public, and the company actively lobbies against government support for electrification. Back in the labs, however, Toyota's engineers are researching cutting-edge EV technology. Believe it or not, Toyota is by far the leading holder of solid-state battery patents, according to a recent study by Nikkei.

Does knowmade patent solid-state Li-ion batteries?

That is why KnowMade is monitoring patenting activity on solid-state Li-ion batteries to complete its two recent reports on solid electrolytes for Li-ion batteries and solid-state Li-ion batteries with inorganic solid electrolytes.

Do I need a subscription to access solid-state battery patents?

A paid subscription is required for full access. This statistic shows the leading owners of solid-state battery patents in 2018 and the number of patent families published. Patents that only apply in China are not included, though.

Are automakers investing in solid-state battery research?

Many other automakers and battery suppliers are also investing in solid-state battery research, lured by claims of greater energy density. Toyota began



researching solid-state batteries in the 1990s, according to Nikkei. It partnered with Panasonic for joint development of the tech in 2019.



## Who owns the patent for solid state batteries

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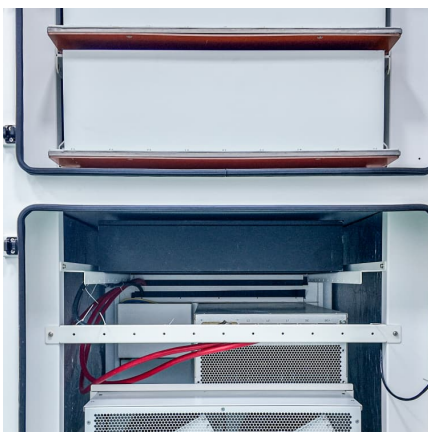
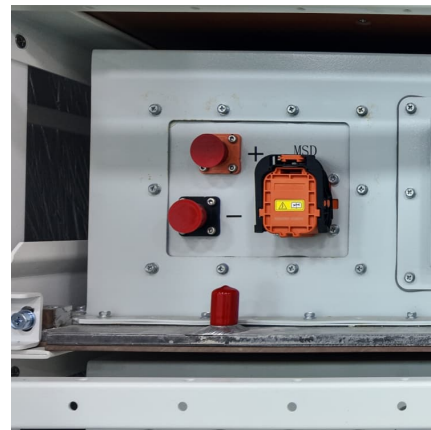


### Newcomers to the Solid-State Li-Ion Battery Patent Landscape

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### Solid-state battery patent holdings topped by Toyota as it plans to ...

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### Solid-State Battery Hype & Intellectual Property

The patent activity for solid-state batteries is uniquely driven more by automotive OEMs than other aspects of lithium-ion innovation. This is manifested both in terms of ...

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### Who Owns The Patent For Solid State Batteries

In 2022, several American companies entered the patent landscape for solid-state batteries (SSBs), marking a significant year with the first patent published. Notable firms ...

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

Its patent on solid-state batteries is co-filed with Toyota and relates to an all-solid-state battery comprising a dispersant-containing layer with good solid electrolyte ...



### **Toyota and Panasonic lead in solid-state battery patents**

Toyota was the clear leader with 1,331 known patents, followed by Panasonic with 445 patents. In comparison, the third-place company--Idemitsu Kosan--holds 272 ...



### **Toyota is the global leader in solid-state battery patents**

Believe it or not, Toyota is by far the leading holder of solid-state battery patents, according to a recent study by Nikkei. Other Japanese companies are also among the top ...



### [Solid-State Battery Hype & Intellectual Property](#)

The patent activity for solid-state batteries is uniquely driven more by automotive OEMs than other aspects of lithium-ion innovation. This is manifested both in terms of exclusive partnerships with startups generating the ...

### **WO2019236904A1**

Solid-state rechargeable batteries are predicted to be safer (e.g., less flammable) and have higher energy and power densities than liquid electrolyte-based batteries currently commercially



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### Solid-State Li-ion Batteries

In this Solid-State Batteries Patent Landscape report 2021, Knowmade's analysts give a comprehensive picture of the solid-state battery competitive landscape and technology ...



### [Solid-State Battery Patent Trends Q2 2025](#)

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