



Solid state battery technologies

Technology Electric Vehicles Chinese EV maker claims it's engineered the world's first semi-solid-state EV battery with huge 620-mile range News By Alan Bradley published 3 minutes ago

Comprehensive guide to solid state batteries: how they work, advantages, challenges, and when they'll be available. Expert analysis of the technology changing EVs.

From lithium-metal to ceramic cells, these 7 solid-state battery technologies could redefine the future of electric vehicles.

This chapter provides a comprehensive overview of solid-state batteries, focusing on the essential materials, including solid electrolytes and electrode materials, and the latest technologies used in

In this comprehensive review, we concentrate on the significant shift from liquid-based to solid-state systems, highlighting the key technological and

In fact, there are already some tried-and-tested battery technologies that deliver the promises made by Donut's solid state batteries, the only difference being that they're honest about

Nio's new Shanghai battery company will focus on advancing the R& D of cutting-edge technologies such as solid-state batteries, which are expected to see scaled application after 2027,

Researchers at Fraunhofer Institute for Laser Technology ILT have outlined how laser-based manufacturing processes could help overcome key barriers to the industrial production of solid

A new manufacturing technique is helping to overcome some of the major hurdles in developing more reliable and durable all-solid-state batteries. Combining a controlled sintering step

POSCO Future M's Pohang cathode material plant Factorial has been conducting sample testing of all-solid-state battery cathode materials with POSCO Future M and evaluated the

The Fraunhofer Institute for Laser Technology ILT has published a technical article on the production of solid-state batteries. In it, the Aachen-based institute states: "The path from the

Solid-state batteries spark a global EV arms race as automakers and startups compete to unlock ultra-fast charging and the holy grail of electric mobility.

Experts still have big questions--about cycle life and performance at the pack level. Donut Lab is releasing



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more evidence of its solid-state batteries, but there's no word on the chemistry just yet.

Solid-state batteries (SSBs) represent a significant breakthrough in lithium-ion battery (LIB) technology, offering superior energy density, extended cycle life, and enhanced safety. Despite

Suzuki Motor will acquire the solid-state battery operations of Japanese technology company Kanadevia, with the transaction set to take effect on July 1, 2026, as automakers intensify

US solid-state battery specialist Factorial intends to work with South Korea's Philenergy on manufacturing technology. The cooperation will centre on scaling production of the Solstice platform,

The development of solid-state and semi-solid state batteries represents significant advancements in battery technology, each with distinct characteristics and potential benefits. Both

Volkswagen's partner Gotion begins real-world vehicle testing of all-solid-state EV batteries designed to deliver 1,000 km range.

As electric mobility and energy storage scale globally, battery innovation has become the defining frontier of technological competition. Solid-state batteries and advanced cell technologies

Nio establishes new division for solid-state batteries Chinese EV manufacturer Nio has established a subsidiary called Nio Battery Technology in Shanghai to accelerate the research and

Gotion is accelerating the commercialization of its next-generation batteries, with the design work for its 2-GWh all-solid-state battery line now largely complete.

Compared to conventional lithium-ion batteries with liquid or gel-like organic electrolytes, they offer numerous advantages. These include higher energy density, improved stability and, above all,

Nio has formed Nio Battery Technology (Shanghai) in Jiading to boost solid-state battery R& D. Working with partners, the unit will explore oxide and sulfide chemistries under a Shanghai

QuantumScape Corporation (NYSE:QS) is a California-based company focused on developing next-generation solid-state lithium-metal batteries for electric vehicles (EVs) and other applications.

A comprehensive guide to solid state battery technology in 2026 - how it works, why it matters, major players, and when to expect mass adoption in electric vehicles.

Published: March 2026 Pages: 130 Tables: 32 Figures: 34 The Global Solid-State Batteries Market 2026-2036 is the definitive market intelligence report on one of the most transformative



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Citing a person familiar with the matter, the local media outlet China Times reported on Thursday that Nio's new Shanghai subsidiary will focus on R& D of next-generation battery

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