

European Solar and Energy Storage Solutions

Solid state battery technologies Australia



Overview

What is a solid-state battery?

Solid-state batteries are one class of next-generation batteries that are showing huge potential to address these needs by offering a drastic change to the battery components that are used in current technology.

Are solid-state batteries the future?

Solid-state batteries could also bring much higher electric range, faster charging, and improved safety. "We have been collaborating and testing QuantumScape prototype cells for years now and we are looking forward to bringing this technology of the future into series production," says PowerCo CEO Frank Blome.

Are solid-state batteries a viable alternative to lithium-ion batteries?

Solid-state batteries (SSBs), however, have gained much traction over the past few years among researchers looking for alternatives. While conventional lithium-ion batteries contain a liquid electrolyte in which lithium ions flow during the charge/discharge process, SSBs are made entirely from solid materials.

What are the benefits of a solid state battery?

Benefits: Solid-state batteries can be operated at a wide range of temperatures, especially at high temperatures that lithium-ion batteries cannot tolerate. Some solid electrolytes that can transfer ions at a faster rate than conventional liquid electrolytes.

What is the cerenergy® sodium-alumina solid state battery project?

The CERENERGY® sodium-alumina solid state battery project is specially designed to meet the needs of the grid energy storage market, which is projected to grow in value from US\$4.4bn last year to US\$15.1bn by 2027.

Does Volkswagen have solid-state battery technology?

Volkswagen has signed a deal to mass-produce solid-state battery technology for its future lineup of electric vehicles. The technology comes from California-based battery company QuantumScape, which will license its formula to PowerCo, Volkswagen's internal battery division.

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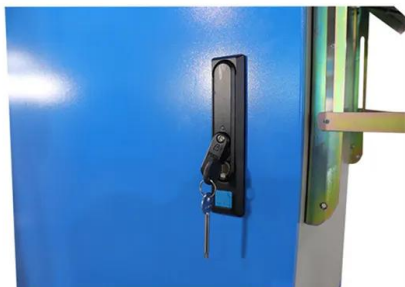


Beyond Gold and EVs

ATC's CERENERGY® technology uses cheap common table salt and ceramic solid-state technology to reduce costs by up to 50% compared to regular lithium-ion batteries. The CERENERGY® sodium-alumina solid state battery project is specially designed to meet the needs of the grid energy storage market, which is projected to grow in value from US\$4

11 New Battery Technologies To Watch In 2025

We highlight some of the most promising innovations, from solid-state batteries offering safer and more efficient energy storage to sodium-ion batteries that address concerns about resource scarcity. Toyota, VW, BMW, and Mercedes-Benz actively working to develop and commercialize these advanced technologies. The global solid-state battery

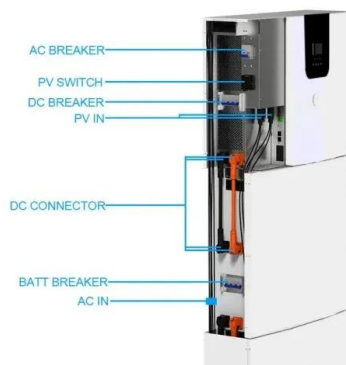


CATL bet on solid-state becomes reality - Batteries International

Solid-state batteries hold the promise of improved safety, a longer lifespan and faster charging compared with conventional lithium-ion batteries that use flammable liquid electrolytes. Japan's Toyota Motor announced this June it had achieved a breakthrough in solid-state technology that addressed durability problems. It said it planned

Altech puts sodium chloride battery prototype to test

Western Australian battery technology company Altech Batteries has announced its first Cerenergy ABS60 salt-based battery energy storage system prototype is online and operating successfully across a range of temperatures, confirming its thermal stability and commercial viability.



The world is switching on to alternative battery ...

This is something that Altech Batteries (ASX:ATC) is looking to correct with its CERENERGY technology, which uses common table salt and ceramic solid state technology to create batteries that are up to 50% cheaper ...

Scientists develop long-life electrode material for ...

Scientists have developed a positive electrode material that doesn't diminish after repeated charging cycles, for the manufacture of durable solid-state batteries. Electric cars are widely regarded as our best bet to ...

12.8V 200Ah



A breakthrough in inexpensive, clean, fast-charging batteries

Scientists have created an anode-free sodium solid-state battery. This brings the reality of inexpensive, fast-charging, high-capacity batteries for electric vehicles and grid storage closer than

INTEGRATED DESIGN

 EASY TO TRANSPORT AND INSTALL,
 FLEXIBLE DEPLOYMENT


Scientists develop long-life electrode material for solid-state

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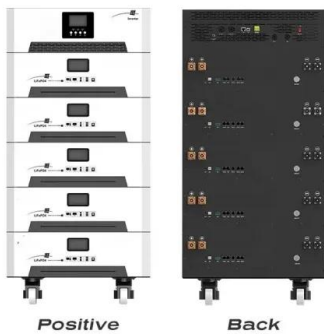
Solid-State Batteries: The Technology of the 2030s but the ...

to conventional lithium-ion batteries, which are fast approaching performance limits. Solid-State Batteries: The Technology of the 2030s but the Research Challenge of the 2020s FARADAY INSIGHTS - ISSUE 5: FEBRUARY 2020 The development of solid-state batteries that can be manufactured at a large scale is one of the

Hydrogen storage and battery technology group

Hydrogen storage materials for solid-state hydrogen storage application Hydrogen storage and production technology for on-board and

stationary remote area power supply (RAPS) systems; Materials for batteries technology, ...



Altech puts sodium chloride battery prototype to test

Western Australian battery technology company Altech Batteries has announced its first Cerenergy ABS60 salt-based battery energy storage system prototype is online and operating successfully across a range ...

Altech's sodium chloride solid state battery exceeds ...

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Recent advances in all-solid-state batteries for commercialization

Additionally, all-solid-state sodium-ion batteries (ASSIB) and all-solid-state magnesium-ion batteries (ASSMIB) have been studied as alternatives, leveraging more abundant raw materials than lithium. 148-153 SEs are being explored to enhance the safety of these batteries

by replacing the flammable liquid electrolytes used in traditional LIBs.

Solid state batteries

Solid-state batteries are emerging as a next generation storage solution that is safer, fast charging and longer lasting than current battery counterparts. And backed with 20 years of ionic materials research and experience in working closely with leading companies, the Battery Research and Innovation Hub is poised to bring this next generation



Altech's sodium chloride solid state battery exceeds expectations

Western Australian battery technology company Altech Batteries has announced its first Cerenergy ABS60 salt-based battery energy storage system prototype is online and operating successfully across a range of temperatures, confirming its thermal stability and commercial viability.

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