Quasi-solid-state battery for outdoor solar power hub

Herein, we propose quasi-solid-state anode-free batteries containing lithium sulfide-based cathodes and non-flammable polymeric gel electrolytes.

Researchers from Doshisha University, Japan, develop a novel quasi-solid-state lithium-ion battery (LIB) with non-flammable solid and liquid electrolytes. The battery has higher ionic conductivity, ...

We further reveal how the chemical insights obtained can be applied to design other high-voltage quasi-solid-state multivalent-ion batteries like Zn-ion and Al-ion batteries.

Researchers from Doshisha University, Japan, develop a novel ...

Backed by development partners Mercedes-Benz, Stellantis and Hyundai-Kia, Factorial"s quasi solid-state battery technology is helping set a new course in the automotive industry, evolving rapidly from ...

In this review, recent advances and progresses on the development of quasi-solid-state Li-S batteries (QSSLSBs) are scrutinized. Strategies on building high-performance QSSLSBs using polymer ...

This white paper cuts through the noise by presenting real data on the current state of quasi-solid-state batteries (QSSBs) developed by Factorial.

Researchers from Doshisha University, Japan, have developed a novel quasi-solid-state lithium-ion battery (LIB) that combines non-flammable solid and liquid electrolytes.

A functional prototype shaped as the external roof of a small, motorized toy car was used to power it for several runs, and it could also withstand external load while retaining structural integrity.

While semi-solid-state batteries are significantly safer than conventional liquid-electrolyte batteries, they are

not inherently immune to failure. The presence of even a small amount of liquid or gel plasticizer means that they still contain a flammable component. Comparative safety tests have shown that under external heating, QSSBs can still undergo thermal runaway, though the reaction may be initiated at a higher temperature and be slightly less energetic th...

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