
The study proposed a novel air-cooling system for lithium-ion battery packs in electric vehicles that used parallel copper sheets with circular copper rings as extended fins to ...

Based on the multi-channel liquid cooling plate mentioned above, the heat dissipation of the battery pack was analyzed, and its structural parameters were optimized.

In the energy system, the battery will inevitably encounter the problem of heat dissipation when using high-power electricity. In this study, we took the power battery pack of a 3 m3 battery ...

At present, the common lithium ion battery pack heat dissipation methods are: air cooling, liquid cooling, phase change material cooling and hybrid cooling. Here we will take a ...

This study establishes a foundation for achieving a high-efficiency heat dissipation system in battery packs by combining a ...

In battery pack design, managing the thermal interface between battery cells and heat sinks (such as metal heat sinks or liquid cooling plates) is critical to achieving efficient ...

This study establishes a foundation for achieving a high-efficiency heat dissipation system in battery packs by combining a systematic analysis of inlet-outlet positioning and ...

ABSTRACT e compact designs and varying airflow conditions present unique challenges. This study investigates the thermal performance of a 16-cell lithium-ion battery pack by optimizing ...

This study investigates the thermal performance of a 16-cell lithium-ion battery pack by optimizing cooling airflow configurations and integrating phase change materials ...

This paper delves into the heat dissipation characteristics of lithium-ion battery packs under various parameters of liquid cooling systems, employing a synergistic analysis approach.

Then the reference basis for heat flow field characteristic analysis and structure design of battery pack are offered.

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