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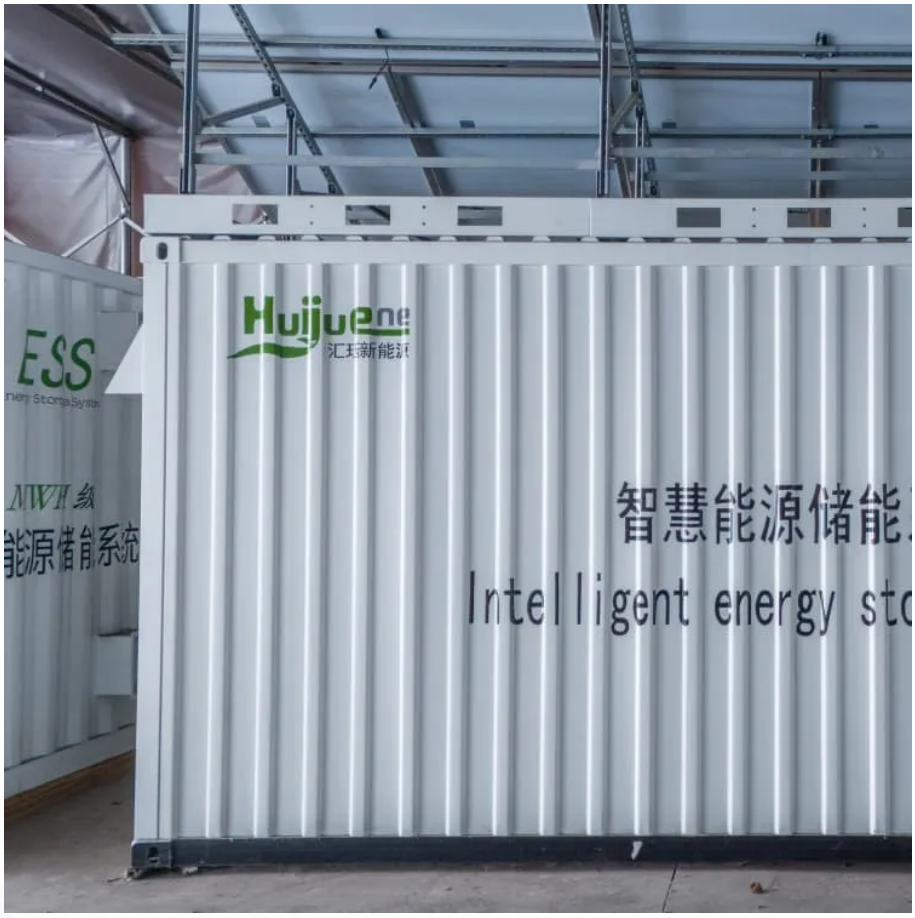
# Structure of vanadium flow battery



## Overview

Does a vanadium redox flow battery have interdigitated flow field?

The performances of a vanadium redox flow battery with interdigitated flow field, hierarchical interdigitated flow field, and tapered hierarchical interdigitated flow field were evaluated through 3D numerical model.

What is vanadium redox flow battery (VRFB)?

Vanadium redox flow battery (VRFB) is an essential technology for realizing large-scale, long-term energy storage. Among its components, the flow field structure plays a crucial factor affecting the battery performance. So far, there still exists uneven electrolyte distribution leading to low efficiency.

Can vanadium redox flow batteries reduce the cost of energy storage?

Abstract: The vanadium redox flow battery (VRFB) holds significant promise for large-scale energy storage applications. A key strategy for reducing the overall cost of these liquid flow batteries lies in enhancing their power density and operational efficiency.

What determines the charging process of a vanadium flow battery?

The charging process of a vanadium flow battery is determined by the transport characteristics of the battery electrolyte, which will affect the performance of the battery and the loss and efficiency of the circulating pump.

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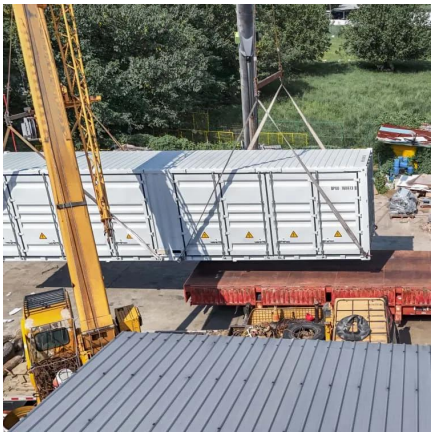

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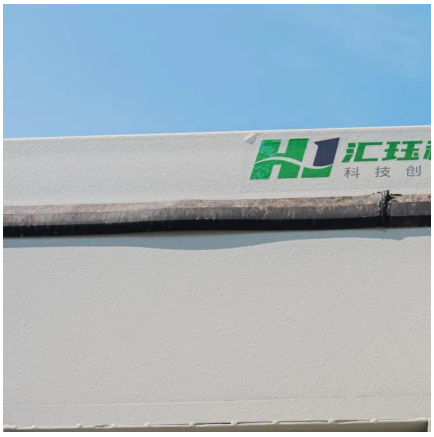

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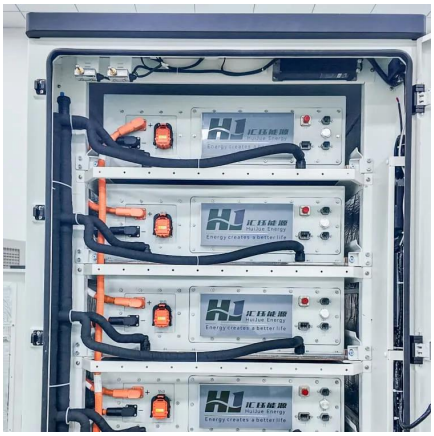

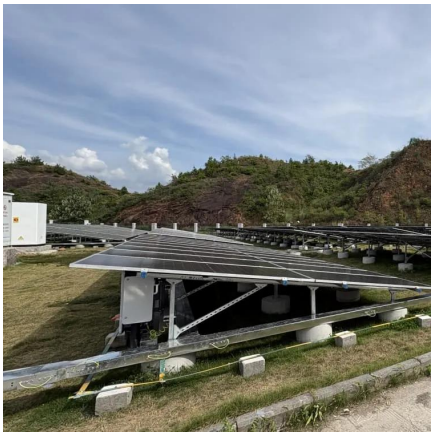

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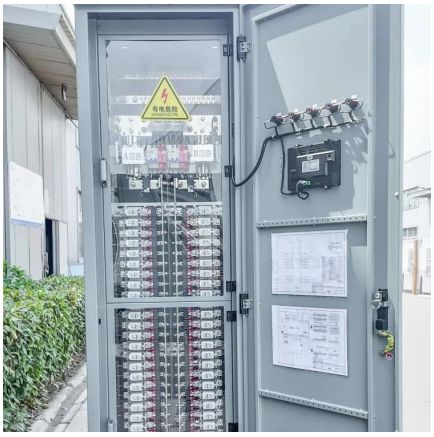

**Numerical Simulation of Flow Field Structure of Vanadium Redox Flow**

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