

Flexible energy storage device





Overview

How can flexible energy storage systems advance wearable electronic device development?

To advance wearable electronic device development, this review provides a comprehensive review on the research progress in various flexible energy storage systems. This includes novel design and preparation of flexible electrode materials, gel electrolytes, and diaphragms as well as interfacial engineering between different components.

Can flexible energy storage devices be used as self-powered systems?

A series of materials and applications for flexible energy storage devices have been studied in recent years. In this review, the commonly adopted fabrication methods of flexible energy storage devices are introduced. Besides, recent advances in integrating these energy devices into flexible self-powered systems are presented.

What are flexible energy storage devices?

To date, numerous flexible energy storage devices have rapidly emerged, including flexible lithium-ion batteries (LIBs), sodium-ion batteries (SIBs), lithium-O₂ batteries. In Figure 7E,F, a Fe_{1-x}S@PCNWs/rGO hybrid paper was also fabricated by vacuum filtration, which displays superior flexibility and mechanical properties.

What are flexible aqueous energy storage devices for flexible electronics?

In this review, we focus on pioneering works of flexible aqueous energy storage devices for flexible electronics, covering the material designs for essential components of the energy devices such as active materials, current collectors, aqueous electrolyte, and separator membranes.



Flexible energy storage device



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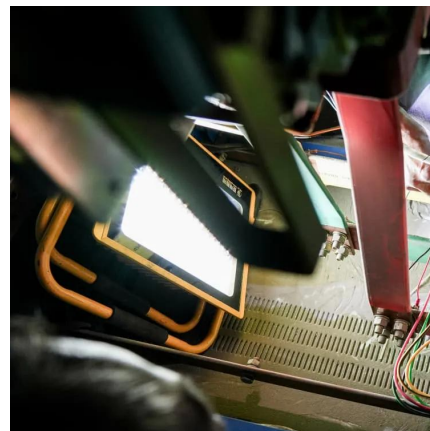


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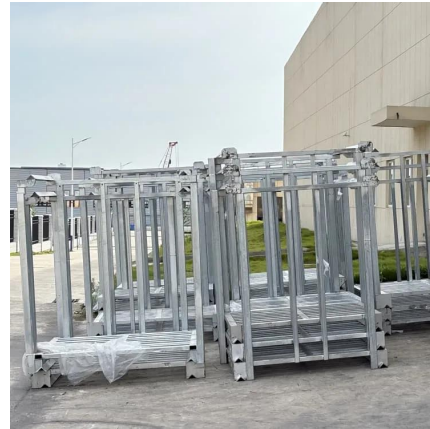
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