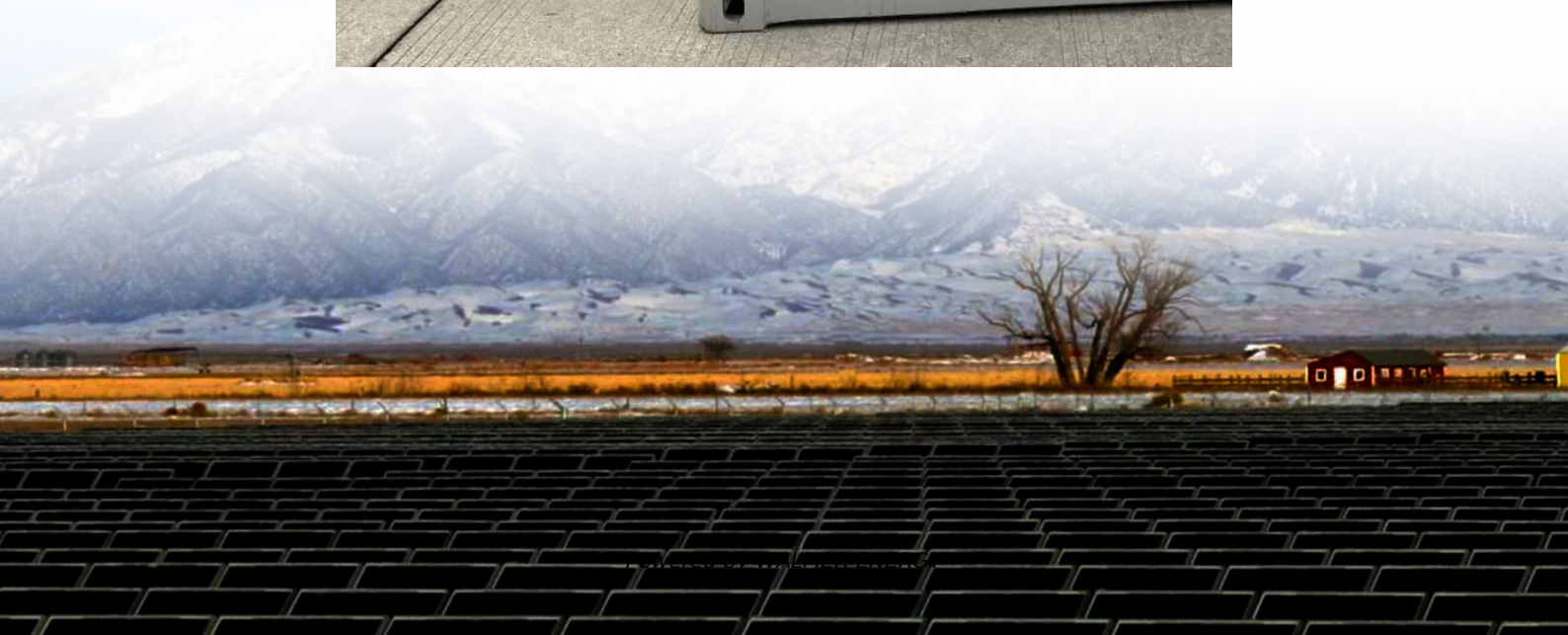


The following belongs to electrochemical energy storage





Overview

This interdisciplinary field encompasses devices such as batteries, fuel cells and supercapacitors that transform and store energy through redox reactions. What are electrochemical energy storage systems?

Electrochemical energy storage systems have the potential to make a major contribution to the implementation of sustainable energy. This chapter describes the basic principles of electrochemical energy storage and discusses three important types of system: rechargeable batteries, fuel cells and flow batteries.

What are the three types of electrochemical energy storage?

This chapter describes the basic principles of electrochemical energy storage and discusses three important types of system: rechargeable batteries, fuel cells and flow batteries. A rechargeable battery consists of one or more electrochemical cells in series.

What are electrochemical energy storage/conversion systems?

Electrochemical energy storage/conversion systems include batteries and ECs. Despite the difference in energy storage and conversion mechanisms of these systems, the common electrochemical feature is that the reactions occur at the phase boundary of the electrode/electrolyte interface near the two electrodes .

Why is electrochemical energy storage important?

Electrochemical energy storage has been instrumental for the technological evolution of human societies in the 20th century and still plays an important role nowadays.



The following belongs to electrochemical energy storage

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Lecture 3: Electrochemical Energy Storage

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