

In the past few decades, electricity production depended on fossil fuels due to their reliability and efficiency [1]. Fossil fuels have many effects on the environment and directly ...

Chemical energy storage is superior to other types of energy storage in several ways, including efficiency and the ability to store a large amount of energy in a little amount of ...

Watch the on-demand webinar about different energy storage applications 4. Pumped hydro. Energy storage with pumped hydro systems based on large water reservoirs has been widely implemented over much of the past ...

We develop innovative processes for a successful raw material and energy turnaround - for example by creating and applying materials for chemical storage as well as the conversion of energy and CO₂. Our work focuses on ...

The quest for the sustainable energy transition requires replacing fossil fuels by renewable electricity (RE). Systems of energy supply consist of both electrons and molecules as energy carriers. It is thus essential to interconvert both ...

a substantial fraction of a whole energy system. The application "energy storage" as example compensates the volatility of RE and is thus critical to any energy transition. Chemical energy ...

