Electrochemical energy storage application of Ni3Se2

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Is Ni 3 SE 2 a good electrolyzer?
The Ni 3 Se 2 nanowire array electrode is shown to be a high-performance alkaline water electrolyzerwith current density of 10 mA cm -2 at a cell voltage of 1.62 V. The results demonstrate Ni 3 Se 2 as a promising 2D highly active electrode for electrochemical energy storage and conversion applications.

What is a controllable ni3se2 nanowire array?
Controllable nanoarchitecture arrays of the transition metal selenide, supported on conductive substrates, are promising materials for high-performance electrochemical energy storage and conversion applications. Herein, Ni3Se2 nanowire arrays with a rich-grain-boundary are rationally grown on a nickel foam (

What is the energy density of NISE ni 3 SE 2?
The device manifests an eximious energy density of 45.5 Wh Kg -1at 1.600 kW kg -1,with a capacitance preservation of 96.1% over 12,000 cycles. Additionally,the NiSe@Ni 3 Se 2 composite also present a low overpotential of 281 mV at 10 mA cm -2.

Why is Ni3 SE 2 a good active material?
2) As for the Ni3 Se 2 nanosheets active materials,apart from good electronic conductivity,they possess typical three-electron reactions during their charging/discharging process. These merits result in higher charge storage capability.

Controllable nanoarchitecture arrays of the transition metal selenide, supported on conductive substrates, are promising materials for high-performance electrochemical energy ...

Bi-doped Ni3Se2/rGO were evaluated by different analytical techniques. The results showed outstanding performance in energy storage applications, demonstrating the composite ...

A comparative study of structural, vibrational mode, optical and electrical properties of pure nickel selenide (NiSe) and Ce-doped NiSe nanoparticles for electronic device applications

This novel homogeneous nanostructure not only offers abundant energy storage active sites, but also promotes high-speed electron transfer, which can hugely improve the ...

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