Platinum catalysis for energy storage batteries

Abstract The oxygen reduction reaction (ORR) plays a crucial role in key processes of fuel cells and zinc-air batteries. To enable commercialization, reducing the platinum (Pt) content and ...

Here, the authors report a Mo2TiC2 MXene-supported platinum nanocluster catalyst that requires minimal platinum content and operates efficiently for over 8700 h.

Abstract We report a method for using battery electrode materials to directly and continuously control the lattice strain of platinum (Pt) catalyst and thus tune its catalytic activity for ...

Wide adaptation of intermittent renewable energies into the power grid and more affordable electric vehicles cannot be realized without low-cost, high-energy, and long-life energy ...

Read the research article "Magnetron sputtering of platinum on nitrogen-doped polypyrrole carbon nanotubes as an efficient and stable cathode for lithium-carbon dioxide batteries" (DOI: ...

Tailoring platinum-based catalysts is of great research interest in the fields of electrochemical energy conversion and storage, as well as other applications. Now, an approach has been...

Despite the extensive exploration of various catalytic materials, platinum (Pt)-based electrocatalysts continue to excel due to their unparalleled comprehensive properties.

Efficient and robust platinum-carbon electrocatalysts are of great significance for long-term service of high-performance Li-O batteries. Herein we developed an ultra-low platinum loading platinum ...

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