
Iron-air ARFBs employ AQDS mediator to mitigate high overpotential occurring during ORR. Cycling of ARFBs involve oxygen evolution and AQDS reduction to optimize ...

Here we describe a class of energy storage materials that exploits the favourable chemical and electrochemical properties of a family of molecules known as quinones. The ...

A flow battery, or redox flow battery (after reduction-oxidation), is a type of electrochemical cell where chemical energy is provided by two chemical components dissolved in liquids that are ...

In this work, we propose an innovative hybrid flow battery using anthraquinone disulfonic acid (AQDS) based negolyte in an AQDS-oxygen fuel cell and AQDS-oxygen ...

Organic molecules are currently investigated as redox species for aqueous low-cost redox flow batteries (RFBs).

A flow battery, or redox flow battery (after reduction-oxidation), is a type of electrochemical cell where chemical energy is provided by two chemical ...

AQDS undergoes extremely rapid and reversible two-electron two-proton reduction on a glassy carbon electrode in sulphuric acid. An aqueous flow battery with inexpensive carbon ...

An anthraquinone salt, AQDS (NH 4) 2, is designed as a new anolyte material for pH-neutral aqueous organic redox flow batteries (AORFBs) with a solubility of 1.9 m in water.

A new redox flow battery system based on iron sulfate and anthraquinone disulfonic acid (AQDS) is shown here to have excellent electrical performance, capacity retention, and ...

Almost all published works on aqueous organic redox flow batteries have been evaluated inside a glovebox due to the detrimental ...

Almost all published works on aqueous organic redox flow batteries have been evaluated inside a glovebox due to the detrimental influence of oxygen on a battery"s efficiency ...

In this work we carried out a well-known reaction of anthraquinone sulfonation to synthesize 2,7-AQDS in mixture with other sulfo-derivatives, namely 2,6-AQDS and 2-AQS. Redox behavior ...

Web: https://www.aides-panneaux-solaire.fr