
The energy efficiency of the carbon felt with glucose-based carbon coating is 82.79% at 100 mA cm-2, which is 2.0% higher than that of the original carbon felt. The functional group ...

However, the electrochemical performance of the original carbon or graphite felt electrodes is not ideal, so it is often necessary to modify their surface to improve their reversibility in battery ...

Abstract The parasitic hydrogen evolution reaction (HER) leads to capacity fade of aqueous redox flow batteries. In addition, the evolved hydrogen gas bubbles stagnating inside ...

Due to the increased reactivity of vanadium ions on the treated carbon felt, the all-vanadium flow battery with plasma-modified carbon felt has much higher efficiency and shows better capacity ...

Carbon-based electrodes are used in flow batteries to provide active centers for vanadium redox reactions. However, strong controversy exists about the exact origin of these ...

However, inferior Fe deposition/dissolution reversibility at anode largely impedes further advance of all-iron flow battery in application. Here, we report a surface engineered ...

Here, we give a brief review of recent progress in the modification methods of carbonous felt electrodes, such as surface treatment, the deposition of low-cost metal oxides, ...

This review summarizes recent developments in the design and fabrication of electrospun carbon fibers, which offers a bottom-up solution to the formation of electrodes with ...

Since carbon felt offers high conductivity and stability under flow battery operating conditions at low cost, it remains as state-of-the-art electrode in redox flow batteries [15].

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