Carbon felt composition of all-vanadium liquid flow battery

Vanadium redox flow battery (VRFB) electrodes face challenges related to their long-term operation. We investigated different ...

The modified carbon felt exhibits higher energy efficiency (EE) and voltage efficiency (VE) in a single cell VRFB test at the constant current density of 160 mA cm -2, and also maintains ...

The results showed that the all vanadium flow battery containing boron doped carbon felt electrode exhibited higher energy efficiency (80.56%) than the original carbon felt battery ...

The modification of novel carbon-based catalysts is also a significant area of research. Carbon-based materials, which share identical elemental similarities with the carbon felt substrate, ...

The modified carbon felt exhibits higher energy efficiency (EE) and voltage efficiency (VE) in a single cell VRFB test at the constant ...

In this study, a carbon felt (CF) electrode with numerous nanopores and robust oxygen-containing functional groups at its edge sites is designed to improve the electrochemical activity of a ...

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In this study, we employed atmos-pheric dielectric barrier discharge (DBD) to modify the commercial carbon felt (CF) electrodes for VRFB eficiency improvement. The treatment ...

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The pristine carbon felt (PCF) is consisted of smooth carbon fibers (fiber diameter ~10 um) with abundant inter-fiber channels and voids that facilitate the electrolyte flow.

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