Vanadium Redox Flow Battery Perfluorosulfonic Acid

This article presents the properties and the performance of two commercially available and low-cost perfluorinated sulfonic acid membranes of GN115 and GN212C for vanadium redox flow ...

Perfluorosulfonic acid (PFSA) membranes are widely explored for vanadium redox flow battery (VRFB) applications due to their exceptional stability and conductivity. However, their high cost and ...

Perfluorosulfonic acid membranes, represented by Nafion, are the most widely used proton exchange membranes (PEMs) in vanadium redox flow batteries (VRFBs). However, these ...

Proton exchange membranes (PEMs) are critical to the performance of vanadium redox flow batteries (VRFBs). Still, conventional perfluorosulfonic acid membranes such as Nafion® suffer ...

Perfluorosulfonic acid (PFSA) membranes, such as Nafion, are widely used in vanadium redox flow batteries (VRFBs) because of their high proton conduction through the ion channels and ...

The microstructure of the perfluorinated sulfonic acid proton exchange membranes such as Nafion® significantly affects their transport properties and performance in a vanadium redox...

In vanadium redox flow batteries (VRFBs), a perfluorinated sulfonic acid (PFSA) ionomer membrane plays a crucial role in transporting ions through ...

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