

Packaging Improvement for Unit Cell Vanadium Redox Flow Battery (V-RFB)

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Abstract : Packaging for vanadium redox flow battery is one of the key elements for successful implementation of flow battery in the electrical energy storage system. Usually the bulky battery size and low energy densities make this technology not available for mobility application. Therefore RFB with improved packaging size and energy capacity are highly desirable. This paper focuses on the study of packaging improvement for unit cell V-RFB to the application on Series Hybrid Electric Vehicle. Two different designs of 25 cm² and 100 cm² unit cell V-RFB at same current density are used for the sample in this investigation. Further suggestions on packaging improvement are highlighted.

Keywords : electric vehicle, redox flow battery, packaging, vanadium

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