WATERLOO | ENGINEERING

Arjun Dhillon

Prof. Pritzker

Modeling an All-Iron All-Soluble Redox Flow Battery

This work aims to model an all-soluble iron-based alkaline redox flow battery using COMSOL Multiphysics. Once the model is derived, it will be fit to experimental data for the charge-discharge behaviour of the flow battery under consideration by adjusting the most sensitive parameters. Following its validation, the model will be used to explore the operating features of the flow battery, modify its design and simulate its charge-discharge performance under different operating conditions.

UNIVERSITY OF WATERLOO