
To improve reactor efficiency, a compact, ammonia-based flow battery (AFB) was developed and tested at different solution concentrations, flow rates, cell pairs, and circuit ...

In this paper, an isothermal three-dimension (3-D) numerical model for TR-AFB has been proposed in order to optimize its performance. Firstly, the concentration distribution ...

A flow battery, or redox flow battery (after reduction-oxidation), is a type of electrochemical cell where chemical energy is provided by two chemical ...

This work presents the three-dimensional numerical models of the thermal regeneration ammonia-based flow battery (TRAFB) with various flow channel configurations, ...

Considering the future practical application, a 3D electrode composed of copper rod arrays was proposed for the scale-up of a thermally regenerative ammonia-based battery ...

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Most TRABs are hybrid flow battery concepts, that is, they operate using redox reactions that deposit and deplete metals at the electrodes. Unlike other flow batteries, ...

TRBs using an ammonia-copper redox ° couple can store waste-heat energy in a chemical form that can be later discharged to electrical energy upon demand.

A new all-aqueous thermally regenerative redox flow battery was developed with favorable performance parameters relative to previous TRAB chemistries. A series of RDE ...

A new all-aqueous thermally regenerative redox flow battery was developed with favorable performance parameters relative to ...

A flow battery, or redox flow battery (after reduction-oxidation), is a type of electrochemical cell where chemical energy is provided by two chemical components dissolved in liquids that are ...

"An All-Aqueous Thermally Regenerative Ammonia Battery Chemistry Using Cu(I, II) Redox Reactions" (2021, J. Electrochem. Soc.) Thank you and please contact us if you have any ...

Considering the future practical application, a 3D electrode composed of copper rod arrays was proposed for the scale-up of a ...

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