



## Redox Flow Batteries: Developments and Applications

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Deadline for manuscript  
submissions:

**closed (30 November 2021)**

### Message from the Guest Editors

Dear Colleagues,

Redox flow batteries (RFBs) have shown huge promise for large amounts of electrical energy stored for several applications. However, this technology currently displays some drawbacks, such as low energy density and high cost, in comparison with conventional batteries. While current RFB technologies use metal-redox species (all-vanadium, iron, copper, zinc–air, among others), next-generation RFBs are being developed in the form of, for example, organic redox flow batteries or semi-solid flow slurries.

Due to the interdisciplinary character of this research topic, this Special Issue invites papers on (but not limited to): electrochemistry of battery; material science, including active and passive components; membrane physicochemistry; state of charge diagnostics; transport phenomena; safety and reliability of the operation; lifetime and degradation; thermal management; battery performance, testing and monitoring; stack technology; hybrid battery systems; applications in real environments; costs and market; modeling and simulation.





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## Message from the Editor-in-Chief

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