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## Carnot Battery Technologies

Guest Editors:

**Dr. Andrey Gunawan**

**Prof. Dr. Abhishek Singh**

**Prof. Dr. Ahmad Arabkoohsar**

Deadline for manuscript  
submissions:

**closed (1 May 2022)**

### Message from the Guest Editors

Dear Colleagues,

This special issue inquires about the submission of articles that will showcase the advancement of state-of-the-art Carnot batteries. Its topics and aims are intentionally kept broad to gather new solutions and ideas to meet techno-economic requirements for large-scale electricity storage demand, but also to underscore technical, economic, and social challenges surrounding these technologies. Submissions are encouraged but are not limited to the following general areas:

- Novel concepts and designs of Carnot batteries;
- Innovative solutions for the improvement of the existing Carnot batteries;
- Integration of renewable-based electricity to Carnot batteries;
- Techno-economic studies on large-scale and cost-efficient Carnot batteries;
- Energy and exergy efficiency analysis of Carnot batteries;
- Transient thermal performance of the heat engine and/or heat pump cycle;
- Carnot batteries-based trigeneration (electricity, heat, and cold) systems.

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*Guest Editors*



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# Special Issue



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## Editor-in-Chief

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## Message from the Editor-in-Chief

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