



## Battery Systems and Energy Storage beyond 2020

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Deadline for manuscript  
submissions:

**closed (31 July 2021)**

### Message from the Guest Editors

Dear Colleagues,

This Special Issue addresses the progress in battery and energy storage development by pushing a missing focus on digitalization, advanced cell production, modeling, and prediction aspects in concordance with progresses in new materials and pack design solutions.

Potential topics include but are not limited to:

- Electrical, thermal, and electrochemical modeling;
- Lifetime estimation of battery cells;
- Accuracy enhancement methods for battery states and life time estimation;
- Implementation of artificial intelligence in battery diagnostics;
- Digital Twins for battery cells;
- Digital Twins for battery systems;
- Digital Twins in advanced battery productions;
- New materials and advanced manufacturing methods in battery cell production;
- Cell size optimization for advanced Li-ion batteries;
- Battery cell and pack design;
- Advanced electrolytes for Li-based batteries;
- Advances in battery cell manufacturing technologies;
- Life cycle assessment.

Prof. Dr.-Ing. Kai Peter Birke  
*Guest Editor*





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## Message from the Editor-in-Chief

Take the opportunity to publish your original scientific work or a review paper concerning battery materials, battery technology or battery application within this new open access journal. Along with material science, the journal also addresses engineering and multidisciplinary research topics, such as cell and system design or storage system integration. Publishing proffers visibility for the benefit of other experts and facilitates discussion of the research results within the field. You are invited to publish your work, read published papers and to participate in topical discussions.

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