

# EES Batteries

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## IN THIS ISSUE

ISSN 3033-4071 CODEN EBAA5 1(1) 1–210 (2025)



### Cover

See Xiaodong Shi,  
Xinlong Tian *et al.*,  
pp. 161–171.

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*EES Batter.*, 2025, **1**, 161.

## EDITORIAL

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### Introducing *EES Batteries*

Qiang Zhang

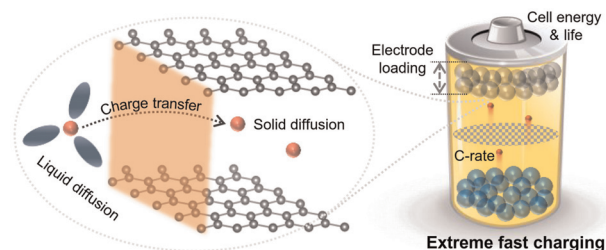


## PERSPECTIVE

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### Principles and trends in extreme fast charging lithium-ion batteries

Yu-Xing Yao, Lei Xu, Chong Yan\* and Qiang Zhang\*



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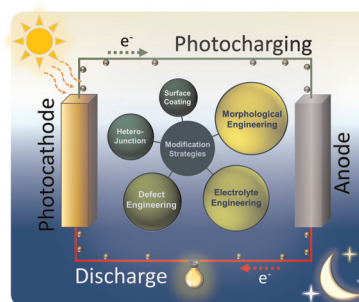
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### A review of the design and strategies for photoassisted rechargeable metal-ion batteries

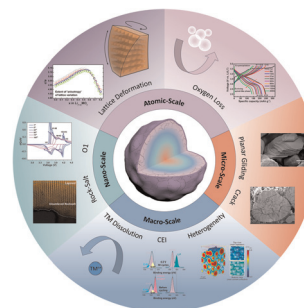
A. Soundarya Mary, Ganesh Mahendra, Rahuldeb Roy, Mukhesh K. Ganesh and Ashutosh K. Singh\*



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### Microscopic electrochemical–mechanical coupling in layered cathodes under high-voltage and fast-charging conditions

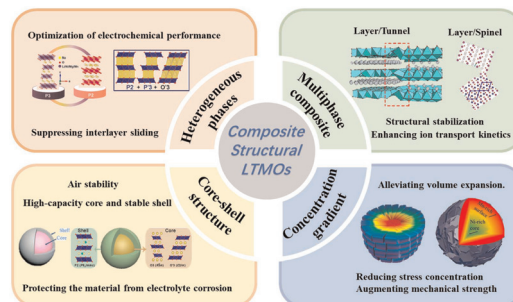
Ziqi Wu, Chenchen Zhang, Mengyi Zheng, Chaoyuan Zeng, Wen Yang\* and Ruiwen Shao\*



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### Recent progress and perspectives on composite structural layered transition metal oxides for sodium-ion batteries

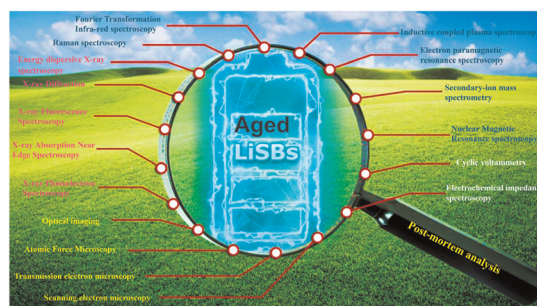
Zhiyang Fan, Yichen Li, Jiawei Pan, Zhiyou Zhou, Weipeng Li, Taifan Yang, Haihan Zhang, Chengyong Shu,\* Weibo Hua, Yuping Wu\* and Wei Tang\*



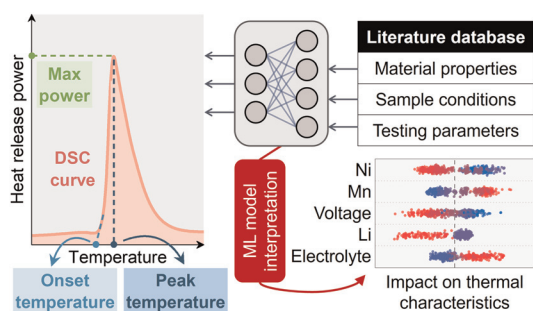
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### Analytical techniques for studying cell aging in lithium–sulfur batteries

Ritu Malik, Vijay K. Tomer\* and Mohini Sain



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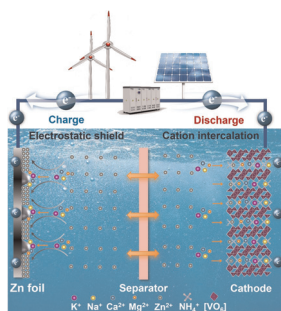


### Disentangling multifactorial impacts on cathode thermochemical properties with explainable machine learning

Yujian Sun, Xilin Xu, Luyu Gan, Sichen Jiao, Shuangshuang Han, Yajun Zhao, Yan Li, Xiqian Yu,\* Jizhou Li,\* Hong Li\* and Xuejie Huang

PAPERS

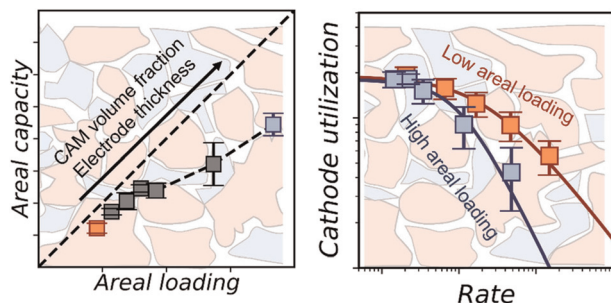
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### Natural seawater-based electrolytes for zinc-ion batteries

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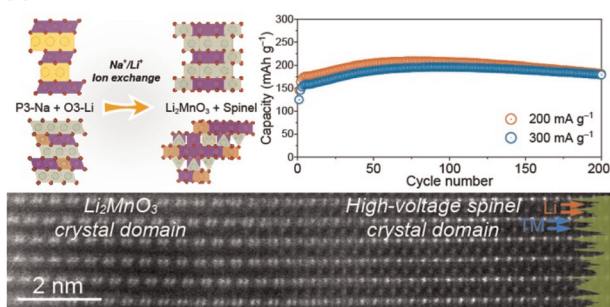
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### Transport characterization of solid-state $\text{Li}_2\text{FeS}_2$ cathodes from a porous electrode theory perspective

Tim Bernges,\* Lukas Ketter, Bianca Helm, Marvin A. Kraft, Kimberly A. See and Wolfgang G. Zeier\*

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### A highly stable Mn-based cathode with low crystallinity $\text{Li}_2\text{MnO}_3$ and spinel functional units for lithium-ion batteries

Shiqi Liu, Yinzhong Wang, Dongdong Xiao, Haifeng Li, Tianhao Wu, Boya Wang, Guangxing Hu, Lingqiao Wu, Yulong Wang, Guoqing Wang, Nian Zhang and Haijun Yu\*



## Rapid construction of a tellurium artificial interface to form a highly reversible zinc anode

Young-Hoon Lee, Eunbin Park, Yunseo Jeon, Sung-Ho Huh, Kwang-Soon Ahn,\* Yung-Eun Sung\* and Seung-Ho Yu\*

