

Energy & Environmental Science

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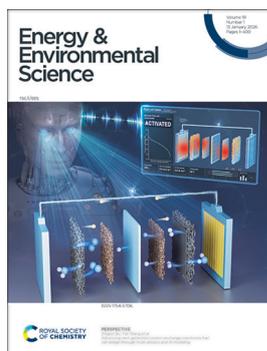
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See Woojae Shin *et al.*, pp. 162–188. Image reproduced by permission of Woojae Shin *et al.* from *Energy Environ. Sci.*, 2026, 19, 162.



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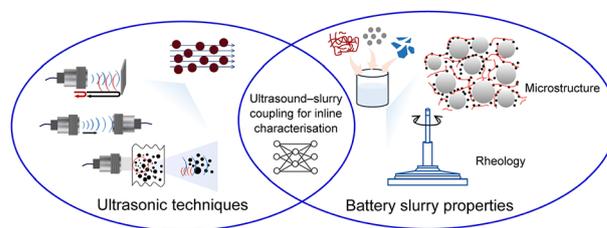
See Zhiguo Qu, Yun Wang *et al.*, pp. 126–149. Image reproduced by permission of Zhiguo Qu *et al.* from *Energy Environ. Sci.*, 2026, 19, 126.

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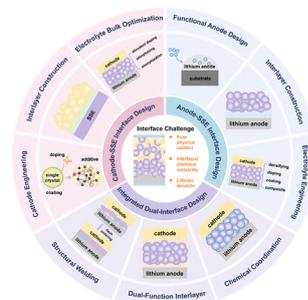
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Min Xu, Hongmin Liu, Xinran Gao, Yitao Lou, Huakun Liu, Shixue Dou, Nana Wang and Zhongchao Bai*



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Fundamental questions
Elemental answers

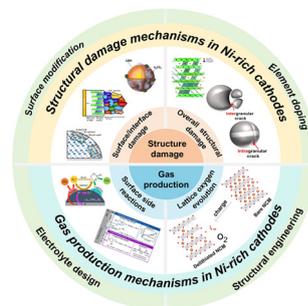


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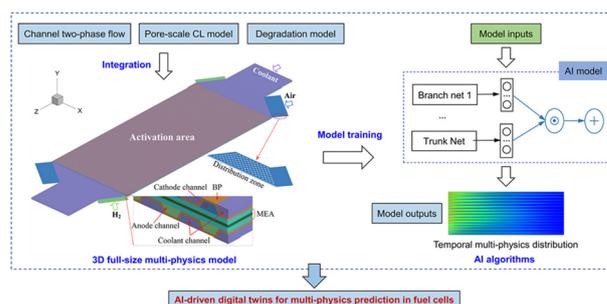


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Advancing next-generation proton exchange membrane fuel cell design through multi-physics and AI modeling

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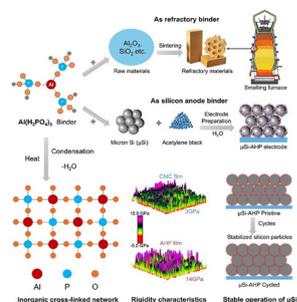


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Metallurgical refractory lining-guided inorganic binder for stable lithium storage in silicon microparticle anodes

Jinwei Zhou, Siyao Wu, Yang Li, Qihou Li and
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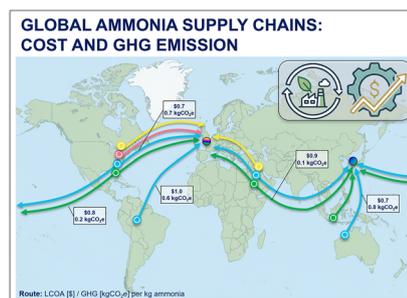


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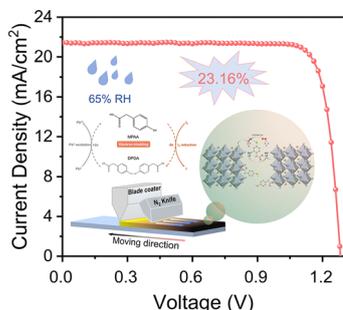
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Toward a sustainable energy future using ammonia as an energy carrier: global supply chain cost and greenhouse gas emissions

Woojae Shin, Haoxiang Lai, Gasim Ibrahim and
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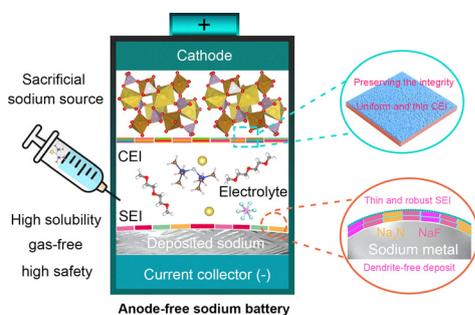
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A regenerable redox mediator for all-air processed wide-bandgap perovskite solar cells under high-humidity conditions

Yuting Song, Xinhang Cai, Haoyu Ge, Xuelian Liu, Ziyang Liu, Aijun Li, Naoyuki Shibayama and Xiao-Feng Wang*

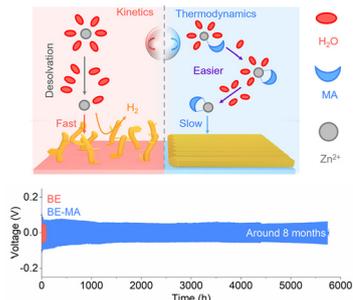
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Sodium-compensating electrolyte additives stabilize interfaces for highly reversible anode-free sodium batteries

Chunlin Xie, Shengfang Liu, Jin Wang, Xianghui Meng, Shuyi Yu, Jiaming Zhang, Haijun Peng, Dan Sun, Yougen Tang and Haiyan Wang†*

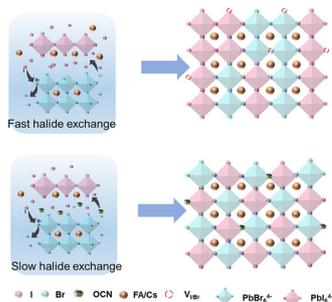
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Kuo Wang, Hongtu Zhan, Xiao-Xia Liu and Xiaoqi Sun*

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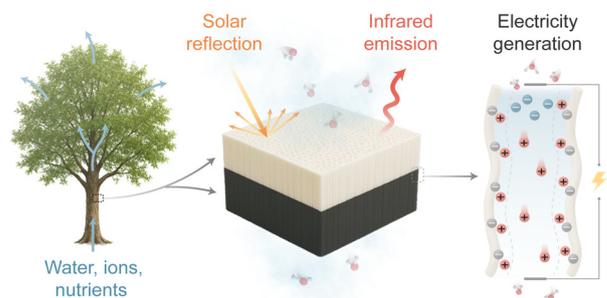
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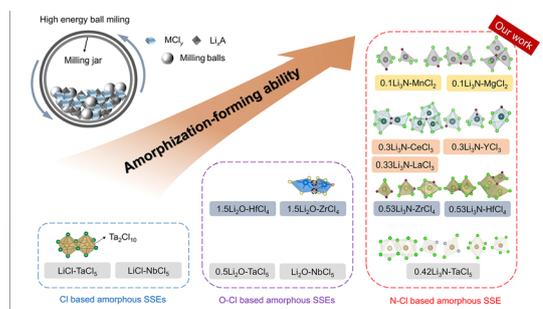
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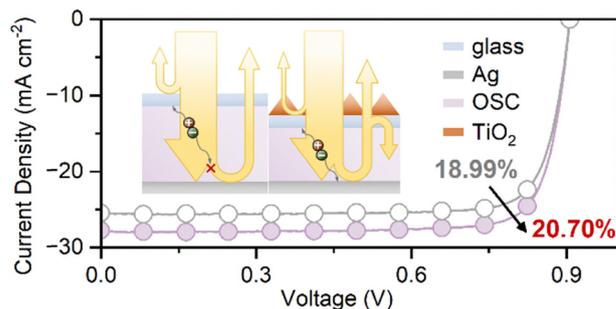
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Mitigating photon escape in thin-film photovoltaic devices via non-reciprocal optical path

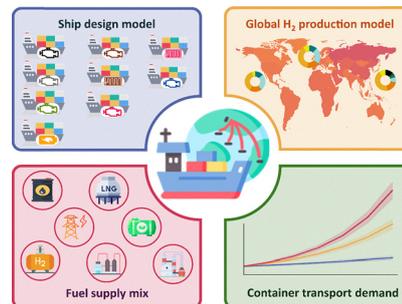
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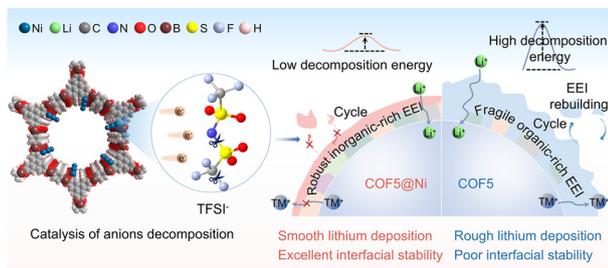
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Decarbonizing potential of global container shipping with hydrogen-based fuels

Shijie Wei,* Arnold Tukker and Bernhard Steubing



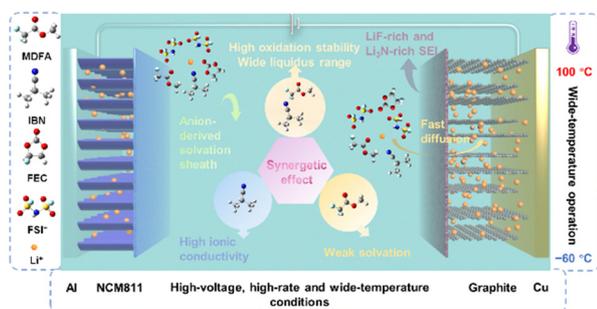
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Single-atom catalyzed formation of inorganic-rich SEI/CEI for durable anode-free solid-state lithium metal batteries

Xiaosa Xu, Junjie Chen, Jin Li, Zhenyu Wang, Zixiao Guo, Pengzhu Lin, Yu Wang, Jing Sun,* Baoling Huang* and Tianshou Zhao*

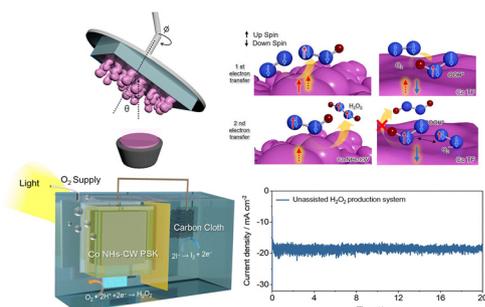
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High-voltage lithium-ion battery with a wide operating temperature range and fast-charging ability

Wen Zhou, Gaohong Liu, Yanbing Mo, Xiao Zhu, Kaiyue Zhu and Xiaoli Dong*

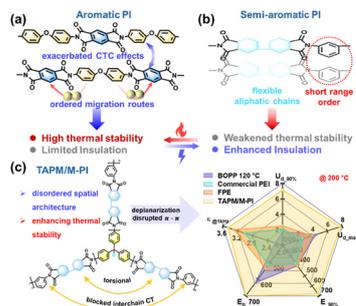
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Efficient solar-driven hydrogen peroxide production enabled by a perovskite electrochemical device integrated with a cobalt-based chiral catalyst

Young Sun Park, Jaerim Kim, Subin Moon, Eunji Ahn, Hyeonwoong Hwang, Sang-Hoon You, Juwon Lee, Chang-Seop Jeong, Wooyong Jeong, Hyoung-il Kim, Yong-Tae Kim, Kug-Seung Lee, Donghwa Lee, Jong Kyu Kim* and Joocho Moon*

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Disruption of short-range π - π stacking via a disordered spatial architecture for energy storage at 250 °C

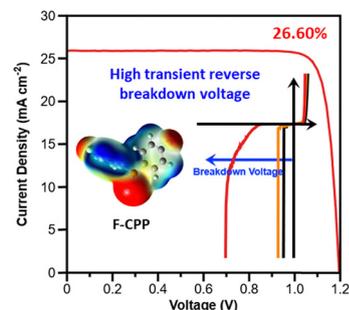
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Dielectric molecular-bridges enable durable inverted perovskite solar cells with 26.60% efficiency and a high reverse breakdown voltage

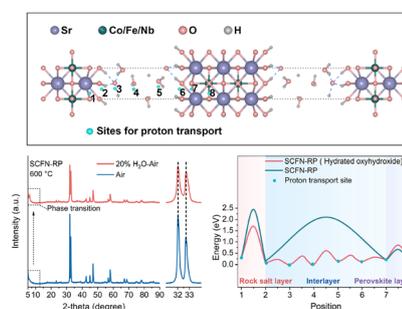
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The interlayer proton capture and transport mechanism in oxygen electrodes boosts proton ceramic electrolysis

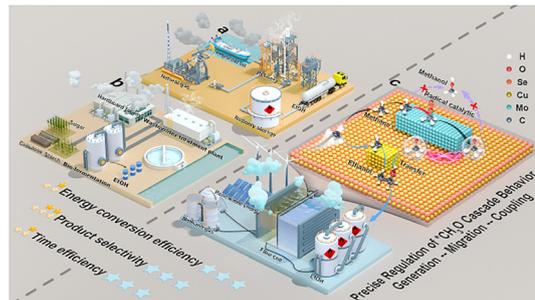
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Unlocking high alcohol product selectivity in methane-to-ethanol conversion at practically relevant current density via dual-site-driven cascade electrocatalysis

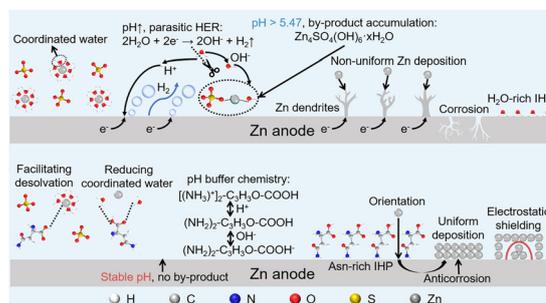
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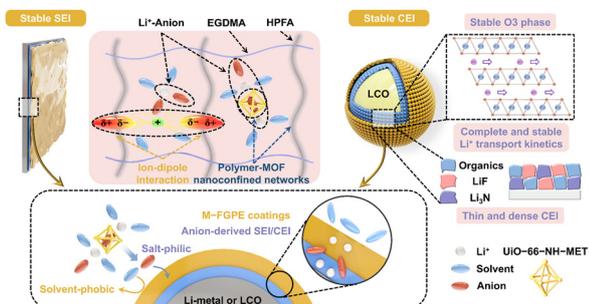
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Synergistic regulation of electrolyte environment and anode interface for constructing ultralong-life Zn-metal batteries with high depth discharge

Cheng-Lin Miao, Lu Feng, Xiao-Xue Wang, De-Hui Guan,* Xin-Yuan Yuan and Ji-Jing Xu*



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Conjugated topologically confined composite electrolytes for robust high-voltage and high-temperature semi-solid-state lithium metal batteries

Wang Xu, Yongbiao Mu, Yaoyu Yin, Anjun Hu,* Yuanjian Li, Jian Wang,* Qi Liu, Jianping Long, Lin Zeng* and Shimou Chen*

CORRECTION

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Correction: Ion exchange-induced $\text{Li}_x\text{Mg}_y\text{BO}_z$ coating synergized with reinforced bulk doping enables fast-charging long-cycling high-voltage LiCoO_2

Ting Wang, Yuqi Zhou, Jiaqi Huang, Fangzhou Zhao, Wanglai Cen, Lanlu Lu, Yifei Dang, Kecheng Cao, Yan Meng,* Yongzhi Zhang* and Dan Xiao

