

Energy & Environmental Science

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See Weijie Li *et al.*, pp. 10048–10060. Image reproduced by permission of Weijie Li from *Energy Environ. Sci.*, 2025, 18, 10048.



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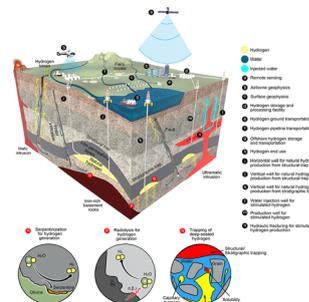
See Antoni Forner-Cuenca *et al.*, pp. 10061–10077. Image reproduced by permission of Antoni Forner-Cuenca from *Energy Environ. Sci.*, 2025, 18, 10061.

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Geologic hydrogen: a review of resource potential, subsurface dynamics, exploration, production, transportation, and research opportunities

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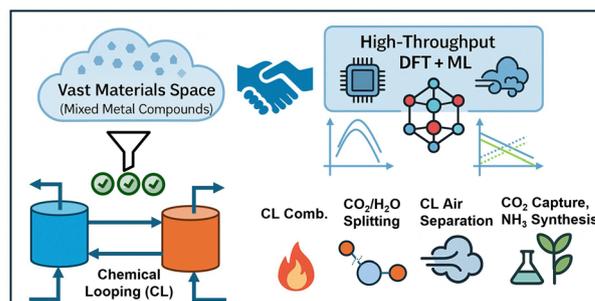


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Computationally accelerated discovery of mixed metal compounds for chemical looping combustion and beyond

Kunran Yang and Fanxing Li*



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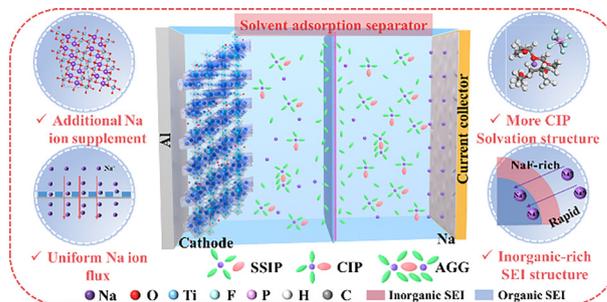
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Elemental answers



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Enhancing low-temperature durability and sodium-ion transport of anode-free sodium metal batteries through utilization of a solvent adsorption separator

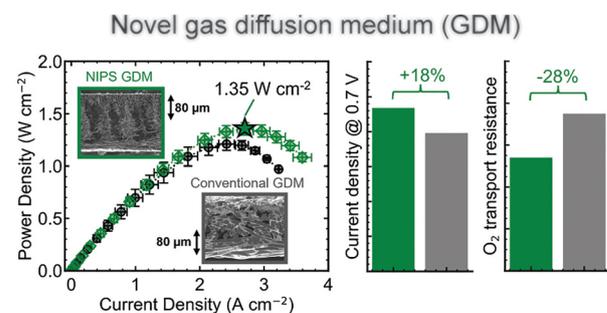
Zewei Hu, Liyang Liu, Xin Wang, Qingqing Zheng, Haiying Lu, Zhenwei Tang, Chao Han and Weijie Li*



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Designer diffusion media microstructures enhance polymer electrolyte fuel cell performance

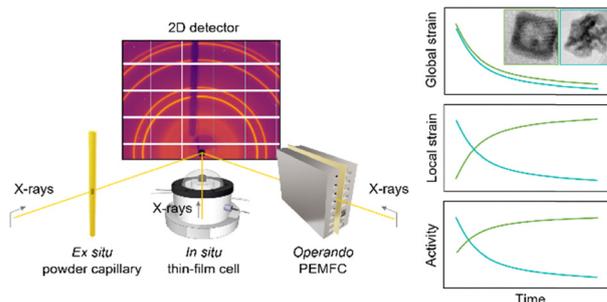
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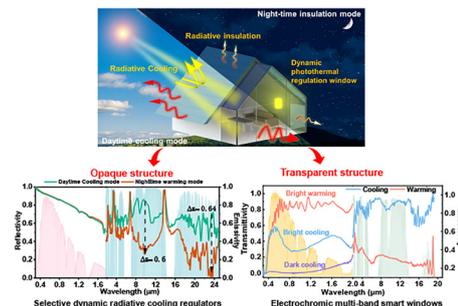
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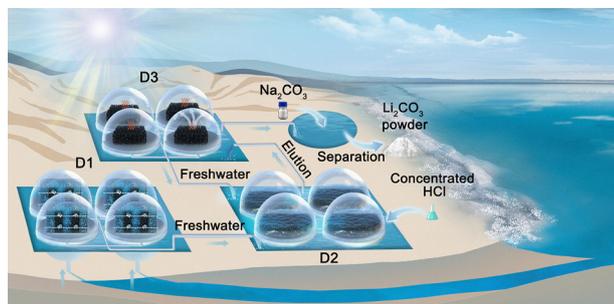
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Intelligent electrochromic photothermal regulation for integrated building energy saving

Yilin Ding, Zheyue Mei, Wenjing Zhang, Xueke Wu, Yaqi Zhang, Di Gao, Fan Lan, Run Li, Xungang Diao and Rufan Zhang*



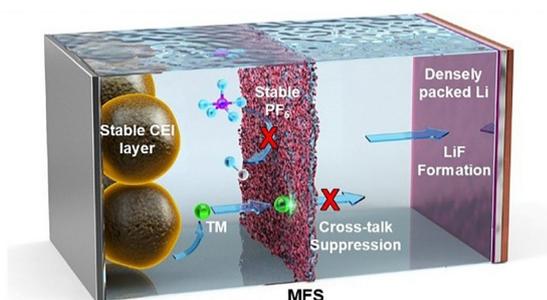
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Interfacial solar evaporation-driven lithium extraction from salt-lake brines for battery-grade Li_2CO_3 production

Wenqian Xing, Deyu Wang, Kai Feng, Shihao Ding, Xinle Zhang, Haolan Xu,* Jiang Gong,* Jinping Qu and Ran Niu*

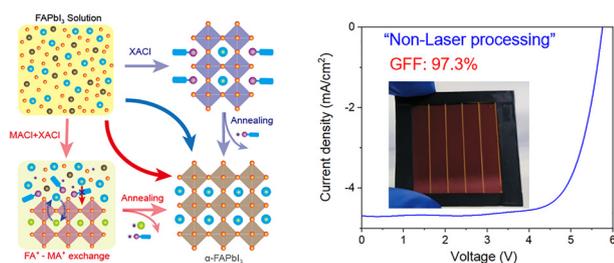
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Molecularly engineered membrane-driven interphase stabilization of electrodes for Li||NCM811 cells under practical operating conditions

Dong-Yeob Han, Jiyeon Lee, Youmin Bang, Sangwon Lee, Hyeongseok Shim, Yubhin Cho, Gyujin Song,* Tae Kyung Lee* and Soojin Park*

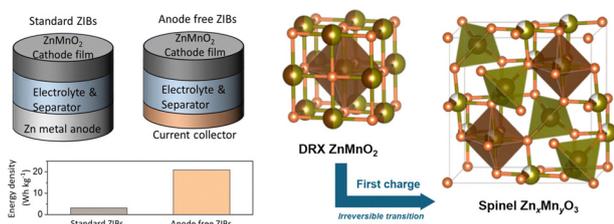
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Regulating solution spreading and intermediate phase evolution for large-area perovskite films and solar modules

Chuantian Zuo, Feng Hao, Hua Dong, Jingjing Chang, Keyou Yan, Yong Ding, Zuo Xiao* and Liming Ding*

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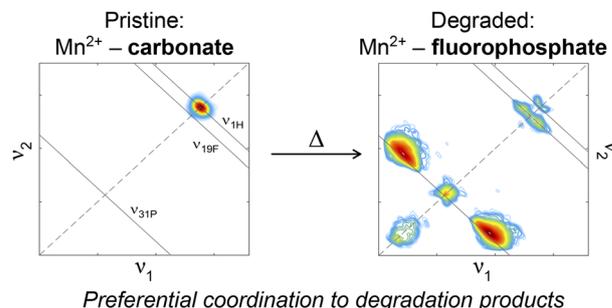
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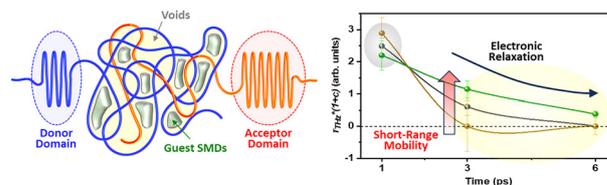
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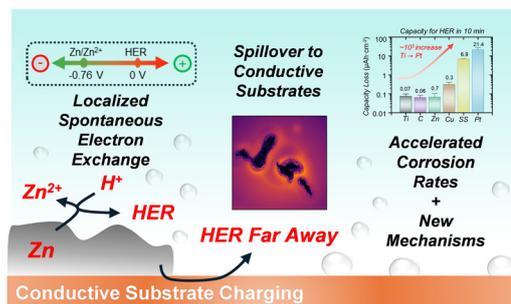
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Resting but not idle: unveiling the mechanistic origin of resting losses for zinc anodes

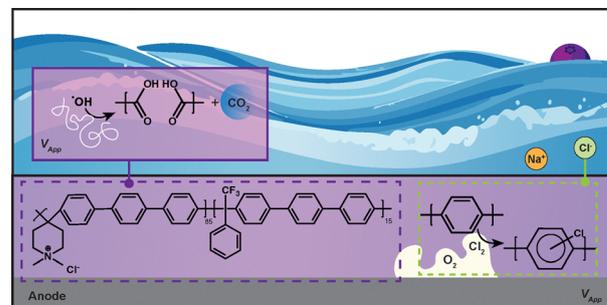
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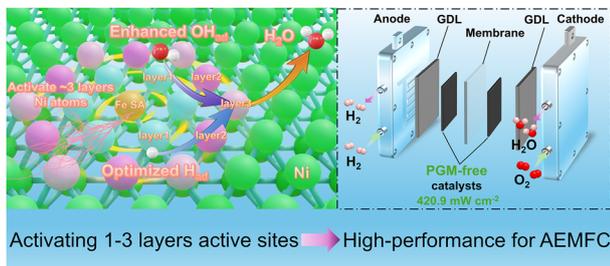
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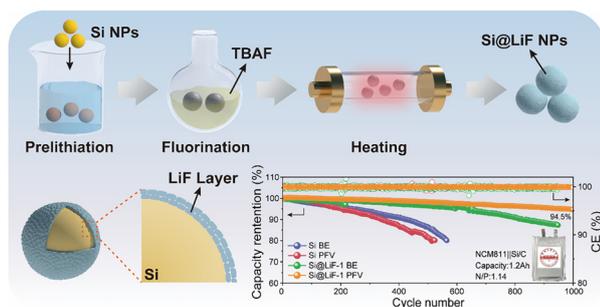
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Activating Ni atoms up to the third nearest neighbor around single-atom Fe into highly active sites for PGM-free anion-exchange membrane fuel cells

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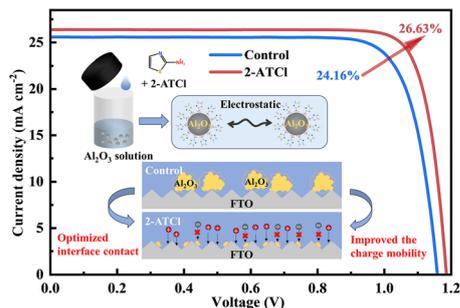
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In situ homogenized fluorination strategy via active prelithiation enabling LiF solid electrolyte interphases for stable silicon anodes

Yang Liu, Yi Sun,* Shang Jiang, Shuo Li, Changming Qu, Daolin Deng, Bangkun Zou, Qian Hou, Xuyong Feng, Jiawei Wang* and Hongfa Xiang*

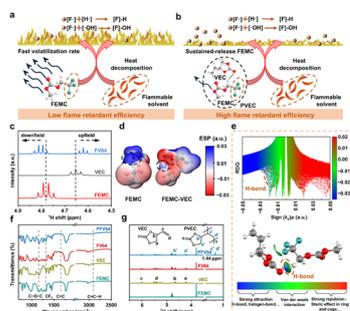
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Molecularly guided buried-interface regulation for efficient and stable inverted perovskite solar cells

Quanzhou Li, Min Wang* and Liang Li*

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A sustained-release strategy of fluorinated solvents enables highly safe lithium metal batteries

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