

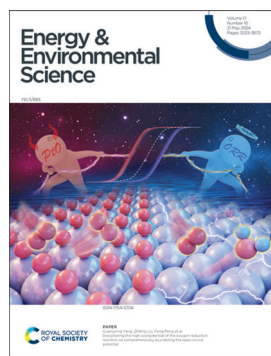
Energy & Environmental Science

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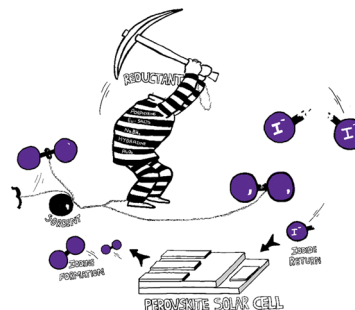
See Jinping Li, Guang Liu, Xiaopeng Han *et al.*, pp. 3347–3357. Image reproduced by permission of Xiaopeng Han from *Energy Environ. Sci.*, 2024, 17, 3347.

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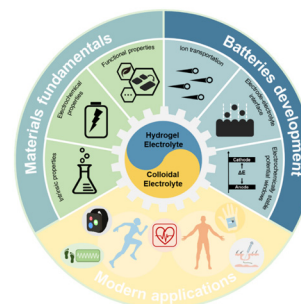
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Haoyang Ge, Xian Xie,* Xuesong Xie, Bingyao Zhang, Shenglong Li, Shuquan Liang, Bingan Lu and Jiang Zhou*



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Fundamental questions
Elemental answers

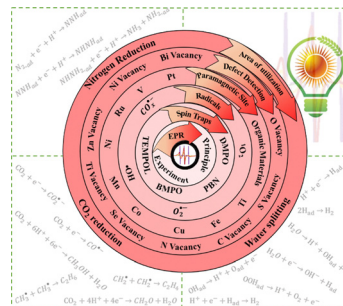


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Advanced electron paramagnetic resonance in chemical energy conversion: current status and future potential

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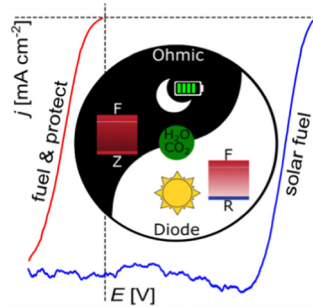


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Utilizing three-terminal, interdigitated back contact Si solar cells as a platform to study the durability of photoelectrodes for solar fuel production

Darci K. Collins,* Zebulon G. Schichtl, Nathan T. Nesbitt, Ann L. Greenaway, Valentin D. Mihailetchi, Daniel Tune and Emily L. Warren*

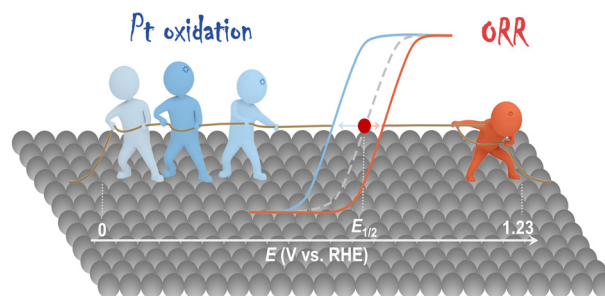


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Deciphering the high overpotential of the oxygen reduction reaction via comprehensively elucidating the open circuit potential

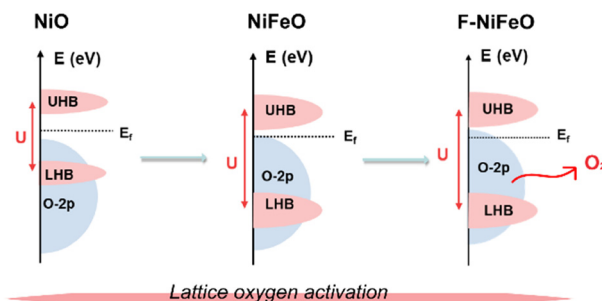
Zenan Wu, Guangxing Yang,* Qiao Zhang, Zhiting Liu* and Feng Peng*



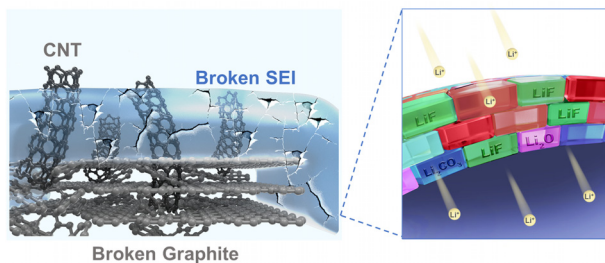
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Yijie Zhang, Weiyi Zhang, Xiaowen Zhang, Xin Wang, Jiajun Wang, Qiang Zhao, Yuhan Sun, Jinping Li,* Guang Liu* and Xiaopeng Han*



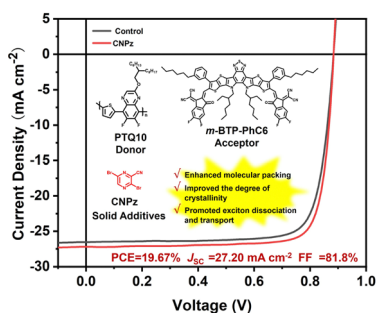
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The acupuncture effect of carbon nanotubes induced by the volume expansion of silicon-based anodes

Ziying He, Chenxi Zhang, Yukang Zhu and Fei Wei*

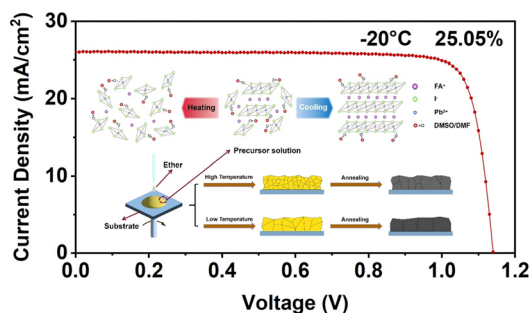
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Cyano-functionalized pyrazine: an electron-deficient unit as a solid additive enables binary organic solar cells with 19.67% efficiency

Lijun Tu, Hao Wang, Weixu Duan, Ruijie Ma,* Tao Jia, Top Archie Dela Peña, Yongmin Luo, Jiaying Wu, Mingjie Li, Xiaomin Xia, Siqi Wu, Kai Chen,* Yue Wu, Yulin Huang, Kun Yang, Gang Li* and Yongqiang Shi*

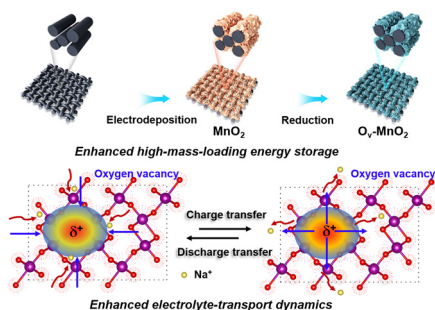
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“Freezing” intermediate phases for efficient and stable FAPbI₃ perovskite solar cells

Muyang Chen, Tingting Niu, Lingfeng Chao, Xiaozheng Duan, Jingpei Wang, Tengfei Pan, Yajing Li, Junhan Zhang, Chenyue Wang, Biyun Ren, Lijuan Guo, Mohammad Hatamvand, Jing Zhang, Qingxun Guo, Yingdong Xia, Xingyu Gao and Yonghua Chen*

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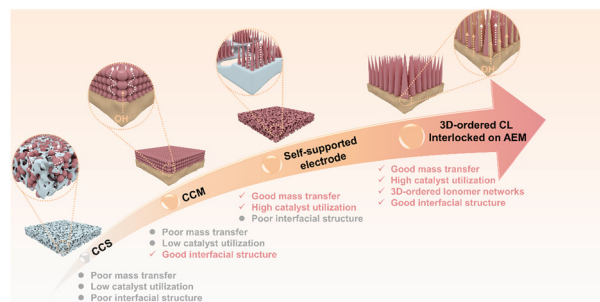
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3D-ordered catalytic nanoarrays interlocked on anion exchange membranes for water electrolysis

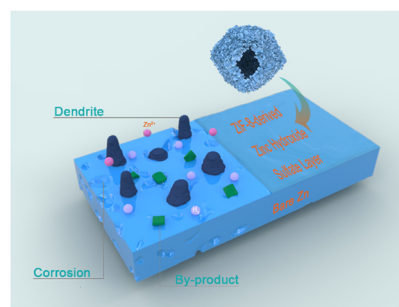
Lei Wan, Jing Liu, Dongcheng Lin, Ziang Xu, Yihan Zhen, Maobing Pang, Qin Xu and Baoguo Wang*



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Inherited construction of porous zinc hydroxide sulfate layer for stable dendrite-free Zn anode

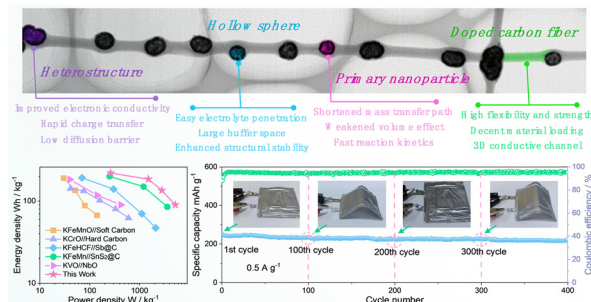
Zhicheng Xiang, Yubing Qiu, Xingpeng Guo, Kai Qi,* Zheng-Long Xu* and Bao Yu Xia*



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Confining hollow ZnSe/NiSe microspheres in freestanding carbon nanofibers for flexible potassium-ion batteries

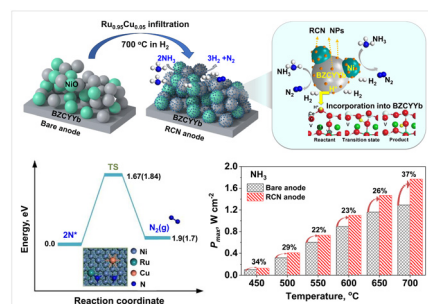
Bo Yan, Hao Sun, Xueping Liu, Xinyuan Fu, Changqing Xu, Tiantian Zhang, Huachao Tao, Lulu Zhang, Xifei Li, Xuelin Yang* and Renheng Wang*



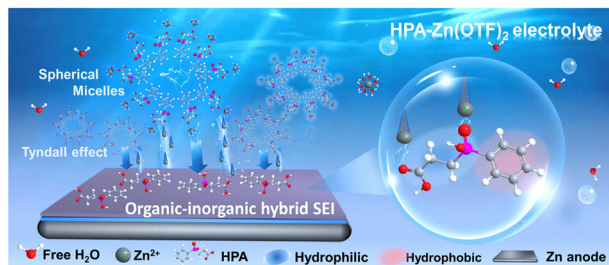
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In situ formed catalysts for active, durable, and thermally stable ammonia protonic ceramic fuel cells at 550 °C

Hua Zhang, Kang Xu, Yangsen Xu, Fan He, Feng Zhu, Kotaro Sasaki, YongMan Choi* and Yu Chen*



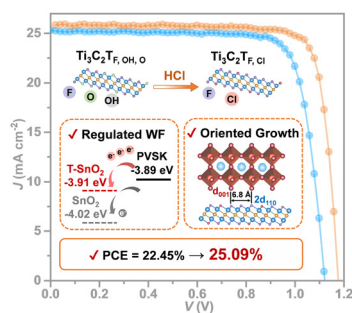
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Amphiphilic electrolyte additive as an ion-flow stabilizer enables superb zinc metal batteries

Zimin Yang, Yilun Sun, Siting Deng, Hao Tong, Mingqiang Wu, Xinbin Nie, Yifan Su, Guanjie He, Yinghe Zhang, Jianwei Li* and Guoliang Chai*

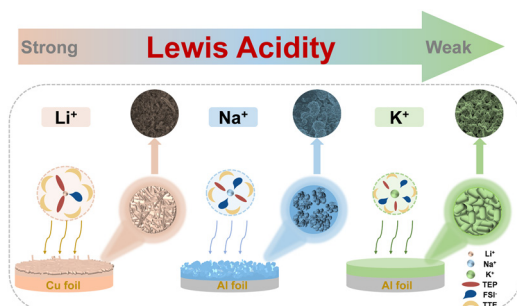
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Chlorinated-Ti₃C₂T_x as a dual-functional buried interface on SnO₂ electron-transporting layers for 25.09% high-performance n-i-p perovskite solar cells

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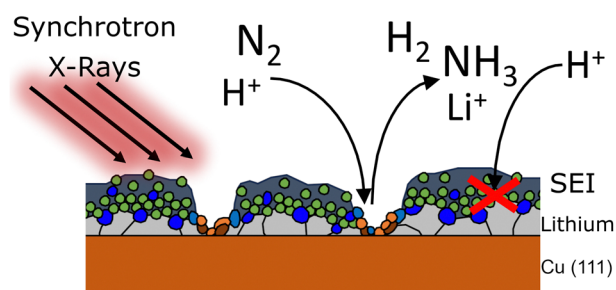
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Superior electrochemical performance of alkali metal anodes enabled by milder Lewis acidity

Linlin Wang, Jiacheng Zhu, Nan Li, Zhe Zhang, Shiwan Zhang, Yifan Chen, Jianwen Zhang, Yusi Yang, Lulu Tan, Xiaogang Niu, Xuefeng Wang,* Xiao Ji* and Yujie Zhu*

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Operando investigations of the solid electrolyte interphase in the lithium mediated nitrogen reduction reaction

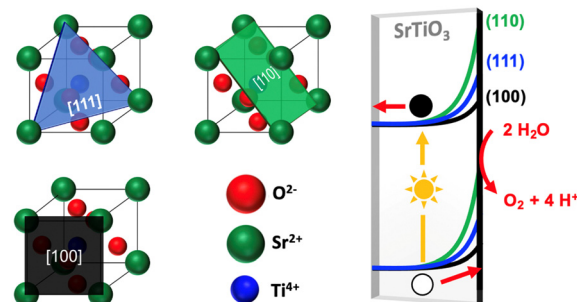
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Facets control charge separation during photoelectrochemical water oxidation with strontium titanate (SrTiO₃) single crystals

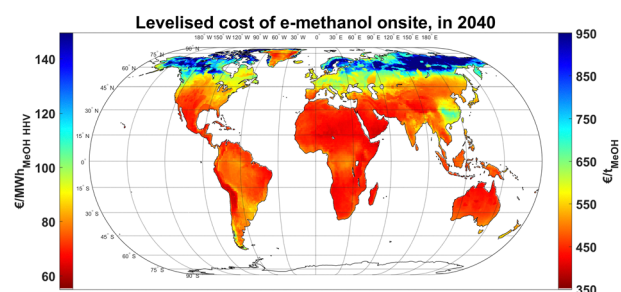
Samutr Assavachin, Chengcan Xiao,
Kathleen Becker and Frank E. Osterloh*



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Global production potential of green methanol based on variable renewable electricity

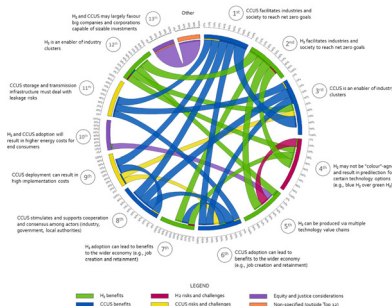
Mahdi Fasihi* and Christian Breyer



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Reconfiguring European industry for net-zero: a qualitative review of hydrogen and carbon capture utilization and storage benefits and implementation challenges

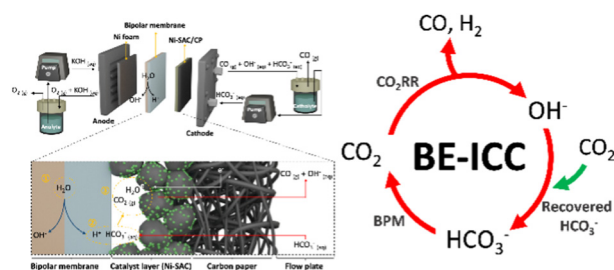
Benjamin K. Sovacool,* Dylan Furszyfer Del Rio,
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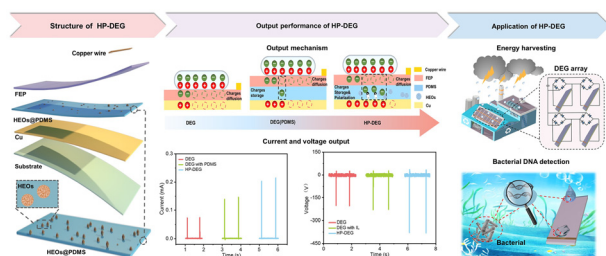
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Integrated carbon capture and CO production from bicarbonates through bipolar membrane electrolysis

Hakhyeon Song, Carlos A. Fernández, Hyeonuk Choi,
Po-Wei Huang, Jihun Oh* and Marta C. Hatzell*



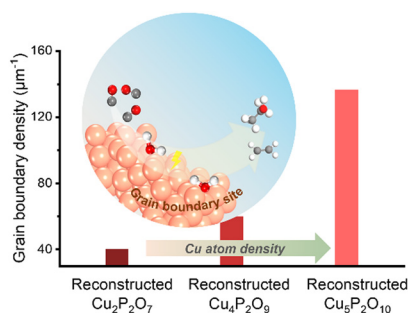
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Enhancement of the voltage output of droplet electricity generators using high dielectric high-entropy oxide composites

Yanan Zhou, Yan Zeng, Jianming Wang, Xiaoyi Li, Peng Wang,* Wenlong Ma, Congyu Wang, Jiawei Li, Wenyong Jiang and Dun Zhang

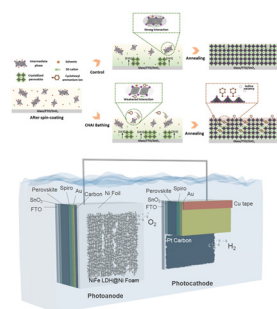
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Grain boundary generation *via* steering $\text{Cu}_x\text{P}_2\text{O}_{x+5}$ precursor composition enhances CO electrolysis

Jiaqi Sang, Tianfu Liu, Pengfei Wei, Hefei Li, Conghui Liu, Yi Wang, Youwen Rong, Qi Wang, Guoxiong Wang* and Xinhe Bao*

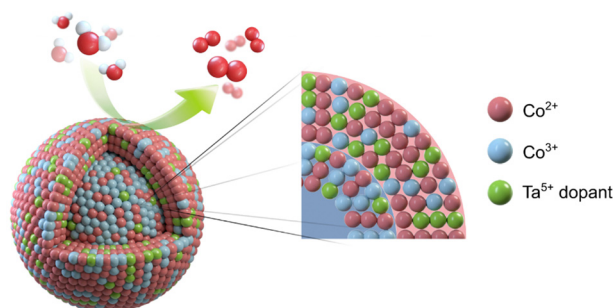
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Large-area all-perovskite-based coplanar photoelectrodes for scaled-up solar hydrogen production

Wooyong Jeong, Gyumin Jang, Juwon Yun, Chang-Seop Jeong, Young Sun Park, Hyungsoo Lee, Jaehyun Son, Chan Uk Lee, Jeongyoub Lee, Junwoo Lee, Seongyeon Yang, Soobin Lee, Subin Moon and Jooho Moon*

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Tailoring cobalt spinel oxide with site-specific single atom incorporation for high-performance electrocatalysis

Kangjae Lee, Jaehyuk Shim, Hyunsoo Ji, Jungho Kim, Hyeon Seok Lee, Heejong Shin, Megalamane S. Bootharaju, Kug-Seung Lee, Wonjae Ko, Jaewoo Lee, Kang Kim, Seungwoo Yoo, Sungeun Heo, Jaeyune Ryu, Seoin Back,* Byoung-Hoon Lee,* Yung-Eun Sung* and Taeghwan Hyeon*



