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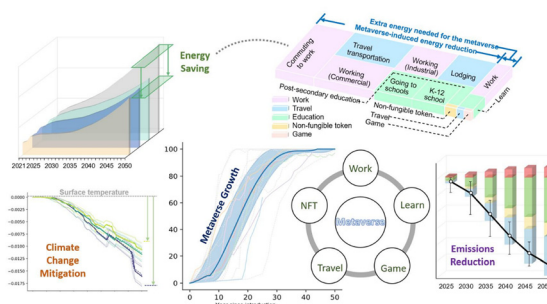
See Varun Kankanallu, Mingyuan Ge, Karen Chen-Wiegart *et al.*, pp. 2464–2482. Image reproduced by permission of Yu-chen Karen Chen-Wiegart from *Energy Environ. Sci.*, 2023, 16, 2464. NSLS-II Photo Credit: Courtesy of Brookhaven National Laboratory.

ANALYSIS

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The growing metaverse sector can reduce greenhouse gas emissions by 10 Gt CO₂e in the united states by 2050

Ning Zhao and Fengqi You*

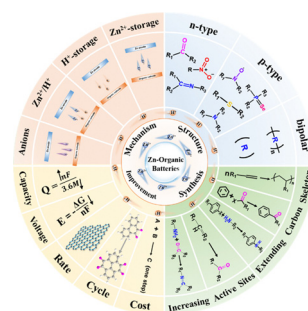


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Building better aqueous Zn-organic batteries

Zhiheng Li, Jian Tan, Yuan Wang, Caiyun Gao, Yonggang Wang,* Mingxin Ye* and Jianfeng Shen*



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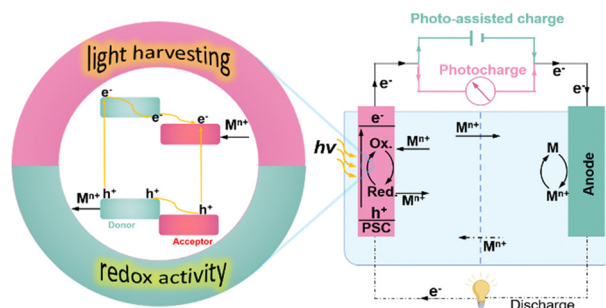


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A perspective on photoelectrochemical storage materials for coupled solar batteries

Yan-Xi Tan, Xiang Zhang, Jing Lin and Yaobing Wang*



PERSPECTIVE

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Smart batteries enabled by implanted flexible sensors

Yao Lu, Xiaodan Wang, Shuoyuan Mao, Depeng Wang, Daoming Sun, Yukun Sun, Anyu Su, Chenzi Zhao,* Xuebing Han,* Kuijie Li, Xuning Feng, Xiang Liu, Xiangdong Kong, Languang Lu, Zhengyu Chu, Qiang Zhang* and Minggao Ouyang*

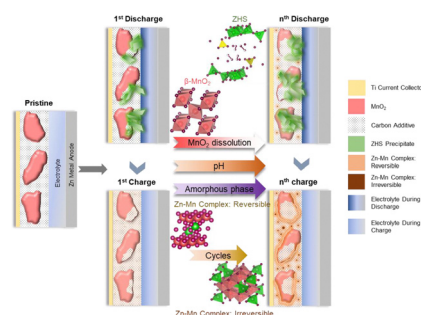


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Elucidating a dissolution–deposition reaction mechanism by multimodal synchrotron X-ray characterization in aqueous Zn/MnO₂ batteries

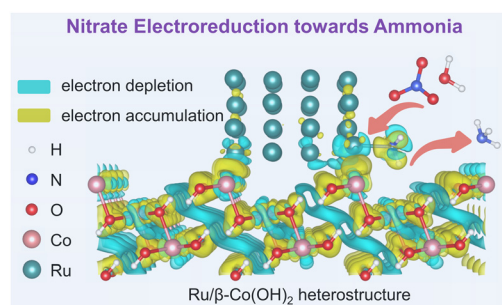
Varun R. Kankanallu, Xiaoyin Zheng, Denis Leschev, Nicole Zmich, Charles Clark, Cheng-Hung Lin, Hui Zhong, Sanjit Ghose, Andrew M. Kiss, Dmytro Nykypanchuk, Eli Stavitski, Esther S. Takeuchi, Amy C. Marschilok, Kenneth J. Takeuchi, Jianming Bai, Mingyuan Ge* and Yu-chen Karen Chen-Wiegart*



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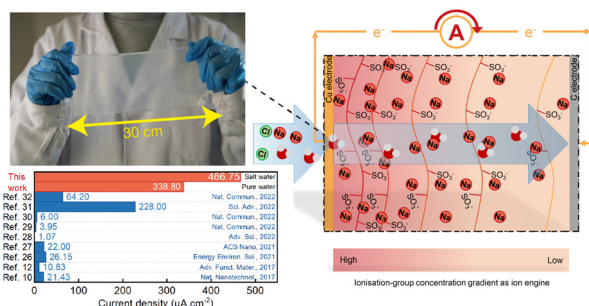
Weakened d–p orbital hybridization in *in situ* reconstructed Ru/ β -Co(OH)₂ heterointerfaces for accelerated ammonia electrosynthesis from nitrates

Weijie Zhu, Fen Yao, Qiongfei Wu, Qiu Jiang, Jinxian Wang, Zhoucheng Wang and Hanfeng Liang*



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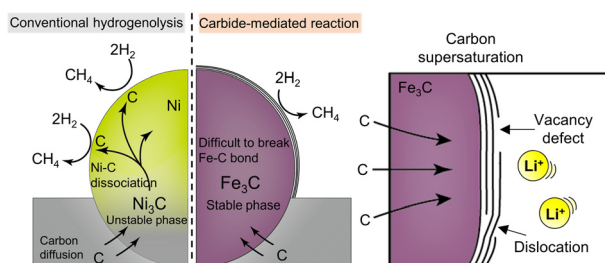
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Ion engines in hydrogels boosting hydrovoltaic electricity generation

Nan He, Haonan Wang, Fan Li, Bo Jiang, Dawei Tang and Lin Li*

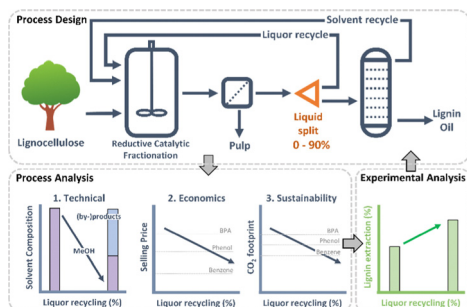
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Carbide-mediated catalytic hydrogenolysis: defects in graphene on a carbonaceous lithium host for liquid and all-solid-state lithium metal batteries

Namhyung Kim, Hyungyeon Cha, Sujong Chae, Taeyong Lee, Yoonkwang Lee, Yujin Kim, Jaekyung Sung* and Jaephil Cho*

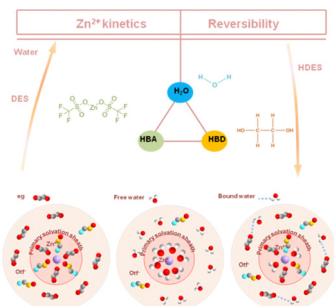
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Stepping away from purified solvents in reductive catalytic fractionation: a step forward towards a disruptive wood biorefinery process

W. Arts,* K. Van Aelst, E. Cooreman, J. Van Aelst, S. Van den Bosch and B. F. Sels*

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A hydrated deep eutectic electrolyte with finely-tuned solvation chemistry for high-performance zinc-ion batteries

Ruwei Chen, Chengyi Zhang, Jianwei Li, Zijuan Du, Fei Guo, Wei Zhang, Yuhang Dai, Wei Zong, Xuan Gao, Jiexin Zhu, Yan Zhao,* Xiaohui Wang* and Guanjie He*

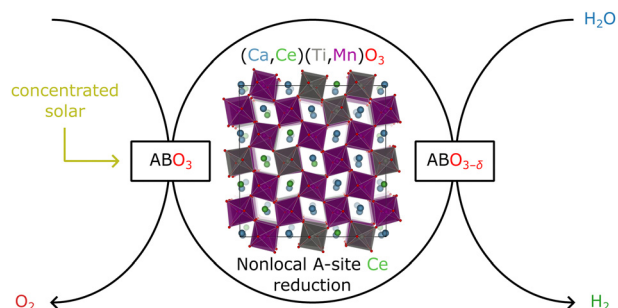


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Multiple and nonlocal cation redox in Ca–Ce–Ti–Mn oxide perovskites for solar thermochemical applications

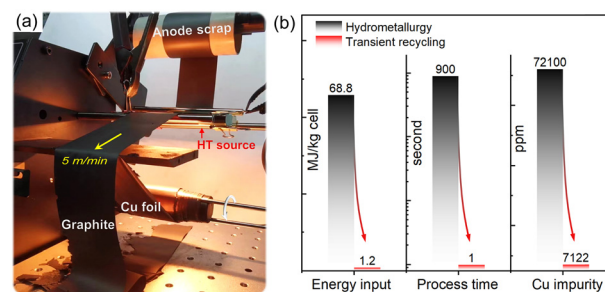
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Transient and dry recycling of battery materials with negligible carbon footprint and roll-to-roll scalability

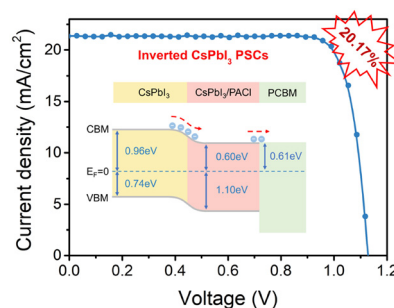
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Surface n-type band bending for stable inverted CsPbI₃ perovskite solar cells with over 20% efficiency

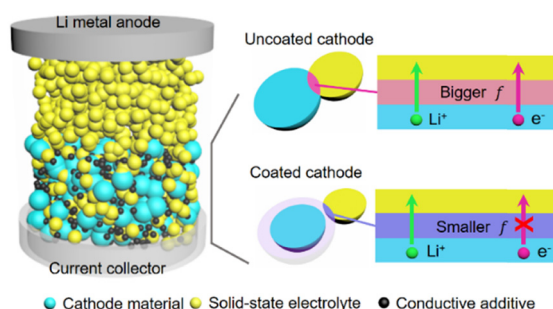
Shuo Wang, Ming-Hua Li, Yanyan Zhang, Yan Jiang,* Li Xu, Fuyi Wang and Jin-Song Hu*



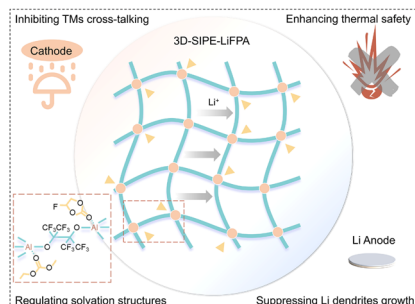
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The nature and suppression strategies of interfacial reactions in all-solid-state batteries

Fucheng Ren, Ziteng Liang, Wengao Zhao, Wenhua Zuo, Min Lin, Yuqi Wu, Xuerui Yang, Zhengliang Gong* and Yong Yang*



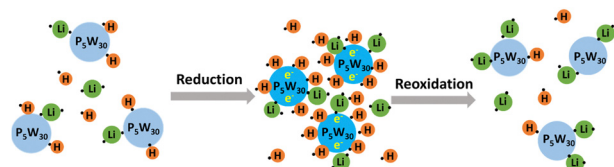
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In situ-polymerized lithium salt as a polymer electrolyte for high-safety lithium metal batteries

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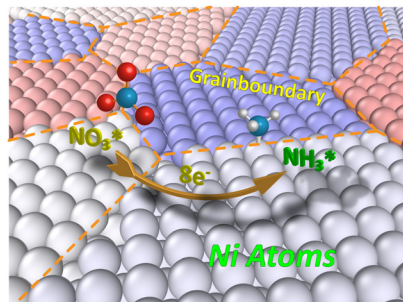
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Aqueous solutions of super reduced polyoxotungstates as electron storage systems

Tingting Zhao, Nicola L. Bell, Greig Chisholm, Balamurugan Kandasamy, De-Liang Long and Leroy Cronin*

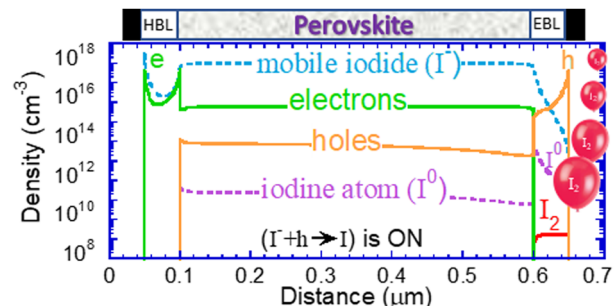
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Regulating active hydrogen adsorbed on grain boundary defects of nano-nickel for boosting ammonia electrosynthesis from nitrate

Jian Zhou, Ming Wen,* Rong Huang, Qingsheng Wu, Yixing Luo, Yakun Tian, Guangfeng Wei and Yongqing Fu

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Perovskite ionics – elucidating degradation mechanisms in perovskite solar cells via device modelling and iodine chemistry

Sapir Bitton and Nir Tessler*

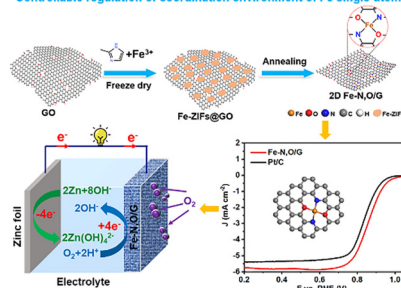


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N,O symmetric double coordination of an unsaturated Fe single-atom confined within a graphene framework for extraordinarily boosting oxygen reduction in Zn–air batteries

Yuejiao Li, Yajun Ding, Bo Zhang, Yuanchao Huang, Haifeng Qi, Prattek Das, Liangzhu Zhang, Xiao Wang, Zhong-Shuai Wu* and Xinhe Bao

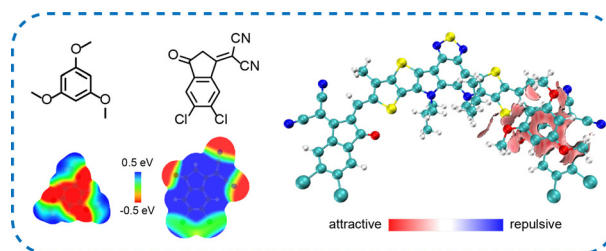
Controllable regulation of coordination environment of Fe single-atom



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Restrained energetic disorder for high-efficiency organic solar cells *via* a solid additive

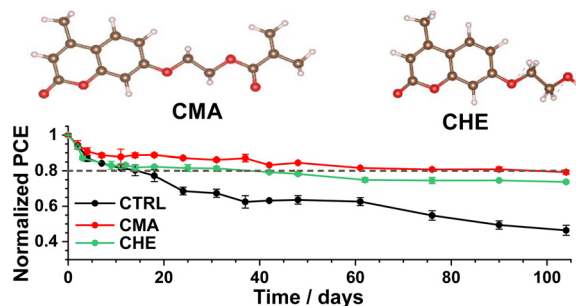
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Improving the efficiency and stability of perovskite solar cells using π -conjugated aromatic additives with differing hydrophobicities

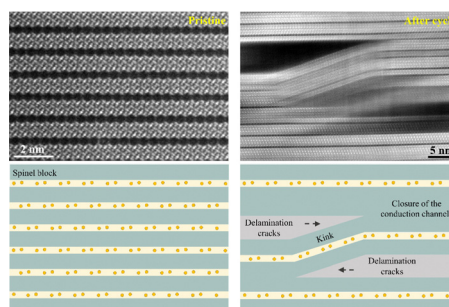
Ran Wang,* Amal Altujjar, Nouridine Zibouche, Xuelian Wang, Ben F. Spencer, Zhenyu Jia, Andrew G. Thomas, Muhamad Z. Mokhtar, Rongsheng Cai, Sarah J. Haigh, Jennifer M. Saunders, M. Saiful Islam and Brian R. Saunders*



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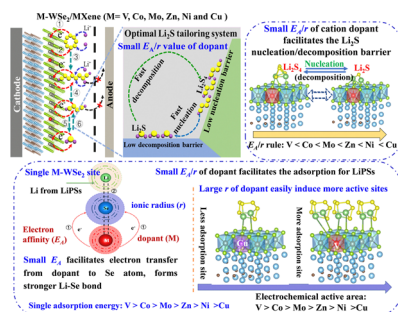
Morphodynamics of dendrite growth in alumina based all solid-state sodium metal batteries

Lin Geng, Dingchuan Xue, Jingming Yao, Qiushi Dai, Haiming Sun, Dingding Zhu, Zhaoyu Rong, Ruyue Fang, Xuedong Zhang, Yong Su, Jitong Yan, Stephen J. Harris, Satoshi Ichikawa, Liqiang Zhang,* Yongfu Tang,* Sulin Zhang* and Jianyu Huang*



PAPERS

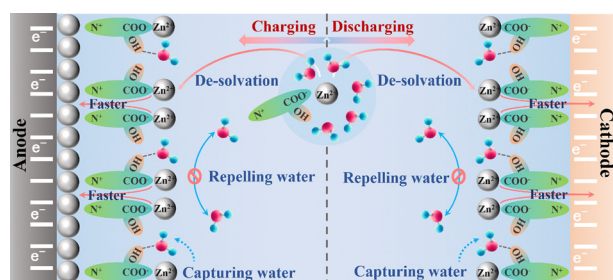
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Atomic-level design rules of metal-cation-doped catalysts: manipulating electron affinity/ionic radius of doped cations for accelerating sulfur redox kinetics in Li–S batteries

Wei Wang, Xinying Wang, Jiongwei Shan, Liguang Yue, Zhuhan Shao, Li Chen, Dongzhen Lu and Yunyong Li*

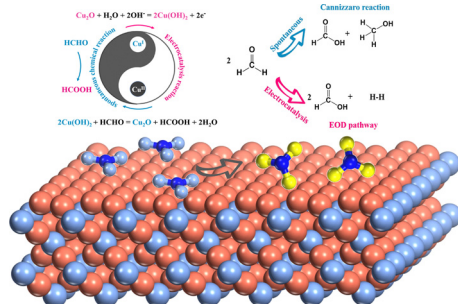
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Reversible adsorption with oriented arrangement of a zwitterionic additive stabilizes electrodes for ultralong-life Zn-ion batteries

Huaming Yu, Dongping Chen, Xuyan Ni, Piao Qing, Chunshuang Yan, Weifeng Wei, Jianmin Ma, Xiaobo Ji, Yuejiao Chen* and Libao Chen*

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Coupling electrocatalytic cathodic nitrate reduction with anodic formaldehyde oxidation at ultra-low potential over Cu₂O

Lei Xiao, Weidong Dai, Shiyong Mou, Xiaoyan Wang, Qin Cheng and Fan Dong*

CORRECTIONS

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Correction: Unveiling of interstice-occupying dopant segregation at grain boundaries in perovskite oxide dielectrics for a new class of ceramic capacitors

Ji-Sang An, Hae-Seung Lee, Pilgyu Byeon, Dongho Kim, Hyung Bin Bae, Si-Young Choi, Jungho Ryu and Sung-Yoon Chung*



CORRECTIONS

2706

Correction: Elucidating a dissolution–deposition reaction mechanism by multimodal synchrotron X-ray characterization in aqueous Zn/MnO₂ batteries

Varun R. Kankanallu, Xiaoyin Zheng, Denis Leshchev, Nicole Zmich, Charles Clark, Cheng-Hung Lin, Hui Zhong, Sanjit Ghose, Andrew M. Kiss, Dmytro Nykypanchuk, Eli Stavitski, Esther S. Takeuchi, Amy C. Marschilok, Kenneth J. Takeuchi, Jianming Bai, Mingyuan Ge* and Yu-chen Karen Chen-Wiegart*

