

# Journal of Materials Chemistry A

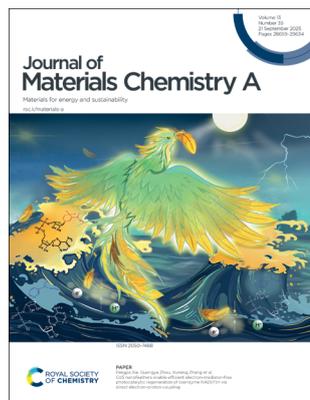
Materials for energy and sustainability

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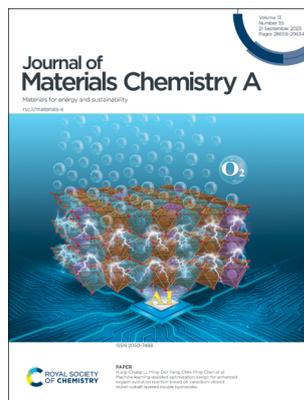
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ISSN 2050-7488 CODEN JMCAET 13(35) 28659–29634 (2025)



### Cover

See Fengjia Xie, Guangya Zhou, Xuming Zhang *et al.*, pp. 28896–28906. Image reproduced by permission of Prof. Xuming Zhang, Hong Kong Polytechnic University from *J. Mater. Chem. A*, 2025, **13**, 28896.



### Inside cover

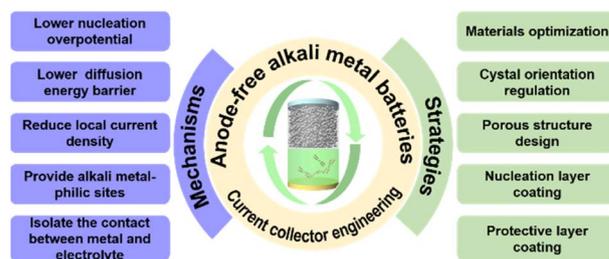
See Hung-Chung Li, Ming-Der Yang, Chih-Ming Chen *et al.*, pp. 28907–28919. Image reproduced by permission of Chih-Ming Chen from *J. Mater. Chem. A*, 2025, **13**, 28907.

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### Current collector engineering for advanced anode-free alkali metal batteries with liquid electrolyte

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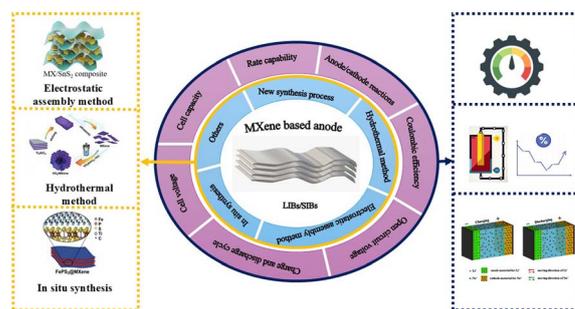
Fundamental questions  
Elemental answers

## REVIEWS

28718

**MXene-derived nanostructures: pioneering anodes for lithium-ion and sodium-ion batteries**

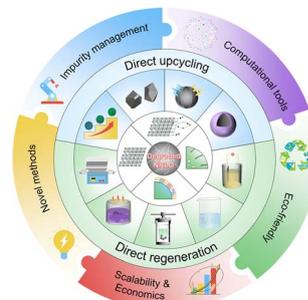
Mayankumar L. Chaudhary, Rutu Patel,\* Princy, Shalu, Ashish Bhatnagar\* and Ram K. Gupta\*



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**Direct recycling of degraded Ni-rich cathodes: recent advances in regeneration and upcycling**

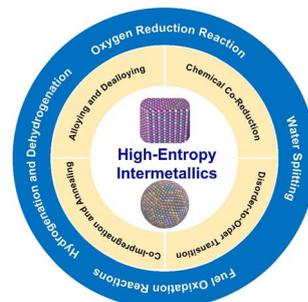
Gui Chu, Yu Huang, William Hawker,\* Lianzhou Wang\* and Xiaobo Zhu\*



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**Recent progress in high-entropy intermetallics for advanced catalysis**

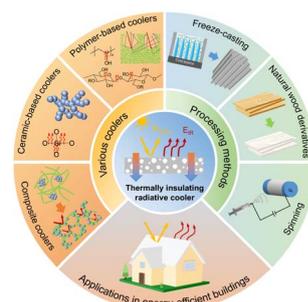
Jingchun Guo,\* Huiling Zheng, Xucheng Fu and Mingming Fan\*



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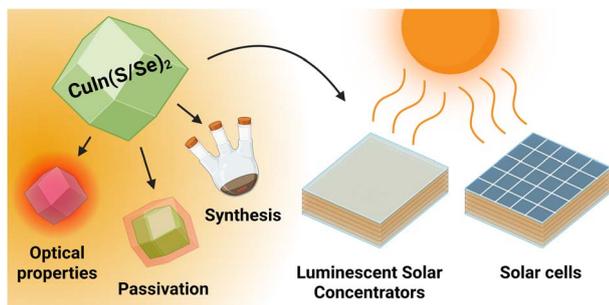
**Thermally insulating radiative coolers: fundamentals, manufacturing, and applications in energy-efficient buildings**

Shuang-Zhu Li, Mei-Yan Pu, Yu-Yang Song, Lu Bai,\* Jie Yang\* and Wei Yang



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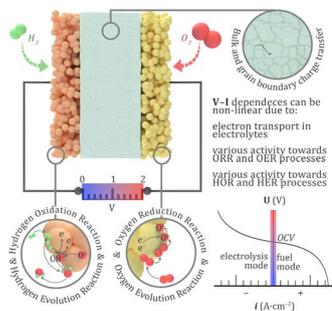


### Advances, challenges, and perspectives in developing $\text{CuInX}_2$ ( $X = \text{S}, \text{Se}$ ) nanomaterials for solar energy conversion applications

L. Páramo, M. Pains Duarte, G. Fuoco, A. Adedapo, D. P. Singh and R. Naccache\*

## PERSPECTIVE

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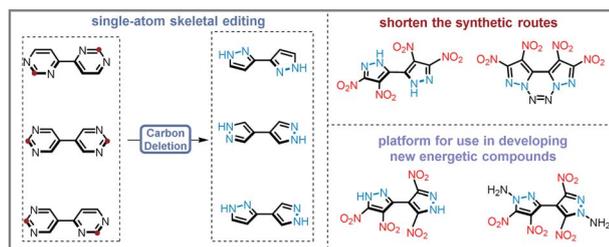


### Electrochemical impedance spectroscopy measurements of solid oxide cells: beyond open circuit voltage conditions

Nikolai Danilov, Guangming Yang, Denis Osinkin, Dmitry Medvedev\* and Zongping Shao\*

## COMMUNICATIONS

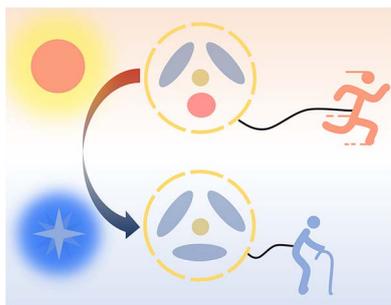
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### Facile access to energetic materials based on bipyrazoles via skeletal editing

Xuhui Cui, Tianyang Yu, Honglei Xia,\* Jinghao Wu, Jingjing Wei, Xiujuan Qi\* and Hao Wei\*

28880



### The mechanism of $\text{Li}^+$ transport in an ether-based electrolyte

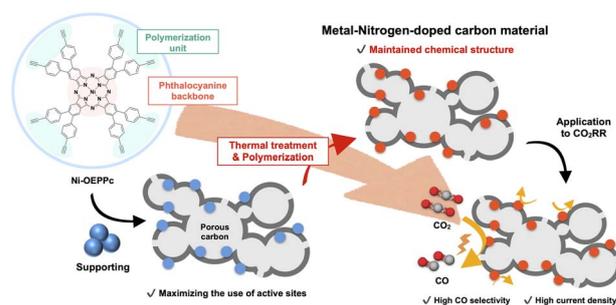
Yuechao Wu, Hongjin Li, Junyu Huang, Tao Wang, Shu Li, Guankui Long and Tianying Yan\*



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### Thermally polymerizable phthalocyanine realizes a metal–nitrogen-doped carbon material featuring a defined single-atom catalyst motif with CO<sub>2</sub>RR activity

Yuki Sano, Daichi Nakajima, Biplab Manna, Koki Chida, Ryojun Toyoda,\* Shinya Takaishi, Kazuyuki Iwase,\* Koji Harano, Yuta Nishina, Takeharu Yoshii and Ryota Sakamoto\*

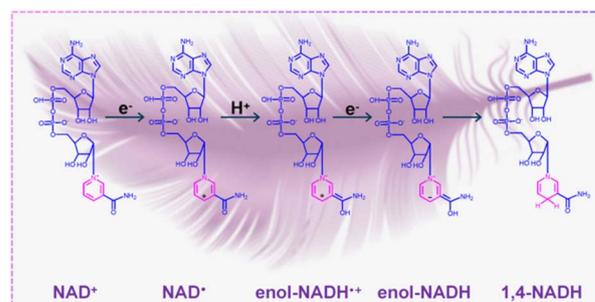


## PAPERS

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### CdS nanofeathers enable efficient electron–mediator-free photocatalytic regeneration of coenzyme NAD(P)H *via* direct electron–proton coupling

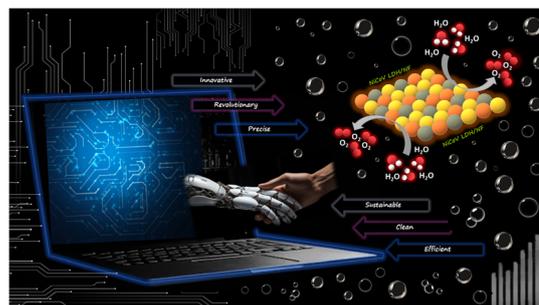
Yao Chai, Leyi Zhao, Zirui Pang, Liang Wan, Heng Jiang, Chi Chung Tsoi, Yu Du, Huaping Jia, Yujiao Zhu, Detao Liu, Mingjie Li, Fengjia Xie,\* Guangya Zhou\* and Xuming Zhang\*



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### Machine learning-assisted optimization design for enhanced oxygen evolution reaction based on vanadium-doped nickel–cobalt layered double hydroxides

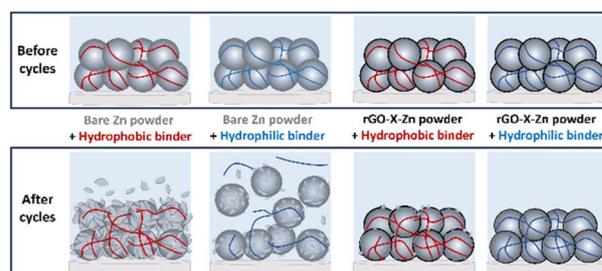
Chandrasekaran Pitchai, Ting-Yu Lo, Hou-Chien Chang, Hung-Chung Li,\* Ming-Der Yang\* and Chih-Ming Chen\*



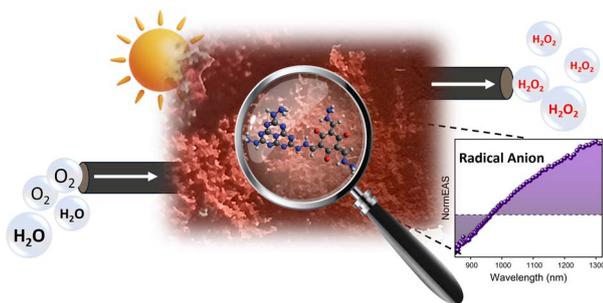
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### Dual-protection strategy for superior stability and performance of zinc powder-based anodes in aqueous zinc-ion batteries

Jinhyeong Yoon, Jihong Kim, Kangmin Lee, Jongeun Chae, Chiho Song, Hyeonmin Jo, Hee-Dae Lim, Neetu Bansal, Rahul R. Salunkhe\* and Heejoon Ahn\*



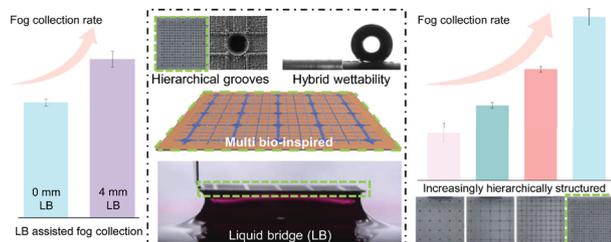
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### Tracking intermediates of photocatalytic hydrogen peroxide generation from a heptazine-based covalent organic polymer in water

Komal Thawrani, Kaustava Bhattacharya, Deepa Khushalani and Jyotishman Dasgupta\*

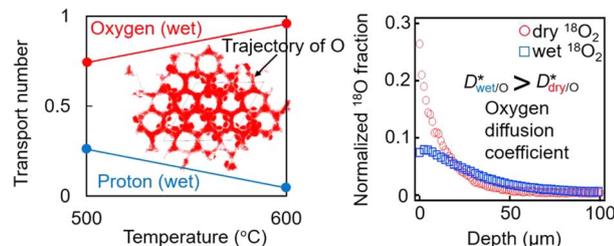
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### Special fog collection mode achieved on an integrative multi-bioinspired hierarchically grooved surface with liquid bridge assistance

Zhuan Chen, Wei Sun, Qiang Luo, Hongtao Liu, Yining Wang, Yongping Hou\* and Yongmei Zheng\*

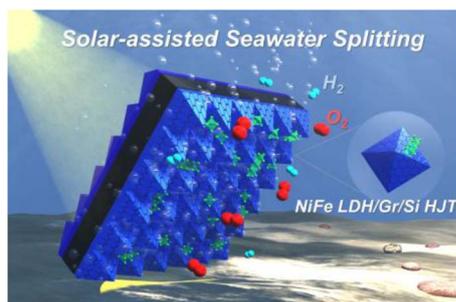
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### Hydration-driven enhancement of interstitialcy oxide-ion diffusion

Yuichi Sakuda, Mudasir A. Yatoo, Bhuvaneshwari Manivannan, Vedyappan Veeramani, Junko Habasaki, Stephen J. Skinner, Hiroshige Matsumoto and Masatomo Yashima\*

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### Efficient solar-assisted seawater splitting in alkaline solution using perovskite-graphene-Si tandem integration

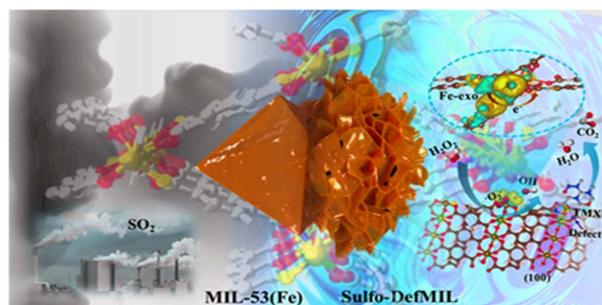
Po-Hsien Wu, Yung-Hung Huang, Tsung-Hsin Liu, Zih-Wei Cyue, Meng-Ying Lee, Yueh-Jung Chen, Ruo-Nong Song, Zih-Ting Chen, Yu-Ching Huang, Chia-Chun Chen\* and Chun-Wei Chen\*



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### CVD-induced corrosion reconstruction of defective metal–organic frameworks boosted advanced catalytic oxidation

Lei Qin,\* Xiaoyan Mao, Yihui Yang, Fanghua Ren, Yingyu Tan,\* Wenjie Liu, Luhong Wen and Xianhui Li\*



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### Shear-aligned nanocellulose enabling the development of stable all-solid-state lithium batteries

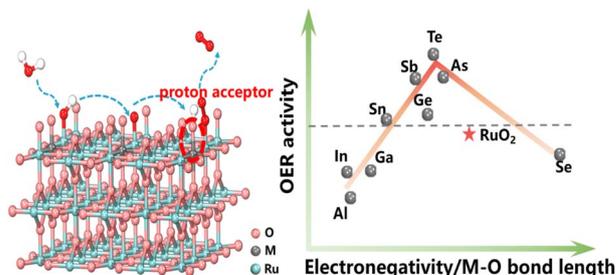
Jinping Yu, Guangzeng Cheng, Ziwei Lu, Yonghui Wang, Fanlu Meng\* and Jingyi Wu\*



28997

### Durable MRuO<sub>x</sub> direct seawater electrolysis enabled by the synergistic effect between p-block dopants and active site Ru

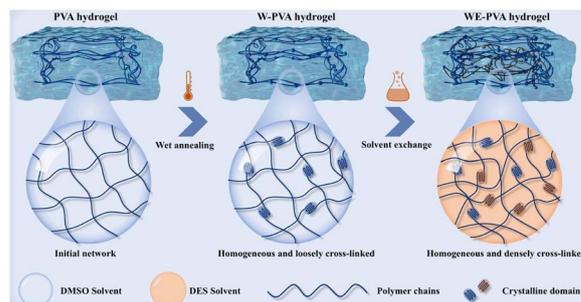
Lu Wang, Ying Wang,\* Kai Li,\* Zhijian Wu and Jing-yao Liu\*



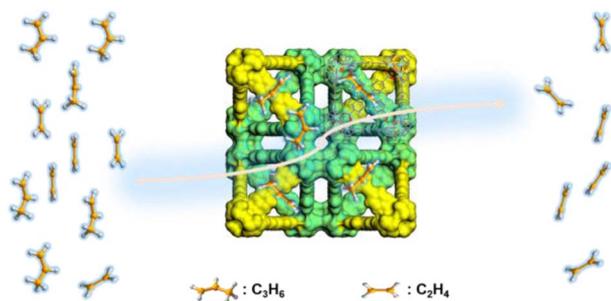
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### Fatigue-resistant hydrogels with programmable crystalline domain crosslinking enabled by coordinated thermal-solvent strategy

Jie Wu, Jingwei Zhang, Yujia Chen, Wei Ji, Qirui Wu and Lunhui Guan\*



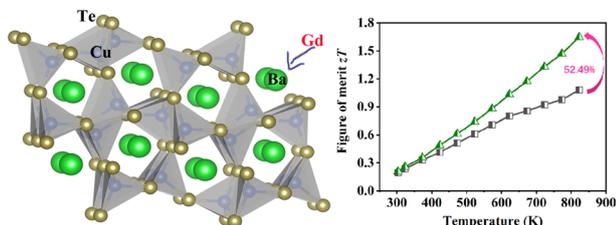
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### Supramolecular framework crystallinity engineering *via* surface-confined polymerization for enhanced $C_3H_6/C_2H_4$ separation

Guoliang Liu, Fan Li, Ze-Jiu Diao, Hua-Dong Li, Xiaoyu Wu, Hang-Ou Qi, Lifeng Ding and Lin-Bing Sun\*

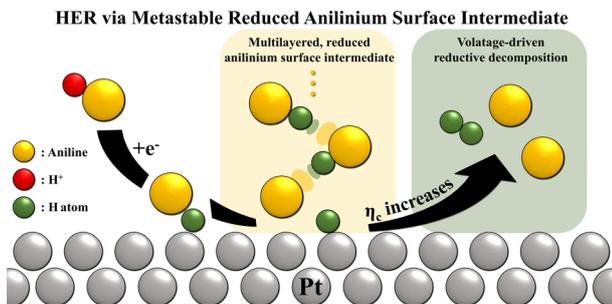
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### Gd doping enabling a record $zT$ value of 1.65 at 823 K in Zintl-phase $BaCu_2Te_2$

Liqi Shao, Zhijun Wang, Yuanxin Jiang, Yanqiang Lü, Junliang Chen, Xiaoyuan Li, Kai-Yu Yang, Guang-Hui Rao, Jing-Tai Zhao\* and Kai Guo\*

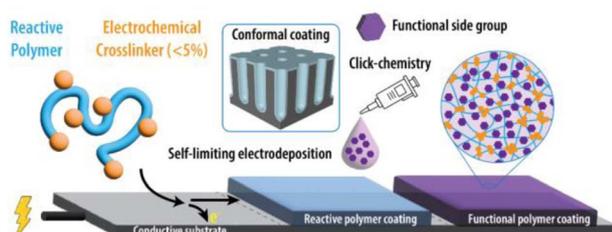
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### Electrochemical anilinium reduction: identifying the metastable surface intermediate on Pt and its voltage-driven decomposition to hydrogen evolution

Dayeon Park, Cheolmin Park, Seung Jae Kwak, Dongho Seo, Dongmin Kim, Won Bo Lee, Ki Min Nam,\* YongJoo Kim\* and Jinho Chang\*

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### Electrodeposition of reactive polymer networks for conformal ultrathin coatings amenable to post-deposition functionalization

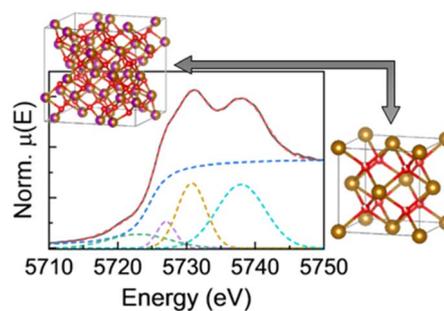
Wenlu Wang, Yuanzhi Li, Anton B. Resing, Jin Yan, Zhaoyi Zheng and Jörg G. Werner\*



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### Lanthanide L-edge spectroscopy of high-entropy oxides: insights into valence and phase stability

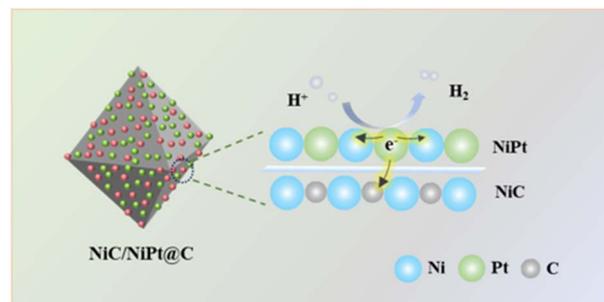
Gerald R. Bejger, Mary Kathleen Caucci, Saeed S. I. Almishal, Billy Yang, Jon-Paul Maria, Susan B. Sinnott and Christina M. Rost\*



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### Heterojunction engineering of NiC/NiPt promoting charge remigration on the Pt site with efficient acid hydrogen evolution

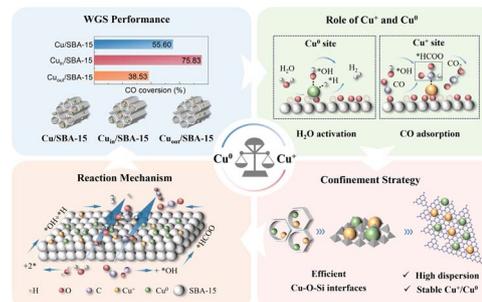
Run-Lin Huang, Sheng-Xia Yang, Guang-Yu Zhou, Gui-Fan Zhang, Yi Ru, Meng-Ru Zhang, Ya-Nan Zhou, Hai-Jun Liu, Xin-Yu Zhang,\* Bin Dong and Qun-Wei Tang\*



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### A confinement-stabilized Cu<sup>0</sup>-Cu<sup>+</sup> redox pair on silica and its catalytic role in the water-gas shift reaction

Yue Chen, Yu Ma, Chen Liao, Jiacheng You, Huihuang Fang,\* Chongqi Chen,\* Yu Luo and Lilong Jiang\*



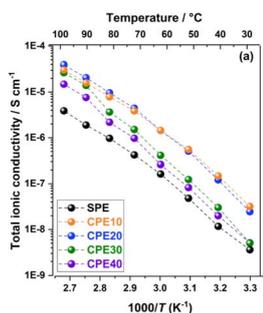
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### A triboelectric-electromagnetic hybrid nanogenerator enhancing electrochemical oxidation for organic pollutant degradation

Yujia Lv, Pan An, Ao Zhang, Panxing Ren, Tianxin Ma, Yajun Wang,\* Dawei Liang\* and Dan Luo\*



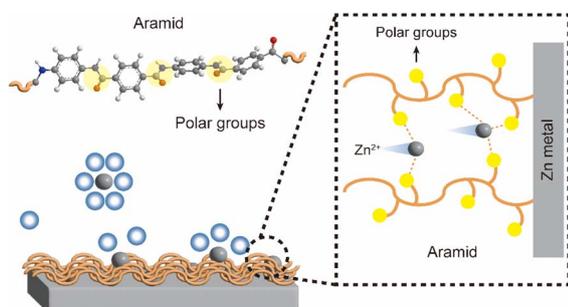
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### Polycarbonate-based solid-state sodium batteries with inclusion of NaAlO<sub>2</sub> microparticle additives

Kenza Elbouazzaoui, Charles Aram Hall, Kristina Edström, Jonas Mindemark and Daniel Brandell\*

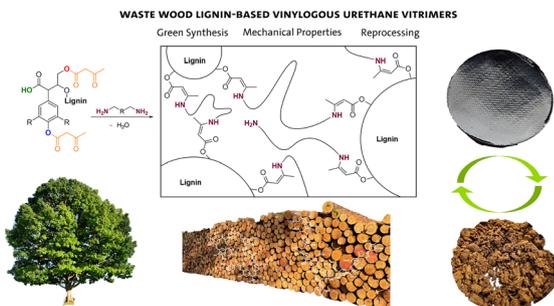
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### Achieving superior stability and cycle life in zinc anodes with aramid surface modification

Ayoung Kim, Heejin Kim\* and Kwan Woo Nam\*

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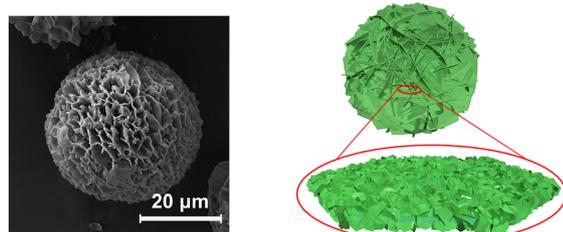


### Bio-based vinyllogous urethane vitrimers from waste-wood lignosulfonate and enzymatic lignin: explorations in stress relaxation behavior and mechanical strength

Florian C. Klein, Nils Sobania and Volker Abetz\*

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### Multi-hierarchical Mg/Al-CO<sub>3</sub> LDHs microspheres



### Templated synthesis of multi-hierarchical layered double hydroxide microspheres

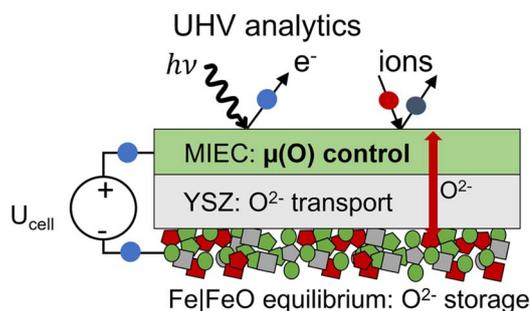
Tomasz Kondratowicz, Cyril Besnard, Zoë Turner, Jin-Chong Tan, Chunping Chen,\* Roland Turnell-Ritson and Dermot O'Hare\*



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### UHV-based analytics with electrochemical oxygen activity control

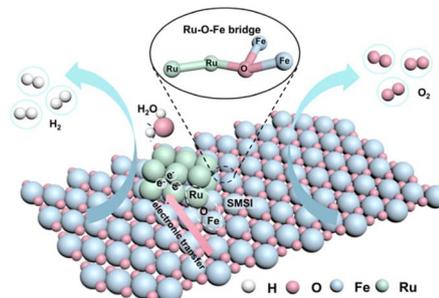
Andreas Nenning,\* Stanislaus Breitwieser,  
Christian Melcher and Jürgen Fleig



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### Interface M–O–Fe (M = Ru, Rh, Pd, Ag) bonding excitation stabilized bifunctional electrocatalysts for water splitting

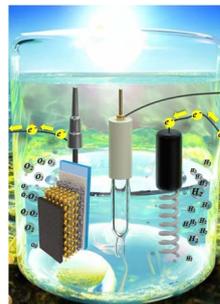
Mingjing Ma, Huanhuan Yu,\* Baolin Zhu, Wenjun Zheng  
and Shoumin Zhang\*



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### Highly efficient and stable CsPbBr₃ perovskite photoanodes based on inverse opal TiO₂ layers in photoelectrochemical water splitting

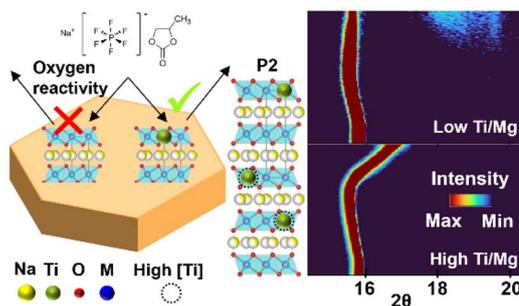
Reza Keshavarzi,\* Farzaneh Hajisharifi, Parisa Golabi,  
Reza Sheibani and Ali Dabirian



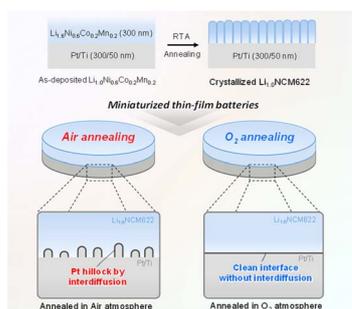
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### Delineating the impact of Ti/Mg substitution in P2-type Na<sub>2/3</sub>Ni<sub>1/3</sub>Mn<sub>2/3</sub>O<sub>2</sub> with an advanced electrolyte for sodium-ion batteries

Joe Darga and Arumugam Manthiram



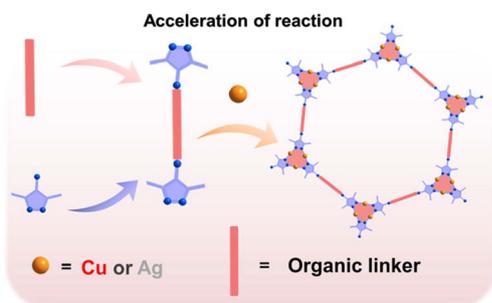
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### Optimization of thin-film $\text{Li}_{1.0}\text{Ni}_{0.6}\text{Co}_{0.2}\text{Mn}_{0.2}\text{O}_2$ cathodes enabled by rapid thermal processing in oxygen-rich environments for superior lithium-ion battery performance

Subhashree Behera, Saac Lee, Dae-Kwon Boo, Seong Cheol Jang, Dae Woong Kim, Woongpyo Hong,\* Ji-Won Jung\* and Hyun-Suk Kim\*

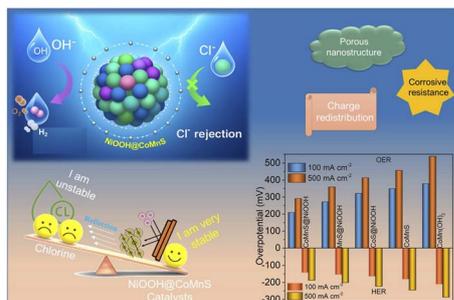
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### Alkali-enhanced scalable synthesis of trinuclear metal-cluster frameworks for electrocatalytic $\text{CO}_2$ conversion

Hao Jiang, Yingzhe Feng, Runze Gao, Shaowei Yang, Ying Guo,\* Qiuyu Zhang and Hepeng Zhang\*

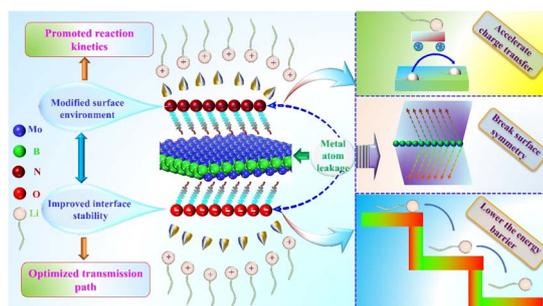
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### Integrated $\text{NiOOH@CoMnS}$ hierarchical nanostructured electrocatalyst for sustainable hydrogen conversion via alkaline seawater electrolysis: synergistic design and mechanistic insights

Mohan Reddy Pallavolu, Samikannu Prabu,\* Jamelah S. Al-Otaibi, Saravanan Pandiaraj, Ganesh Koyyada and T. V. M. Sreekanth\*

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### An insight into the electrochemical performance of lithium-ion battery anodes via an O/N bifunctional group strategy in Janus MoB

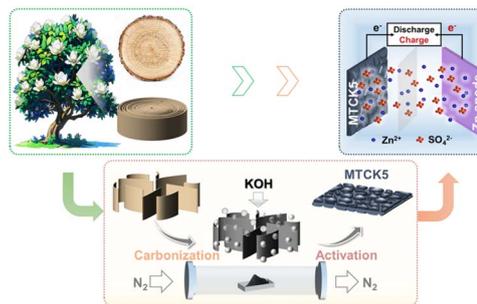
Wenbo Zhang, Lingxia Li, Junqiang Ren, Xin Guo, Xingchang Tang, Maocheng Liu\* and Xuefeng Lu\*



29250

## N/O co-doped hierarchical porous carbon nanosheets with enhanced Zn-ion storage capability and ultrastability

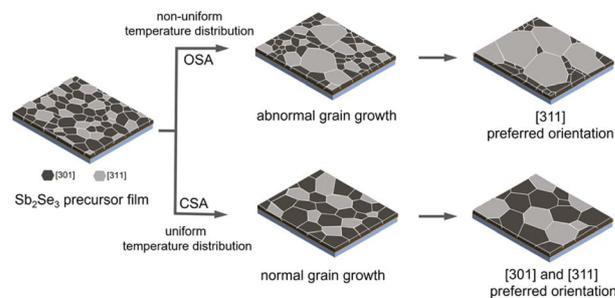
Lulu Wang, Xiuli Huang, Lei Ding and Huan Liu\*



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## Effect of post-annealing temperature distribution on the orientation growth of $\text{Sb}_2\text{Se}_3$ films for efficient solar cells

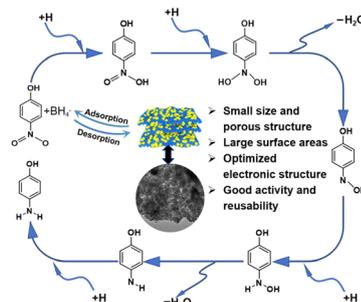
Luyan Shen, Deyang Qin, Xiaobo Hu,\* Shaoqiang Chen\* and Jiahua Tao\*



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## A porous $\text{CeO}_2\text{-Cu}_x\text{O}$ assembly composed of small-sized particles with an optimized electronic structure for effective catalysis

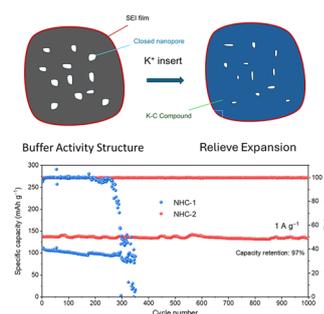
Qunhe Zhou, Anqi Du, Xianyun Yue, Chengxu Jin,\* Qi Han\* and Chungui Tian\*



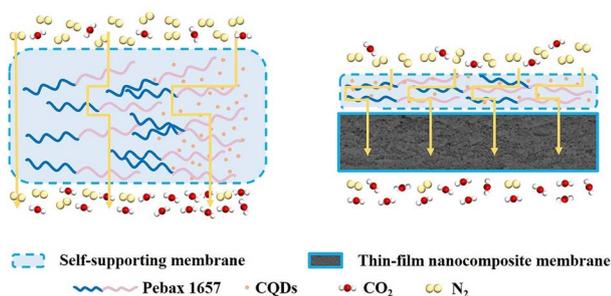
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## Closed nanopores enhance the stability of nitrogen-doped hard carbon in potassium storage by buffer activity structure

Xingqi Chang, Gengyou Cao, Xiaolong Zhou,\* Nuntaporn Kamonsutthipajit, Xuan Lu, Pornsuwan Buangam, Sarayut Tunmee, Ukit Rittihong, Junshan Li, Jordi Llorca, Yongbing Tang\* and Andreu Cabot\*



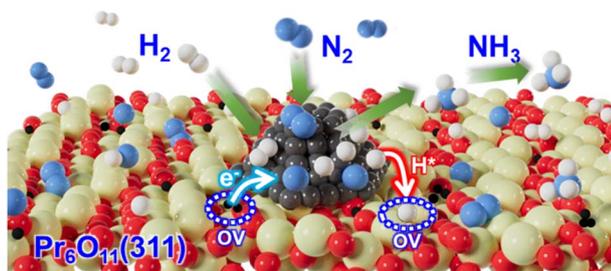
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### Mixed matrix membranes based on carbon quantum dots with enhanced CO<sub>2</sub> capture performances

Long Shi, Jing Wei, Yuanming Wu, Zikang Qin, Min Deng, Jia Song, Yikai Wang, Lin Yang, Lu Yao, Wenju Jiang, Junfeng Zheng\* and Zhongde Dai\*

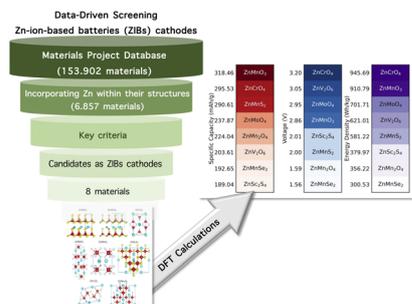
29306



### Oxygen vacancy-rich Pr<sub>6</sub>O<sub>11</sub>: unlocking superior catalytic support for efficient ammonia synthesis

Can Li, Yutong Gong,\* Yujie Yang, Haoting Lu, Li-Zhu Wu\* and Junjie Wang\*

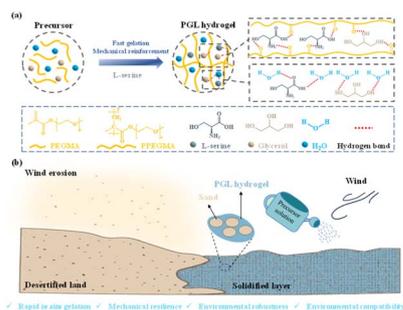
29317



### Accelerating cathode design for zinc-ion batteries using data-driven screening and *ab initio* calculations

F. O. Carvalho,\* O. M. Sousa, L. V. C. Assali, M. V. Lalic, C. M. Araujo, O. Eriksson, H. M. Petrilli and A. B. Klautau

29323



### A sustainable L-serine-induced hydrogel with ultrafast gelation, mechanical resilience, and environmental robustness for efficient sand stabilization

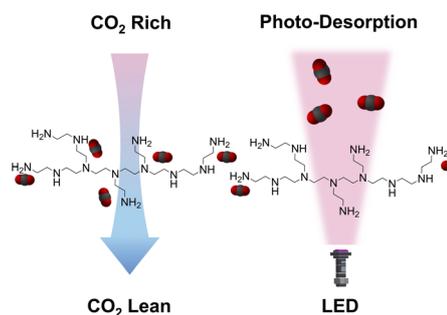
Zuming Jiang,\* Qi Lv, Fangjian Zhao, Binlin Pan, Yu Liu, Xinyue Song, Haonan Li and Yi Wang\*



29334

### Photo-swing CO<sub>2</sub> capture using a branched polyethylenimine as sorbents and TiN light absorber

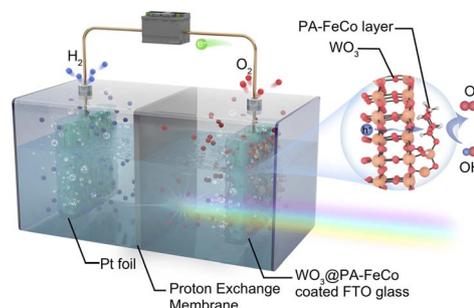
Noemi Leick,<sup>\*</sup> Sawyer Halingsstad, James M. Crawford, G. Michael Carroll, Matthew M. Yung, Randy Cortright and Wade A. Braunecker<sup>\*</sup>



29343

### Ligand-assisted assembly of FeCo–phytate catalytic interfaces on WO<sub>3</sub> photoanodes for dual enhancement of charge separation and oxygen evolution kinetics

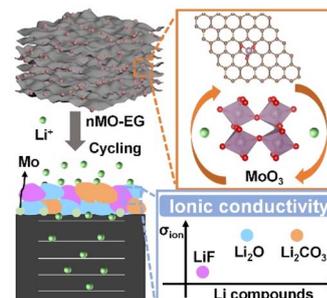
Zedong Bi, Baoxin Ge, Chenming Yuan, Ziqian Chen, Xiaoyan Huang, Honglin Qian, Tianqi Sun, Yuxuan Hu, Jiantao Zhang, Haiyue Wang, Shangye Wen, Ye Liu, Teng Liu, Jie Zeng, Biyi Chen,<sup>\*</sup> Changwei Shi<sup>\*</sup> and Caijin Huang<sup>\*</sup>



29355

### Nano-molybdenum oxide modified expanded graphite for high performance lithium-ion batteries

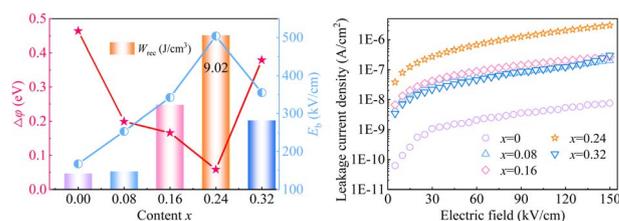
Changzhun Huang, Zhendong Liu, Fei Wang,<sup>\*</sup> Anbang Lu, Dai Dang,<sup>\*</sup> Quanbing Liu and Chengzhi Zhang<sup>\*</sup>



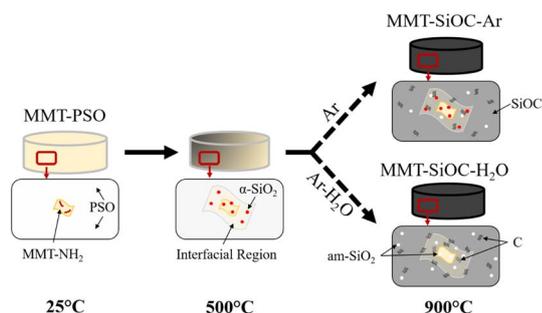
29368

### Critical role of interfacial polarization suppression in enhancing breakdown strength and energy storage performance of NBT-based dielectric ceramics

Li Wang, Xiangping Jiang,<sup>\*</sup> Chong Zhao, Yunjing Chen, Chao Chen, Na Tu, Xin Nie, Qin Gao, Weiyi Zhang, Yufan Zhang, Nianshun Zhao, Zheng Li and Xiaokun Huang<sup>\*</sup>



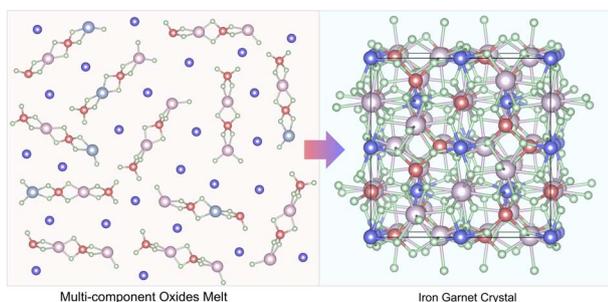
29379



### Suppression of $\alpha$ -quartz in montmorillonite–SiOC ceramic nanocomposites with water vapor-assisted pyrolysis

Advaith V. Rau and Kathy Lu\*

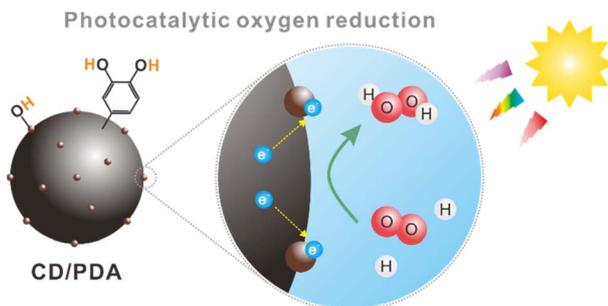
29396



### *In situ* vibrational spectroscopy was used to reveal the microstructure evolution mechanism of iron garnet single crystals growing from multi-component oxide melts

Wang Luo, Han Li, Zhuo Li, Shuting Yang, Feng Wang, Lingkun Wu, Huaiwu Zhang and Qinghui Yang\*

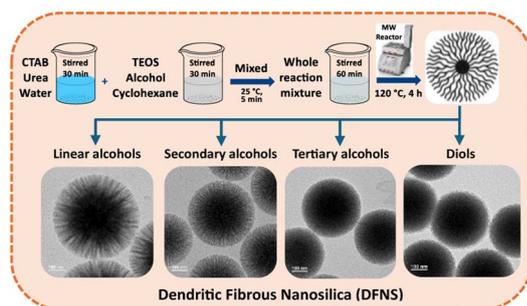
29404



### Efficient photocatalytic H<sub>2</sub>O<sub>2</sub> generation utilizing surface functional duality in carbon dots-polydopamine heterojunctions

Seohyeon Kim, Sujin Lee and Minsu Gu\*

29415



### Investigating the impact of alcohols on the morphology and structure of dendritic fibrous nanosilica (DFNS)

Jawed Qaderi, Maryam Radjabian,\* Martin Held, Anke-Lisa Höhme, Erik Schneider, Joachim Koll, Sandra König, Andreas Meyer, Michael Fröba and Volker Abetz\*



29431

### Hydride synthesis of thermoelectric skutterudites $(\text{Ba,Sr})\text{Fe}_{3\pm x}\text{Ni}_{1\pm x}\text{Sb}_{12}$ optimized *via* design of experiments

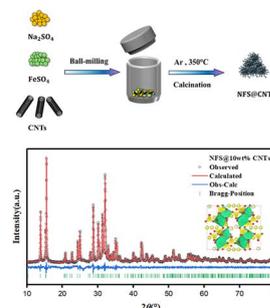
Thomas A. Seymour-Cozzini, Rae A. Earnest and Julia V. Zaikina\*



29450

### From insulator to semiconductor: carbon nanotubes enhancing the electrochemical performance of $\text{Na}_{2.5}\text{Fe}_{1.75}(\text{SO}_4)_3$ cathode materials for sodium ion batteries

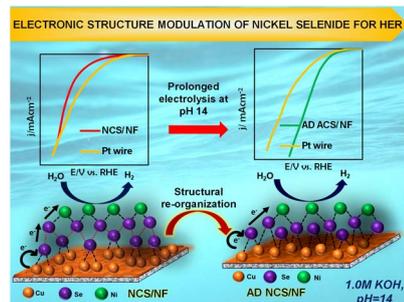
Yushen Qian, Mengxue Wu, Anyu Hu, Honghao Deng, Nawal K. Almaymoni, Abdullah N. Alodhayb, Jie Li,\* Jiahong Pan, Ping Chen and Zhicong Shi\*



29461

### Reconstructing the electronic structure of nickel selenide by Cu incorporation for an enhanced alkaline hydrogen evolution reaction

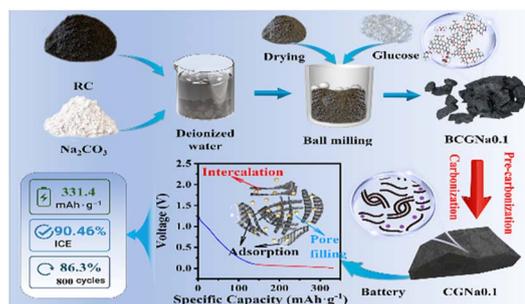
Prince J. J. Sagayaraj, Keishi Oyama, Naoko Okibe, Anantharaj Sengeni,\* Hyoung-il Kim\* and Karthikeyan Sekar\*



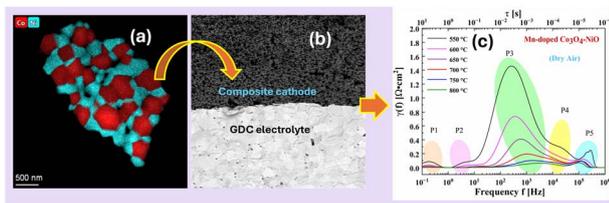
29471

### C–Na–O electrostatic interactions boost the kinetics of coal-derived hard carbon anodes for high-performance sodium-ion batteries

Tianqi Xu, Zongxu Yao, Wei Jiang, Yaxin Chen, Chenmin Liu, Yinshuang Guan, Zhiqiang Tang and Liang Dong\*



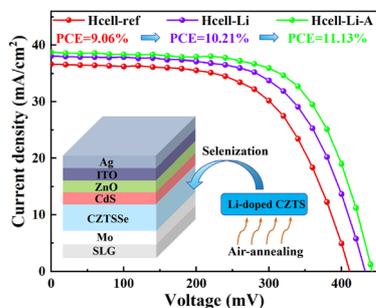
29486



### Evaluation of Cu- and Mn-doped $\text{Co}_3\text{O}_4/\text{NiO}$ composites as cathodes for intermediate temperature solid oxide fuel cells

Syed Ansar Ali Shah, Amir Sultan, Kun Zheng, Muhammad Tariq Sajjad and Richard T. Baker\*

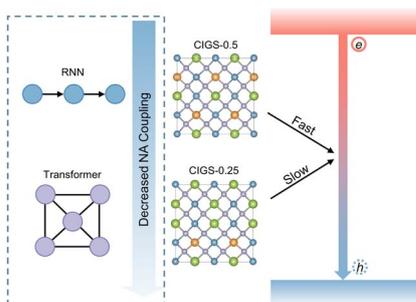
29504



### Improvement of the performance of $\text{Cu}_2\text{ZnSn}(\text{S},\text{Se})_4$ solar cells by annealing Li-doped $\text{Cu}_2\text{ZnSnS}_4$ precursor films in air

Yuting Sun, Bin Yao,\* Yuhong Jiang,\* Yongfeng Li,\* Xiaobo Du,\* Zhanhui Ding, Jiayong Zhang, Chunkai Wang, Ding Ma, Mengge Li, Yan Zhu, Xiaofei Sun, Ning Ding and Liyuan Shi

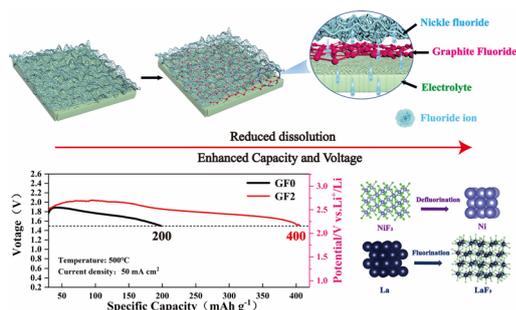
29516



### Nonradiative recombination dynamics simulations of $\text{CuIn}_{1-x}\text{Ga}_x\text{Se}_2$ solar cells based on RNN and transformer models

Zhaosheng Zhang,\* Qing Xiong and Yanbo Liu

29528



### Graphite fluoride interface blocking for higher capacity fluoride ion thermal batteries

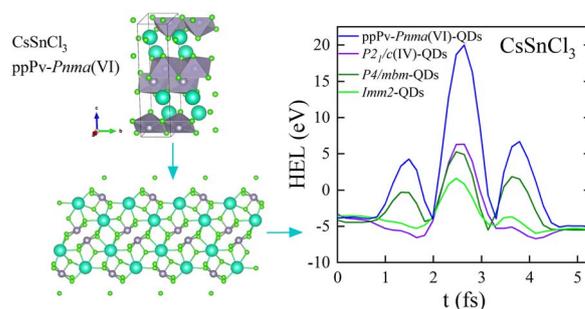
Zhenyu Xiao, Xufeng Wang, Yu Xiang, Jiajun Zhu, Wulin Yang, Lingping Zhou and Licai Fu\*



29538

### Structural phase transitions of bulk tin-based halide perovskites under pressure and excited-state properties of tin-based halide perovskites quantum dots under ultrafast laser pulses: a novel phase ppPv-*Pnma*(VI)

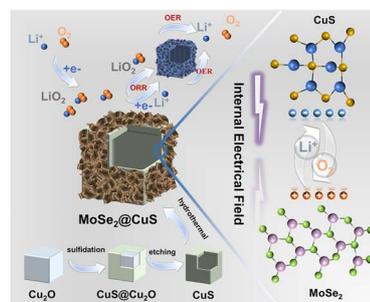
Zhengwei Tang, Xiaoyu Kuang, Miao Yu, Jingjing Chen and Aijie Mao\*



29547

### A kinetic barrier modulated hollow nanobox MoSe<sub>2</sub>@CuS core-shell heterostructure for high-rate and durable Li-O<sub>2</sub> batteries

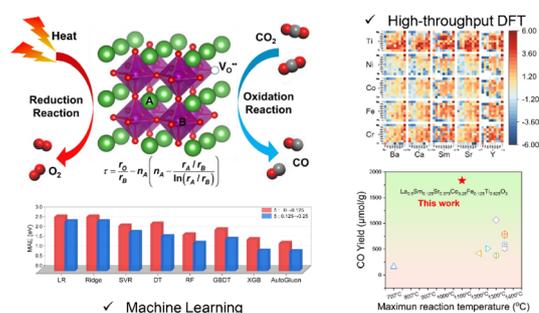
Guangqi Zhang, Congcong Dang, Yiping Liu, Rouyan Guo, Lingti Kong, Liancheng Zhao and Liming Gao\*



29558

### Efficient low-temperature thermochemical CO<sub>2</sub> splitting enabled by Gibbs free energy engineering

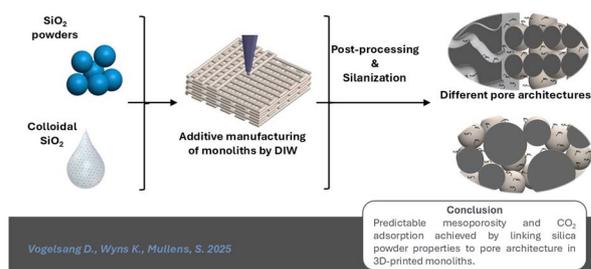
Qi Wang, Yimin Xuan,\* Zhonghui Zhu, Liang Teng, Xianglei Liu and Yunfei Gao



29570

### Mesostructure control in 3D-printed monoliths using industry-grade SiO<sub>2</sub> powder for CO<sub>2</sub> capture

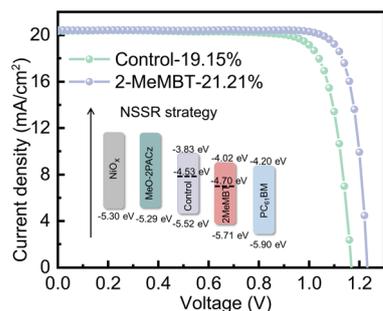
David Vogelsang,\* Kenny Wyns and Steven Mullens



Vogelsang D., Wyns K., Mullens, S. 2025



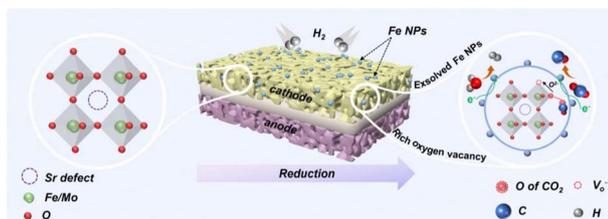
29583



### A near-surface sulfidation regulation strategy for inverted inorganic perovskite solar cells with 21.21% efficiency

Fei Gao, Yueling Wang, Jingping Gao and Sanlong Wang\*

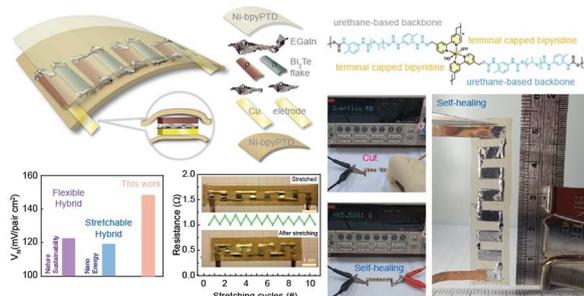
29590



### Dual-functional engineering of Fe nanoparticles and oxygen vacancies in $\text{Sr}_{1.9}\text{Fe}_{1.5}\text{Mo}_{0.5}\text{O}_{6-\delta}$ perovskites for high-efficiency $\text{CO}_2/\text{H}_2\text{O}$ co-electrolysis

Pengyu Wei, Peng Fu, Liuzhen Bian,\* Changyang Liu, Jianquan Gao, Lei Xing, Chaoyi Wang, Lilin Yang, Yong Li and Shengli An

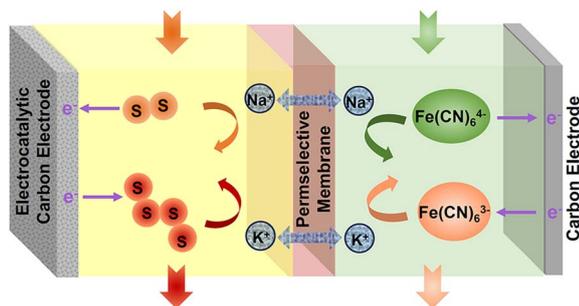
29598



### Inorganic-organic synergy unlocks stretchable and self-healing thermoelectric generators with high output power

Jenhsun Weng, Yian Chen, Chiaan Chiu, Rouhan Lai, Yingchih Lai, Hohsiu Chou and Hsinjay Wu\*

29610



### A polysulfide/ferricyanide redox flow battery with extended cycling

Mahla Sarfaraz Khabbaz, Anupma Thakur, Dipak Maity, Sepideh Biabanialitappeh, Bhargava Mortha, Joshua P. McKay, Gerardo Parada, Mangilal Agarwal, Honghu Zhang, Xin Zhang, J. David Bazak and Xiaoliang Wei\*

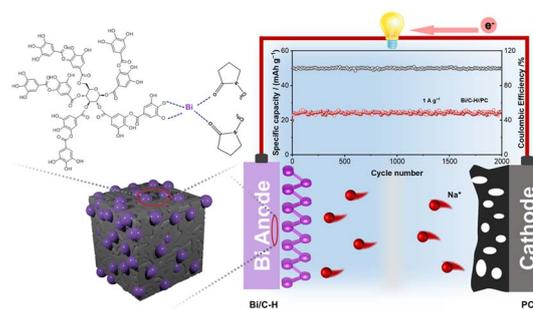


## PAPERS

29621

### A biomolecular self-assembly assisted synthesis strategy for ultra-small bismuth nanoparticles toward ultra-high-rate sodium-ion storage

Zehua Lin, Yingyi Zhong, Zhenqiang Zhang, Yingying Chen, Shuhua Hao, Junjun Yao, Xihong Zu, Qiyu Liu, Wenli Zhang\* and Xueqing Qiu



## CORRECTION

29631

### Correction: Atomistic characterization of hydration-dependent fuel cell ionomer nanostructure: validation by vibrational spectroscopy

Dan J. Donnelly, III, Moon Young Yang, Nicholas Dimakis,\* Seung Soon Jang, William A. Goddard, III\* and Eugene S. Smotkin\*

