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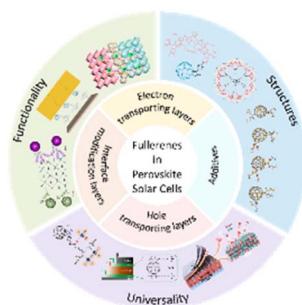
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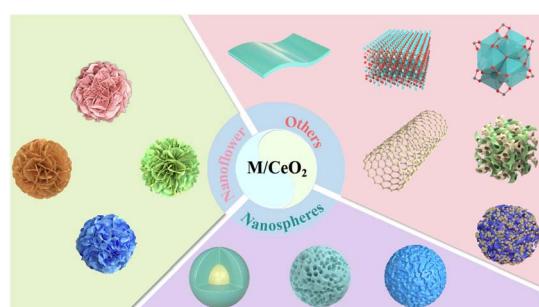
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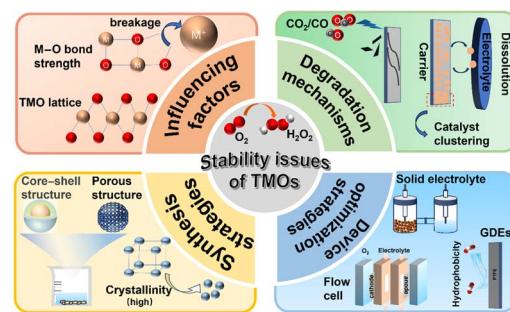


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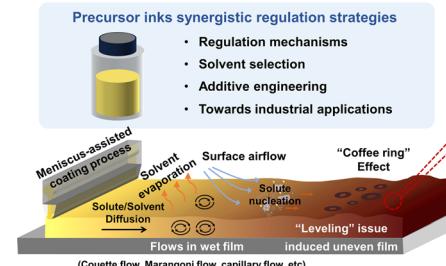


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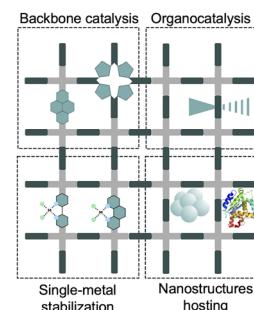
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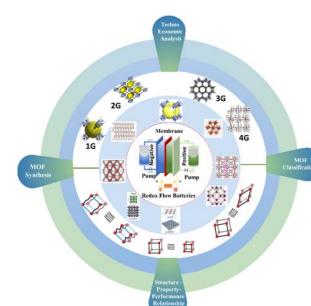
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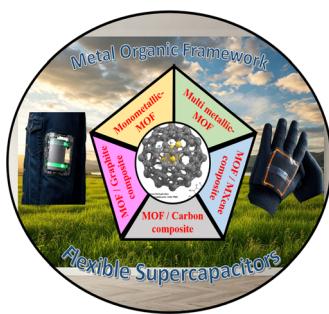
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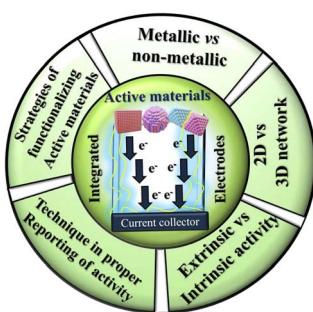
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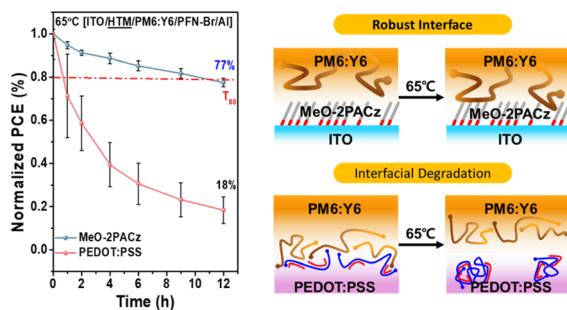


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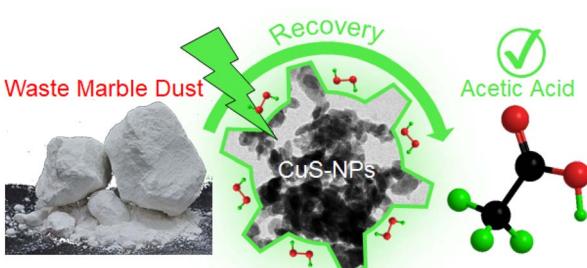
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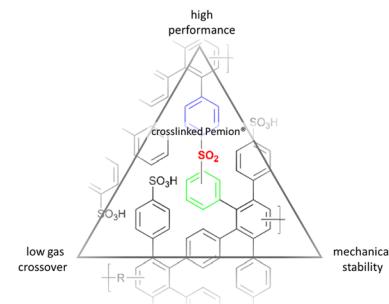


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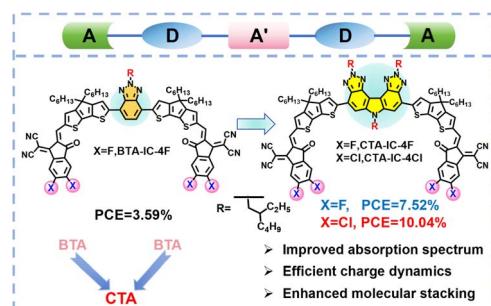
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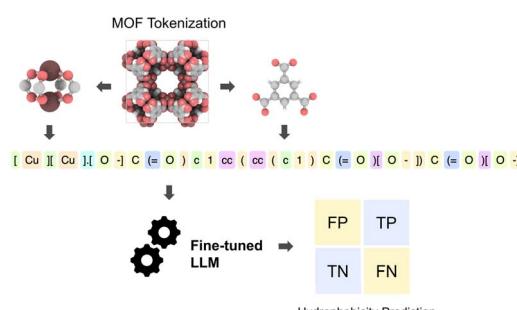


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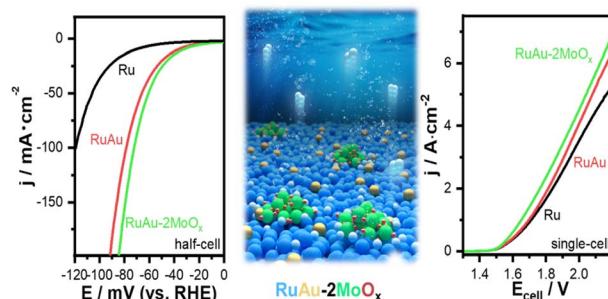
Xiaoyu Wu and Jianwen Jiang*



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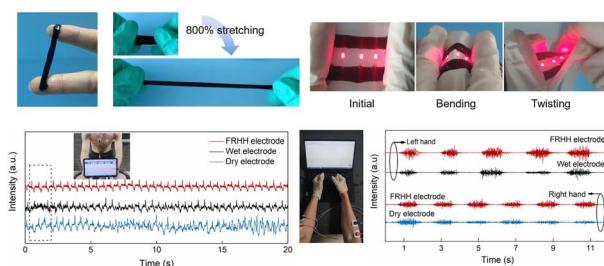
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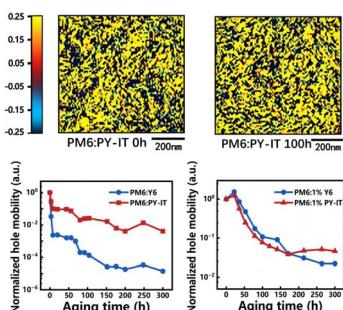
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Jinbo Wang, Xilin Li, Huihe Chen,* Jingjing Jiang, Jieyu Huang, Jiaxiang Lu, Liang Su, Shuaikai Xu* and Sen Lin*

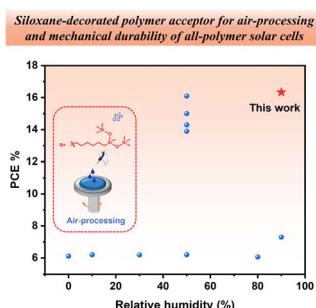
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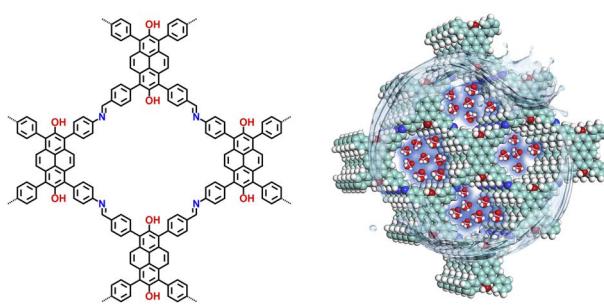
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Atomic engineering in covalent organic frameworks for high-performance proton conduction

Lina Zong, Shanshan Tao, Xiaoyi Xu, Yaoqian Feng, Fuxiang Wen and Ning Huang*

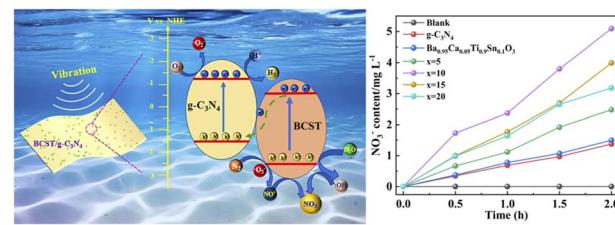


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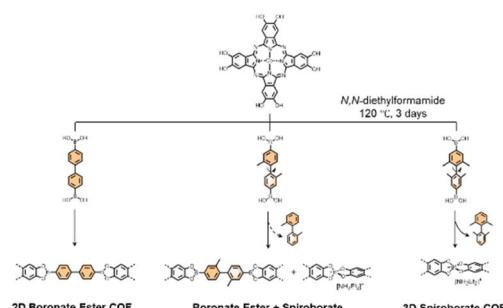
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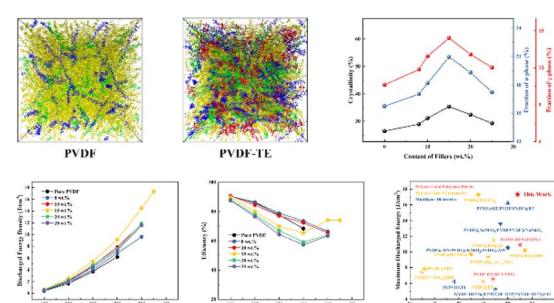
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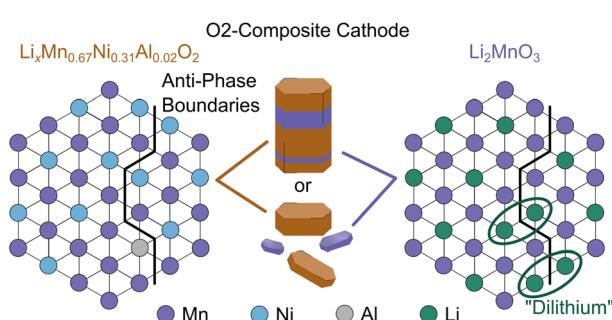
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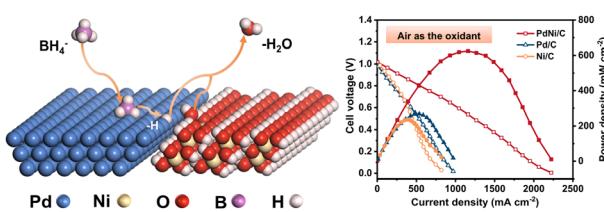
Structural complexity in a highly reversible "anion-redox" cathode

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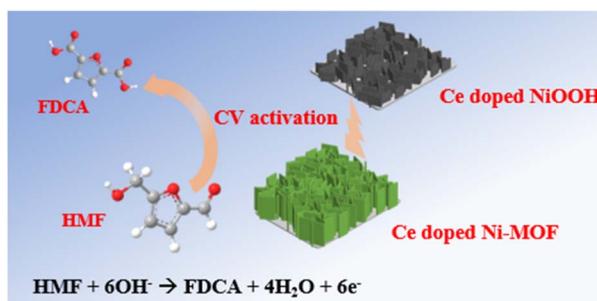
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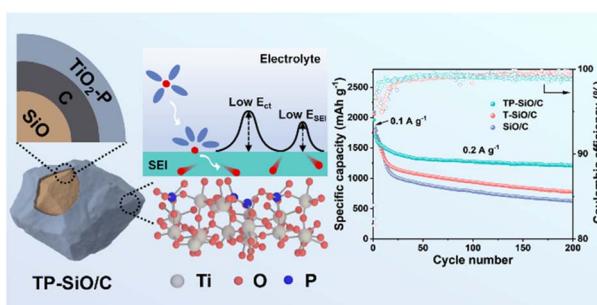
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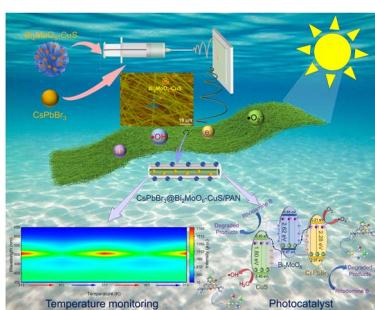
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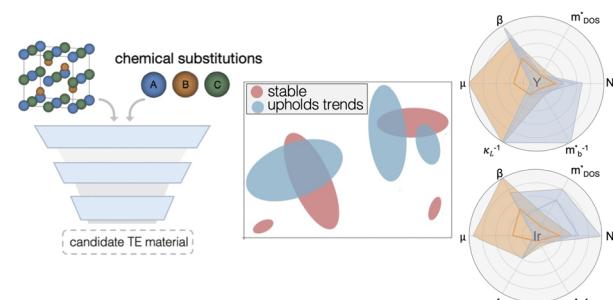


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Mapping the configuration space of half-Heusler compounds via subspace identification for thermoelectric materials discovery

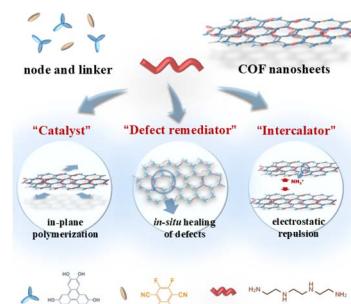
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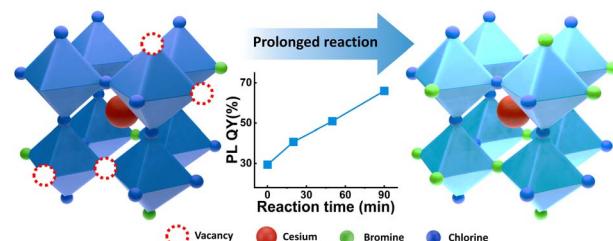
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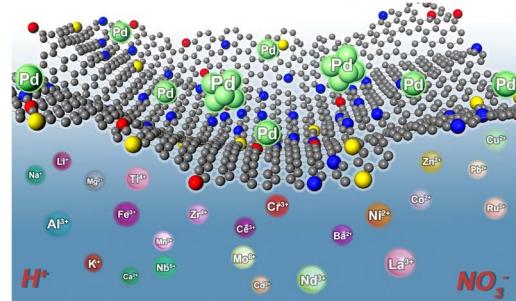
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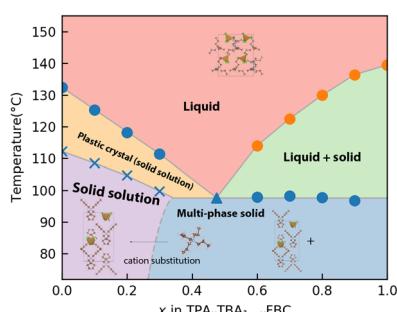
N, S co-doped porous carbon for ultra-selective and cost-effective capture of palladium from highly acidic solution

Li Duan,* Jinlong Fan,* Pengju Qiu, Guowei Chen and Xiaoxue Zhang



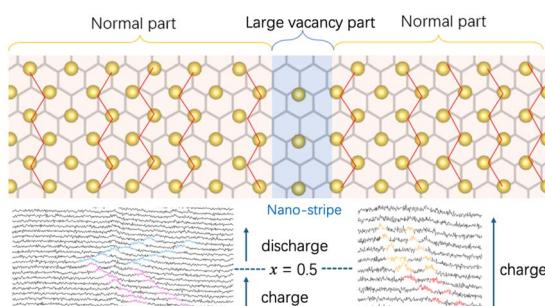
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Solid solution engineering of $[(C_3H_7)_4N]_x[(C_4H_9)_4N]_{1-x}[FeBrCl_3]$ plastic crystal phase-change materials

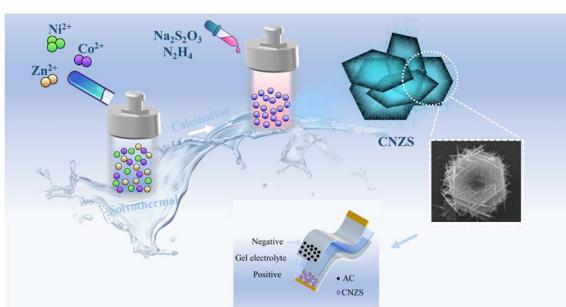
Marcus Grand Michaelsen, Mari-Ann Einarsrud, Dmitry Chernyshov and Julian Walker*

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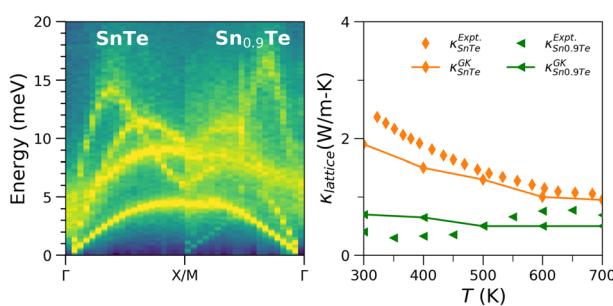
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Hierarchical cobalt-pentlandite $(Co, Ni, Zn)_8S_8$ nanostructures: advanced electrodes for flexible solid-state supercapacitors

Ye Tian, Ning Liu, Qian Xue, Hao Liu,* Xueqiang Qi,* Andreu Cabot and Libing Liao*

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Anharmonic atomic dynamics and thermal transport in SnTe with stoichiometric defects

Mayanak K. Gupta,* Samiran Malgope, Sourav Bag, Ranjan Mittal,* Ajay Singh and Samrath L. Chaplot

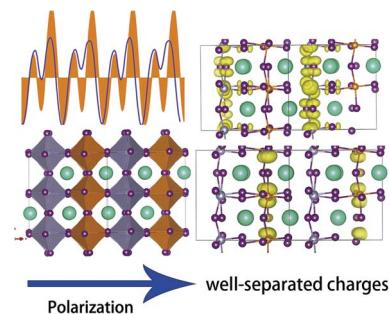


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Enhanced charge separation and prolonged carrier lifetime in mixed Sn–Ge halide perovskite enabled by spontaneous symmetry breaking and moderate disorder

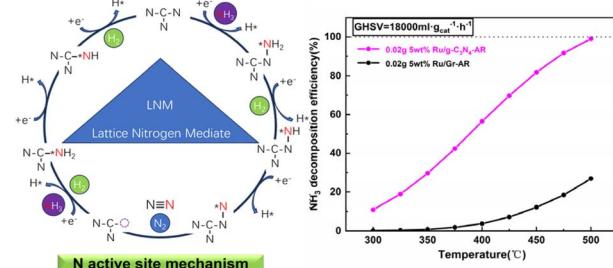
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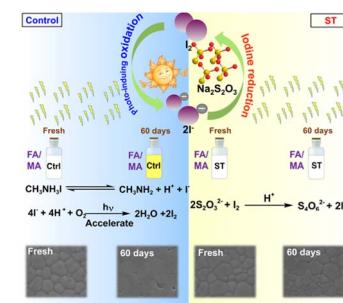
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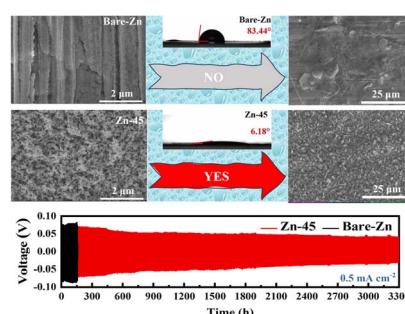
Wei Jian Tang, Yu Chen,* Ruisen Shi, Yihui Wu* and Jingquan Zhang*



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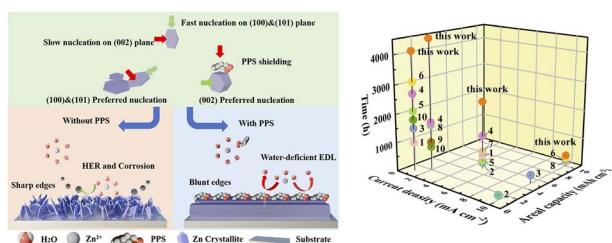
Desired spontaneous corrosion *via* a highly hydrophilic porous layer for aqueous zinc-ion batteries

Guoquan Jiang, Junchao Zhu, Linxin He, Nan Qiu* and Yuan Wang*



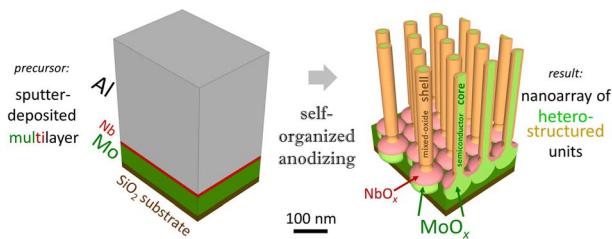
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**A zwitterion additive promotes (100)-textured zinc anodes for deep cycling zinc ion batteries**

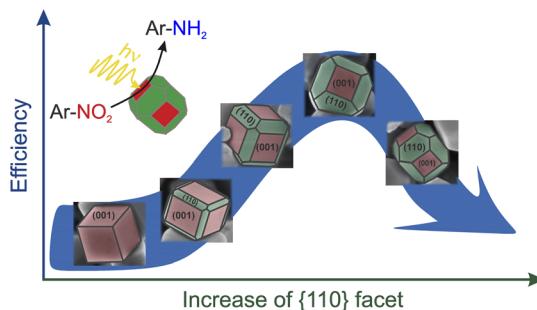
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**MoO_x-based high-density nanoarrays on a substrate via smart anodizing as novel 3D electrodes for nano-energy applications**

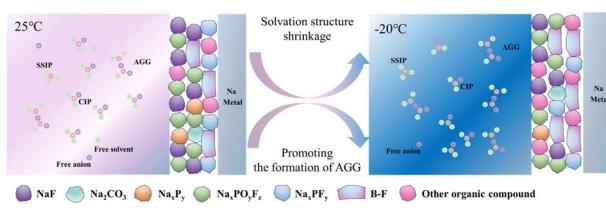
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**Facet-dependent photocatalytic reduction of nitroaromatics using tailored SrTiO₃ crystals: mechanism and reactivity enhancement**

Wiktoria Adamowicz, Wojciech Macyk and Marcin Kobielsz*

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**Anion–cation synergistic interactions for low-temperature and fast-charging performance in sodium batteries**

Yixing Shen, Jipeng Xu, Yana Li, Haiying Che,* Shuzhi Zhao, Muhammad Ishaq, Maher Jabeen, Yunlong Zhang, Jiafang Wu, Jingkun Li, Cheng Lian and Zi-Feng Ma*

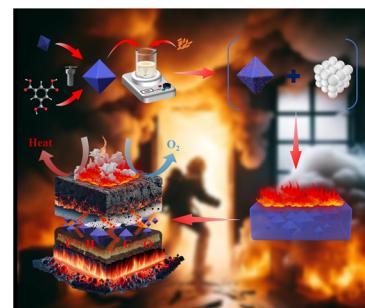


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Nano SiC ceramics and MOFs synergistically enhanced polylactic acid composites for efficient flame retardant performance

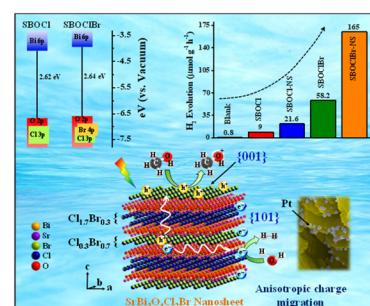
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The mixed-halogen layer approach of band engineering and anisotropic charge migration in X1X2 Sillén nanosheets boost cocatalyst-free photocatalytic hydrogen evolution

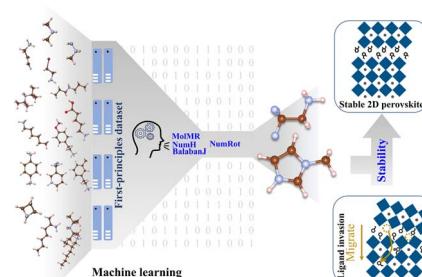
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Efficiently screening organic ligands by machine learning for stabilizing 2D/3D perovskites

Wei Zhang, Jing Zhang, Chengxu Zhang, Runchao Dong, Yong Xu, Zuobao Yang, Jinju Zheng, Dongsheng Chen,* Qiao Liu,* Weiyou Yang and Ming-Hui Shang*



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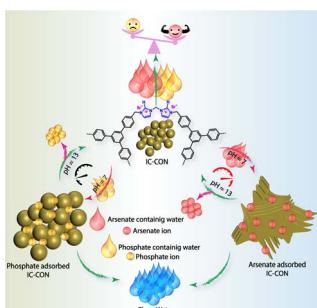
Engineering heteroatomic structures in Pt single-atom anchored covalent organic frameworks for enhanced photocatalytic hydrogen evolution reaction

Wenqi Tang, Jianrong Zeng, Fenggang Bian, Huiming Lin,* Huanyu Zhao* and Zhong-Yuan Lu*



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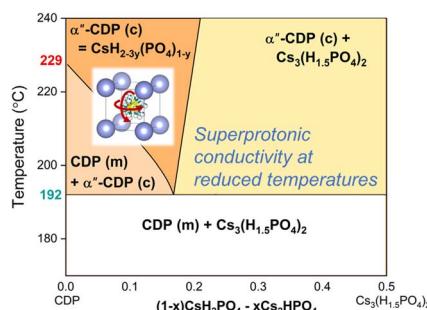
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Bis-imidazolium linked covalent organic network effectively removes arsenate from water and wastewater containing phosphates

Gunanka Hazarika and Debasis Manna*

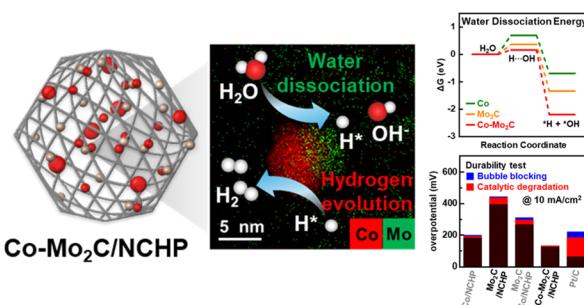
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Phase behavior, crystal structure, and superprotonic conductivity of $\text{Cs}[(\text{H}_2\text{PO}_4)_{1-2y}(\text{HPO}_4)_y]$: phosphate deficient analogs to cubic CsH_2PO_4 in the $(1 - x)\text{CsH}_2\text{PO}_4 - x\text{Cs}_2\text{HPO}_4$ system

Grace Xiong, Louis S. Wang and Sossina M. Haile*

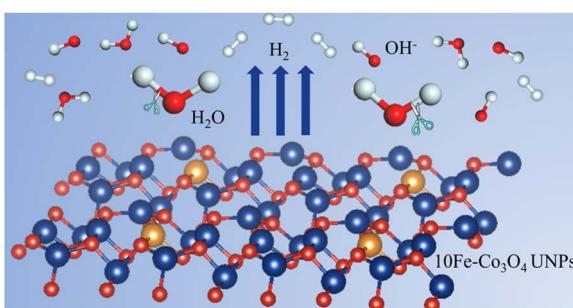
19717



Cohesive Co and Mo_2C heterostructure catalysts strongly confined to hollow carbon support for enhanced kinetics and durability in the alkaline hydrogen evolution reaction

Hyein Lee, Miyeon Kim, Jeonghan Roh, KwangHo Lee, Jooyoung Shin, Jeong Woo Han,* MinJoong Kim* and EunAe Cho*

19732



Tailoring Fe-doped Co_3O_4 nanoparticles via ultrasonic cell disruption: mechanistic insights and high-performance alkaline HER electrocatalysts

Mutian Zhang, Ziying Ji, Shijie Pan, Xiang Liu, Wei Zheng, Jiajia Wang* and Guobing Ying*

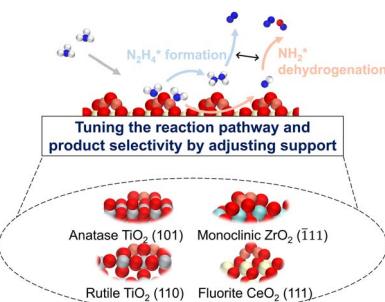


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19742

Experimental and theoretical insights into the support-dependent N₂ selectivity of CuO-based NH₃-SCO catalysts

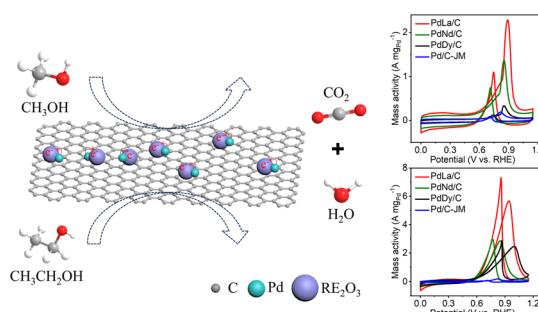
Mingchu Ran, Yi Dong, Xiao Zhang,* Saisai Lin, Peng Liu, Yang Yang, Hao Song, Xuesen Du, Chenghang Zheng and Xiang Gao*



19753

Highly active and stable PdRE catalysts for enhancing electrocatalytic methanol and ethanol oxidation

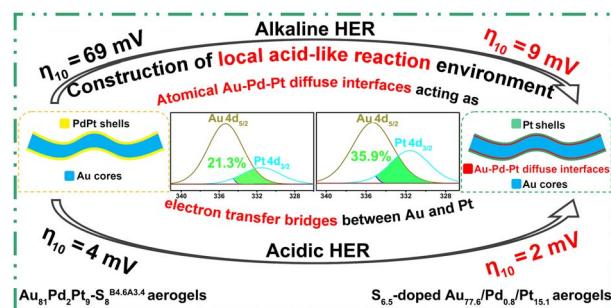
Lingling Li, Mingli Ouyang, Lihua Zhu,* Yingliang Feng, An Pei,* Guang Li and Tongxiang Liang*



19762

S-doped Au/Pd/Pt aerogels becoming superior HER catalysts by constructing an atomic-scale Pd diffuse interface

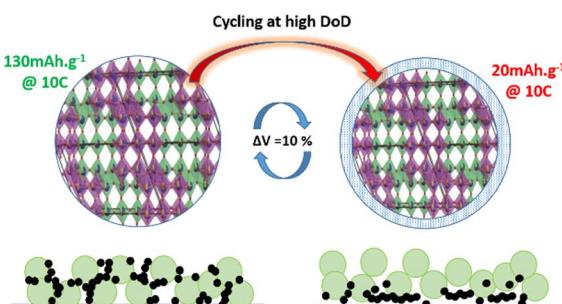
Yongchan Fan, Shuai Jiang, Qi Xu, Mengjiao Hao, Jiayi Hou, He Tian* and Haibing Xia*



19772

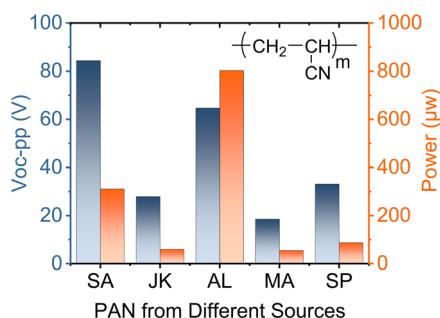
Degradation mechanisms in low-voltage Wadsley–Roth TiNb₂O₇ electrodes upon cycling with Li

Benjamin Mercier-Guyon,* Jean-François Colin, Adrien Boulineau, Carolina del mar Saavedra Rios and Sébastien Martinet



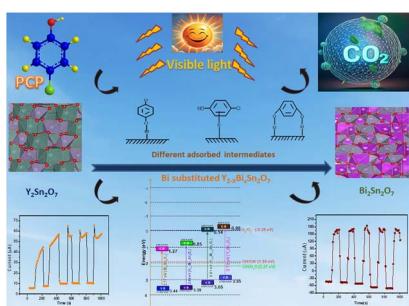
PAPERS

19782

**Source dependence of polyacrylonitrile electrospun nanofibers on piezoelectric response**

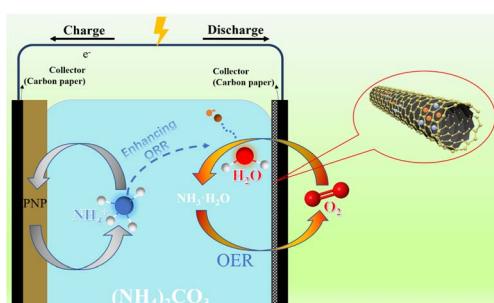
Shijie Wang, Yujuan He, Lu Peng, Peng Jiang, Hongxia Wang,* Haibo Chang* and Tong Lin*

19795

**Unveiling the effect of structural asymmetry on photocatalytic performance: Bi-substituted $Y_2Sn_2O_7$ system with mechanistic insight**

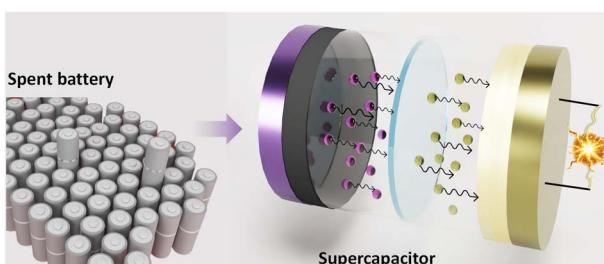
Adarsh Kumar, Deepak Tyagi, Ravi Kumar, Manasi Ghosh, Balaji P. Mandal, Ahin Roy, Sukhendu Nath, Avesh K. Tyagi* and Kaustava Bhattacharyya*

19821

**An efficient bifunctional oxygen catalyst of $CNT@FeCo-C_3N_4$ & $Ni_7Fe-LDH$ composite for rechargeable ammonium ion-air battery**

Jin-Ge Fan, Jian-Min Pan, Han Wang, Yi Zhan,* Tongwen Yu* and Li Niu*

19831

**Recycling spent zinc ion primary batteries for use in superior rechargeable lithium-ion energy storage**

Ramu Manikandan, Periyasamy Sivakumar, S. Vandana, L. John Kennedy, John D. Rodney, Byung Chul Kim, Hyun Jung, Jae-Min Oh and C. Justin Raj*

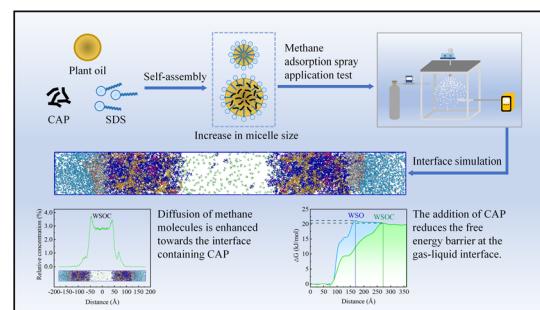


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19840

Methane adsorption in an SDS–oil–cellulose compound system: an experimental and interface simulation study

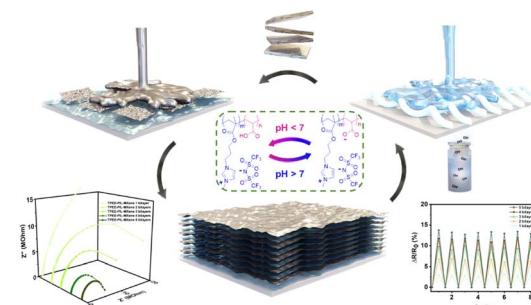
Tianle Liu, Junhui Kou,* Guosheng Jiang, Yuanhai Pan, Guokun Yang, Chenghang Zhang, Zerang Li and Xiaoyang Ni



19850

Layer-by-layer techniques incorporating upcycled TPEE: from waste to conductive, multi-responsive, self-healable, and highly-stretchable electronics

Chia-Wei Chang, Chun-Ting Chang, Jian-Hua Ciou, Kai-Chuan Kuo, Chia-Ti Wu, Ji Lin, Tse-Yu Lo, Yu Chen, Huan-Wei Lin, Yu-Hsuan Tseng, Mei-Li Li, Che-Tseng Lin and Jiun-Tai Chen*



19864

Synthesis of a carbon nanotube-modified NH₂-MIL-53(Fe) adsorbent and efficient adsorption and separation of gallium ions

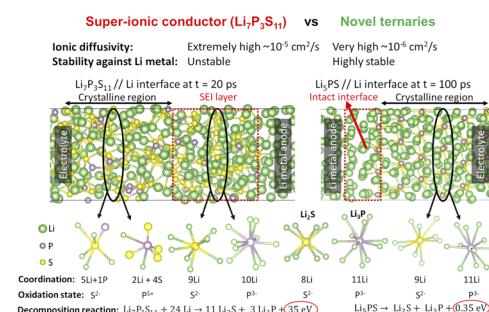
Chen Li, Chuncai Zhou,* David French, Ian T. Graham, Zixuan Wang, Yunfei Li, Feng Wang and Guijian Liu



19878

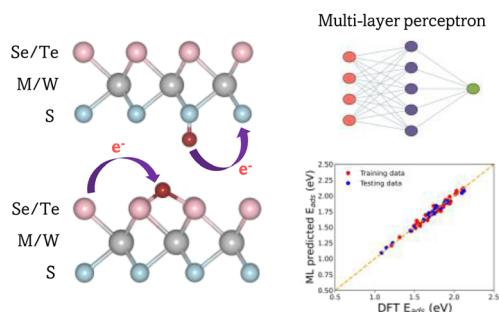
Atomic-level insights into the highly conductive lithium thio-phosphate solid electrolytes with exceptional stability against lithium metal

Huseyin Sener Sen* and Bora Karasulu*



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19896

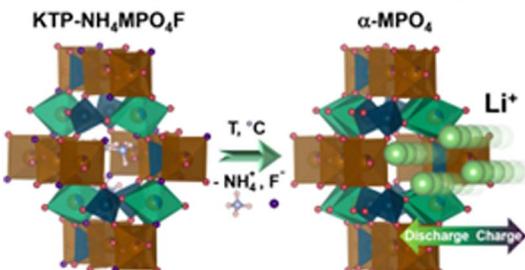


Hydrogen adsorption energy trends in Mo/WXY (X, Y = S, Se, Te) regular and Janus TMD monolayers: a first-principles and machine learning study

G. Tejaswini, Anjana E. Sudheer, Amrendra Kumar, Pavan Kumar Perepu, M. Vallinayagam, C. Kamal, S. Mani Prakash, M. Posselt, M. Zschornak and D. Murali*

19911

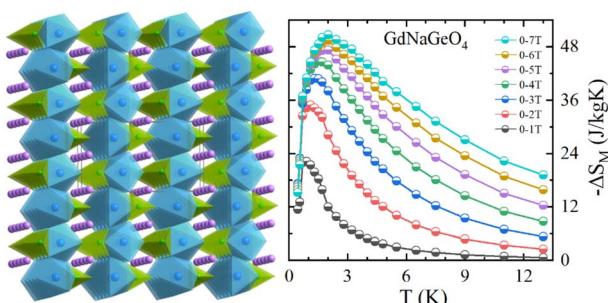
Structural design towards new Fe-based phosphates



Synthesis and reversible Li-ion intercalation of a novel chromium-doped iron phosphate with an α -CrPO4 structure

Bulat A. Matsaev,* Nikita D. Luchinin, Ivan A. Trussov, Igor A. Presniakov, Alexey V. Sobolev, Alexander A. Golubnichiy, Artem M. Abakumov, Evgeny V. Antipov and Stanislav S. Fedotov*

19923



Unveiling the structural and magnetic properties of RENaGeO₄ (RE = Gd, Dy, and Ho) oxides and remarkable low-temperature magnetocaloric responses in GdNaGeO₄ oxide

Yikun Zhang,* Yingzhe Na, Yang Xie and Xinyu Zhao

19933



Drive-throughs to driveways: high-strength composites from multi-material post-consumer waste collected from fast food restaurants

Katelyn M. Derr, Perla Y. Sauceda-Oloño, Ashlyn D. Smith,* Andrew G. Tennyson* and Rhett C. Smith*

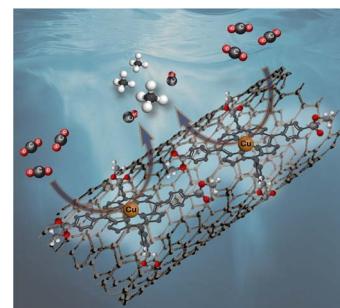


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19944

Tuning hydrocarbon selectivity in electrochemical CO_2 reduction via copper-porphyrin immobilization on carbon nanotubes

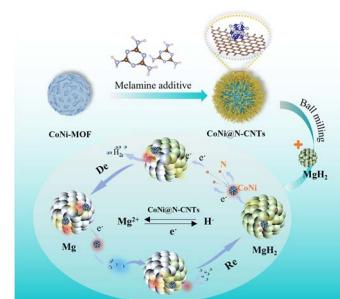
Alaleh Esfandiari, Maryam Abdinejad*
and Ali Seifitokaldani*



19955

Fabricating stable CoNi active sites and elucidating the role of N in enhancing hydrogenation and dehydrogenation of MgH_2

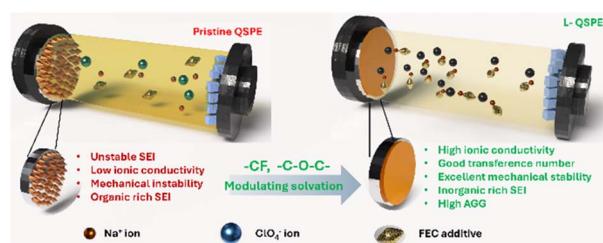
Fei Li, Zhuonan Huang, Yuqi Wang,* Sinan Guan,
Guancheng Ou, Yue Wang, Jinlei Wu, Shuang Cheng,
Le Wu and Xin Ding



19969

A liquid-like quasi-solid polymer electrolyte for high-performance sodium metal batteries

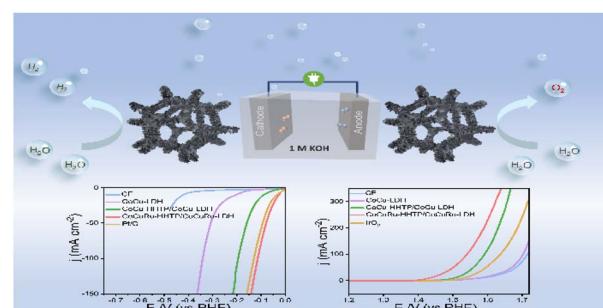
Vineeth Sasikumar Kala, Chhail Bihari Soni,
Sungjemmenla, Mahesh Chandra, C. Sanjaykumar*,
Arihant Bhandari, Yusuke Yamauchi, Minsu Han*
and Vipin Kumar*



19982

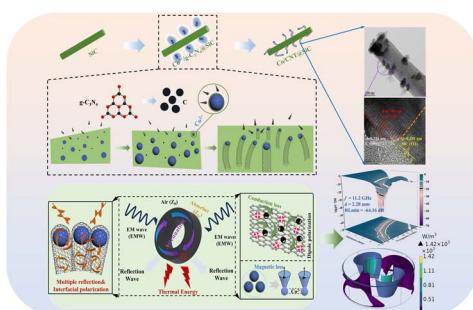
A Ru-doping and conductive metal–organic-framework co-modification strategy for enhanced full water splitting performance of a CoCu-LDH nanosheet array

Saiya Guo, Wentao Lin, Manman Shi, Jieding Wei,
Wei Che, Jong-Beom Baek and Yonghong Ni*



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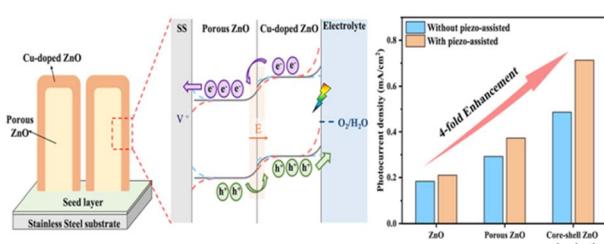
19991



Multifactor optimization of microwave absorption properties in Co/CNT@SiC composites via temperature-driven structural and compositional modulation

Weiwei Dong, Mengjia Wei, Sajjad Ur Rehman,* Changcai Chen, Xianguo Luo, Sihao Tu, Tongxiang Liang,* Yifeng Hu and Lei Wang*

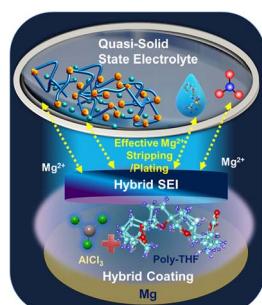
20005



Core–shell porous ZnO p–n homojunction nanorod arrays for achieving superior water splitting efficiency via piezocatalytic and piezo-phototronic effects

Yi-Miao Lin, An-Mi Chang, Ying-Chih Pu, Chia-Shing Wu and Chuan-Pu Liu*

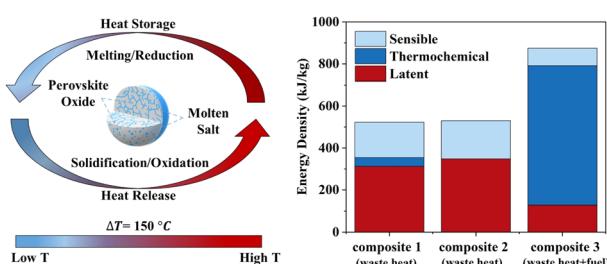
20016



Anode engineering using a hybrid $\text{AlCl}_3/\text{PTHF}$ coating for enhanced electrochemical stability of $\text{Mg}-\text{O}_2$ batteries

Vasantan Rasupillai Dharmaraj, Ayan Sarkar, Yueh-An Wu, Han-Chen Chen, Yu-Ping Lin, Ren-Jei Chung* and Ru-Shi Liu*

20028



Redox-active oxide-molten salt composites as a new family of high-capacity thermal energy storage materials

Hilal Bektas, Runxia Cai, Saqlain Raza, Jun Liu and Fanxing Li*



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20044

Optimizing the electron donation and back-donation effect through the combination of d-block transition metal and s-block calcium atoms for efficient nitrogen fixationLingli Liu, Guanping Wei, Zongchang Mao, Tiantian Hao,
Ling Zhu,* Xijun Wang and Shaobin Tang*