

Journal of Materials Chemistry A

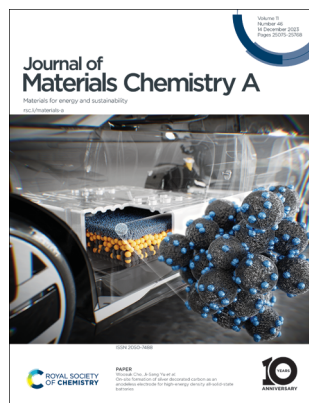
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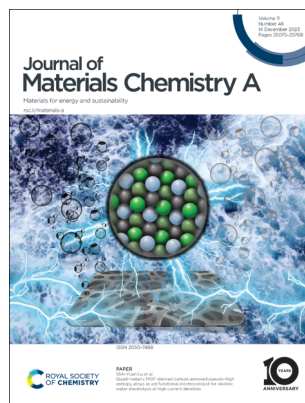
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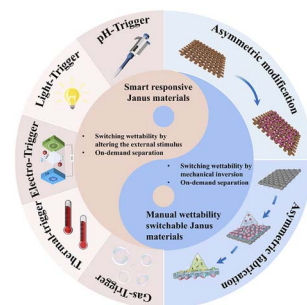
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Janus smart materials with asymmetrical wettability for on-demand oil/water separation: a comprehensive review

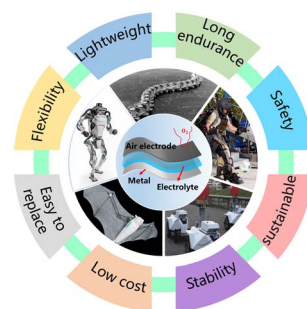
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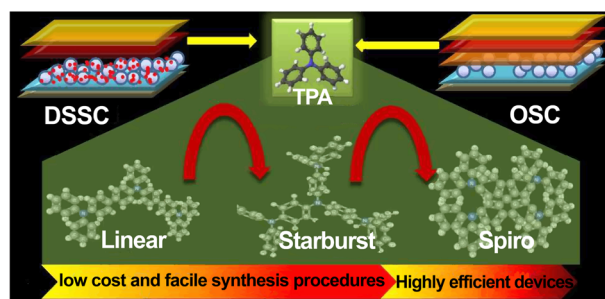


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Influence of triphenylamine derivatives in efficient dye-sensitized/organic solar cells

Afsaneh Farokhi, Hashem Shahroosvand,* Fatemeh Zisti, Melanie Pilkington* and Mohammad Khaja Nazeeruddin*



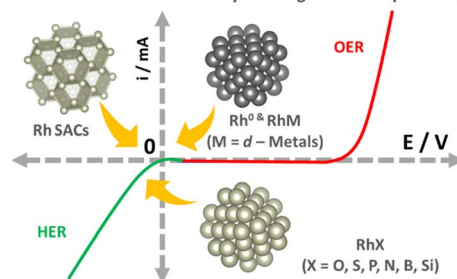
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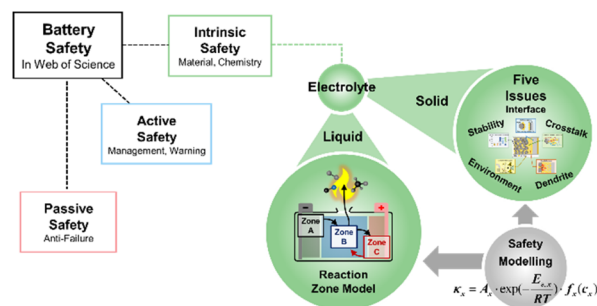
Rh-Based HER Electrocatalysts: Progress & Perspectives



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Safety of lithium battery materials chemistry

Xuning Feng, Dongsheng Ren and Minggao Ouyang*

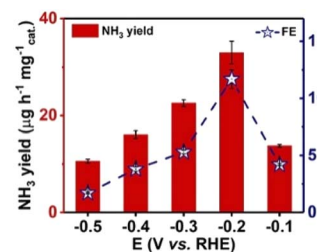
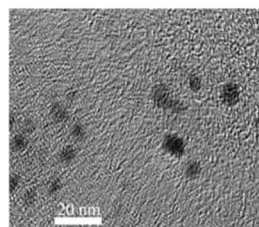


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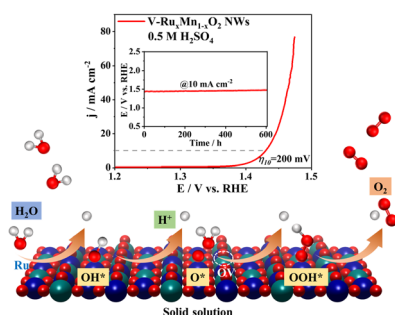
ZnO-CoS heterostructure quantum dots for enhanced electrocatalytic nitrogen reduction to ammonia

Yuyao Ji,* Qiang Hu, Mingyu Yang and Xingquan Liu*



COMMUNICATIONS

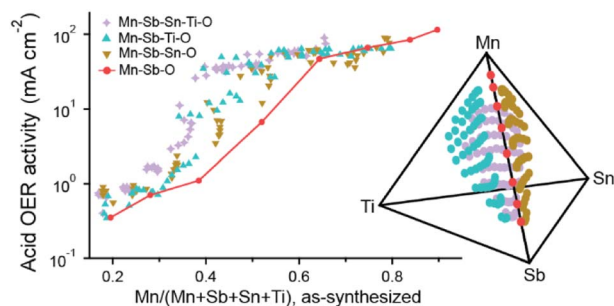
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High activity and excellent durability of oxygen-vacancy-rich ruthenium manganese oxide solid-solution nanowires for the oxygen evolution reaction in acidic media

Heng Zhu, Yongjie Wang, Zhongqing Jiang, Binglu Deng and Zhong-Jie Jiang*

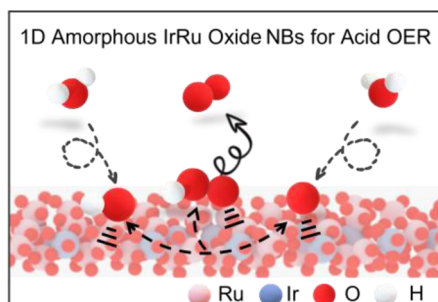
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High throughput identification of complex rutile alloys for the acidic oxygen evolution reaction

Lan Zhou, Aniketa Shinde, Ming-Chiang Chang, R. Bruce van Dover, Michael O. Thompson and John M. Gregoire*

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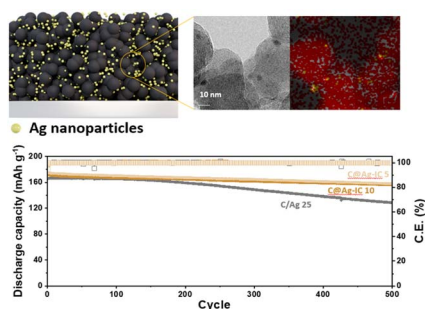


One-dimensional amorphous porous iridium–ruthenium oxide for efficient acidic oxygen evolution reaction

Lamei Li, Zifang Cheng, Jiaqi Su, Beibei Song, Hao Yu, Yujin Ji,* Qi Shao* and Jianmei Lu*

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On-site formation of silver decorated carbon as an anodeless electrode for high-energy density all-solid-state batteries

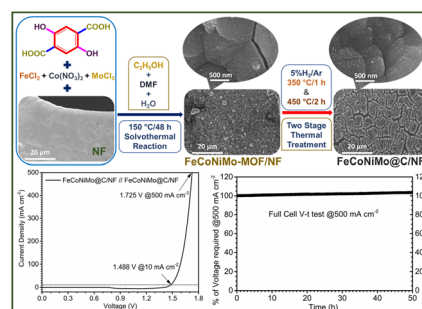
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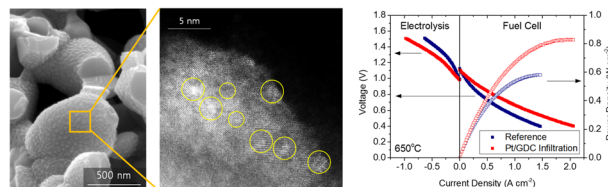
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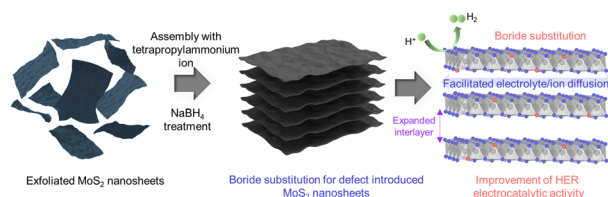
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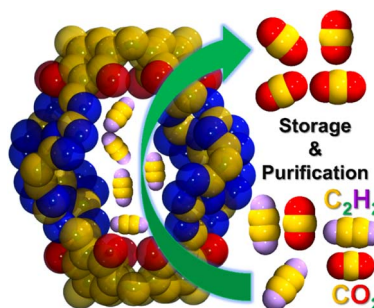
Dong Wook Lee, Xiaoyan Jin,* So Yeon Yun and Seong-Ju Hwang*



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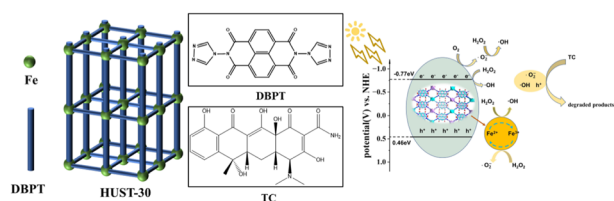
Nitrogen-rich porous organic cages with high acetylene storage and separation performance

Lijuan Feng, Yifei Xie, Wenjing Wang, Kongzhao Su* and Daqiang Yuan*



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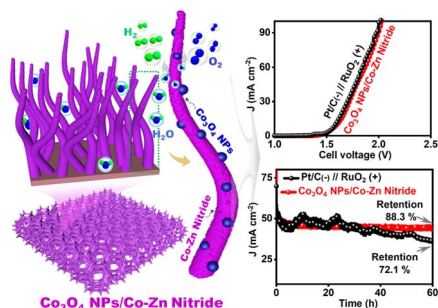
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Enhancing energy transfer by regulating electron transport pathways in semiconductor metal-organic frameworks

Peng-Da Liu, Yuan Chen,^{*} Ao-Gang Liu, Zi-Tong Chen and Bao Li^{*}

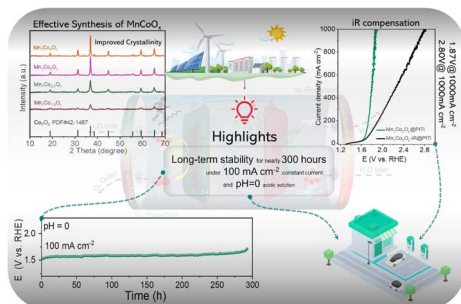
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Ultrafine Co₃O₄ nanoparticles-engineered binary metal nitride nanorods with interfacial charge redistribution for enhanced water splitting

Dinh Chuong Nguyen, Thi Luu Luyen Doan, Xinfeng Zhu, Nam Hoon Kim^{*} and Joong Hee Lee^{*}

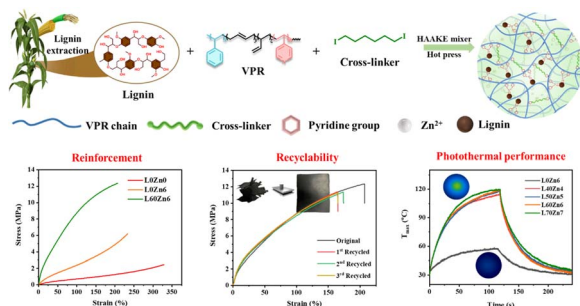
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Intrinsically robust cubic MnCoO_x solid solution: achieving high activity for sustainable acidic water oxidation

Jingjing Zhang, Ali Raza, Yang Zhao, Song Guo,^{*} Zaheer Ud Din Babar, Liangliang Xu,^{*} Changhai Cao and Gao Li^{*}

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A facile strategy to achieve vitrimer-like elastomer composites with lignin as a renewable bio-filler toward excellent reinforcement and recyclability

Ganggang Zhang, Chenchen Tian, Heying Chu, Jun Liu,^{*} Baochun Guo^{*} and Liqun Zhang^{*}

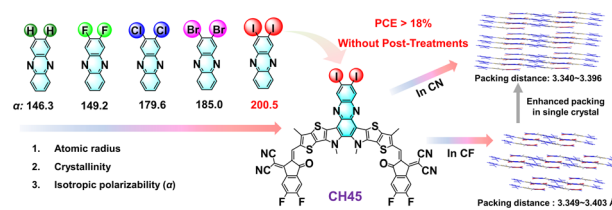


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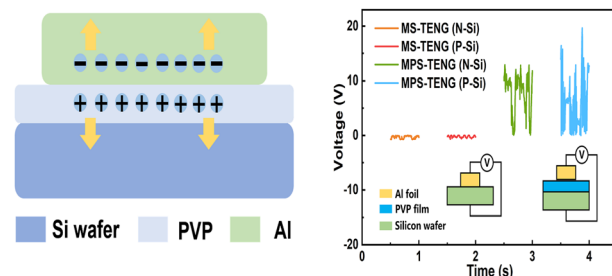
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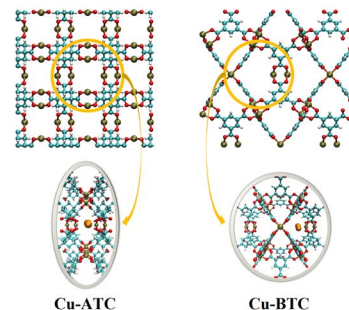
Xin Pan, Huijing Xiang, Ziwei Xuan, Yang Jie and Xia Cao*



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Cu-ATC vs. Cu-BTC: comparing the H₂ adsorption mechanism through experiment, molecular simulation, and inelastic neutron scattering studies

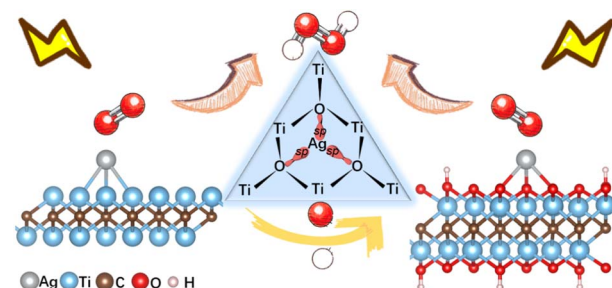
Tony Pham,* Katherine A. Forrest, Zheng Niu, Brant Tudor, Chloe B. Starkey, Yue Wang, Mohamed Eddaoudi, Nathaniel Rosi, Gisela Orcajo, Juergen Eckert,* Shengqian Ma and Brian Space*



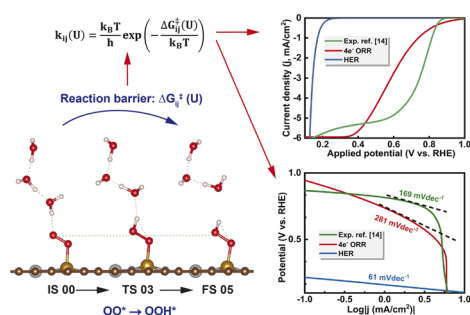
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p-State of surface oxygen for mediating the s-band center of a single-atomic Ag catalyst for enhanced catalytic property for the oxygen reduction reaction

Fu-li Sun, Qiao-jun Fang, Wei Zhang, Cun-biao Lin, Wen-xian Chen and Gui-lin Zhuang*



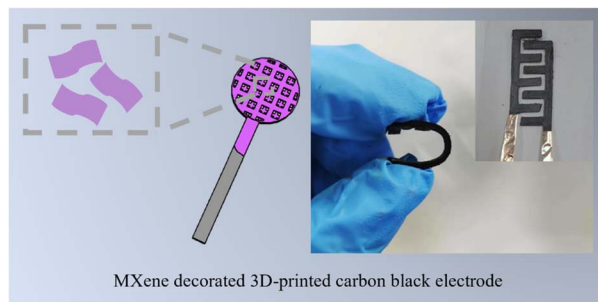
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Reaction mechanism and kinetics of oxygen reduction reaction on the iron–nickel dual atom catalyst

Mohsen Tamtaji, Yuyin Li, Yuting Cai, Hongwei Liu, William A. Goddard, III* and GuanHua Chen*

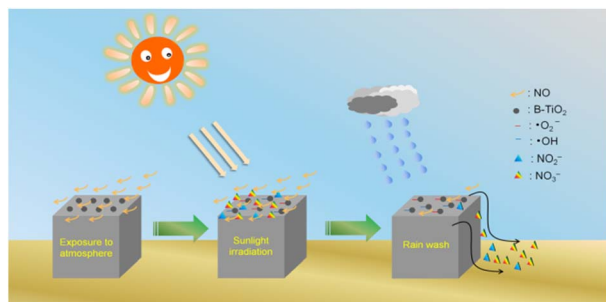
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MXene decorated 3D-printed carbon black-based electrodes for solid-state micro-supercapacitors

Guoyin Zhu, Yanan Hou, Jingqi Lu, Hongcheng Zhang, Zechao Zhuang, Mutawara Mahmood Baig, Muhammad Zubair Khan, Muhammad Aftab Akram, Shengyang Dong, Pin Liu, Xinlei Ge* and Yizhou Zhang*

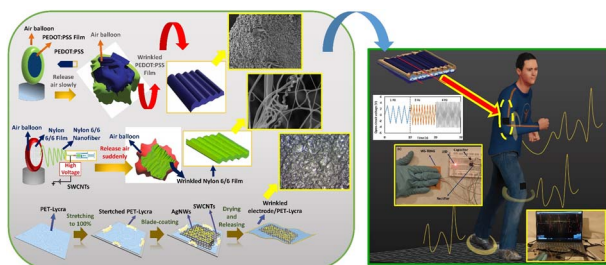
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Solar-driven photocatalytic removal of NO over a concrete paving eco-block containing black TiO₂

Pengyu Dong,* Cunxia Wang, Junjian Tan, Yan Wang, Xinguo Xi* and Jinlong Zhang*

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Hierarchically spring nanofibrous and wrinkled-structured electrode for highly comfortable wearable triboelectric nanogenerators

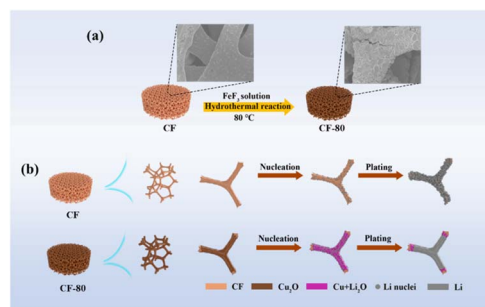
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Dense cuprous oxide sheath decorated three-dimensional copper foam enabling stable lithium metal anodes

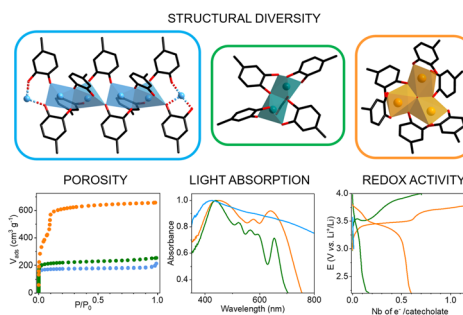
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Expanding the horizons of porphyrin metal–organic frameworks *via* catechol coordination: exploring structural diversity, material stability and redox properties

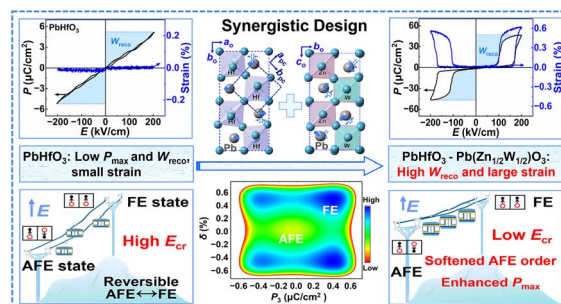
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Synergistic design of a new PbHfO₃-based antiferroelectric solid solution with high energy storage and large strain performances under low electric fields

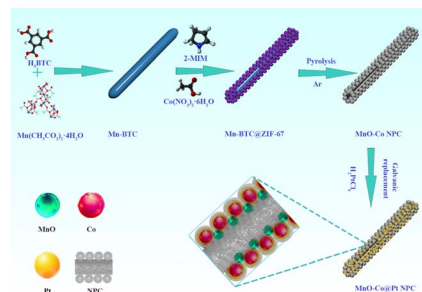
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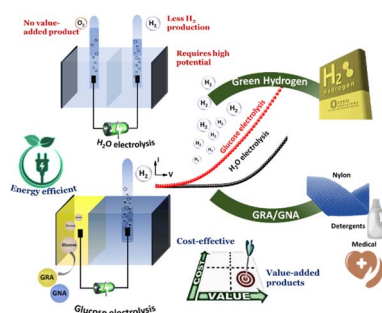
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MnO–Co@Pt nanowires encapsulated in N-doped porous carbon derived from MOFs for efficient electrocatalytic methanol oxidation reaction

Shokhrukhbek Askarov, Yujing Ren, Tong Wang, Yunqi Yu, Salman Khan, Yaoyuan Zhang, Kangcheng Chen,* Daxin Shi, Qin Wu* and Hansheng Li*



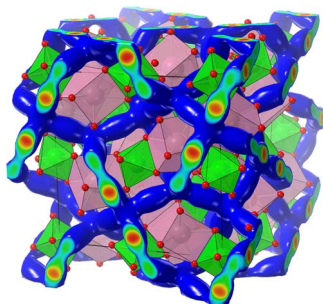
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One pot synthesis of hydrogen and glucaric acid via glucose electrolysis

Daisy Mehta, Sukhjot Kaur, Neha Thakur and Tharamani C. Nagaiah*

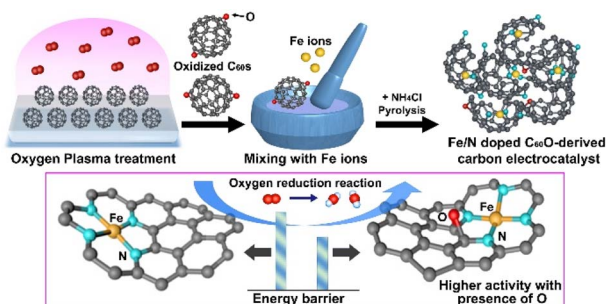
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Local structure and lithium-ion diffusion pathway of cubic $\text{Li}_7\text{La}_3\text{Zr}_2\text{O}_{12}$ studied by total scattering and the Reverse Monte Carlo method

Haolai Tian, Guanqun Cai, Lei Tan, He Lin, Anthony E. Phillips, Isaac Abrahams, David A. Keen, Dean S. Keeble, Andy Fiedler, Junrong Zhang, Xiang Yang Kong* and Martin T. Dove*

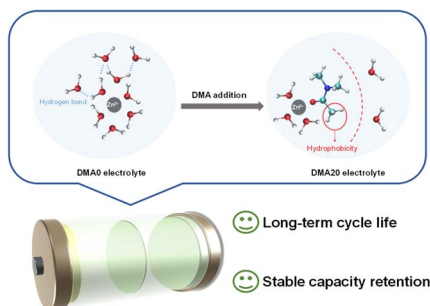
25534



Nanoarchitectonics tuning for Fe/N-doped C_{60} -derived carbon electrocatalysts with enhanced ORR activity by oxygen plasma treatment on C_{60}

Li Ju, Gazi Hao, Fancang Meng, Wei Jiang* and Qingmin Ji*

25545



Regulating the solvation structure with *N,N*-dimethylacetamide co-solvent for high-performance zinc-ion batteries

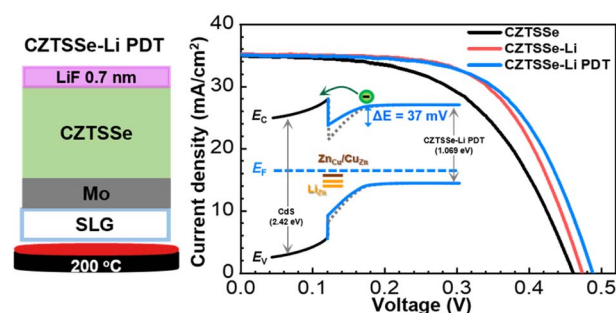
Mingyan Li, Xiang Feng, Junyi Yin, Tianyi Cui, Fuxiang Li, Jingzhe Chen, Yuyao Lin, Xin Xu,* Shujiang Ding* and Jianhua Wang*



25555

Improving open-circuit voltage deficit by interface passivation *via* Li treatment in $\text{Cu}_2\text{ZnSn}(\text{S},\text{Se})_4$ solar cells

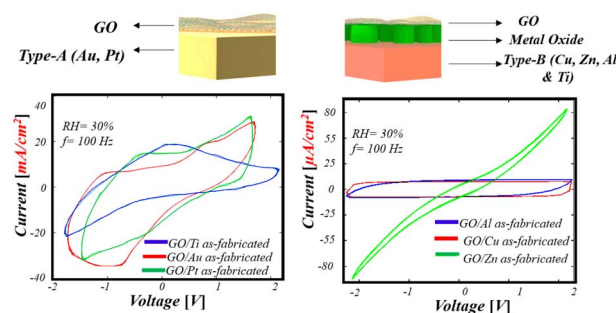
Geumha Lim, Ha Kyung Park, Wook Hyun Kim, Seung-Hyun Kim, Kee-Jeong Yang, Jin-Kyu Kang, Dae-Hwan Kim* and William Jo*



25563

Specific capacitance of graphene oxide–metal interfaces at different deoxygenation levels

Faramarz Hossein-Babaei,* Mehrdad Naemidehkharghani and Reza Razmand



25578

Towards large area production: stretchability, flexibility, and stability of efficient printed organic tandem solar cells

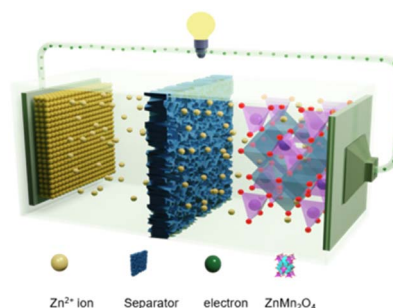
Mahfoudh Raissi,* S. Wageh, Ahmed A. Al-Ghamdi and Didier Rousseau



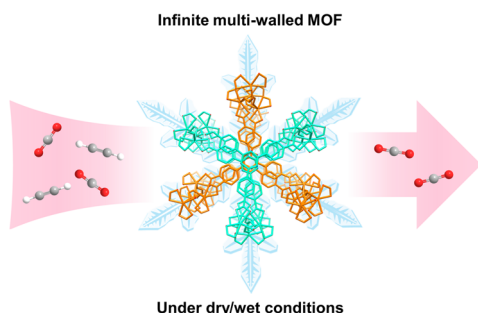
25595

Spinel zinc manganate-based high-capacity and high-stability non-aqueous zinc-ion batteries

Prakash Kumar Pathak, Nitish Kumar, Heejoon Ahn and Rahul R. Salunkhe*



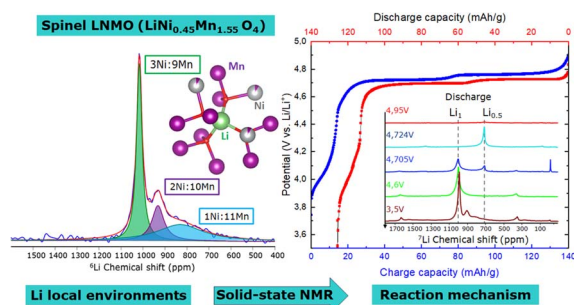
25605



An ultramicroporous multi-walled metal–organic framework for efficient C₂H₂/CO₂ separation under humid conditions

Weize Wang, Wenke Yuan, Cunding Kong, Yuchen Yang, Shuting Xi, Xiangyu Liu* and Bo Liu*

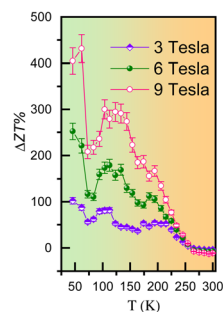
25612



Investigating structural properties and reaction mechanism of non-stoichiometric spinel LNMO via solid state NMR

Nahom Enkubahri Asres, Naiara Etxebarria, Iciar Monterrubio, Damien Saurel, Christian Fink Elkjær, Montse Casas-Cabanas, Marine Reynaud, Marcus Fehse* and Juan Miguel López del Amo*

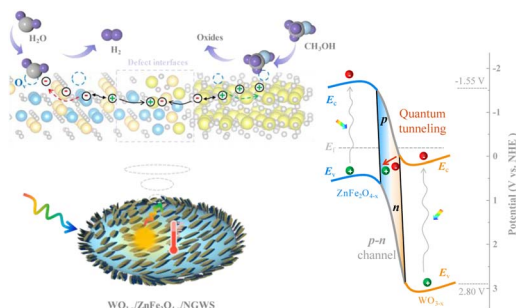
25626



Synergistic effect of lattice, electronic and magnetic modulations on the thermoelectric behaviour of Cr-substituted La_{0.65}Bi_{0.20}Sr_{0.15}CoO₃

Divya Prakash Dubey, M. K. Majee, Rie Y. Umetsu, V. Khovaylo and Ratnamala Chatterjee*

25639



Unraveling the role of surface and interfacial defects in hydrogen production to construct an all-in-one broken-gap photocatalyst

Jingwei Li, Xuyu Wang,* Hongli Fang, Xiaomin Guo, Rongfu Zhou, Cong Wang, Jian Li, Mohamed Nawfal Ghazzal* and Zebao Rui*

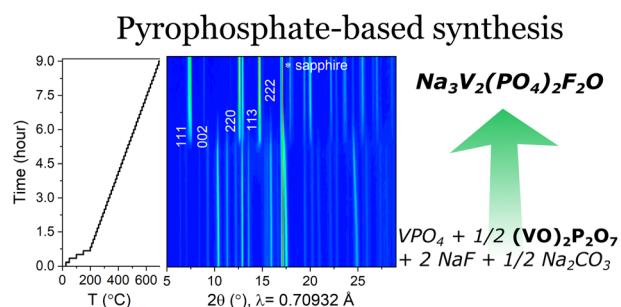


PAPERS

25650

A novel solid-state synthesis route for high voltage $\text{Na}_3\text{V}_2(\text{PO}_4)_2\text{F}_{3-2y}\text{O}_{2y}$ cathode materials for Na-ion batteries

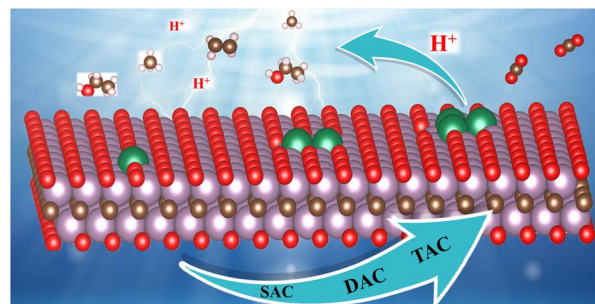
Mainul Akhtar, Hafssa Arraghraghi, Sylvia Kunz, Qingsong Wang and Matteo Bianchini*



25662

Homonuclear multi-atom catalysts for CO_2 electroreduction: a comparison density functional theory study with their single-atom counterparts

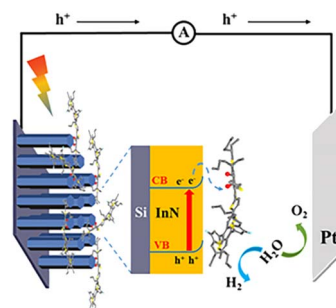
Jingjing Xiao, Ziyang Liu, Xinshuang Wang, Fengyu Li* and Zhonglong Zhao*



25671

Core-shell InN/PM6 Z-scheme heterojunction photoanodes for efficient and stable photoelectrochemical water splitting

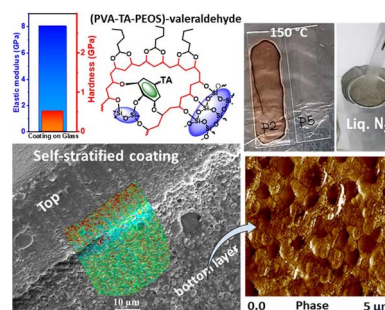
Shaohua Xie, Jiehui Liang, Qianhu Liu, Peixin Liu, Junkun Wang, Jiayi Li, Haoyang Wu, Wenliang Wang* and Guoqiang Li*



25683

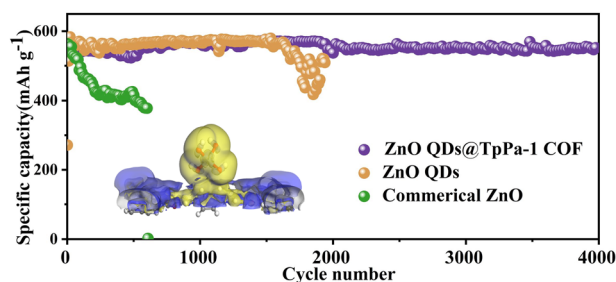
Self-assembly promoted stratified multifunctional hybrid coating with self-healing ability for superior adhesion strength and hardness

Diksha Sharma and Debaprasad Mandal*



PAPERS

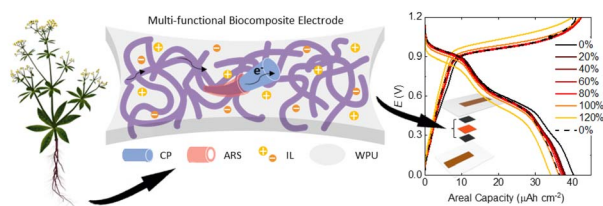
25692



ZnO quantum dots@covalent organic frameworks for high-performance alkaline zinc-based batteries

Jingbo Cai, Jianglin Wang, Xiao Yu, Yini Long and Zhanhong Yang*

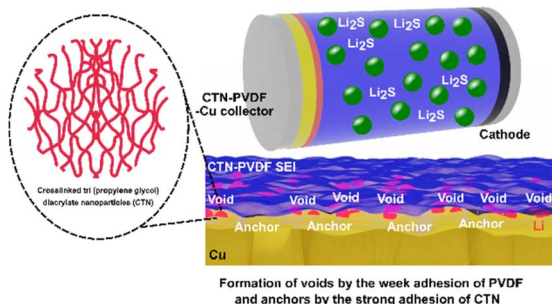
25703



An intrinsically stretchable symmetric organic battery based on plant-derived redox molecules

Nara Kim,* Samuel Lienemann, Ziyaeddin Khan, Grzegorz Greczynski, Aiman Rahmanudin, Mikhail Vagin, Fareed Ahmed, Ioannis Petsagkourakis, Jesper Edberg, Xavier Crispin* and Klas Tybrandt*

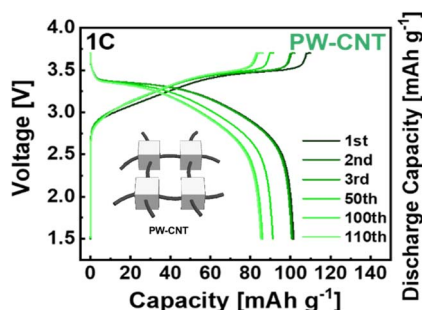
25715



Synergy of strong/weak interface adhesion forces and Li₂S additive enabling high performance full anode-free lithium-metal batteries

Zejian Fang, Shukai Ding,* Gaohui Du,* Yong Zhu, Christophe A. Serra, Bingshe Xu, Qingmei Su, Guoquan Suo* and Wei Wang*

25724



A moisture-controlled Prussian white/CNT composite high energy cathode for next-generation sodium-ion batteries

Jun Lee, Wangchae Jeong, Jaeryeol Baek, Yeongmin Kim, Yuri Choi, Vinod Mathew, Balaji Sambandam, Muhammad Hilmy Alfaruqi and Jaekook Kim*

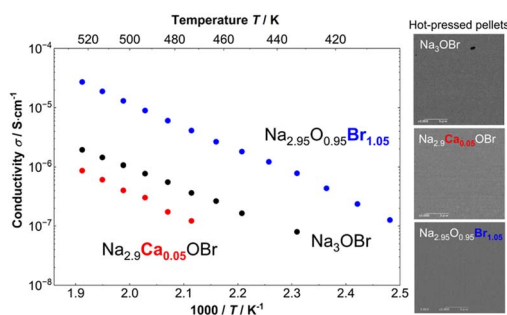


PAPERS

25734

Determination of the ion-conduction properties of Na₃OBr and its dominant defect species

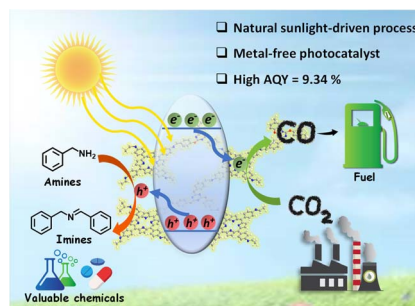
Reona Miyazaki,* Shiori Ito, Kana Ishigami,
Hidetoshi Miyazaki and Takehiko Hihara



25743

Coalescing solar-to-chemical and carbon circular economy: mediated by metal-free porphyrin and triazine-based porous organic polymer under natural sunlight

Neha Saini, Neha Sharma, Deepak Kumar Chauhan,
Rishu Khurana, Md Ehesan Ali
and Kamalakannan Kailasam*

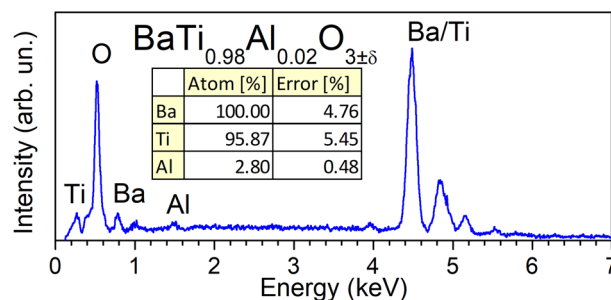


COMMENTS

25756

Comment on "Enhancing the output performance of hybrid nanogenerators based on Al-doped BaTiO₃ composite films: a self-powered utility system for portable electronics", by B. Dudem, L. K. Bharat, H. Patnam, A. R. Mule and J. S. Yu, *J. Mater. Chem. A*, 2018, 6, 16101

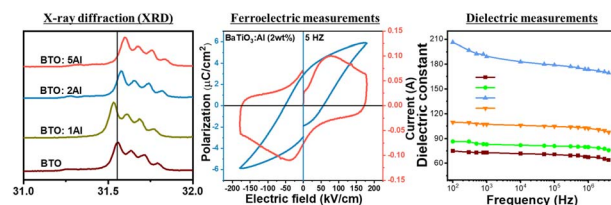
Alexander Tkach* and Olena Okhay



25759

Reply to the 'Comment on "Enhancing the output performance of hybrid nanogenerators based on Al-doped BaTiO₃ composite films: a self-powered utility system for portable electronics"', by A. Tkach and O. Okhay, *J. Mater. Chem. A*, 2023, 11, D3TA01041D

Bhaskar Dudem, L. Krishna Bharat,
Harishkumarreddy Patnam, Anki Reddy Mule and Jae
Su Yu*



CORRECTION

25765

Correction: A unique octadecahedron SrTiO_3 perovskite oxide with a nano step-shaped facet structure for enhanced photoredox and hydrogen evolution performance

Chuyu Wang, Yan Li, Xiaojiao Cai, Dongping Duan* and Qibo Jia*

