

Journal of Materials Chemistry A

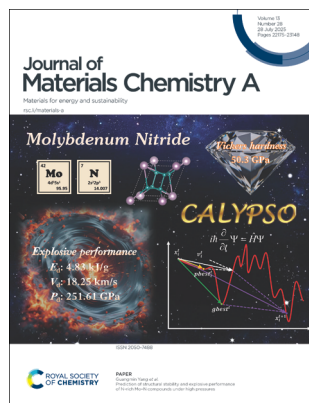
Materials for energy and sustainability

rsc.li/materials-a

The Royal Society of Chemistry is the world's leading chemistry community. Through our high impact journals and publications we connect the world with the chemical sciences and invest the profits back into the chemistry community.

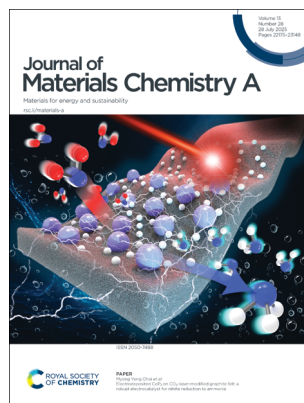
IN THIS ISSUE

ISSN 2050-7488 CODEN JMCAET 13(28) 22175–23148 (2025)



Cover

See Guangmin Yang *et al.*, pp. 22375–22382. Image reproduced by permission of Jianyan Lin from *J. Mater. Chem. A*, 2025, **13**, 22375.



Inside cover

See Myong Yong Choi *et al.*, pp. 22383–22391. Image reproduced by permission of Myong Yong Choi from *J. Mater. Chem. A*, 2025, **13**, 22383.

EDITORIAL

22198

Journal of Materials Chemistry A Editor's choice collection: Li-metal batteries

Serena A. Cussen

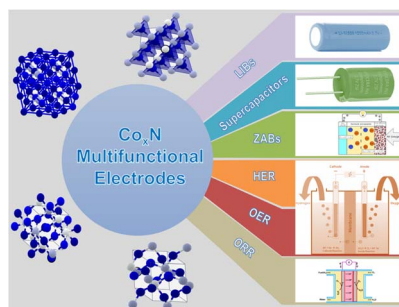


REVIEWS

22200

Interstitial cobalt nitrides (Co_xN): holistic frontiers in energy storage and catalysis

Adewale K. Ipadeola*, Selvam Mathi, Mostafa H. Sliem, M.-Sadeeq Balogun* and Aboubakr M. Abdullah*



Royal Society of Chemistry approved training courses

Explore your options.
Develop your skills.
Discover learning
that suits you.

**Courses in the classroom,
the lab, or online**

Find something for every
stage of your professional
development. Search our
database by:

- subject area
- location
- event type
- skill level

Members **get at least 10% off**

Visit rsc.li/cpd-training

**SAVE
10%**

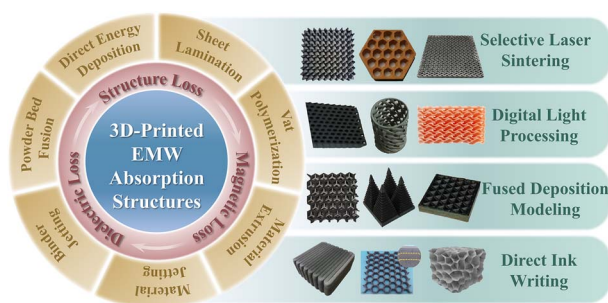


REVIEWS

22240

3D-printed electromagnetic microwave absorption structures: a comprehensive review

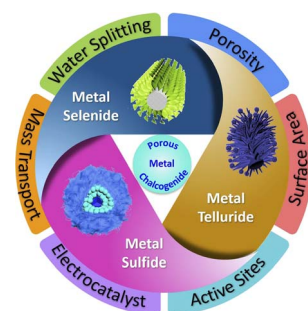
Xiaotong Chen, Wenqing Wang, Ruyue Su, Yixing Huang, Ying Li and Rujie He*



22271

Progress in porous metal chalcogenides for electrocatalytic water splitting

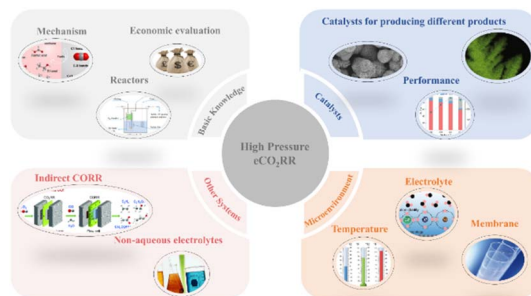
Pradnya M. Bodhankar, Pradip B. Sarawade, Abdulkarem I. Amhamed, Tareq Al-Ansari, Nawshad Haque and Dattatray S. Dhawale*



22295

Progress and prospects of high-pressure CO₂ electrocatalytic reduction

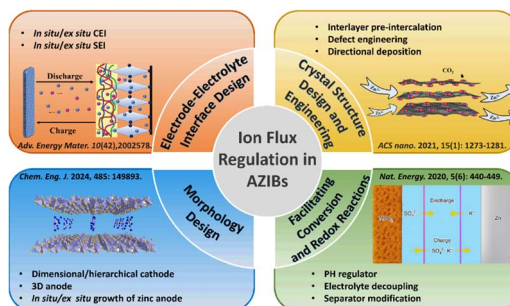
Xiaopeng Tian, Guoliang Xu, Sheng Chen, Qiang Li and Jingjing Duan*



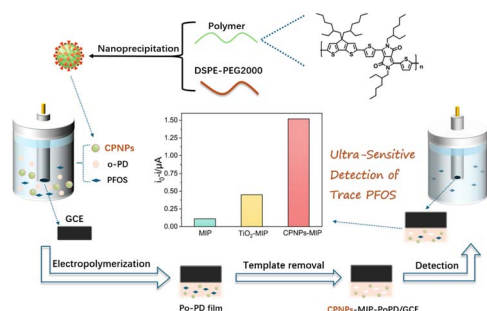
22324

Ion flux regulation in aqueous zinc-ion batteries

Zihan Xu, Mei Han and Jian Zhi*



22365

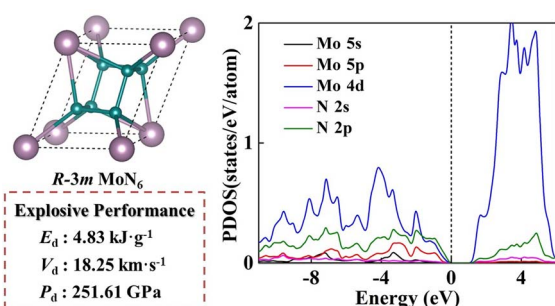


Conjugated polymer nanoparticle-enhanced molecularly imprinted poly(o-phenylenediamine) electrochemical sensors for selective, sensitive and rapid detection of trace perfluorooctanesulfonate

Guangshuai Chen, Xue Zhou, Lingxia Wu, Shaoyun Jia, Bin Shan, Chunying Zheng, Yong Tian, Jiping Ma and Chuantao Gu*

PAPERS

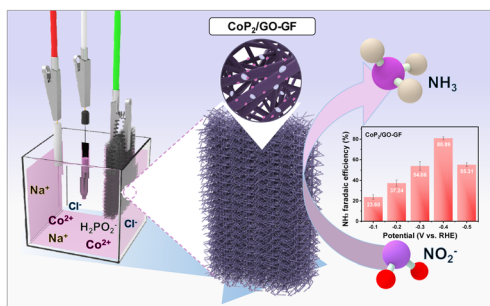
22375



Prediction of structural stability and explosive performance of N-rich Mo–N compounds under high pressures

Jianyan Lin, Xin Liu and Guangmin Yang*

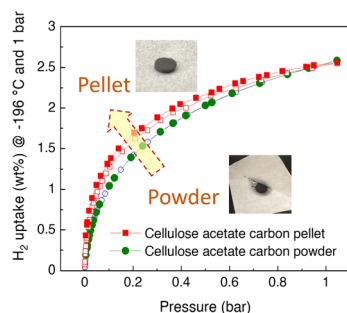
22383



Electrodeposited CoP₂ on CO₂-laser-modified graphite felt: a robust electrocatalyst for nitrite reduction to ammonia

Chae Eun Park, Rahul Kerkar, Deepak Arumugam, Jayaraman Theerthagiri, Shankar Ramasamy and Myong Yong Choi*

22392



Densification of cellulose acetate-derived porous carbons for enhanced volumetric hydrogen adsorption performance

Hiroshi Matsutaka,* Aya Kashifuku, Takaaki Orii, Daigo Miyajima, Naoki Uchiyama, Satoshi Wada and Hiroto Nishihara

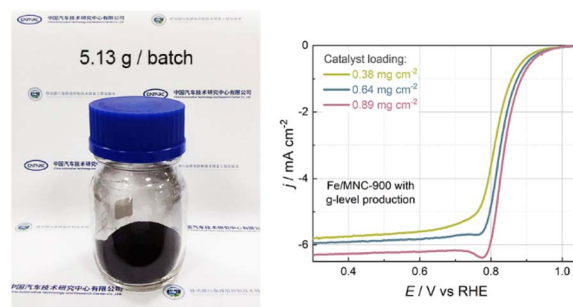


PAPERS

22406

Gram-scale production of an Fe single atom catalyst and mass transfer enhancement in PEMFCs

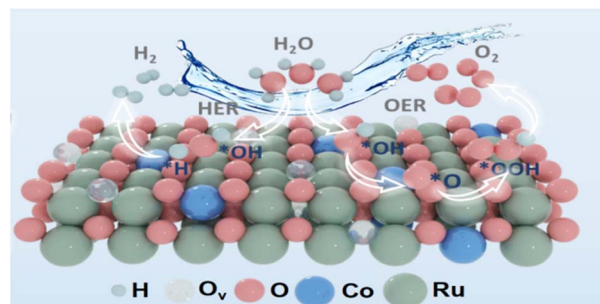
Weikang Zhu,* Yuankai Shao, Bingjie Zhou, Shuoyao Yin, Anqi Dong, Yatao Liu, Xi Liu and Zhenguo Li*



22414

Bridged Ov–Ru–O–Co coordination induced by $\text{Co}^{2+\delta}$ substitution in Co/RuO₂ catalysts for enhanced alkaline hydrogen and oxygen evolution reactions

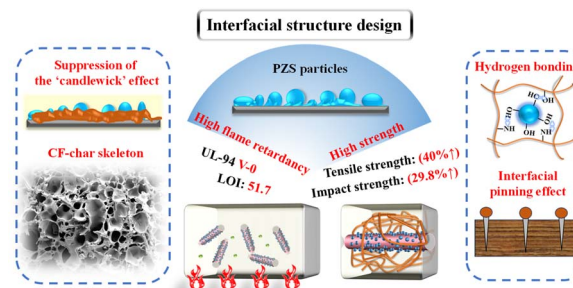
Weijia Guo, Zhan Wang, Yangdong Zhou, Tongde Wang, Gaoming Zhu, Farid Akhtar, Payam Ahmadian Koudakan, Baojing Zhang, Jiangmin Jiang,* Shuaijun Pan* and Peizhong Feng*



22425

Synchronously enhanced flame retardancy and mechanical properties of epoxy/carbon fiber composites achieved via an interfacial structure design

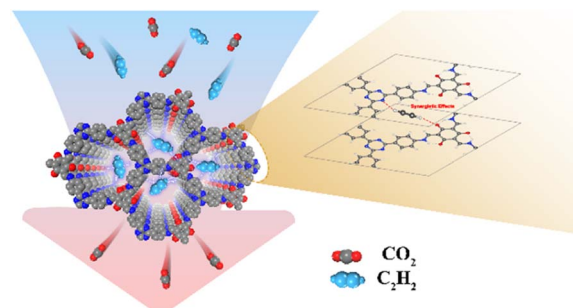
Dou Hu, An-yan Wang, Xiao-dong Qi, Jing-hui Yang, De-xiang Sun* and Yong Wang*



22445

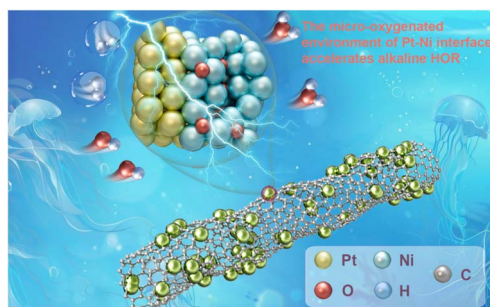
Chemical engineering of triazine and β -ketoenamine units in covalent organic frameworks with synergistic effects for boosting C₂H₂ and CO₂ separation

Ya Lu, Bo-Xin Zhang, Yubin Fu, Hongqiang Dong, Haocheng Liao, Qiao-Yan Qi, Meimei Zhang, Xiao Hu, Xiang Zhao,* Shigui Chen* and Lu Wang*



PAPERS

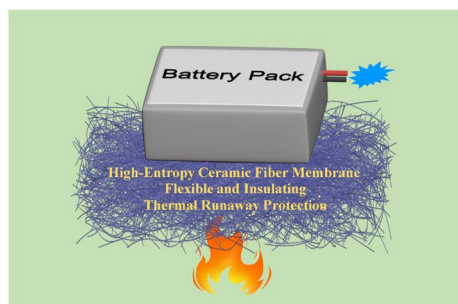
22453



Tuning the oxygen-containing microenvironment of the Pt–Ni hetero-interface to accelerate alkaline hydrogen oxidation

Jiantao Fu, Wuyi Feng, Xinye Zheng, Yingzheng Zhang, Di Zhao* and Jiatao Zhang

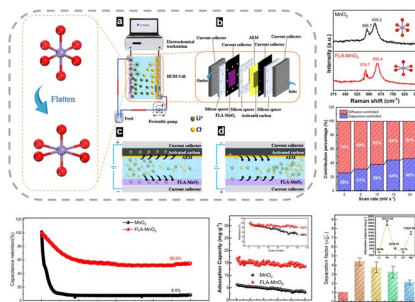
22461



A flexible high-temperature insulating high entropy ceramic fiber membrane for thermal runaway protection in lithium-ion batteries

Wenyuan Ma, Chengjun Li, Junwei Li, You Li, Tianshun Xiong, Xin Li, Qinghui Jiang, Qinghua Liang,* Yubo Luo* and Junyou Yang*

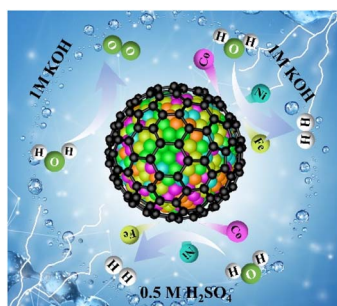
22470



Lithium extraction from low-grade brines via strain-induced electronic structure modulation of MnO₂ nanorods through Mg incorporation

Yang Bao, YunJia Ling, ZeYing Ji, Hongru Zhou, Shaoxian Song, Feifei Jia,* Jianbo Li* and Mildred Quintana

22483



Rapid synthesis of a highly dispersed FeCoNiRuPt high-entropy alloy bifunctional electrocatalyst and exploration of the catalytic mechanism

Yong Wei, Zhihao Hu, Ke Wang, Dongxu Wu, Feng Cheng,* Ningyan Cheng,* Chuanqiang Wu,* Binghui Ge and Li Song*

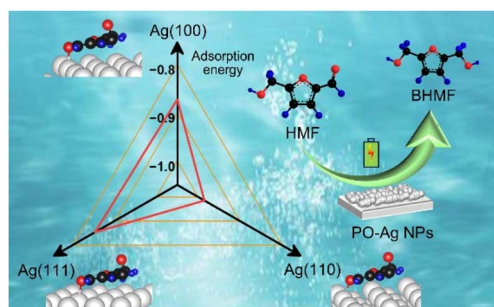


PAPERS

22492

In situ surface reconstruction of silver leads to competent activity for the electrocatalytic hydrogenation of 5-hydroxymethylfurfural

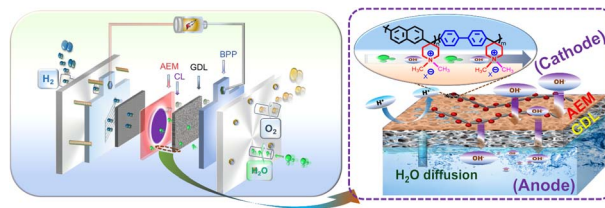
Dalong Qu, Nan Jiang* and Yujie Sun*



22504

A poly(naphthalene-co-biphenyl piperidinium)-based highly conductive and durable anion exchange membrane for electrochemical energy devices

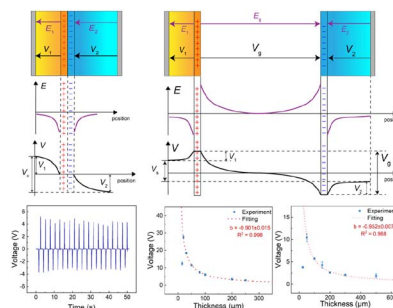
Avoy Mondal and Bijay P. Tripathi*



22517

The space tribo-charge region and equivalent charge plane model in triboelectric nanogenerators

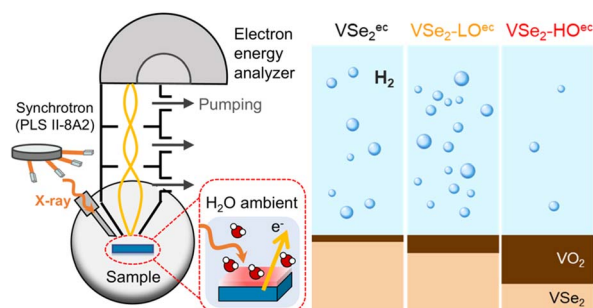
Xucong Chen, Han Wu, Jun Li,* Xiangyu Chen* and Wei Ou-Yang*



22527

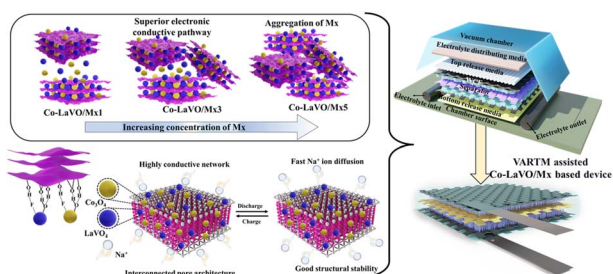
A synergetic oxide-chalcogenide heterostructure in metallic two-dimensional VSe₂ for the hydrogen-evolution reaction

Hyuk Jin Kim, Yonghyuk Lee, Hyo Won Seoh, Tae Gyu Rhee, Yeong Gwang Khim, Seungchul Choi, Yoon-Kyung Seo, Gyungtae Kim, Ki-Jeong Kim, Aloysius Soon* and Young Jun Chang*



PAPERS

22539



Effect of MXene on Co_3O_4 – LaVO_4 nanocomposites for synergistic charge transport enhancement and high-performance VARTM assisted solid-state supercapacitor devices using woven carbon fiber

Fouzia Mashkoo, Mohd Shoeb, Shushuai Zhu, Hongjun Jeong and Changyoon Jeong*

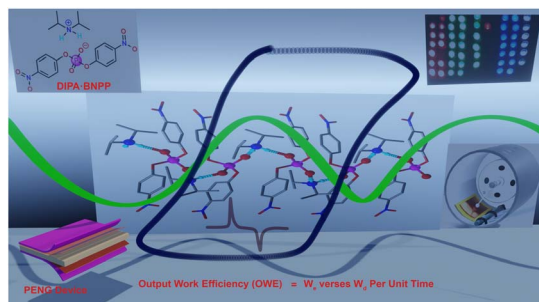
22563



Selective electrostatic sorption of water-soluble anionic molecules over electrospun cationic polymer fibers

Worood A. El-Mehalmey, Ashraf Helmy, Mohamed A. Seleem, Muhamed Amin, Abdelrahman S. Mayhoub and Mohamed H. Alkordi*

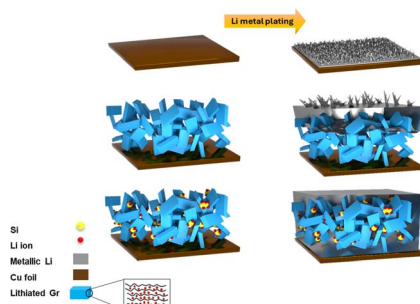
22574



A highly moisture-stable ferroelectric ammonium phosphate salt showing piezoelectric energy harvesting and rotation sensing applications

Vikash Kushwaha, Neetu Prajesh, Animesh Gopal, Supriya Sahoo, Swati Deswal, Antonysylvester Kirana, Kadiravan Shanmuganathan,* Jan K. Zaręba* and Ramamoorthy Boomishankar*

22583



Silicon/graphite composite host for tuned lithiophilicity in Li metal anodes

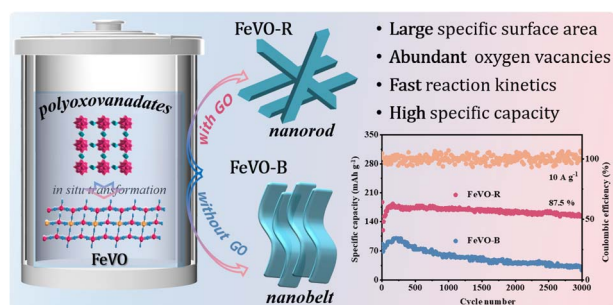
Maryam Tahertalari, Syed Abdul Ahad, Dominika Capkova, Kevin. M. Ryan and Hugh Geaney*



22593

Synergistic effect of morphology evolution with oxygen vacancies on layered cathodes derived from polyoxovanadates for aqueous zinc-ion batteries

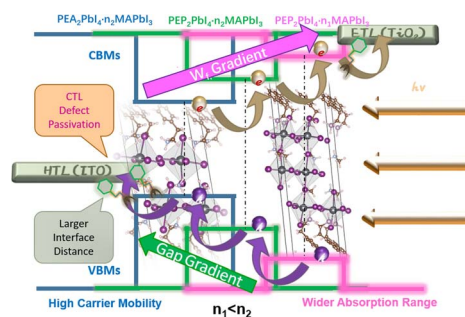
Yu-Ying Yang, Si-Yu Chen, Yong-Jia Ding, Yun-Xiang Zhou, Huan He, Qiaoji Zheng, Rui Zhang,* Dunmin Lin and Yu Huo*



22604

Quasi-2D Ruddlesden–Popper perovskites with tunable wide bandgaps and phosphonium as additives for interface defect passivation in tandem solar cell design

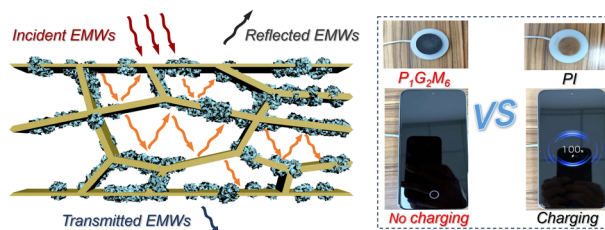
Qi Liu, Jian Jiang and Xiao Cheng Zeng*



22613

Hierarchically porous polyimide/graphene aerogels with superior compressibility and electromagnetic interference shielding performance

Yuehao Zhao, Haiming Chen,* Shiya Qiao, Zhen Wang and Jingling Yan*



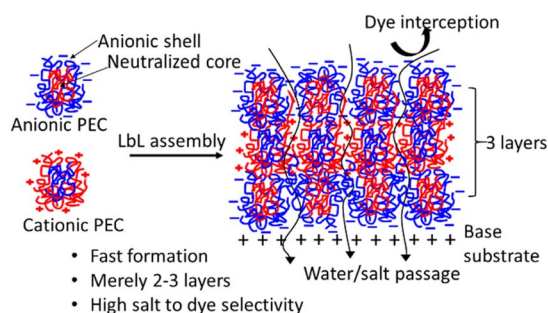
22621

Unblocking "pinned" Li⁺ ions in novel KTiOPO₄-structured LiVPO₄F enables superior energy storage performance

Alexey V. Ivanov,* Arseniy S. Burov, Semyon D. Shraer, Nikita D. Luchinin, Dmitry A. Aksyonov and Stanislav S. Fedotov*



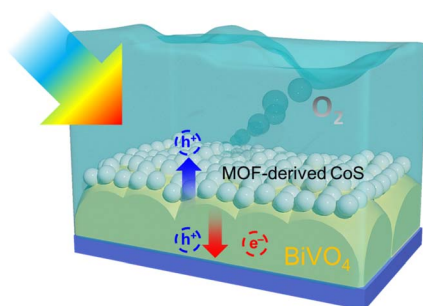
22637



Rapid fabrication of selective barriers through layer-by-layer self-assembly of non-stoichiometric polyelectrolyte complexes for salt and dye fractionation

Urvashi S. Joshi and Suresh K. Jewrajka*

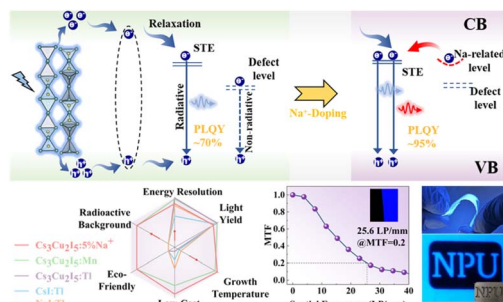
22652



Metal-organic framework-derived nano-CoS-enhanced photoelectrochemical water splitting performance of the BiVO₄ photoanode

Dongqin Li, Xinchao Chen, Mingshi Shao, Shushi Hou, Jingyi Guo, Haoyu Jin, Hao Yang, Guikui Chen* and Yongchao Huang*

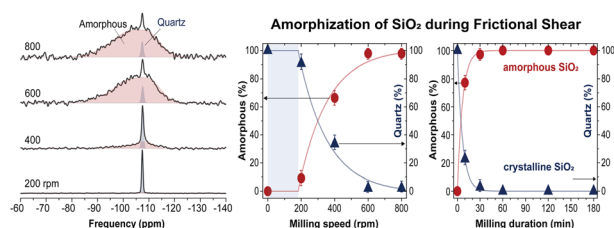
22660



A highly efficient Na-doped Cs₃Cu₂I₅ scintillator for γ-ray detection and flexible X-ray imaging

Yanyan Lei, Lingyan Xu,* Yanze Wang, Lixiang Lian, Chongqi Liu, Yingming Wang, Lu Liang, Zhentao Qin, Shuai Han, Wei Zheng, Qinzeng Hu, Xiaowang Liu, Tao Wang and Wanqi Jie

22672



Structural transition in crystalline SiO₂ during mechanical amorphization under frictional shear

Jin Jung Kweon, Hoon Khim, Yong-Hyun Kim and Sung Keun Lee*

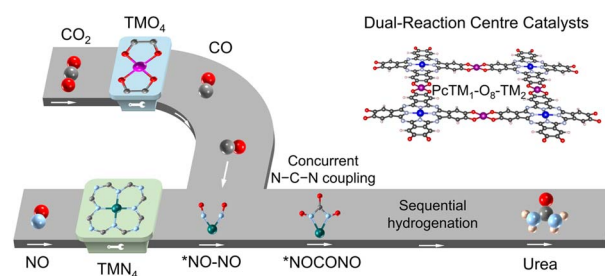


PAPERS

22685

Dual-reaction-centre enabled concurrent N–C–N coupling for effective urea electrosynthesis

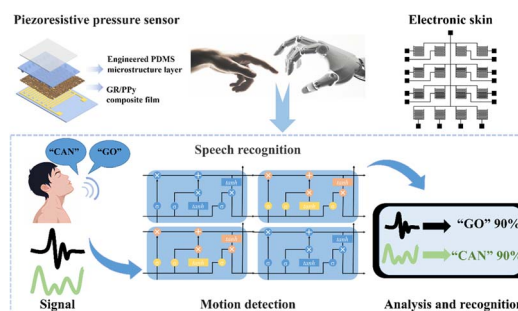
Junxian Liu, Sean C. Smith, Xin Tan,* YuanTong Gu and Liangzhi Kou*



22695

Flexible pressure sensors based on electrospun PAN fiber films incorporated with graphene/polypyrrole composites and engineered PDMS microstructures

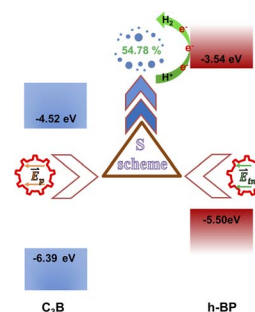
Jingchen Ma, Yesi Lu, Jin Li, Zeren Rong, Aixiang Wei and Zhen Liu*



22710

Enhanced photoelectric properties and solar to hydrogen efficiency of S-scheme h-BP/C₃B heterojunctions through the dual electric field effect

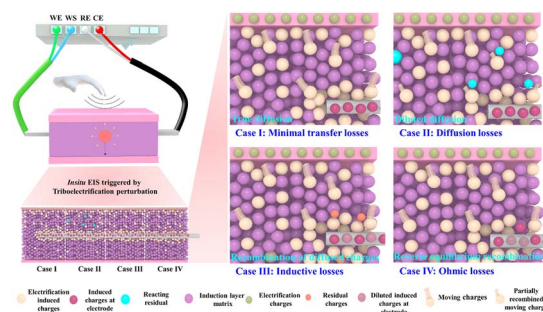
Rui-qin Li, Dong-xiang Li* and Wan-jun Yan



22718

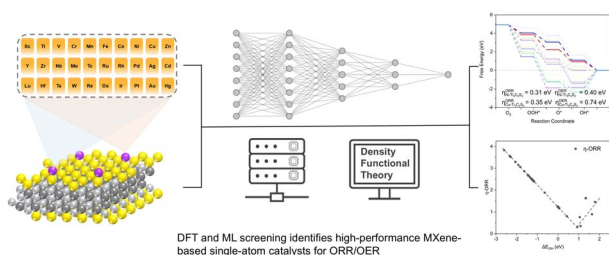
Real-time evaluation of charge transfer patterns at buried ionotronic interfaces

Irum Firdous, Muhammad Fahim, Ruoxuan Ye, Johnny Sik Chun Lo, Carol Sze Ki Lin and Walid A. Daoud*



PAPERS

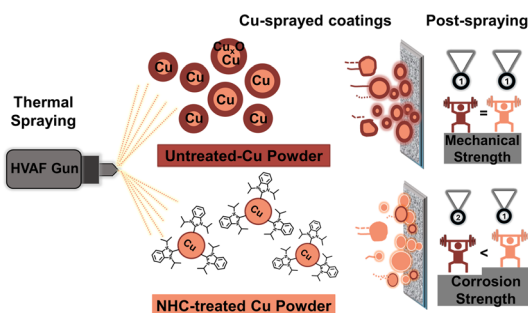
22730



Machine learning-guided discovery of thermodynamically stable single-atom catalysts on functionalized MXenes for enhanced oxygen reduction and evolution reactions

Hengquan Guo and Seung Geol Lee*

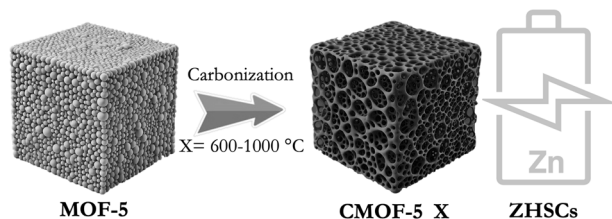
22745



N-Heterocyclic carbene-promoted copper powder conditioning for thermal spray applications

Jashanpreet Kaur, Golnoush Asadiankouhidehkordi, Vikram Singh, Andre C. Liberati, Ahmad Diraki, Souhaila Bendahmane, Mark D. Aloisio, Payank Patel, Jeffrey Henderson, Fadhel Ben Ettouil, Cathleen M. Crudden,* Mark Biesinger,* Annie Levasseur,* Christian Moreau* and Janine Mauzeroll*

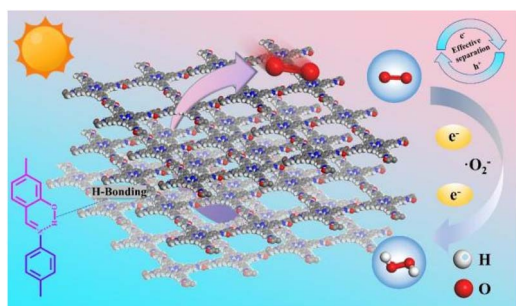
22755



Enhancing zinc-ion energy storage: impact of MOF-5 derived carbonization temperature on performance

Wojciech Kukulka, Verónica Montes-García, Saira Sarwar, Dawid Pakulski, Paolo Samori* and Artur Ciesielski*

22761



Hydrogen-bond-regulated hierarchical porous organic polymers for enhanced photocatalytic H_2O_2 production

Xiaojuan Bai,* Rujiao Liu, Aofei Wang, Linlong Guo, Ruilong Zong and Zhen Wei*

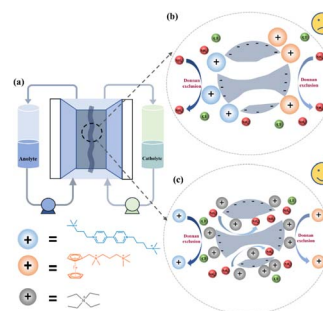


PAPERS

22772

Cation exchange membranes based on the Donnan exclusion effect for aqueous organic redox flow batteries

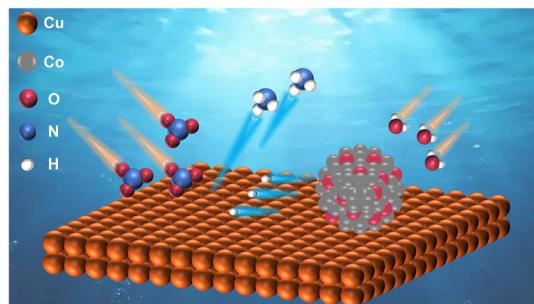
Zihang Peng, Kunlong Yang, Jingyin Ning, Qiuya Li, Siying Chen, Ayesha Boota, Shuang Jiang, Tianyong Zhang and Bin Li*



22783

3d transition metal oxide-loaded Cu nanowires for enhanced electrochemical nitrate-to-ammonia conversion

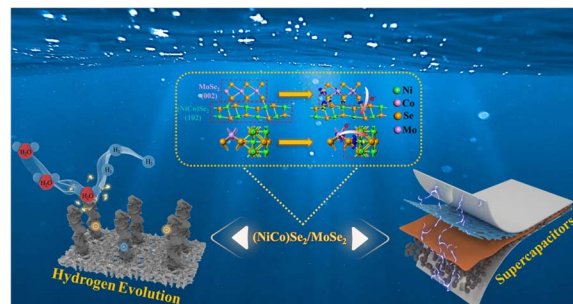
Yujie Liu, Menggai Jiao, Li-Li Zhang, Xiandi Ma, Hao Wan, Wei Ma* and Zhen Zhou*



22792

MoSe₂ embedded in (NiCo)Se₂ nanosheets to form heterostructure materials for high stability supercapacitors and efficient hydrogen evolution

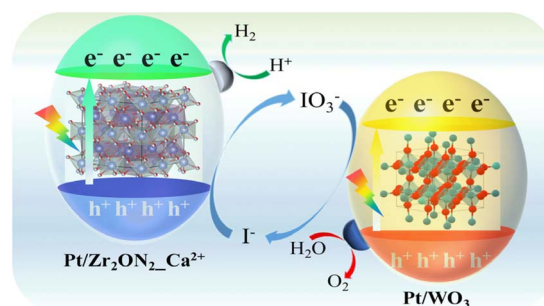
Wenqiang Sun, Ziyang Liu, Dekun Liu, Bona Zhang, Yingjie Li, Chenyong Wang, Xingjia Liu, Xiaofeng Wang,* Xue-Zhi Song* and Zhenquan Tan*



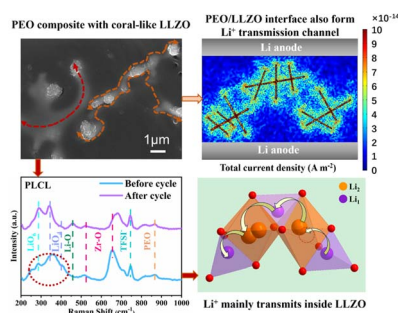
22804

Synthesizing Zr-based oxynitride with low defects by CaH₂-assisted nitridation for photocatalytic Z-scheme overall water splitting

Yunfeng Bao, Rong Wang, Hai Zou, Jiating Qu, Zhaochi Feng and Fuxiang Zhang*



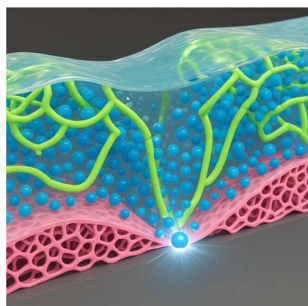
22809



Study on the regulation mechanism of a coral-like $\text{Li}_7\text{La}_3\text{Zr}_2\text{O}_{12}$ inorganic filler on the properties of poly(ethylene oxide)-based composite solid electrolytes

Yanhua Zhang, Liuli Zou, Chengxin Wan, Zijun Tang, Yumei Xiao, Xing Xiang and Jiadong Deng*

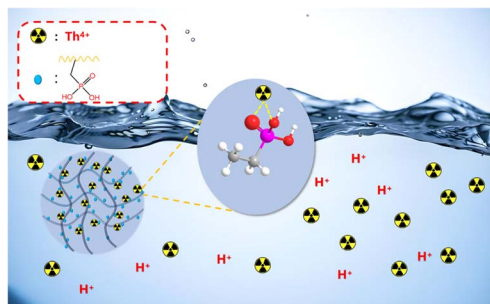
22822



Cation-driven hydrogen bond dynamics in energy storage hydrogel electrolytes: unraveling ion-water-carbon interactions

Ezz Yousef, Abdallah A. Akar, Abdelrahman A. M. Ismail, Ghada E. Khedr and Nageh K. Allam*

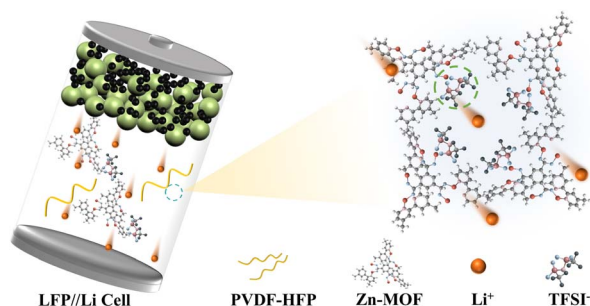
22836



Removal of thorium from high-acidity solutions achieved on a flexible polymeric network bearing phosphonic acid ligands: understanding adsorption and binding mechanisms

Shuang Zeng, Dingzhong Yuan,* Xuan Guo, Xiaodong He, Saijin Xiao, Yan He, Xiaohong Zhao,* Yun Wang, Yan Liu and Qinghua Zhang*

22849



Solid polymer electrolytes incorporating Zn-based metal-organic frameworks for advanced all-solid-state lithium metal batteries

Qi Zeng, Jianhao Wang, Quanzhi Lin, Zili Yang, Muhang Li, Xiaoting Zha,* Wenyao Yang and Yajie Yang*

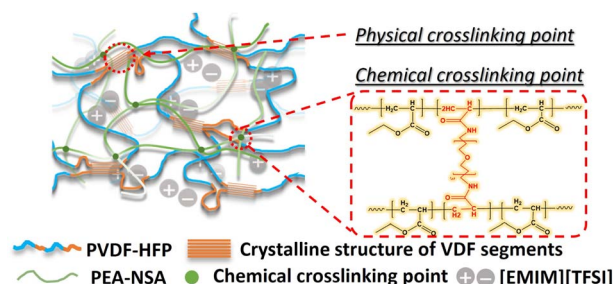


PAPERS

22859

An interpenetrating-polymer-network-based tough ion gel with high humidity resistance for sensitive human motion detection

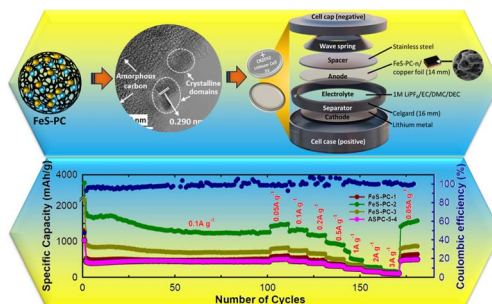
Jinhui Zhang, Jieyuan Mei, Cuijing Liu,* Kecheng Guan, Xia Chen, Yaqin Wang,* Xiaobing Liu, Wenzhe Pei, Yuefan Xu, Yanan Wang, Xinyu Zhang and Gaolin Qiu*



22871

Nanoporous biocarbon functionalised with crystalline FeS nanostructures as a high-performance anode for lithium-ion batteries and insights into its Li storage mechanism

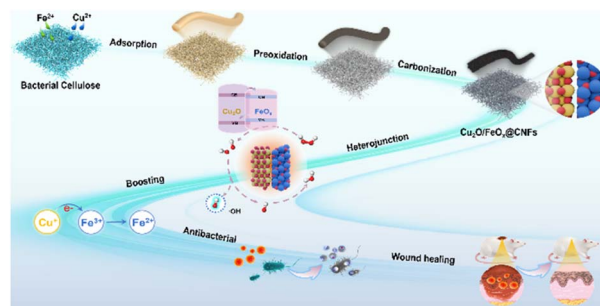
Ajanya Maria Ruban, Gurwinder Singh,* Rohan Bahadur, Hoonkyung Lee, Ian Jason, Puspamitra Panigrahi, John Kennedy and Ajayan Vinu*



22885

Engineering electron distribution of Cu₂O/FeO_x@CNFs *p-n* heterojunction nanozyme: boosting the Fenton reaction efficiency

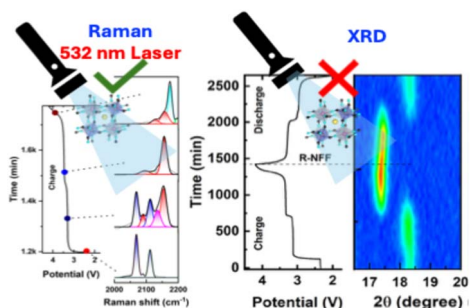
Shiwen Zhao, Lintao Yang, Jinggao Wu, Shipeng Qi, Yaojie Liu, Honglei Tian, Jianke Li* and Yuhuan Zhang*



22903

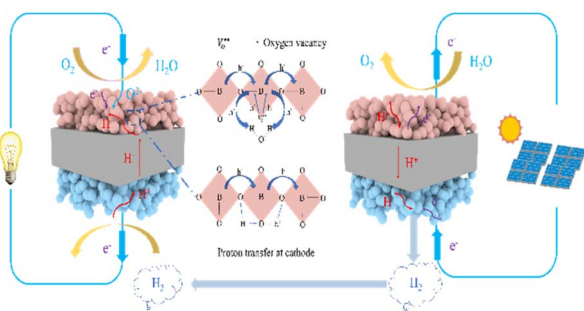
Deciphering the local structure of Prussian blue analogue cathodes with Raman spectroscopy for sodium-ion batteries

Krishnakanth Sada, Siddhartha Nanda, Hadi Khani and Arumugam Manthiram*



PAPERS

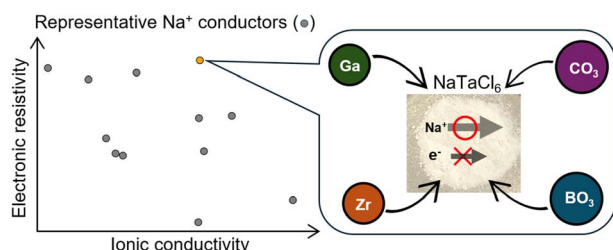
22915



Tuning the proton concentration and uptake kinetics of BaFeO₃-based oxygen electrodes for reversible protonic ceramic fuel cells

Wei Tang, Chengyu Li, Qian Xia, Yingwei Lu, Pengqi Chen, Tao Hong* and Jigui Cheng*

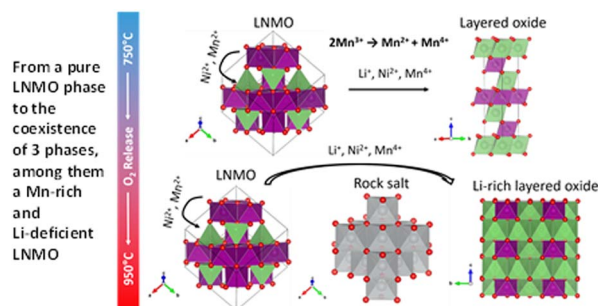
22924



Multicomponentization of a super-Na ionic conductor chloride NaTaCl₆, enhancing ionic conductivity and electronic resistivity

Keisuke Makino, Naoto Tanibata,* Takaaki Natori, Tomoko Nakano, Hayami Takeda and Masanobu Nakayama

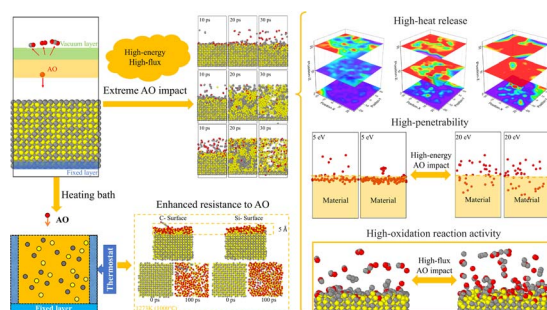
22931



Phase equilibrium during the synthesis of LiNi_{0.46}Mn_{1.54}O₄: comprehensive X-ray & neutron powder diffraction study

Ilia Tertov, François Fauth, Emmanuelle Suard, Thomas Hansen, François Weill, Pierre-Etienne Cabelguen, Christian Masquelier* and Laurence Croguennec*

22946



Erosion behaviors of silicon carbide at micro–nano scales under atomic oxygen exposure

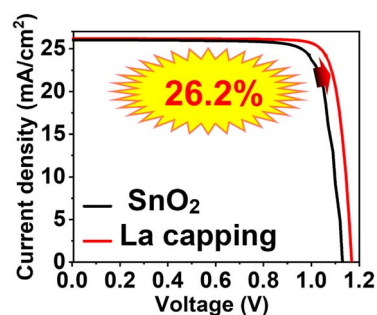
Hao Ren, Yisong Qiu, Qiang Zhou, Hongfei Ye, Haiying Han and Yonggang Zheng*



22962

Inorganic cation-capped SnO_2 for high-performance perovskite solar cells

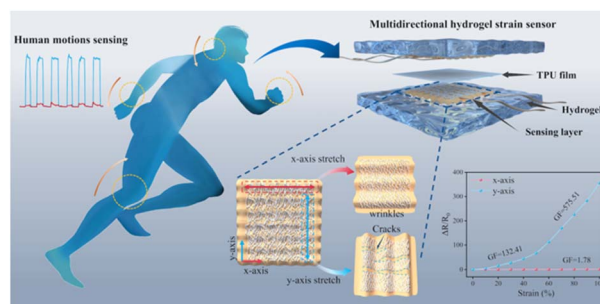
Nikolai Tsvetkov, Chanhyeok Kim, Kihoon Kim, Youngmin Kim, Jinsoo Park, Sangheon Lee, Chae-Eun Seo, Seungjin Lee, Eui Hyuk Jung, Bong Joo Kang, Dong Hoe Kim, Jaeki Jeong and Hanul Min*



22971

Constructing highly selective multidirectional hydrogel strain sensors with a pre-stretching strategy

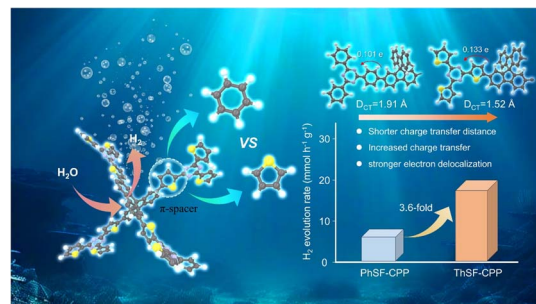
Wenqi She, Chong Shen, Zaifei Xue, Jie Yu, Guoliang Zhang and Qin Meng*



22980

Thiophene vs. benzene: how π -spacer engineering transforms photocatalytic hydrogen evolution

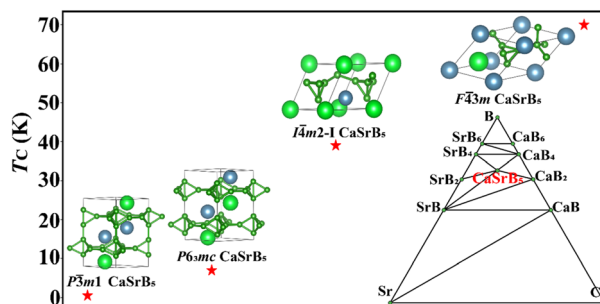
Zibin Li, Xiujuan Zhong, Ya Chu, Jingkai Lin, Fanpeng Meng, Jinsheng Zhao,* Zhengrong Wei* and Huayang Zhang*



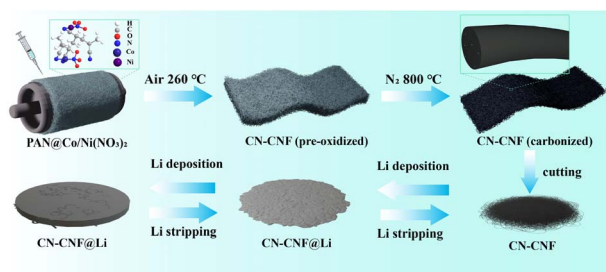
22990

Exploring the superconductivity of CaSrB_5 : high-pressure stability and electron–phonon interactions

Bohan Cao, Mengxin Yang, Yibo Sun, Xinwei Wang, Fubo Tian* and Tian Cui*



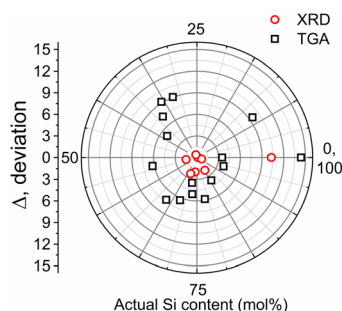
22999



Flexible self-supporting CoNi alloy-doped carbon nanofibers with uniformly dispersed nanoparticles: a 3D host for stable lithium metal anodes

Yichen Cao, Lantao Liu, Hongxing Wang, Yiming Li, Zhigang Zhang, Zhaoping Song, Changchang Liu, Xiaoyu Xu, Huaihe Song and Xiaohong Chen*

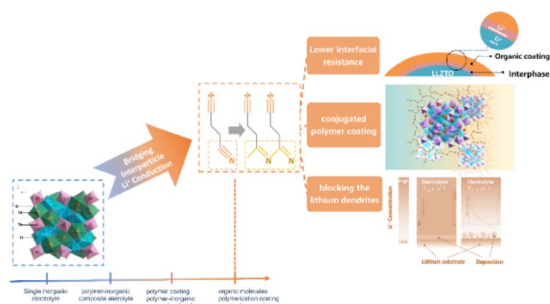
23012



Methods for accurate and rapid determination of purity of battery-grade silicon

Gwen F. Chimonides and Siddharth V. Patwardhan*

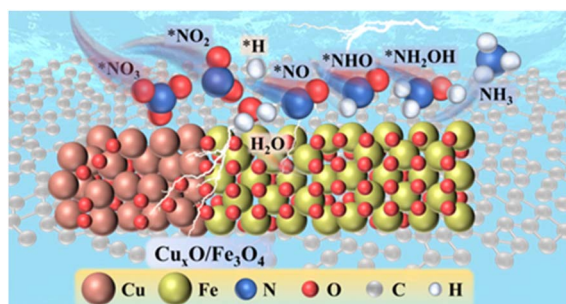
23019



Polymerization of succinonitrile on a garnet surface for preparing a single-ion conducting composite solid-state electrolyte

Haitian Yu, Qinqun Shao,* Minhui Li, Yiliang Zuo, Hao Chen, Chong Wang and Jian Chen*

23035



Self-evolution induced Cu_xO/Fe₃O₄ heterogeneous interfaces enabling rapid nitrate reduction to ammonia

Yingjie Xia, Xin Li, Yansen Qu, Yi Zhou, Ziyang Weng, Shengming Jin, Jun Wang and Xinghua Chang*

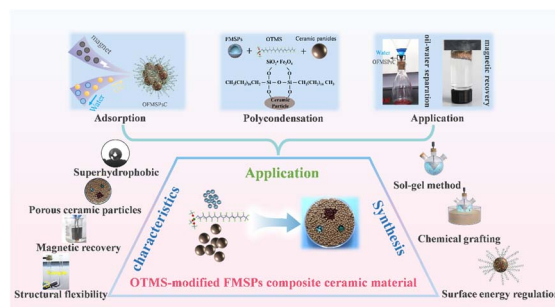


PAPERS

23046

Superhydrophobic granular filter media modified with mesoporous nanoparticles for magnetically guided oil cleanup

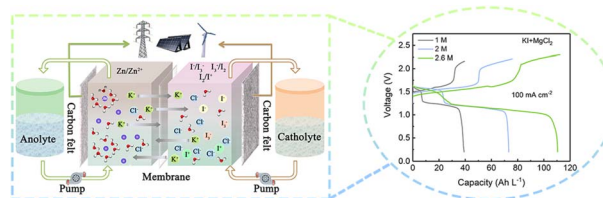
Xin Zhang, Huan Xiang, Xing Huang, Chuanbo Hu,^{*} Zhongmei Xu, Huawei Yin, Tingzhen Li^{*} and Kangning Ren^{*}



23059

Reversible two-electron redox conversion enabled by an activated electrode and stabilized inter-halogen electrolyte for high performance zinc–iodine flow batteries

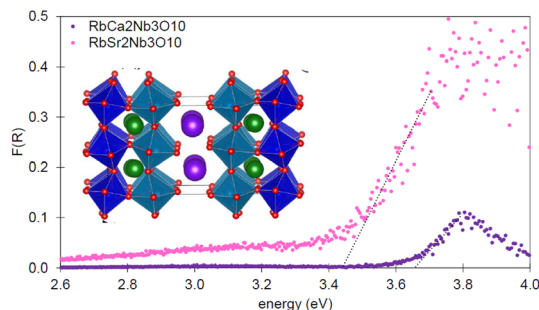
Jing Yang, Hui Yan, Ying Li and Ao Tang^{*}



23073

Structural chemistry of the $n = 3$ Dion–Jacobson phases: controlling polarity and band gap

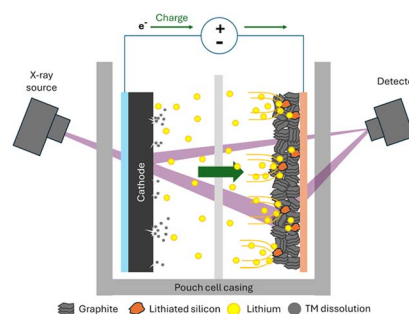
Areeshah Ali, Vanessa Cascos, Faith G. Pritchard, Jan R. R. Verlet, Nicole R. Sutherland, Jack Woolley, James Lloyd-Hughes, Maxim Avdeev, Andy Beeby, Stewart J. Clark and Emma E. McCabe^{*}



23087

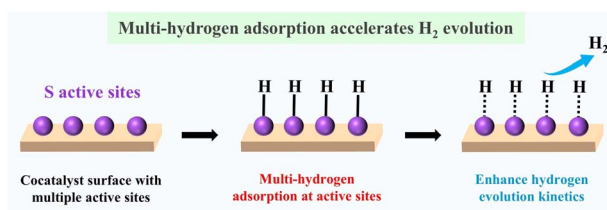
Lithium inventory loss and cathode stress induced by silicon-graphite anodes in cylindrical NCA90 full cells

Purin Krapong, Nattanon Joraleechanchai, Thitiphum Sangsanit, Samutr Assavachin, Worapol Tejangkura and Montree Sawangphruk^{*}



PAPERS

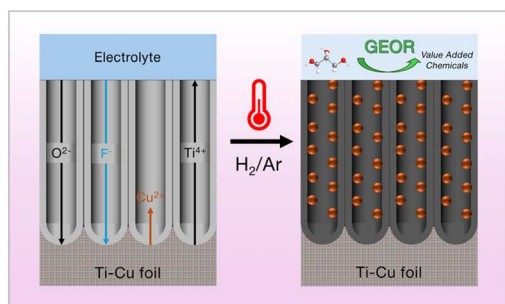
23104



Multi-hydrogen adsorption of amorphous ReS_x cocatalysts for boosting photocatalytic hydrogen evolution

Kexin Gan, Duoduo Gao, Xinyu Yin, Chuanbiao Bie, Liuyang Zhang, Jiaguo Yu and Huogen Yu*

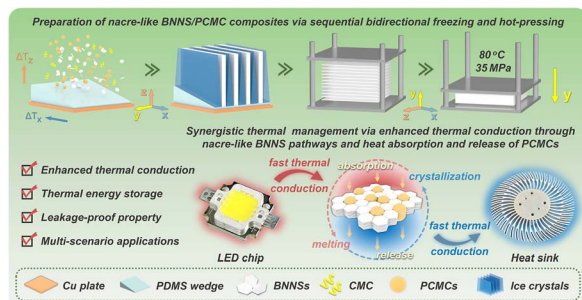
23113



Ti-Cu alloy-based converted suboxides: robust electrode scaffolds for enhanced electrocatalytic glycerol oxidation

Ula Suliman, Jing Liu* and Shiva Mohajernia*

23126



Leakage-proof nacre-like boron nitride nanosheet/phase change microcapsule composites with enhanced thermal conduction and thermal energy storage for advanced thermal management systems

Xiangkai Hu, Rong Lin and Zhihai Cao*

CORRECTIONS

23142

Correction: Self-powered, online, highly sensitive lubricating oil acidity monitoring driven by a triboelectric sensor

Bin Ge, Dong Liang, Yi Lei, Yajie Zhang,* Yi Liu, Wei Wu, Yijun Shi* and Jun Zhao*



CORRECTIONS

23143

Correction: Pure hydrogen and sulfur production from H_2S by an electrochemical approach using a NiCu– MoS_2 catalyst

Mukesh Kumar and Tharamani C. Nagaiah*

23144

Correction: A NiCu– MoS_2 electrocatalyst for pH-universal hydrogen evolution reaction and Zn–air batteries driven self-power water splitting

Mukesh Kumar and Tharamani C. Nagaiah*

