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ISSN 2052-1553 CODEN ICFNAW 11(18) 5755-6198 (2024)



Cover

See Zhi Ren *et al.*,
pp. 5858–5865.

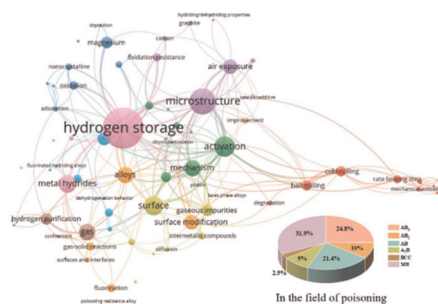
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Inorg. Chem. Front., 2024,
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REVIEWS

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Poisoning resistance: challenges for hydrogen storage alloys toward engineering applications

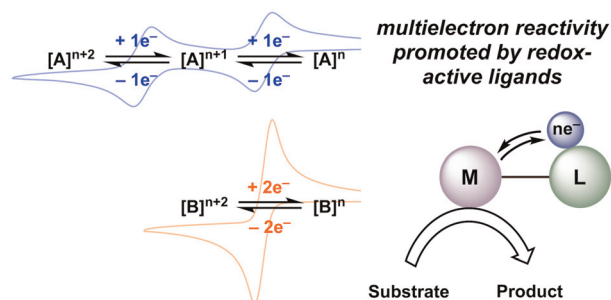
Jing Gu, Zhendong Yao,* Ge Gao, Yijing Wang, Min Liu, Miaogen Chen, Chao Li, Meiqiang Fan, Xuezhang Xiao and Lixin Chen*



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Redox-active ligand promoted multielectron reactivity at earth-abundant transition metal complexes

Minzhu Zou and Kate M. Waldie*



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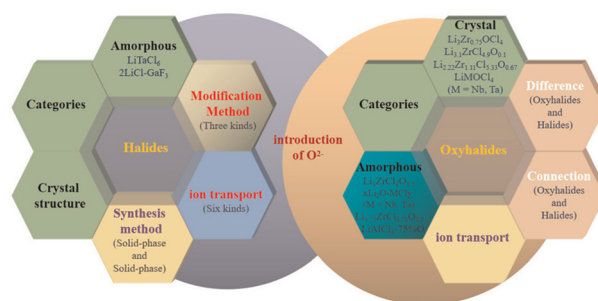
Fundamental questions
Elemental answers

REVIEWS

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New advances in solid-state electrolytes: from halides to oxhalides

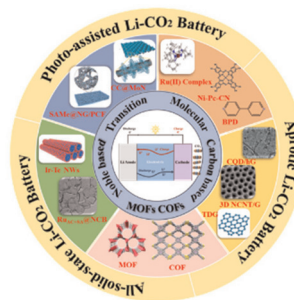
Qingtao Wang,* Zhenyang Shen, Pengfei Du, Yongmei Zhou, Peng Zhang and Ying Liu*



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Recent advances in the mechanism and catalyst design in the research of aprotic, photo-assisted, and solid-state Li-CO₂ batteries

Haixia Chen, Xijuan Li, Hairong Xue,* Lulu Jia,* Yunyun Xu, Yinglei Tao, Yige Yan, Xiaoli Fan,* Jianping He and Tao Wang*

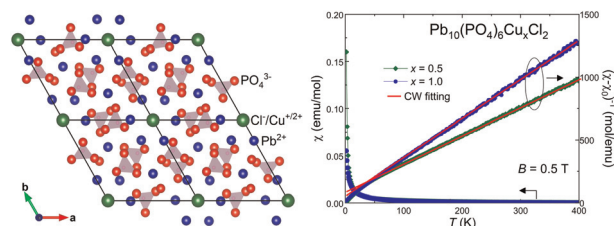


RESEARCH ARTICLES

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One-step synthesis of Cu-doped Pb₁₀(PO₄)₆Cl₂ apatite: a wide-gap semiconductor

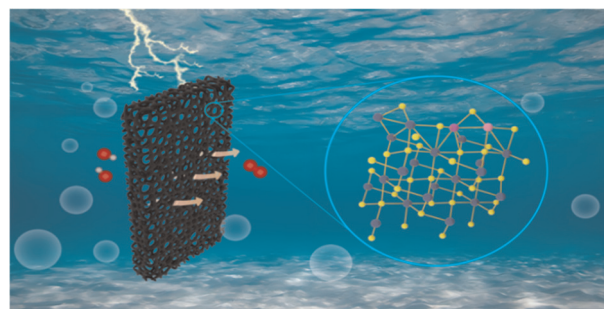
Wuzhang Yang, Zhihong Pang and Zhi Ren*



5866

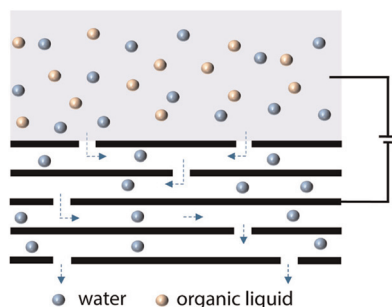
Synergistic promotion of the oxygen evolution reaction by Co and Fe dual-doping of NiS₂

Wen-juan Xu, Ying-yu Wang, Jiang-yan Dang, Xiao-ying Zhang,* Wen-liang Li* and Jing-ping Zhang*



RESEARCH ARTICLES

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Spontaneous and rapid electrostatic solvent nanofiltration based on a conductive layered membrane

Song Song, Haozhe Sun, Jiaxiang Xia, Shiwen Bao, Wenbin Ding, Nuo Liu, Tianwen Wang, Kunyan Sui,* Jun Gao,* Xueli Liu* and Lei Jiang

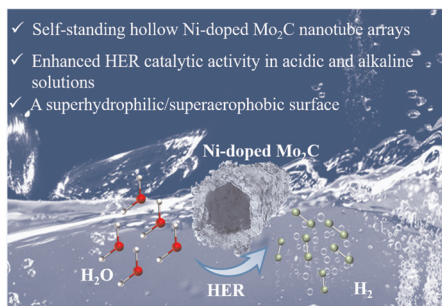
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Tailoring electronic environments of dispersed Ru sites for efficient alkaline hydrogen evolution

Mengyu Zhang, Bowen Zhou, Lingfei Guo, Hongdong Li, Weiping Xiao, Guangrui Xu, Dehong Chen, Caixia Li, Yunmei Du, Zexing Wu* and Lei Wang*

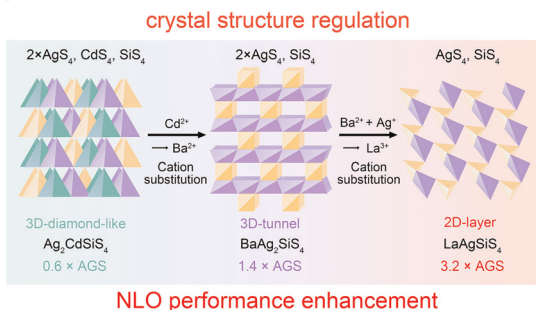
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Self-standing hollow Ni-doped Mo₂C nanotube arrays induced by the Kirkendall effect for an efficient hydrogen evolution reaction in acidic and alkaline solutions

Chen Li, Beirong Ye, Tengfei Zhang, Renhong Chen, Yongqi Li, Xin Liu, Tongwei Wu, Hongxian Liu,* Xinhui Xia* and Yongqi Zhang*

5905



Multi-step cation substitution facilitating the exploration of potential infrared nonlinear optical materials

Ya-Xiang Han, Chun-Li Hu, Wen-Tong Chen and Jiang-Gao Mao*

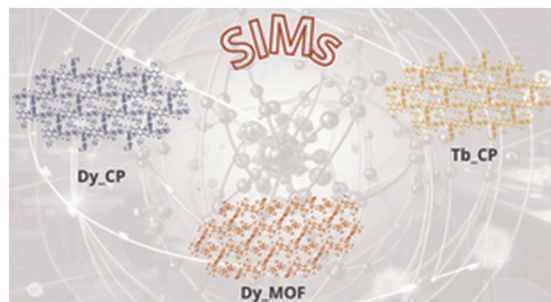


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Tunable SIM properties in a family of 3D anilato-based lanthanide-MOFs

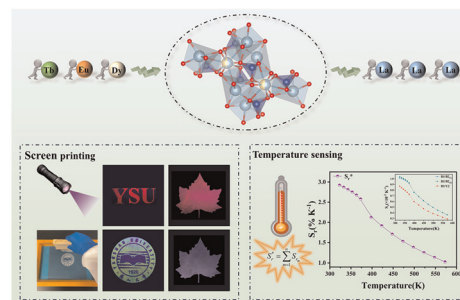
Noemi Monni, Sourav Dey, Víctor García-López, Mariangela Oggianu, José J. Baldoví, Maria Laura Mercuri,* Miguel Clemente-León* and Eugenio Coronado



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Exploring structural and optical properties of CLSO:Dy for ultra-sensitive luminescent thermometers and high-bright screen printing

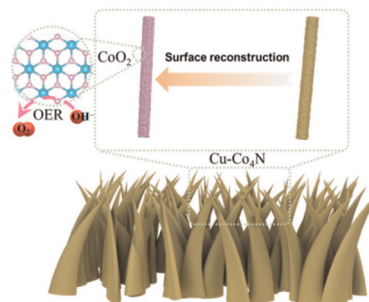
Xinyao Zhang, Zhen Sun,* Ruiying Lu, Jiarui Xu, Hongyu Xu and Wei Xu



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Copper dopants facilitated generation of high-valent cobalt sites for improved oxygen evolution

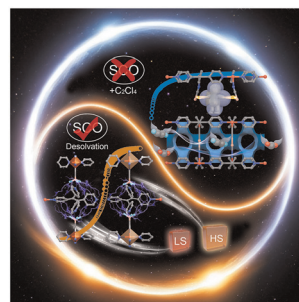
Jingrui Han, Jieshu Zhou, Hao Zhang, Haibin Wang, Kangning Liu, Xuhui Sun, Lihua Liu* and Hongyan Liang*



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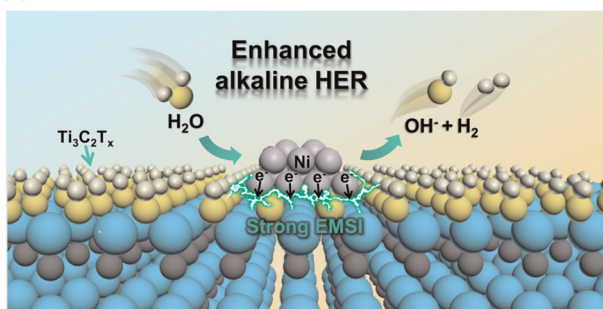
Responsive structural adaptability in ultra-microporous frameworks: guest recognition and macroscopic shape transformations induced by spin transitions within single crystals

Yu-Ting Yang, Wei Guo, Yu-Xia Li, Zhi-Kun Liu, Yuqiao Chai,* Xing Li, Bao Li* and Jin-Peng Xue*



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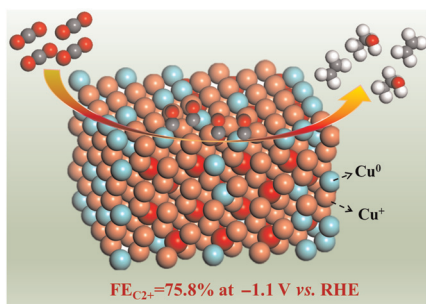
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Ti₃C₂T_x MXene induces strong electronic metal–support interaction with Ni nanoparticles for hydrogen evolution reaction with Pt-like activity

Yixuan Han, Xiaodan Yang, Yidan Zhao, Mingyang Zhao, Hongming Sun,* Jing Chen, Jianchao Sun,* Xiang Chen and Cheng-Peng Li*

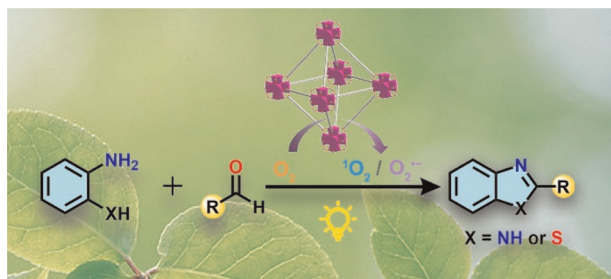
5964



A derived-Cu catalyst with a potential-driven interface and tensile strain for enhancing CO₂ electrocatalytic reduction

Fangfang Chang, Zihan Lin, Yongpeng Liu, Qing Zhang, Xiaolei Wang and Zhengyu Bai*

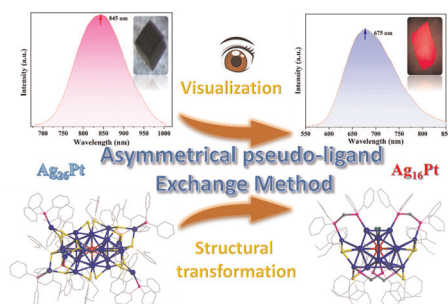
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Visible-light-active benzothiadiazole-based MOFs as efficient ROS generators for the synthesis of benzimidazoles and benzothiazoles

Hua Liu, Wen-Wen Yi,* Quan-Quan Li* and Shu-Ya Zhao

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Visualizing the fluorescence of AgPt NCs by an asymmetrical pseudo-ligand exchange method

Lizhong He,* Tingting Dong, Xiaoyang Hu and Zibao Gan*

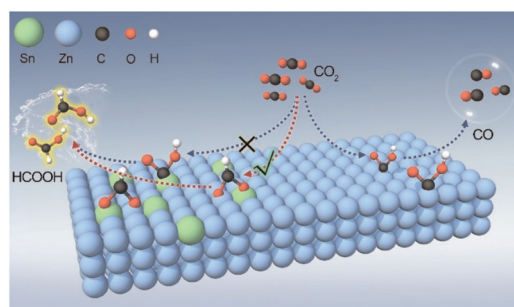


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Trace Sn modified Zn catalysts for efficient CO₂ electroreduction to HCOOH

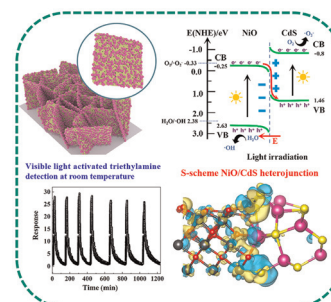
Rui Yang,* Hao Fu, Zimin Han, Guoqing Feng, Huaizhi Liu, Yangguang Hu* and Yiyin Huang*



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A step-scheme mechanism in a NiO/CdS heterojunction nanoarray for visible light-activated gas sensing at room temperature

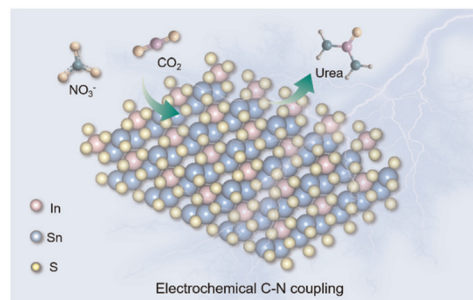
Wufei Gong, Shenman Yao, Dehua Wang, Jiahao Li, Yulin Zhu, Jianxian You, Yan Liang,* Yanxing Yang and Yong Yang*



6010

Efficient electrosynthesis of urea using CO₂ and nitrate over a bifunctional In₄SnS₈ catalyst

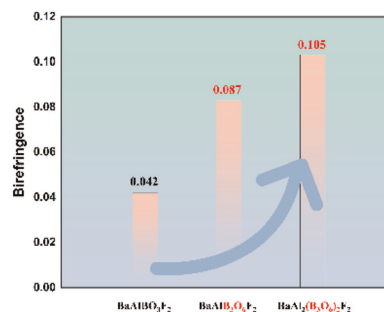
Mao Li, Yanan Gao,* Ji Xu, Sangzi Wang, Yujin Wei, Jingru Wang, Bo Ouyang* and Kun Xu*



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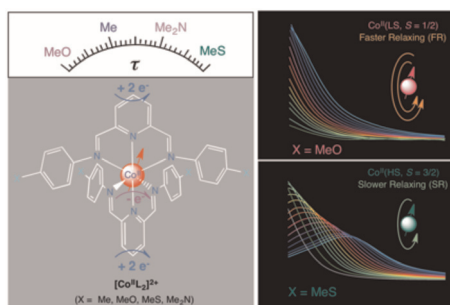
From BaAlBO₃F₂ to BaAlB₃O₆F₂ and BaAl₂(B₃O₆)₂F₂: the enhancement of birefringence and band gap by extending the π-conjugated system combined with [Al-O/F] functional groups

Cheng Chen, Danyang Dou, Yunjie Bai, Bingbing Zhang and Ying Wang*



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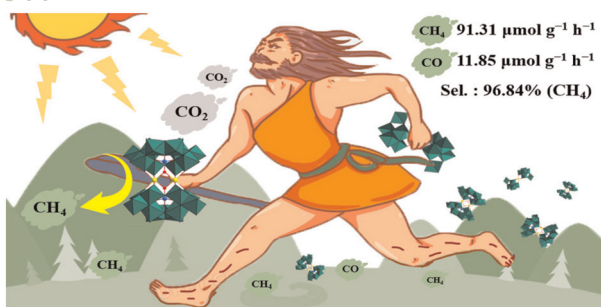
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Multielectron transfer and field-induced slow magnetic relaxation in opto-electroactive spin crossover cobalt(II) complexes: structure–function correlations

Renato Rabelo, Luminita Toma, Miguel Julve, Francesc Lloret, Jorge Pasán, Danielle Cangussu, Rafael Ruiz-García and Joan Cano*

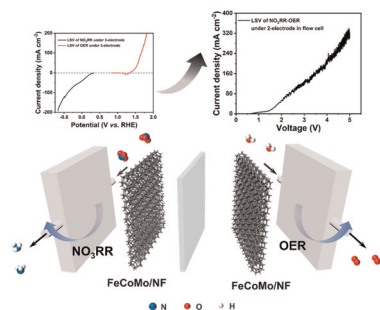
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A purely inorganic germanium–molybdenum–oxo cluster with ruthenium participation for visible-light-driven CO₂ reduction

Kunhong Li, Yumei Hong, Xinyi Ma, Yujie Zhao, Shihao Zhang, Pengtao Ma, Jingyang Niu* and Jingping Wang*

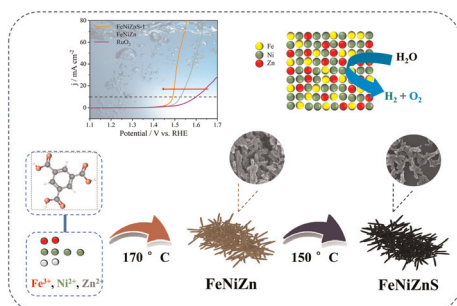
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Fe-modified Co₂Mo₃O₈-promoted nitrate-cascade reduction coupled with the oxygen evolution reaction for electrocatalytic ammonia synthesis

Yaru Wang, Shiyu Qin, Xiaoyue Chen, Xiangchao Meng and Zizhen Li*

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Universal synthesis of coral-like ternary MOF-derived sulfides as efficient OER electrocatalysts

Tianpeng Liu, Yangping Zhang, Jun Yu, Mengyun Hu, Zhengying Wu,* Xiao Wei, Shudi Yu and Yukou Du*

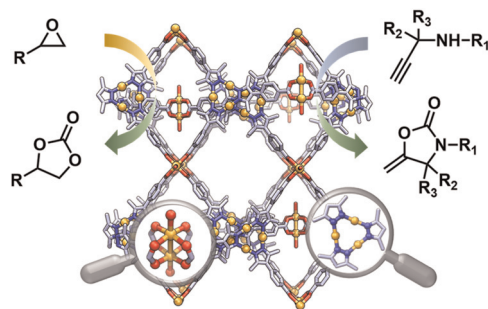


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A mixed-valence Cu^I/Cu^{II} metal–organic framework for CO₂ conversion

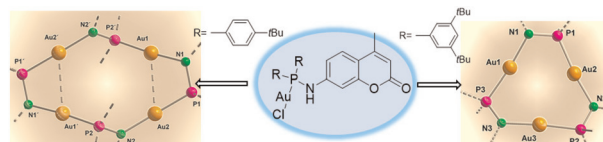
Yu-Mei Wang, Kai-Ming Mo, Dong Luo, Mei-Xia Tao, Xu Chen, Guo-Hong Ning* and Dan Li*



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Synthesis of luminescent coumarin-substituted phosphinoamide-bridged polynuclear gold(I) metallacycles and reactivity studies

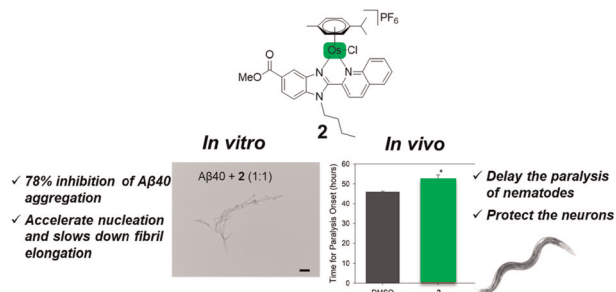
Vanitha R. Naina, Akhil K. Singh, Shubham, Julia Krämer, Mohd Iqbal and Peter W. Roesky*



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Piano-stool metal complexes as inhibitors of amyloid- β aggregation *in vitro* and *in vivo*

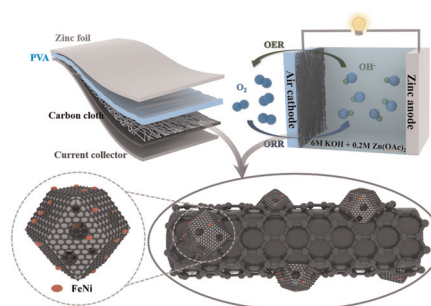
Gloria Viguera, Raimon Sabate, Leoní A. Barrios, Ana B. Caballero,* Samanta Hernández-García, Pau Bayón, Fernando Gandía-Herrero,* José Ruiz* and Patrick Gamez



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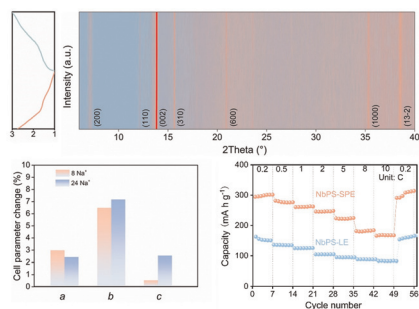
FeNi alloys embedded in porous carbon shells on a dual substrate as efficient electrocatalysts for zinc–air batteries

Han Guo, Guangxu Yao, Chuanzhen Feng, Mi Wang, Huijuan Zhang* and Yu Wang*



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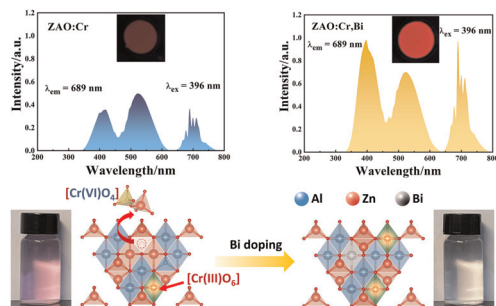
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A quasi-zero-strain layered Nb₄P₂S₂₁ cathode for high-energy solid-state polymer Na–metal batteries

Xueyang Tu, Baixin Peng, Xue Wang, Xue Wang, Shaoning Zhang, Yuqiang Fang, Wujie Dong, Jiabo Le,* Keyan Hu* and Fuqiang Huang*

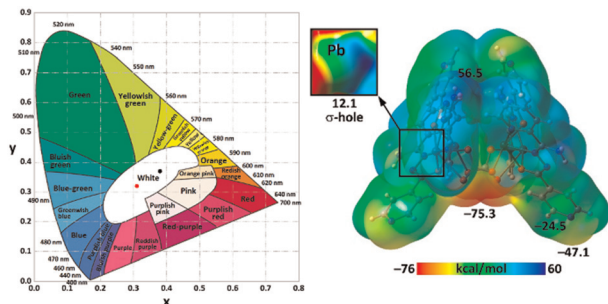
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Achieving a Cr⁶⁺-free Cr³⁺-activated spinel phosphor by a one-step solid-state reaction

Yiqing Zhou, Quantian Cao, Yue Han, Zhongxian Qiu,* Jilin Zhang, Wenli Zhou and Shixun Lian*

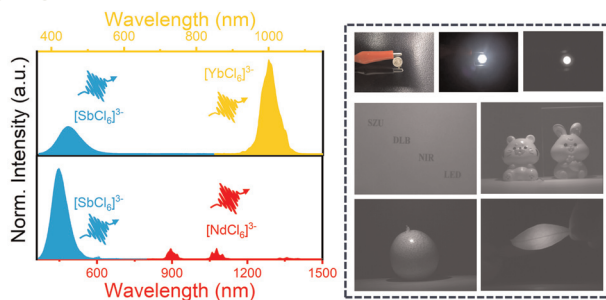
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Aerial carbon dioxide conversion to carbonate mediated by a lead(II) complex with tridentate bipyridine containing a hydrazide ligand under electrochemical conditions yielding single-component white-light-emitting phosphors

Ghodrat Mahmoudi, Isabel Garcia-Santos,* Elena Labisbal, Alfonso Castiñeiras, Vali Alizadeh,* Rosa M. Gomila, Antonio Frontera* and Damir A. Safin*

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Enabling efficient near-infrared emission in lead-free double perovskite via a codoping strategy

Xiangyan Yun, Hanlin Hu, Haizhe Zhong, Jingheng Nie,* Henan Li and Yumeng Shi*

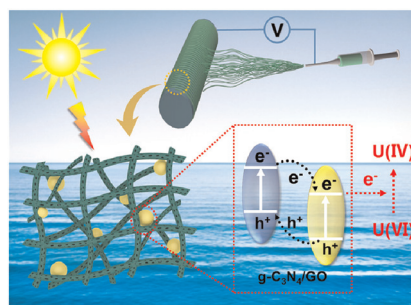


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Graphene oxide/graphitic carbon nitride/polyamide oxime nanofibers for adsorption and photocatalytic reduction of uranium from seawater

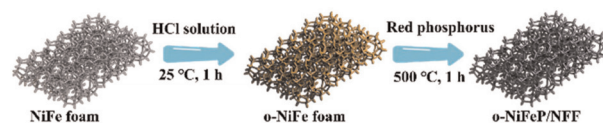
Shiliang Qin, Jianang Sha, Peipei Yang,* Songwei Li,* Chuntai Liu and Changyu Shen



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The ultrafast reconfigurability and ultrahigh durability of an NiFe phosphide electrocatalyst with an Fe-rich surface induced by *in situ* acid corrosion for water oxidations

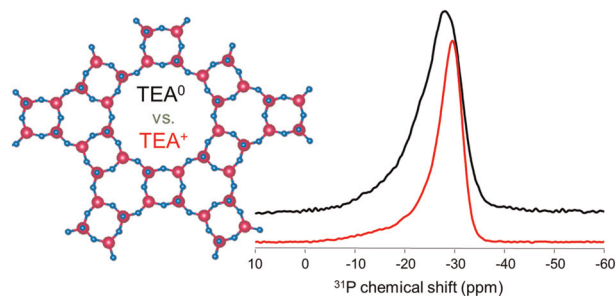
Min Jiang, Jiaming Zhang, Hanxiao Liao, Huanhuan Zhai, Xuanzhi Liu, Pengfei Tan,* Ke Yang* and Jun Pan*



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Revealing the effect of templates on atomic scale ordering and the hydrophilic properties of aluminophosphates

Ludovica Pace, Eddy Dib,* Diogenes Honorato-Piva, Valérie Ruaux, Aurelie Vicente and Svetlana Mintova*



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Remarkable enhancement of Ca²⁺ affinity using a redox-switchable coordinating group

Juan Pedro Merino, Adrián M. Abelairas, Javier Hernández-Ferrer, Ana M. Benito, Wolfgang K. Maser, José L. Vilas-Vilela, David Esteban-Gómez, Alejandro Criado, Jesús Mosquera* and Carlos Platas-Iglesias*

