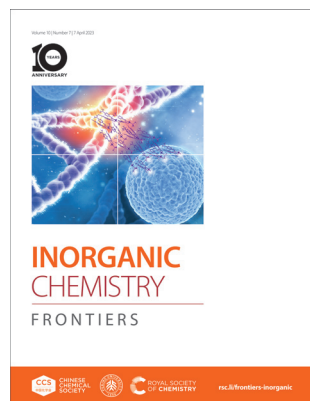


### IN THIS ISSUE

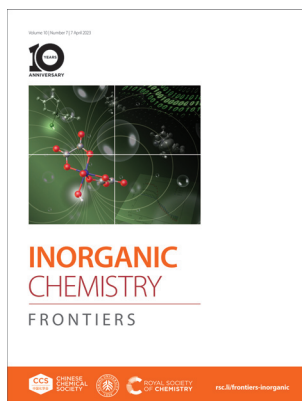
ISSN 2052-1553 CODEN ICFNAW 10(7) 1941–2208 (2023)



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See Carlos Platas-Iglesias, Mario Chiesa, Mauro Botta *et al.*, pp. 1999–2013.

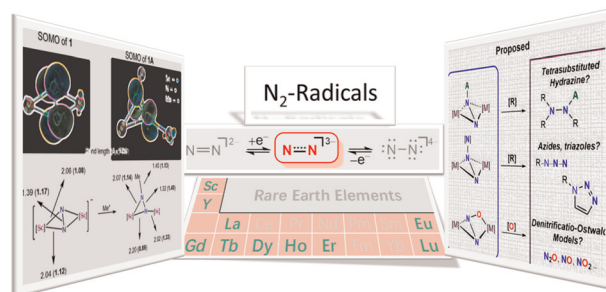
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### CHEMISTRY FRONTIERS

1952

#### The trianionic hydrazido radical ( $N_2$ )<sup>3-</sup>: a promising platform for transforming $N_2$

Josué Rolando Aguilar-Calderón, Junnian Wei\* and Zhenfeng Xi\*

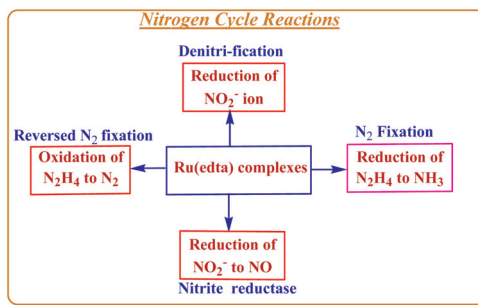


### REVIEWS

1958

#### Prospect of Ru(edta) complexes in nitrogen cycle electrocatalysis: a mini review

Debabrata Chatterjee,\* Olga Impert and Rudi van Eldik\*



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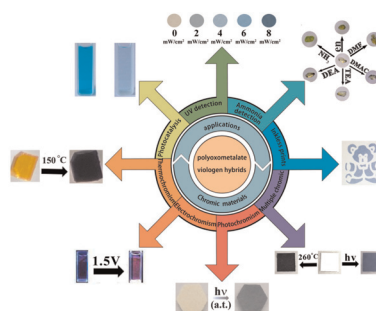


## REVIEWS

1965

**Recent progress in polyoxometalate–viologen photochromic hybrids: structural design, photochromic mechanism, and applications**

Li Li,\* Yang-Tao Yu, Yang Hua, Xiao-Nan Li and Hong Zhang\*

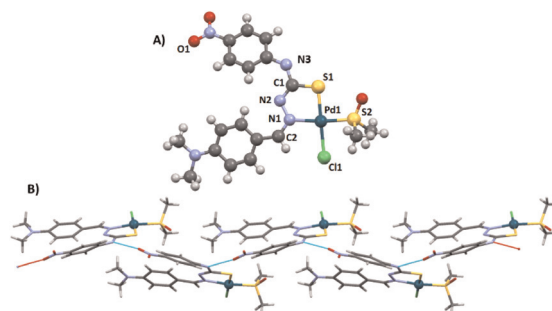


## RESEARCH ARTICLES

1986

**Two novel Pd thiosemicarbazone complexes as efficient and selective antitumoral drugs**

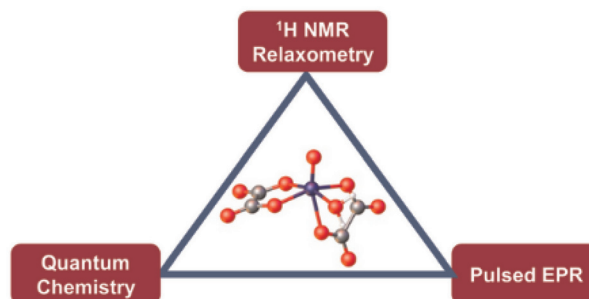
Tania Hidalgo, David Fabra, Raul Allende, Ana I. Matesanz, Patricia Horcajada,\* Tarita Biver\* and Adoracion G. Quiroga\*



1999

**Magnetic and relaxation properties of vanadium(IV) complexes: an integrated  $^1\text{H}$  relaxometric, EPR and computational study**

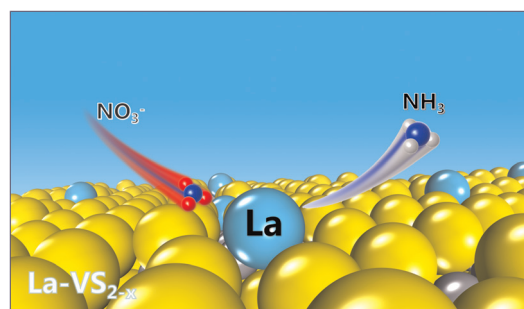
Valeria Lagostina, Fabio Carniato, David Esteban-Gómez, Carlos Platas-Iglesias,\* Mario Chiesa\* and Mauro Botta\*



2014

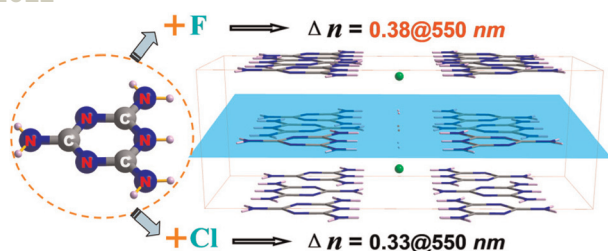
**Rare-earth La-doped  $\text{VS}_{2-x}$  for electrochemical nitrate reduction to ammonia**

Guohui Wang, Peng Shen, Kai Chen, Yali Guo, Xiaolin Zhao and Ke Chu\*



## RESEARCH ARTICLES

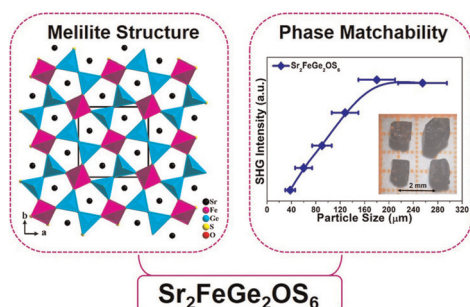
2022



**$\beta$ -( $C_3H_7N_6$ ) $_2Cl_2 \cdot H_2O$  and ( $C_3H_7N_6$ )F $\cdot H_2O$ : two UV birefringent crystals induced by uniformly aligned structural groups**

Yaoguo Shen,\* Liang Ma, Guofa Dong,\* Hualiang Yu and Junhua Luo

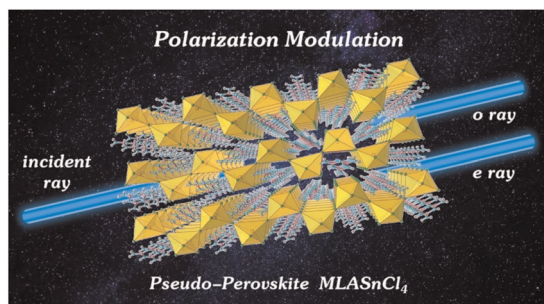
2030



**Melilite oxychalcogenide  $Sr_2FeGe_2OS_6$ : a phase-matching IR nonlinear optical material realized by isomorphous substitution**

He-Di Yang, Sheng-Hua Zhou, Mao-Yin Ran, Xin-Tao Wu, Hua Lin\* and Qi-Long Zhu\*

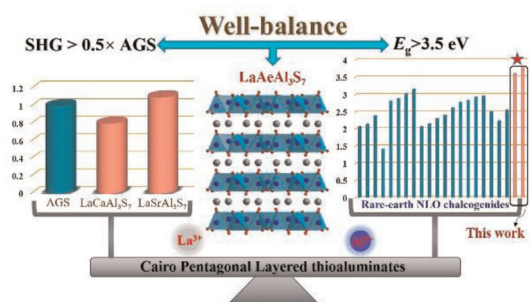
2039



**A hybrid halide lead-free pseudo-perovskite with large birefringence**

WeiQi Huang, Xiaolong Wu, Belal Ahmed, Yanqiang Li, Yang Zhou, Han Wang, Yipeng Song, Xiaojun Kuang, Junhua Luo and Sange Zhao\*

2045



**LaAeAl $_3$ S $_7$  (Ae = Ca, Sr): Cairo pentagonal layered thioaluminates achieving a good balance between a strong second harmonic generation response and a wide bandgap**

Jingjing Xu, Kui Wu,\* Bingbing Zhang, Haohai Yu\* and Huaijin Zhang\*



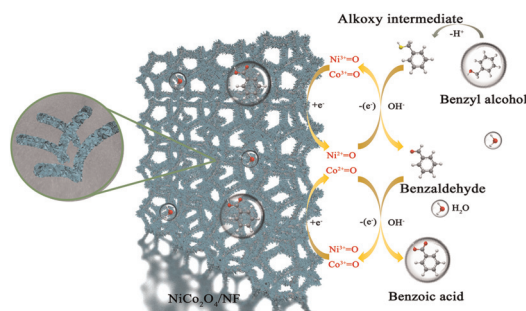


## RESEARCH ARTICLES

2053

**In situ construction of  $\text{NiCo}_2\text{O}_4$  nanosheets on nickel foam for efficient electrocatalytic oxidation of benzyl alcohol**

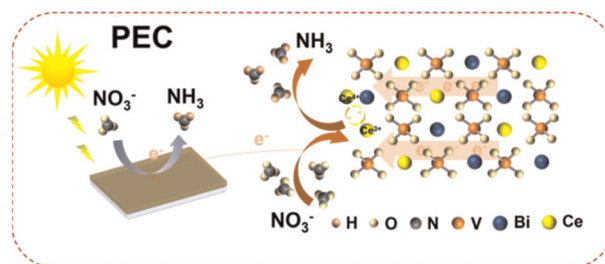
Min Xu, Jing Geng, Hui Xu, Shengbo Zhang\* and Haimin Zhang\*



2060

**Understanding the role of Ce sites for boosting PEC-NIRR without externally applied potentials**

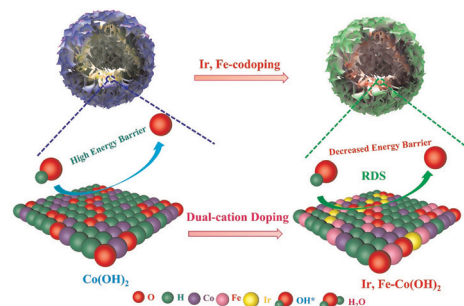
Lijing Liu, Yajie Bai, Zhenzhen Huang, Guanhua Wang, Jianguo Cui, Hongye Bai\* and Weiqiang Fan\*



2067

**Dual-cation doping precisely reducing the energy barrier of the rate-determining step for promoting oxygen-evolving activity**

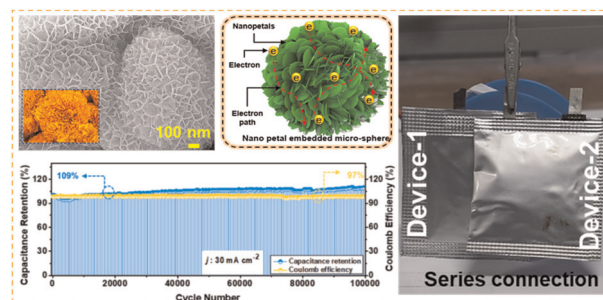
Hui Xu,\* Cheng Wang, Bingji Huang, Hongyuan Shang and Yukou Du\*



2075

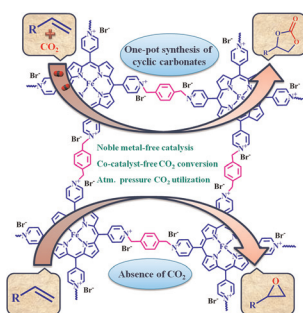
**Rational construction of porous marigold flower-like nickel molybdenum phosphates via ion exchange for high-performance long-lasting hybrid supercapacitors**

Ampasala Surya Kiran, Bhimanaboina Ramulu, Shaik Junied Arbaz, Edugulla Girija Shankar, Manchi Nagaraju and Jae Su Yu\*



## RESEARCH ARTICLES

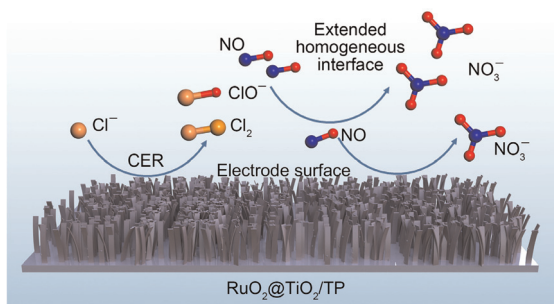
2088



### Ionic Fe(III)-porphyrin frameworks for the one-pot synthesis of cyclic carbonates from olefins and CO<sub>2</sub>

Rajesh Das, Sahil Kamra and C. M. Nagaraja\*

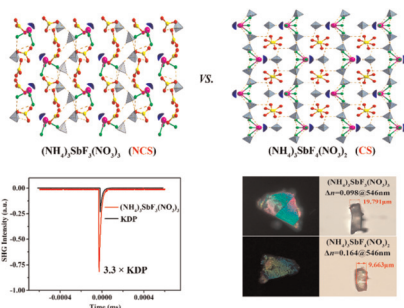
2100



### Integrating RuO<sub>2</sub>@TiO<sub>2</sub> catalyzed electrochemical chlorine evolution with a NO oxidation reaction for nitrate synthesis

Longcheng Zhang, Jie Liang, Xun He, Qin Yang, Yongsong Luo, Dongdong Zheng, Shengjun Sun, Jing Zhang, Hong Yan, Binwu Ying,\* Xiaodong Guo\* and Xuping Sun\*

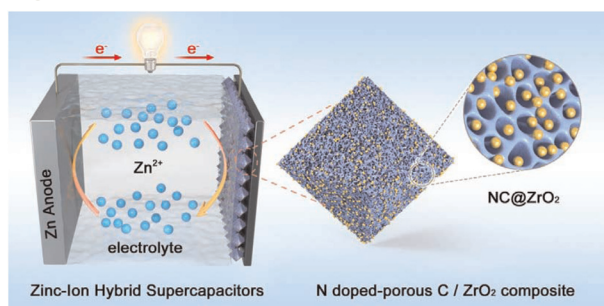
2107



### Low temperature molten salt synthesis of noncentrosymmetric (NH<sub>4</sub>)<sub>3</sub>SbF<sub>3</sub>(NO<sub>3</sub>)<sub>3</sub> and centrosymmetric (NH<sub>4</sub>)<sub>3</sub>SbF<sub>4</sub>(NO<sub>3</sub>)<sub>2</sub>

Qin Wang, Jinxuan Ren, Dan Wang, Liling Cao, Xuehua Dong, Ling Huang,\* Daojiang Gao and Guohong Zou\*

2115



### A UiO-66-NH<sub>2</sub> MOF derived N doped porous carbon and ZrO<sub>2</sub> composite cathode for zinc-ion hybrid supercapacitors

Xiaoqi Wang, Hu Hong, Shuo Yang, Shengchi Bai, Rui Yang, Xu Jin, Chunyi Zhi\* and Bo Wang\*

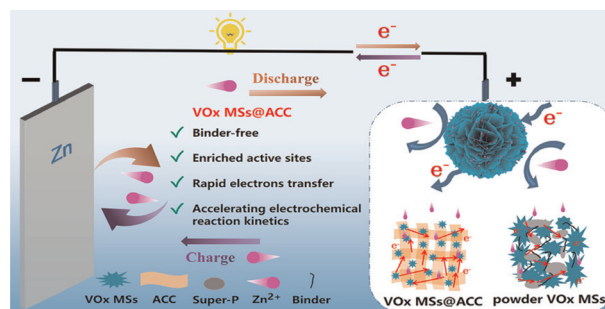


## RESEARCH ARTICLES

2125

**In situ growth of amorphous vanadium oxide nanospheres on carbon cloth as free-standing cathodes used in high performance aqueous zinc-ion batteries**

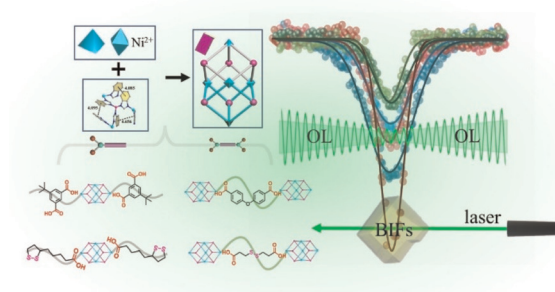
Xuguang Han, Yan Zhang,\* Mengmeng Liu, Yifei Sun, Wenshan Gou, Zhao Xu and Chang Ming Li\*



2136

**Ligand evolution on trigonal bipyramidal boron imidazolate cages for enhanced optical limiting**

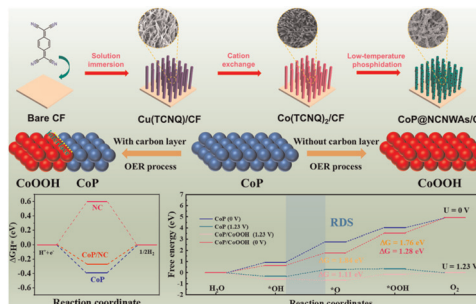
Jun-Qiang Chen, Hai-Xia Zhang,\* Zhi-Run Wang, Qin-Long Hong and Jian Zhang\*



2145

**N-doped carbon nanowire array confined cobalt phosphides as efficient bifunctional electrocatalysts for water splitting**

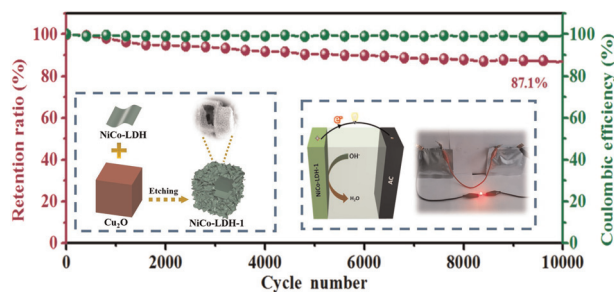
Shunlian Ning, Qikai Wu, Yuguang Zhu, Shilong Liu, Wei Zhou, Luo Mi, Kai Zhou, Dengke Zhao,\* Xiyun Zhang\* and Nan Wang\*



2154

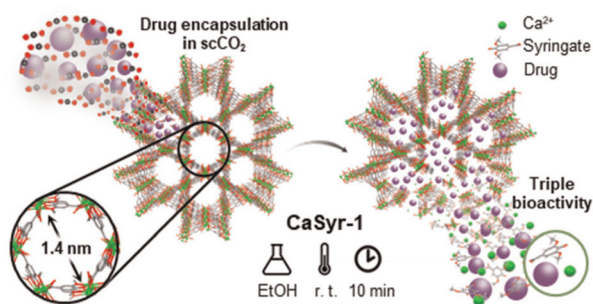
**NiCo layered double hydroxide nanocages for high-performance asymmetric supercapacitors**

Hualin Jiang, Qi Ke, Xianhua Qiu, Jiezheng Chen, Pinghua Chen,\* Shuai Wang, Xubiao Luo and Bingying Rao



## RESEARCH ARTICLES

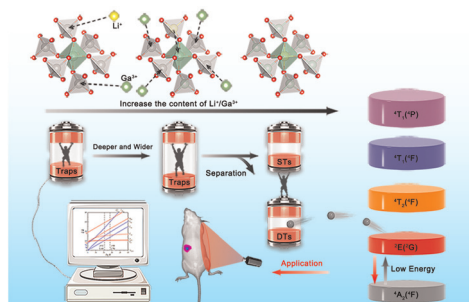
2165



### Facile, fast and green synthesis of a highly porous calcium-syringate bioMOF with intriguing triple bioactivity

Albert Rosado,\* Oriol Vallcorba, Blanca Vázquez-Lasa, Luís García-Fernández, Rosa Ana Ramírez-Jiménez, María Rosa Aguilar, Ana M. López-Periago, Concepción Domingo\* and José A. Ayllón\*

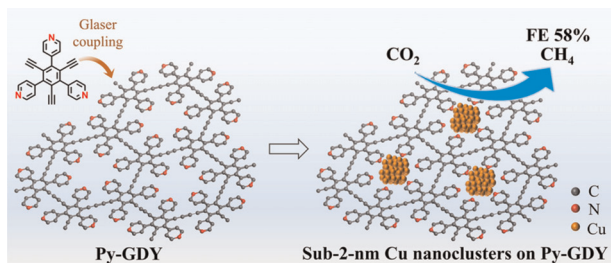
2174



### Regulating the trap distribution of $\text{ZnGa}_2\text{O}_4:\text{Cr}^{3+}$ by $\text{Li}^+/\text{Ga}^{3+}$ doping for upconversion-like trap energy transfer NIR persistent luminescence

Junqing Xiahou, Qi Zhu,\* Fan Li, Minghui Jin, Lin Zhu, Sai Huang, Tao Zhang, Xudong Sun and Ji-Guang Li\*

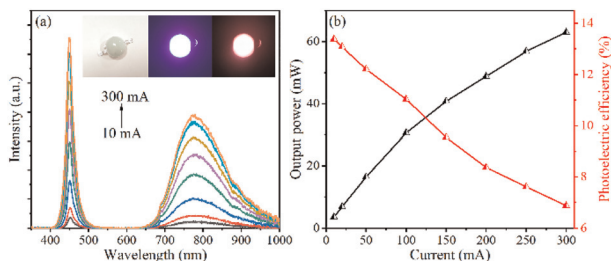
2189



### Pyridyl-containing graphdiyne stabilizes sub-2 nm ultrasmall copper nanoclusters for the electrochemical reduction of $\text{CO}_2$

Hao Dai, Haiyuan Zou, Tao Song, Lei Gao, Shuting Wei, Hong Liu, Huatian Xiong, Changshui Huang and Lele Duan\*

2197



### Improving and broadening luminescence in $\text{Gd}_{2-x}\text{Al}_x\text{GaSbO}_7:\text{Cr}^{3+}$ phosphors for NIR LED applications

Siyu Guo, Ligan Ma, Muniran Abudureyimu, Rongfei Wei,\* Fumin Lu, Fangfang Hu and Hai Guo\*





## CORRECTION

2206

**Correction: An in solution adsorption characterization technique based on the response to an external magnetic field of porous paramagnetic materials: application on supramolecular metal–adenine frameworks containing heterometallic heptameric clusters**

Jon Pascual-Colino, Rubén Pérez-Aguirre, Garikoitz Beobide, Oscar Castillo,\* Imanol de Pedro, Antonio Luque, Sandra Mena-Gutiérrez and Sonia Pérez-Yáñez

