# ChemComm

#### Chemical Communications

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#### Inside cover

See Cleis Santos and Fabio La Mantia, pp. 6437-6452. Image reproduced by permission of Fabio La Mantia and Cleis Santos from Chem. Commun.. 2023, 59, 6437.

#### **FEATURE ARTICLES**

#### 6437

Insights into desalination battery concepts: current challenges and future perspectives

Cleis Santos\* and Fabio La Mantia\*



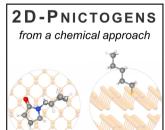
#### 6453

Chemistry of two-dimensional pnictogens: emerging post-graphene materials for advanced applications

Matteo Andrea Lucherelli, Víctor Oestreicher, Marta Alcaraz and Gonzalo Abellán\*











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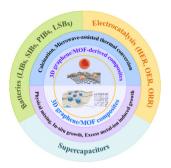


#### FEATURE ARTICLES

#### 6475

Three-dimensional graphene/metal-organic framework composites for electrochemical energy storage and conversion

Yumei Ren and Yuxi Xu\*



#### 6495

## Iodanes as multi-tools for the total synthesis of complex natural products

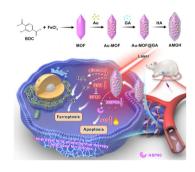
Camille Rocq, Maxime Denis and Sylvain Canesi\*

#### **COMMUNICATIONS**

#### 6509

A gold nanoparticle engineered metal-organic framework nanoreactor for combined ferroptosis and mild photothermal therapy

Ruyue Wei, Yanhua Li, Peng Gao, Xia Zhang, Xiaoyu Li, Kaixian Wang, Wei Pan, Na Li\* and Bo Tang\*



#### 6513

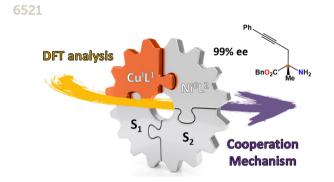
## An efficient metal-free desulfurization strategy promoted by Togni-II reagent

Jun Zhang, Haiyun Liu, Shuang Teng, Zhiwen Liao, Lingkui Meng,\* Qian Wan\* and Suwei Dong\*

## 6517 PEO TFSI-NO<sub>3</sub> PVDF-HFF Crosstalk Li+ transfer Reinforced structure ✓ Guided Li deposition ✓ Good structure stability

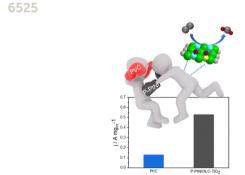
## Embedding alloying sites in a lithiated polymer matrix as a stable interphase of lithium electrodes

Tengpeng Xiong, Zhendong Li, Xiayin Yao\* and Zhe Pena\*



## Factors driving the Ni/Cu cooperative asymmetric propargylation of aldimine esters

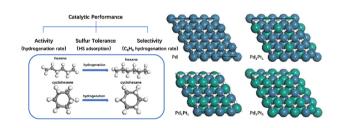
Giuseppe Sciortino and Feliu Maseras\*



## A P-doped PtNi alloy supported on N,C-doped TiO<sub>2</sub> nanosheets as a stable electrocatalyst for the oxygen reduction reaction in an acidic electrolyte

Chen Lu, Chao Xu, Peng-Peng Guo, Kun-Zu Yang, Ying Xu, Hua-Min Chi, Ping-Jie Wei and Jin-Gang Liu\*

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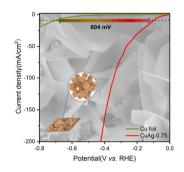
## Identification of PdPt alloys for preferential C<sub>6</sub> olefin hydrogenation over aromatic hydrocarbons through density functional theory and microkinetic modeling

Haowen Ma, Jiayi Wang, Xuecheng Zhan,\* Yuan Xie, Limin Sun, Xiaoli Hu, Haoxiang Xu and Daojian Cheng\*

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## Ag-doped Cu nanosheet arrays for efficient hydrogen evolution reaction

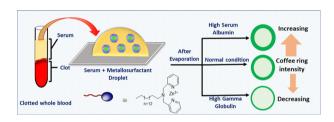
Ling-Jie Kong, Ya-Meng Xie, Xing-Yu Chen, Cong Xi, Fei-Fei Zhang, Min Wang, Long Shang, Yuan Huang,\* Xi-Wen Du\* and Sergei A. Kulinich\*



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## Simultaneous quantification of serum albumin and gamma globulin using Zn(II)-metallosurfactant via a coffee ring pattern

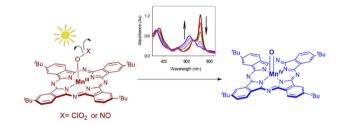
Aastha, Priyanka and Subhabrata Maiti\*



#### 6540

## Photochemical generation and reactivity of a new phthalocyanine-manganese-oxo intermediate

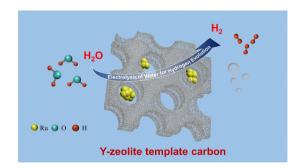
Tristan Skipworth, Seth Klaine and Rui Zhang\*



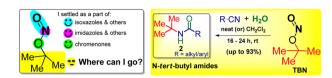
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## Zeolite-templated carbon-supported Ru-based catalysts for efficient alkaline hydrogen evolution reaction

Xin Wang, Xiaoli Yang,\* Junwei Sun, Mingyu Guo, Zhihao Cao, Haoxi Ben, Wei Jiang, Shujun Ming and Lixue Zhang\*



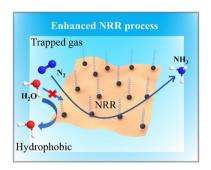
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Facile preparation of *N-tert*-butyl amides under heat-, metal- and acid-free conditions by using tert-butyl nitrite (TBN) as a practical carbon source

Palani Natarajan\* and Onder Metin\*

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Interfacial engineering of hydrophobic octadecanethiol/Pd metallene toward electrocatalytic nitrogen reduction

Hongjing Wang, Xu Mu, Qiqi Mao, Kai Deng, Hongjie Yu, You Xu, Xiaonian Li, Ziqiang Wang\* and Liang Wang\*

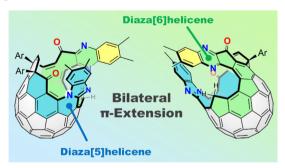
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"Medium-ring" strategy enables high-performance narrowband pure-blue multi-resonance emitters: boost provided by a unique perpendicular geometry

Xin Xiao, Bowen Lei, Di Wu\* and Zhengyang Bin\*

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## Bilateral $\pi$ -extension of an open-[60]fullerene in a helical manner

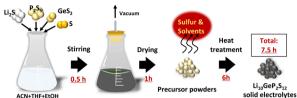
Yoshifumi Hashikawa, Shumpei Sadai and Yasujiro Murata\*

#### 6564

## Li<sub>10</sub>GeP<sub>2</sub>S<sub>12</sub> solid electrolytes synthesised via liquid-phase methods

Kazuhiro Hikima,\* Kaito Ogawa, Hirotada Gamo and Atsunori Matsuda\*

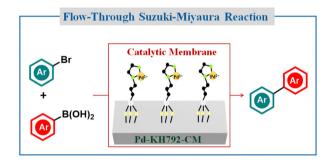
#### Li<sub>10</sub>GeP<sub>2</sub>S<sub>12</sub> Solid Electrolytes Synthesised Rapidly via Liquid-Phase Methods



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## Palladium-loaded ceramic membrane-catalyzed flow-through Suzuki-Miyaura reaction

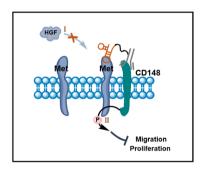
Shuangqiang Wang, Jinliang Chen, Fei Zhang, Yao Zhao, Xiaojin Wu\* and Rizhi Chen\*



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## A phosphatase-recruiting bispecific antibody-aptamer chimera for enhanced suppression of tumor growth

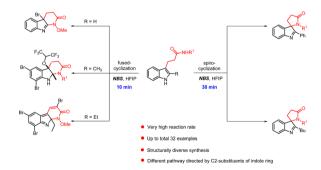
Wei Li, Weihua Lu and Zhen Liu\*



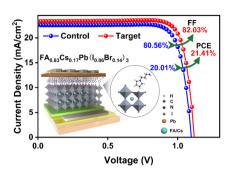
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## NBS-induced intramolecular annulation reactions for the divergent synthesis of fused- and spirocyclic indolines

Xian Luo, Meng-Meng Xu, Xiao-Ping Xu\* and Shun-Jun Ji\*



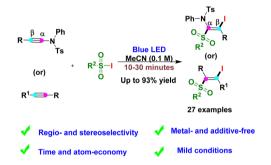
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Surface termination passivation of imidazole-based diiodide enabling efficient inverted perovskite solar cells

Yu Wang, Jiaxing Song,\* Jingchuan Ye, Yingzhi Jin, Xinxing Yin, Zhen Su, Lin Hu, Yan Wu, Chufeng Qiu, Hao Wang, Wensheng Yan\* and Zaifang Li\*

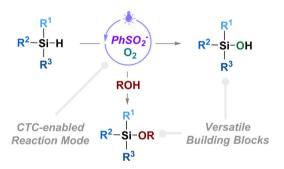
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Light-mediated sulfonyl-iodination of ynamides and internal alkynes

Mohana Reddy Mutra, Jing Li and Jeh-Jeng Wang\*

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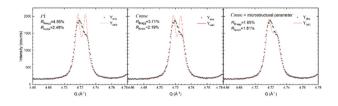


Visible-light-driven oxidation of organosilanes by a charge-transfer complex

Yi-Xuan Chen, Jun-Tao He, Mei-Chun Wu, Zhi-Lin Liu, Peng-Ju Xia, Kai Chen, Hao-Yue Xiang\* and Hua Yang\*

## COMMENT

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Comment on "Structural transition and superconductivity in hydrothermally synthesized FeX (X = S, Se)" by U. Pachmayr, N. Fehn and D. Johrendt, Chem. Commun., 2016, 52, 194

Alberto Martinelli