

# ChemComm

Chemical Communications

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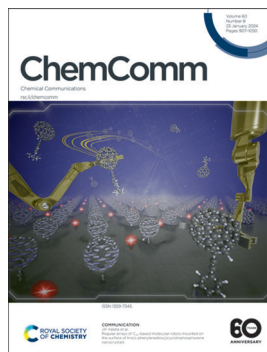
## IN THIS ISSUE

ISSN 1359-7345 CODEN CHCOFS 60(8) 907-1050 (2024)



### Cover

See Akio Saito *et al.*, pp. 956–959.  
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### Inside cover

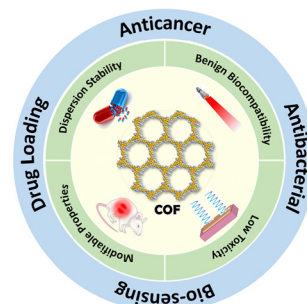
See Jiří Kaleta *et al.*, pp. 960–963.  
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## HIGHLIGHT

918

### Recent bio-applications of covalent organic framework-based nanomaterials

Jun Guo,\* Shuyue Kong, Ye Lian and Meiting Zhao\*

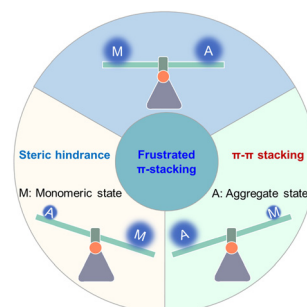


## FEATURE ARTICLES

935

### Frustrated $\pi$ -stacking

Hui-Jun Zhang, Yifei Wei and Jianbin Lin\*



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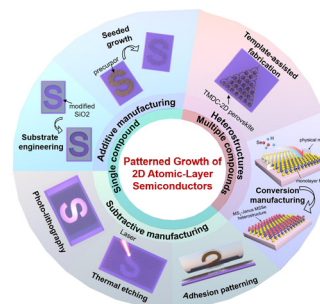
Fundamental questions  
Elemental answers

## FEATURE ARTICLES

943

## Patterned growth of two-dimensional atomic layer semiconductors

Hao Zhou, Chiyu Zhang, Anran Gao,\* Enzheng Shi\* and Yunfan Guo\*

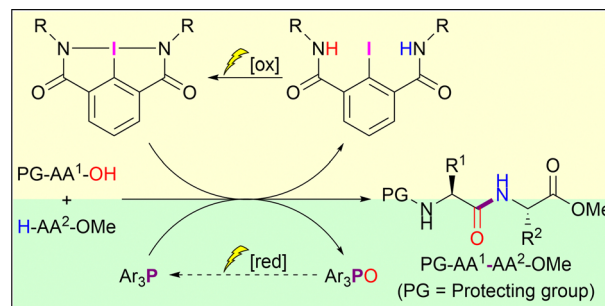


## COMMUNICATIONS

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## Peptide coupling using recyclable bicyclic benziodazolone

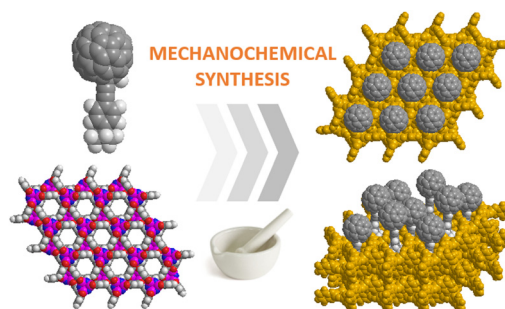
Daigo Uehara, Sota Adachi, Akira Tsubouchi, Yohei Okada, Viktor V. Zhdankin, Akira Yoshimura and Akio Saito\*



960

Regular arrays of C<sub>60</sub>-based molecular rotors mounted on the surface of tris(o-phenylenedioxy)-cyclotriphosphazene nanocrystals

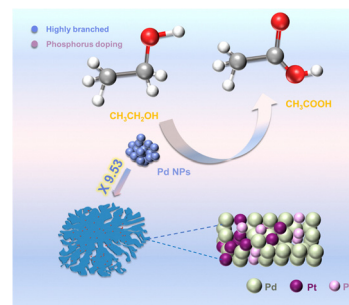
Carina Santos Hurtado, Guillaume Bastien, Igor Rončević, Martin Dračinský, Teddy Tortorici, Charles T. Rogers, Josef Michl and Jiří Kaleta\*



964

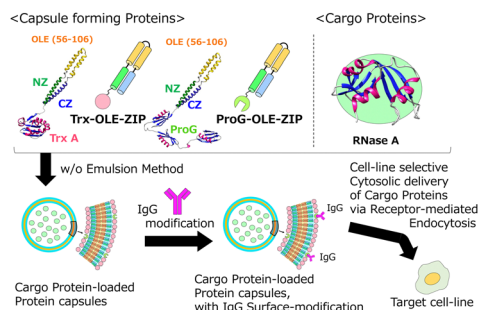
## Ultrathin PdPtP nanodendrites as high-activity electrocatalysts toward alcohol oxidation

Yan Zhang, Qiaoqiao Hao, Jinyu Zheng, Ke Guo\* and Dongdong Xu\*





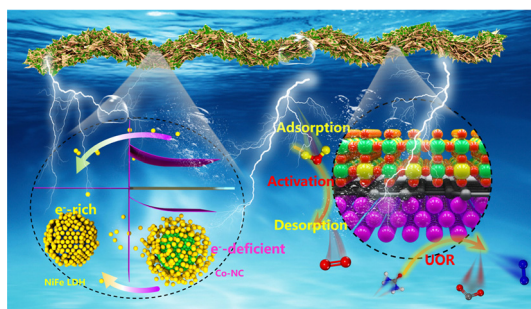
968



### Delivery of external proteins into the cytoplasm using protein capsules modified with IgG on the surface, created from the amphiphilic two helix-bundle protein OLE-ZIP

Kousuke Takahashi, Taiki Nishiyama, Naoki Umezawa, Yasumichi Inoue, Isamu Akiba, Takehisa Dewa, Atsushi Ikeda and Toshihisa Mizuno\*

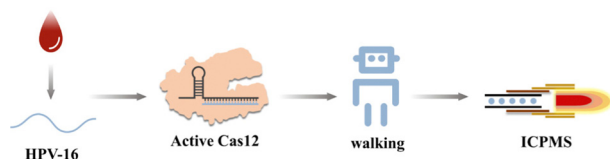
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### Incorporating a built-in electric field into a NiFe LDH heterojunction for enhanced oxygen evolution and urea oxidation

Tianshan Song, Hui Xue,\* Jing Sun, Niankun Guo, Jiawen Sun, Yi-Ru Hao and Qin Wang\*

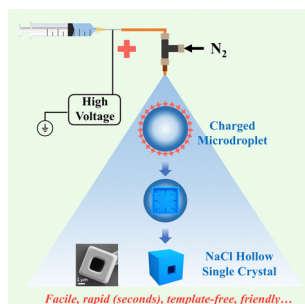
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### CRISPR-Cas12a-enhanced mass spectrometric DNA nanomachine for HPV-16 detection in human serum

Yueli Hu, Liwei Liu, Chaoqun Wang, Jing Zhou, Rui Liu\* and Yi Lv\*

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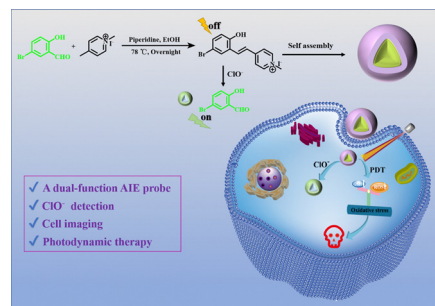


### Utilization of charged microdroplets for the controlled rapid synthesis of hollow sodium chloride single crystals

Yanjie Wang, Jianing Dong, Xianmeng Song, Kai Luo, Zi-Ang Nan, Feng Ru Fan\* and Zhong-Qun Tian\*

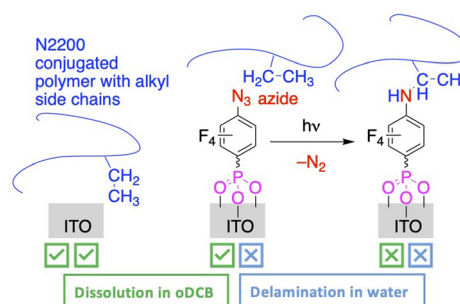


Yiping Liu, Juan Fu, Jiaxing Wan, Tongsheng Huang,  
Weifeng Zhu, Jianwen Tian, Meiyong Liu,\*  
Xiaoyong Zhang\* and Yen Wei\*



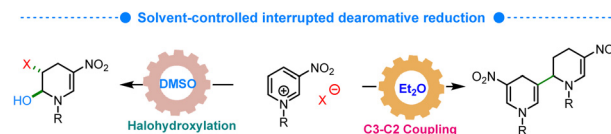
## Reducing delamination of an electron-transporting polymer from a metal oxide for electrochemical applications

Aiswarya Abhisek Mohapatra, Waleed Kuar Yual,  
Yadong Zhang, Anton Aleksandrovich Samoylov,  
Jonathan Thurston, Casey M. Davis, Declan P. McCarthy,  
Adam D. Printz, Michael F. Toney, Erin L. Ratcliff,  
Neal R. Armstrong, Ann L. Greenaway, Stephen Barlow\*  
and Seth R. Marder\*



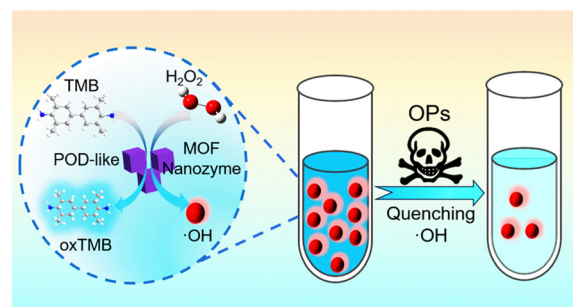
## Solvent-controlled halohydroxylation or C3–C2 coupling of pyridinium salts through an interrupted dearomative reduction

Congcong Zhang, Qin hao Chen, Yunlong Qin,  
Zhanwei Bu and Qilin Wang\*



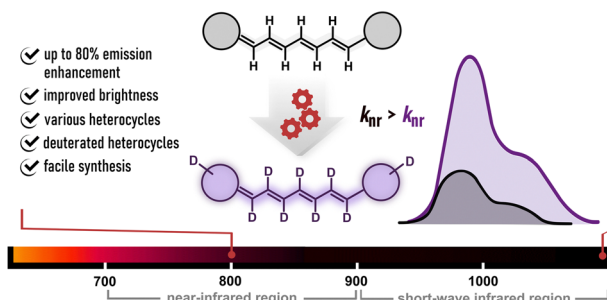
## A MOF nanozyme-mediated acetylcholinesterase-free colorimetric strategy for direct detection of organophosphorus pesticides

Jiaxiang Xiao, Feng Shi, Ye Zhang, Maoying Peng,  
Jinming Xu, Juan Li,\* Zhuo Chen\* and Zhanjun Yang\*



## COMMUNICATIONS

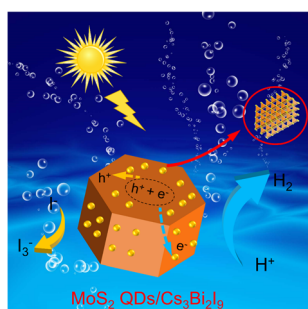
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## Deuteriation of heptamethine cyanine dyes enhances their emission efficacy

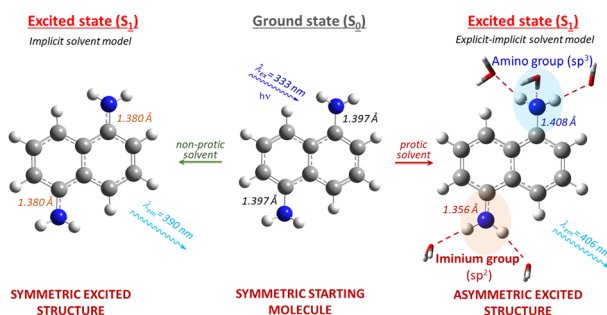
Hana Janeková, Hannah C. Friedman, Marina Russo, Mergime Zyberaj, Tasnim Ahmed, Ash Sueh Hua, Anthony V. Sica, Justin R. Caram\* and Peter Štacko\*

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Enhanced photocatalytic hydrogen evolution through MoS<sub>2</sub> quantum dots modification of bismuth-based perovskites

Yunjian Fan, Jingmiao Hu, Tianyang Li, Shuang Xu, Shan Chen\* and Huajie Yin\*

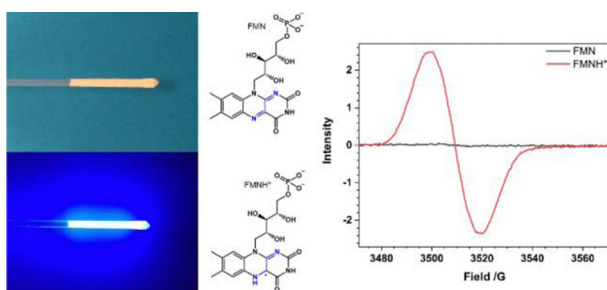
1008



## Excited state iminium form can explain the unexpected solvatochromic behavior of symmetric 1,5- and 1,8-diaminonaphthalenes

Erika Kopcsik, Zoltán Mucsi\*, Bence Kontra, László Vanyorek, Rajmond Gál, Béla Viskolcz and Miklós Nagy\*

1012

Simple and effective *in situ* sample illumination for electron paramagnetic resonance

Adam W. Woodward, Jack E. Bramham, Adam Brookfield, Alexander P. Golovanov\* and Alice M. Bowen\*

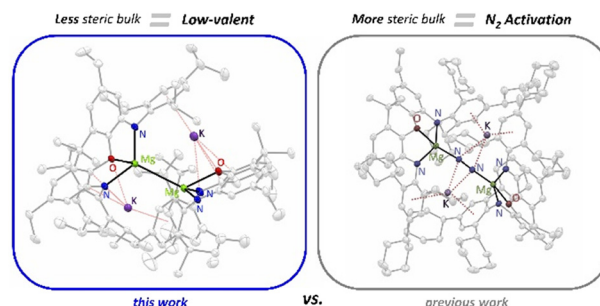


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Steric control of Mg–Mg bond formation vs. N<sub>2</sub> activation in the reduction of bulky magnesium diamide complexes

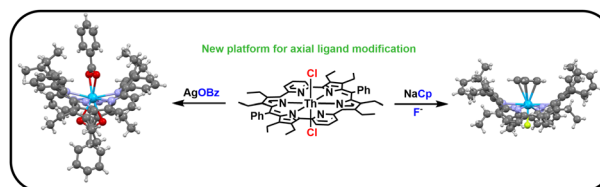
Rahul Mondal, Matthew J. Evans, Dat T. Nguyen, Thayalan Rajeshkumar, Laurent Maron\* and Cameron Jones\*



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## Cyclopentadienyl capped thorium(IV) porphyrinoid complex

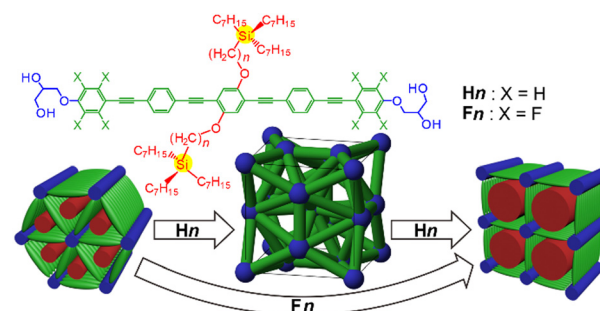
Daniel N. Mangel, James T. Brewster, Gabriel J. Juarez, Vincent M. Lynch and Jonathan L. Sessler\*



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## Highly branched bolapolyphilic liquid crystals with a cubic A15 network at the triangle-square transition

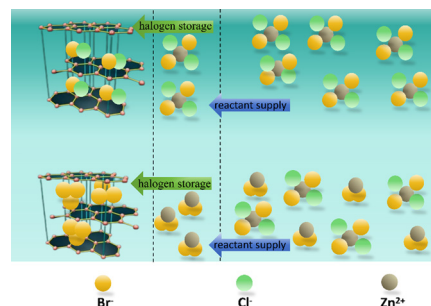
Christian Anders, Matthias Wagner, Mohamed Alaasar, Virginia-Marie Fischer, Rebecca Waldecker, Yangyang Zhao, Tianyi Tan, Yu Cao,\* Feng Liu and Carsten Tschierske\*



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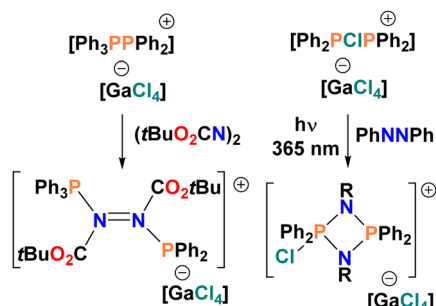
Conversion-intercalation competing behaviour of halogen storage on graphite electrode from fluid ZnCl<sub>2</sub>/ZnBr<sub>2</sub> hydrates

Shiguan Xu, Lin Shen, Xiaoxu Wang, Shaonan Gu, Wei Sun\* and Yuhao Huang\*



## COMMUNICATIONS

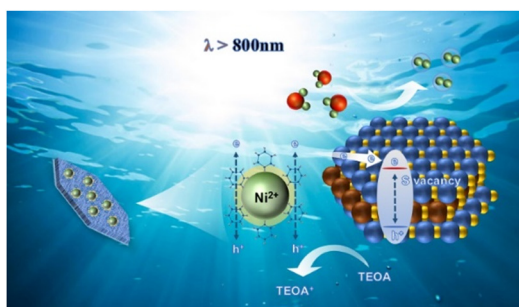
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### Addition and N=N bond cleavage of diazo-compounds by phosphino-phosphenium cations

Hyehwang Kim, Alan Lough, Zheng-wang Qu,\*  
Stefan Grimme and Douglas W. Stephan\*

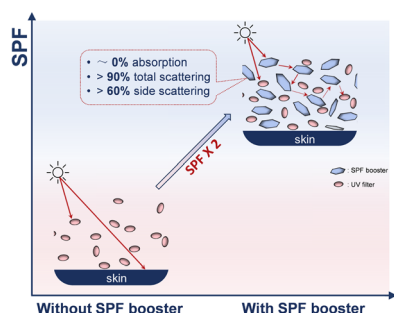
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### Infrared light dual excitation of Ni-phytate-sensitized ZnIn<sub>2</sub>S<sub>4</sub> with sulfur vacancies for enhanced NIR-driven photocatalysis

Hong Yang, Yuanyong Huang, Bifu Luo, Zhongkai Xie,  
Di Li, Dongbo Xu, Yong Lei and Weidong Shi\*

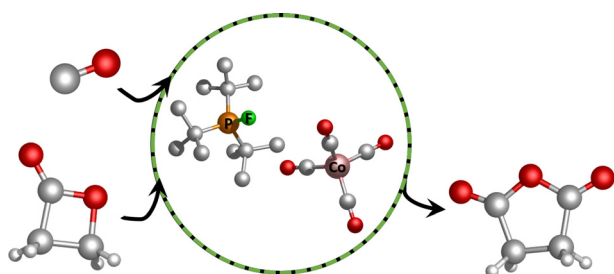
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### Boosting the effectiveness of UV filters and sunscreen formulations using photostable, non-toxic inorganic platelets

Lina Chen, Junxin Wang, Xuwen Wu, Claire T. Coulthard,  
Yong Qian, Chunping Chen\* and Dermot O'Hare\*

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### Fluorophosphoniums as Lewis acids in organometallic catalysis: application to the carbonylation of β-lactones

Marie-Hélène Pietraru, Louise Ponsard, Nicolas Lentz,  
Pierre Thuéry, Emmanuel Nicolas\* and Thibault Cantat\*





## RETRACTION

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**Retraction: Carbon content drives high temperature superconductivity in a carbonaceous sulfur hydride below 100 GPa**

G. Alexander Smith, Ines E. Collings, Elliot Snider, Dean Smith, Sylvain Petitgirard, Jesse S. Smith, Melanie White, Elyse Jones, Paul Ellison, Keith V. Lawler, Ranga P. Dias and Ashkan Salamat\*

