

# ChemComm

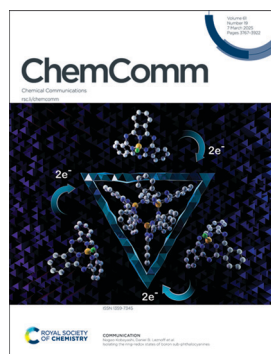
Chemical Communications

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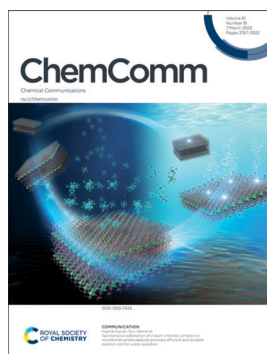
## IN THIS ISSUE

ISSN 1359-7345 CODEN CHCOFS 61(19) 3767-3922 (2025)



### Cover

See Nagao Kobayashi, Daniel B. Leznoff *et al.*, pp. 3832–3835. Cover image created by Thomas Karpiuk and image reproduced by permission of Thomas Karpiuk and Daniel B. Leznoff from *Chem. Commun.*, 2025, **61**, 3832.



### Inside cover

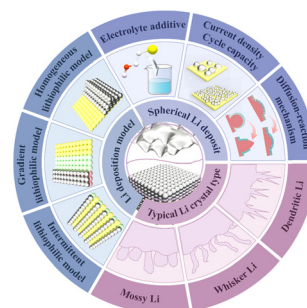
See Hajime Suzuki, Ryu Abe *et al.*, pp. 3836–3839. Image reproduced by permission of Ryu Abe from *Chem. Commun.*, 2025, **61**, 3836.

## HIGHLIGHT

3777

### The nucleation and growth mechanism of spherical Li for advanced Li metal anodes – a review

Mengting Wang, Xingtong Guo, Rui Luo, Xiaonuo Jiang, Yongfu Tang\* and Tao Wei\*

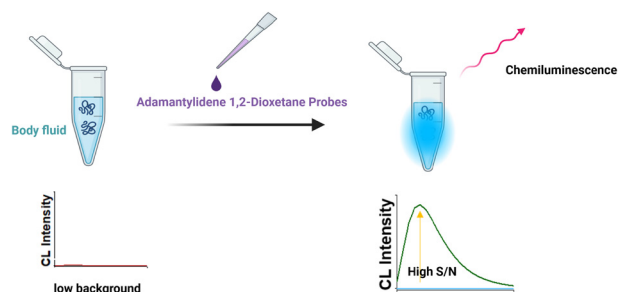


## FEATURE ARTICLES

3794

### Sensitive detection of fluid biomarkers using adamantylidene 1,2-dioxetane based chemiluminescent probes

Wen-Jing Pan, Jialiang Wu and Shuai Xu\*



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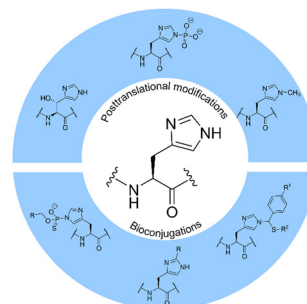


## FEATURE ARTICLES

3805

## Chemical tools for probing histidine modifications

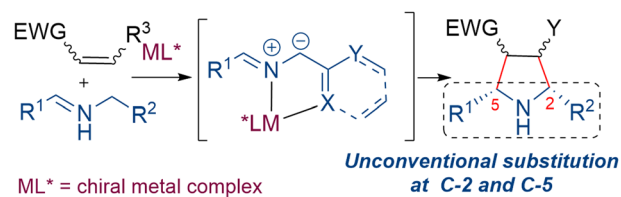
Nurgül Bilgin, Jordi C. J. Hintzen and Jasmin Mecinović\*



3821

## Metal catalyzed asymmetric 1,3-dipolar cycloaddition of azomethine ylides: structural diversity at the dipole partner

Juan Carlos Carretero, Nuria Rodríguez\* and Javier Adrio\*

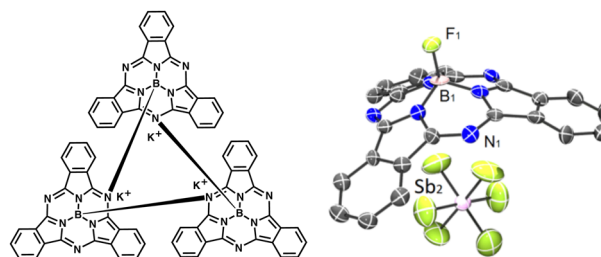


## COMMUNICATIONS

3832

## Isolating the ring-redox states of boron sub-phthalocyanines

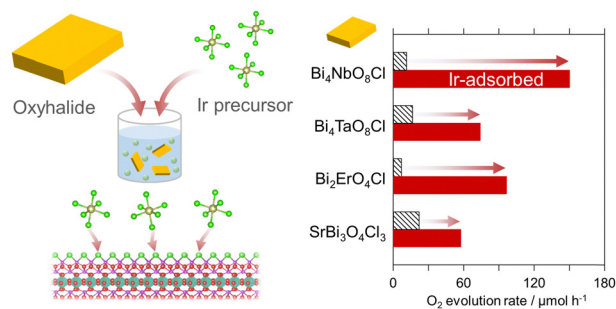
Wen Zhou, Declan McKearney, Yusuke Okada, Nagao Kobayashi\* and Daniel B. Leznoff\*



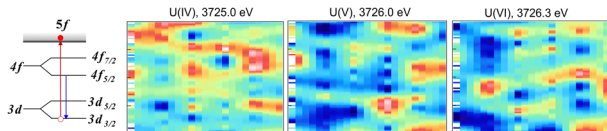
3836

## Spontaneous adsorption of iridium chloride complex on oxychloride photocatalysts provides efficient and durable reaction site for water oxidation

Hajime Suzuki,\* Kengo Minamimoto, Yusuke Ishii, Yudai Furuta, Osamu Tomita, Akinobu Nakada, Shunsuke Nozawa and Ryu Abe\*

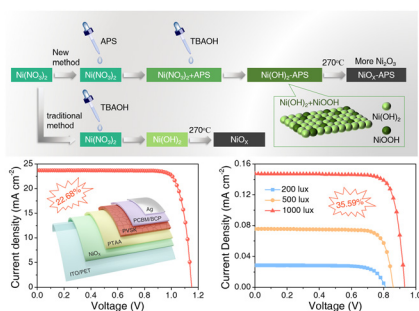


3840

HERFD-XRF at U M<sub>4</sub> edgeAdvanced 2D XRF imaging of uranium oxidation states using HERFD at the U M<sub>4</sub> edge

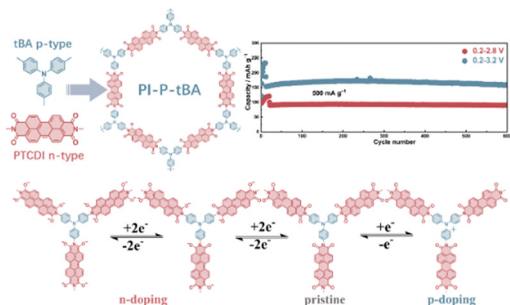
Elena F. Bazarkina, Kimberly V. Lau, Anthony Chappaz, Evgeny Bastrakov, Barbara Etschmann, Joël Brugger, Madeline Marshall, Frances M. Meyer, Christopher J. Boreham, Lucia Amidani and Kristina O. Kvashnina\*

3844

Highly conductive and homogeneous NiO<sub>x</sub> nanoparticles for stable and efficient flexible perovskite solar cells

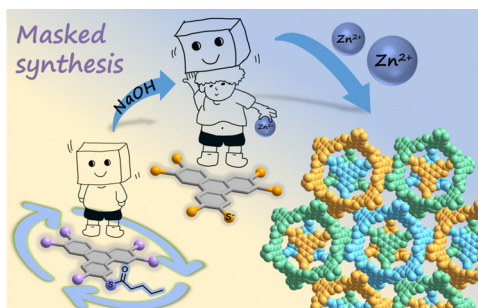
Junjun Jin, Jitao Shang, Zhenkun Zhu, Tonghui Guo, Yanghou Wang, Lijun Chen, Yidong Ming, Jinhua Li, Guanqi Tang\* and Qidong Tai\*

3848

An extended  $\pi$ -conjugated bipolar polymer cathode for rechargeable magnesium batteries: high capacity contributed by n- and p-doping and charge delocalization

Shuai Cui, Zhen Qin, Hongda Gui, Ting Li,\* Daohong Zhang\* and Fei Xu\*

3852



## A single-crystal 3D Zn-tetrathiolate connected metal–organic framework

Jian-Rong Li, Jieying Hu, Long Jiang, Yonghe He, Wei-Ming Liao, Xianghua Yang, Lai-Hon Chung\* and Jun He\*

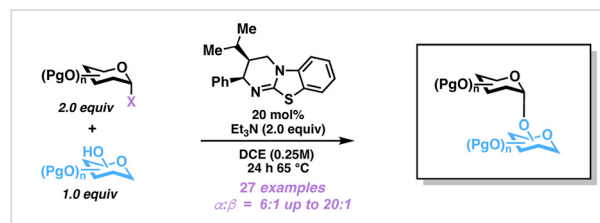


## COMMUNICATIONS

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Isothiourea – catalyzed  $\alpha$ -selective glycosylations

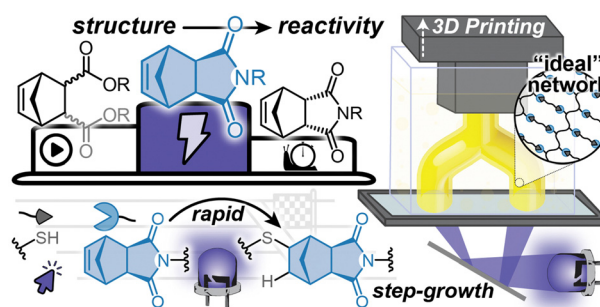
Bhaswati Ghosh, Charles Enlow, Zhichen Ma, Ashley N. Warden and Abram J. Axelrod\*



3860

## Relating norbornene composition-to-reactivity for thiol-ene photopolymerizations and 3D printing

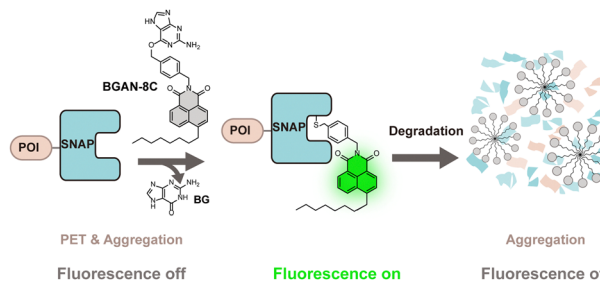
Yutong Liu, Henry L. Cater, Elizabeth A. Recker and Zachariah A. Page\*



3864

## Naphthalimide-derived fluorogenic SNAP probe for real-time monitoring of protein degradation

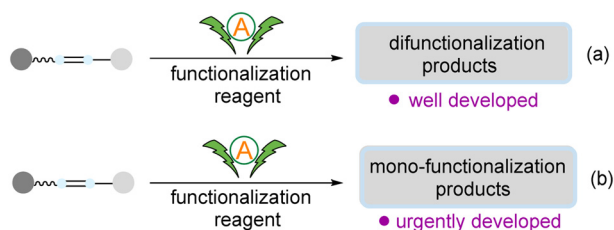
Xuelian Zhou, Lu Miao,\* Yonghui Chen, Jinjing Shi, Qinglong Qiao\* and Zhaochao Xu\*



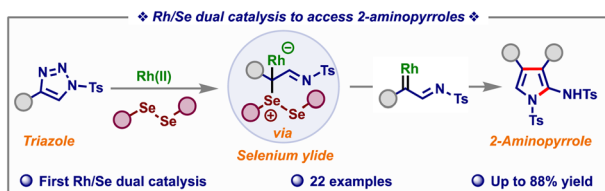
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## An electrocatalytic mono-functionalization of alkenes towards alkenyl selenium sulfonates

Zhiheng Zhao, Hongyan Yan and Lijun Gu\*



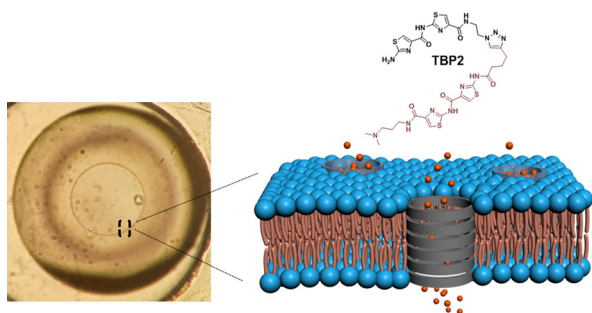
3872



### Rhodium/selenium dual catalysis for accessing 2-aminopyrroles from *N*-sulfonyl-1,2,3-triazoles

Kuntal Pal, Om Prakash Dash and Chandra M. R. Volla\*

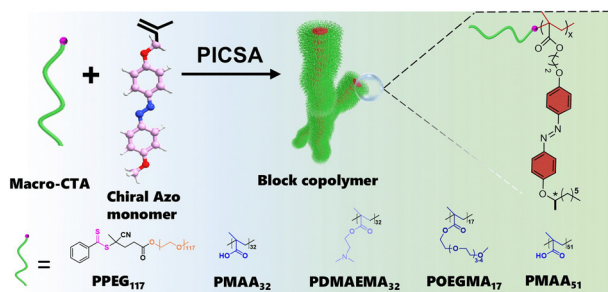
3876



### Ion transport and membrane channel formation using a peptidomimetic in droplet interface bilayers

Raj Paul, Debasish Dutta, Mark I. Wallace\* and Jyotirmayee Dash\*

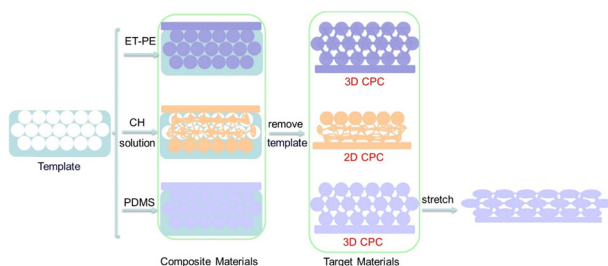
3880



### Construction of liquid-crystalline assemblies with tunable chiroptical properties through tailoring solvophilic chains in polymerization-induced chiral self-assembly

Zhenyang Zhou, Xiaoxiao Cheng,\* Zeyu Tang, Yuqing Wang, Zixiang He and Wei Zhang\*

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### Template-based synthesis of novel polymeric colloidal photonic crystals

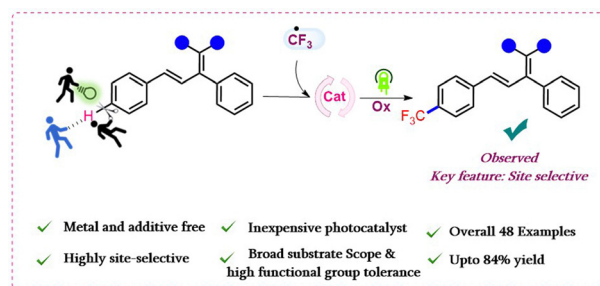
Shunan Xu, Qingyao Liu, Yuanhui Wang, Zhihao Ji, Zhengshuai Lian, Hongzi Tan,\* Jin Zhou\* and Chuan Wang\*



3888

### A radical approach towards polarity-reversed *para*-substitution of electron-deficient arenes

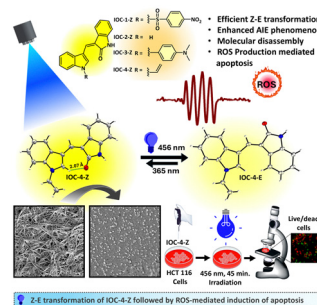
Shashank Singh, Arindam Kundu, Claire Empel, René Michael Koenigs\* and Ravi P. Singh\*



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### Visible light-induced photoisomerization of indole–oxindole constructs: molecular disassembly and ROS-mediated apoptosis

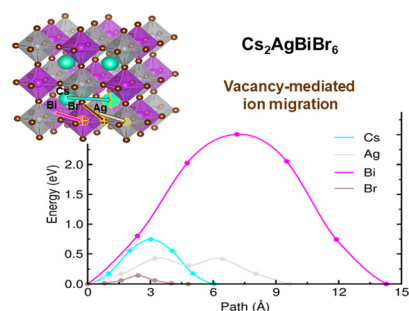
Kartikay Tyagi, Tejal Dixit and V. Venkatesh\*



3896

### Revealing the role of intrinsic point defects in the stability of halide double perovskite Cs<sub>2</sub>AgBiBr<sub>6</sub>

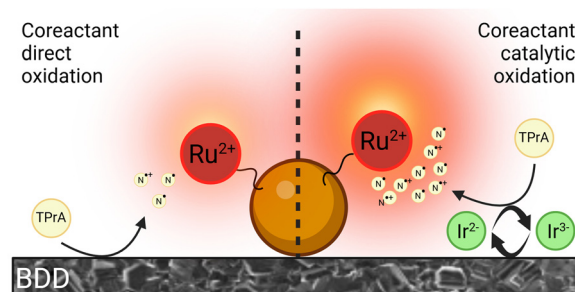
Il-Chol Ri, Chun-Son Ri, Song-Hyon Yu, Son-Hyok Jo, Song-Hyok Choe and Chol-Jun Yu\*



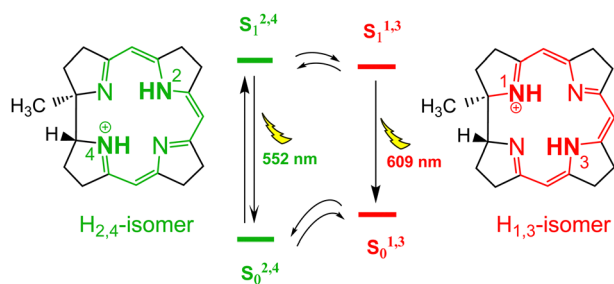
3900

### Overcoming kinetic barriers of remote electrochemiluminescence on boron-doped diamond *via* catalytic coreactant oxidation

Alessandro Fracassa, Chiara Mariani, Andrea Fiorani, Yasuaki Einaga, Conor F. Hogan, Francesco Paolucci, Neso Sojic, Paul S. Francis\* and Giovanni Valentini\*



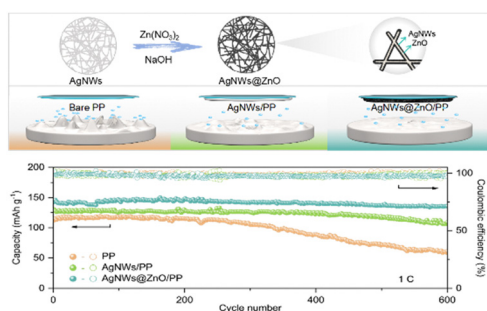
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### H/D-Isotope sensitive dual fluorescence of the corrin-ligand of vitamin B<sub>12</sub>

Steffen Jockusch\* and Bernhard Kräutler\*

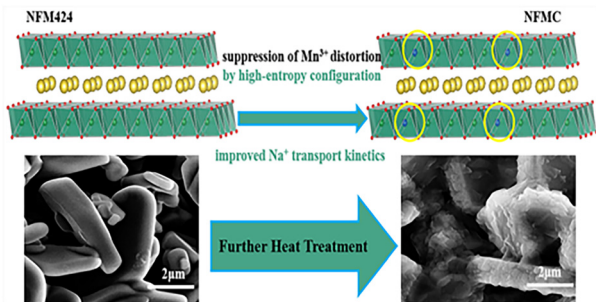
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### 3D dual-gradient lithiophilic AgNWs@ZnO modified separator for boosting stable lithium metal batteries

Mengyu Gao, Qi Zhang, Yuan Tian\* and Cheng Wang

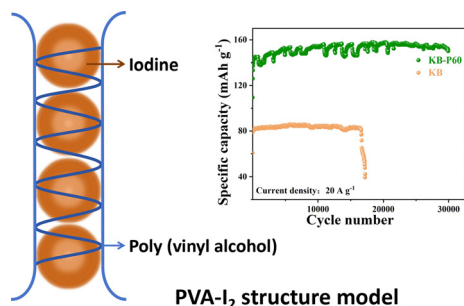
3912



### Preparation of sodium-ion cathode materials with excellent performance using a Co<sub>3</sub>O<sub>4</sub>-modified conformation strategy

Ye Liu, Rui Luo, Jiahao Lu, Rentian Chen, Yuxin Zhung and Tao Wei\*

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### Impressive improvement of zinc-iodine battery performance by doping poly(vinyl alcohol) into the cathode

Yang Wang,\* Kaiming Zhou, Zhihan Sun, Shaojie Zhang, Xuan Zhang, Zhou Jiang and Danyang Liu\*

