

# ChemComm

Chemical Communications

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## IN THIS ISSUE

ISSN 1359-7345 CODEN CHCOFS 60(72) 9633-9848 (2024)



### Cover

See Alshakim Nelson, Nicole F. Steinmetz *et al.*, pp. 9733–9736. Image reproduced by permission of Jorge Leganés Bayón and Nicole F. Steinmetz from *Chem. Commun.*, 2024, 60, 9733.



### Inside cover

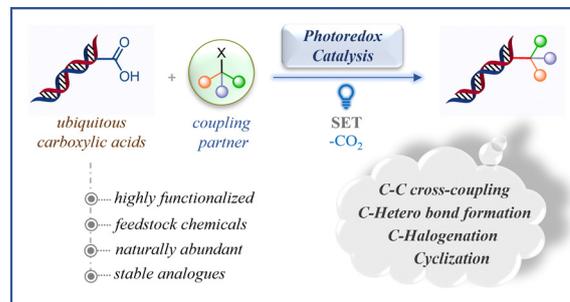
See Alakesh Bisai *et al.*, pp. 9737–9740. Image reproduced by permission of Alakesh Bisai from *Chem. Commun.*, 2024, 60, 9737.

## HIGHLIGHT

9645

### Photocatalytic decarboxylation of free carboxylic acids and their functionalization

Subal Mondal, Subham Mandal, Soumya Mondal, Siba P. Midya and Pradyut Ghosh\*

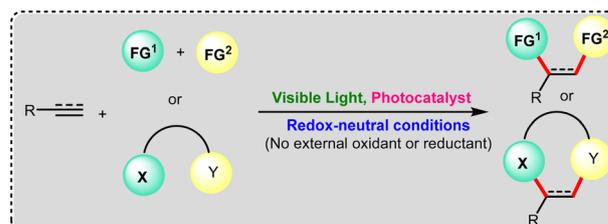


## FEATURE ARTICLES

9659

### Visible-light-induced redox-neutral difunctionalization of alkenes and alkynes

Susmita Mondal, Sumit Ghosh and Alakananda Hajra\*



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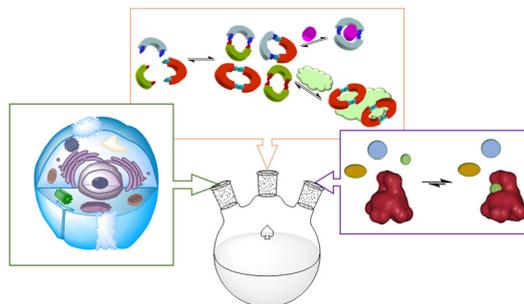
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## FEATURE ARTICLES

9692

## Supramolecular chemical biology: designed receptors and dynamic chemical systems

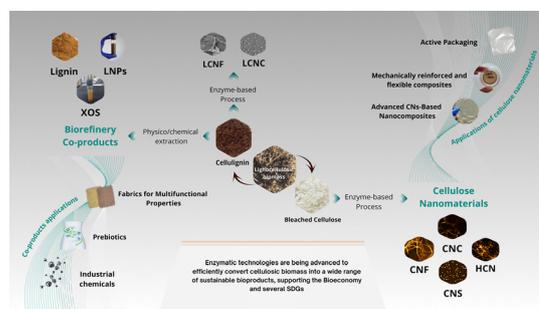
Ignacio Alfonso\*



9704

## Enzymatic approaches for diversifying bioproducts from cellulosic biomass

Valdeir Arantes,\* Bruno Las-Casas, Isabella K. R. Dias, Sergio Luis Yupanqui-Mendoza, Carlaile F. O. Nogueira and Wilian F. Marcondes

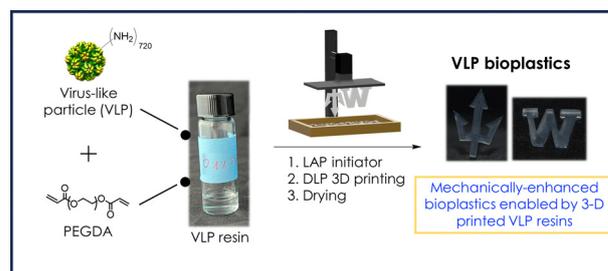


## COMMUNICATIONS

9733

## Digital light processing (DLP) 3D printing of polymer networks comprising virus-like particles

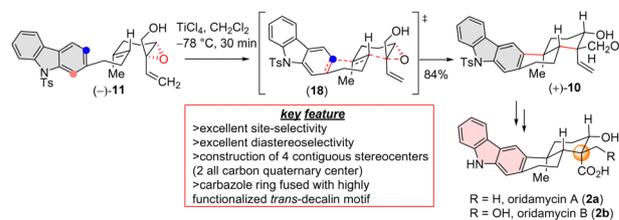
Naroa Sadaba, Jorge Leganés Bayón, Alshakim Nelson\* and Nicole F. Steinmetz\*



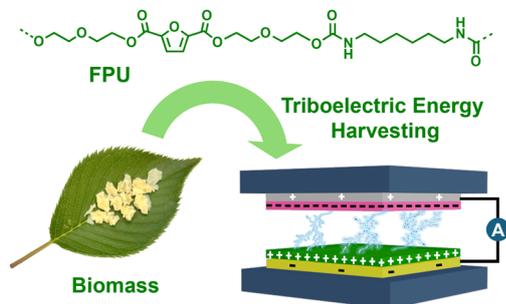
9737

## Total synthesis of (+)-oridamycins A and B

Ranjit Murmu, Sourav Kundu, Moumita Majhi, Souvik Pal, Abhishek Mondal and Alakesh Bisai\*



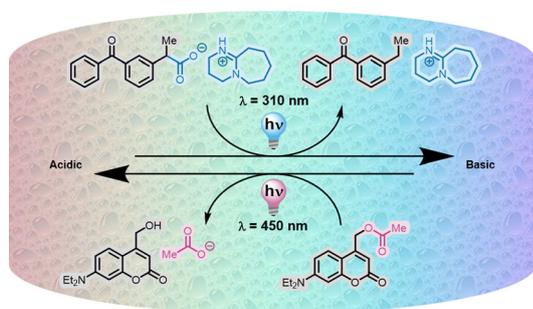
9741



### Polyurethanes synthesized using biomass-derived furan diols as sustainable triboelectric materials

June Young Jang, Youngmin Byun, Sijin You, Seunghun Kim, Dong-Min Lee, Sang-Woo Kim\* and Seung Uk Son\*

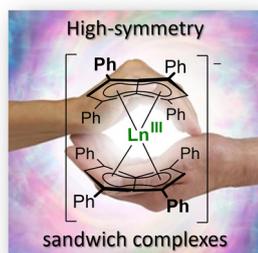
9745



### Optical control of pH via chromoselective photodosimetry

Amrita Chaudhuri, Linda E. Eijssink and Nadja A. Simeth\*

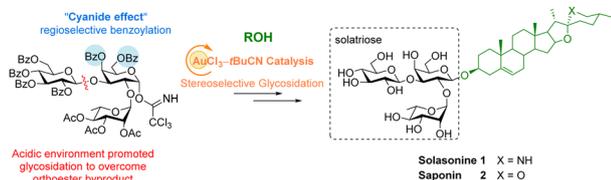
9749



### Tetraphenylpentalenide organolanthanide complexes

Nicholas J. Katzer, Mandeep Kaur, Asmita Sen, Rupal Nimaiyar, Jochen Autschbach,\* Polly L. Arnold\* and Ulrich Hintermair\*

9753



### Convergent synthesis of glycoalkaloids solasonine and its saponin derivative

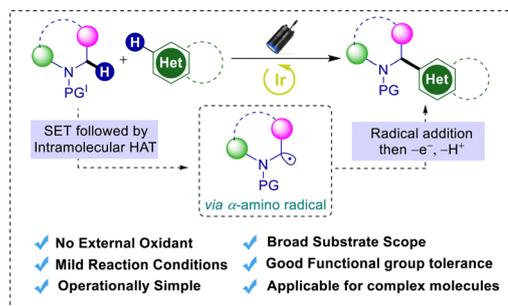
Yue Yang, Tong Li, Huiran Hao, Ju-Zheng Sheng, Tianlu Li\* and Peng Peng\*



9757

### Photoredox cross-dehydrogenative C(sp<sup>2</sup>)-C(sp<sup>3</sup>) coupling of heteroarenes with secondary amines through 1,5-HAT

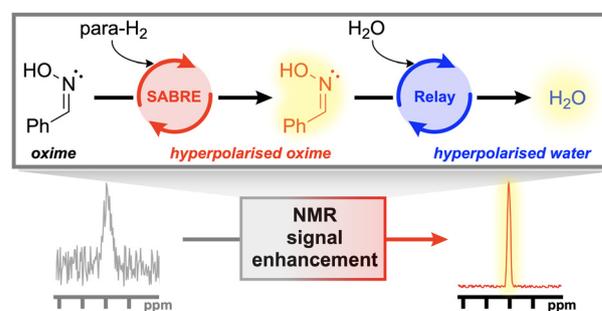
Vinjamuri Srinivasu, Swadhin Pattanaik and Devarajulu Sureshkumar\*



9761

### Aldoximes enable proton-relayed NMR hyperpolarisation

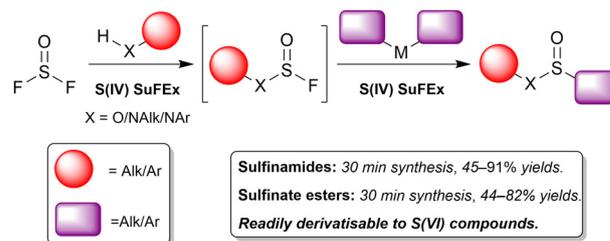
Naomi E. Leydman and Philip L. Norcott\*



9765

### Thionyl fluoride as a sulfur(IV) SuFEx hub for the efficient syntheses of sulfinamides and sulfinate esters

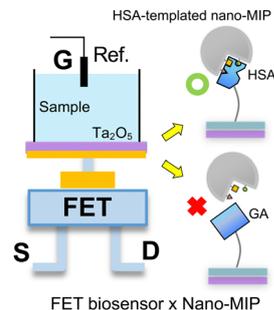
William P. Chappell, Marie Favié and Glenn M. Sammis\*



9769

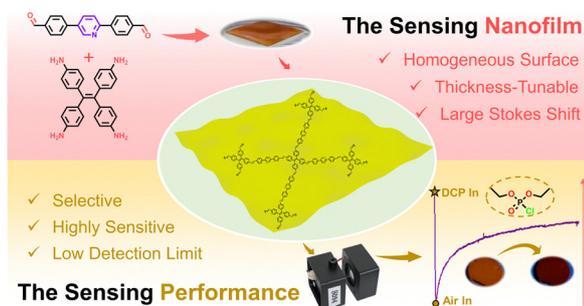
### Electrical monitoring of human-serum-albumin-templated molecularly imprinted polymer nanoparticles with high affinity based on molecular charges and their visualization

Youyuan Man, Shoichi Nishitani, Kazuaki Sawada and Toshiya Sakata\*



## COMMUNICATIONS

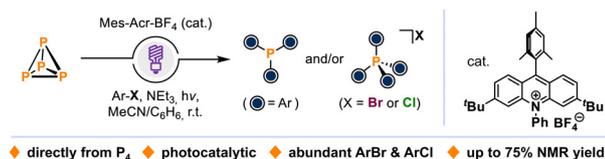
9773



## Highly sensitive and selective detection of DCP vapors using pyridine-based fluorescent nanofilms

Zebiao Qiu, Yue Xiao, Ling Zhang, Yupei Miao, Bei Zhang, Xiaolin Zhu,\* Liping Ding,\* Haonan Peng\* and Yu Fang

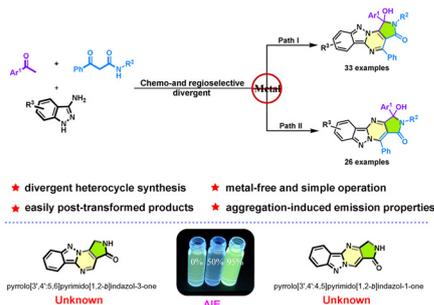
9777



## Photocatalytic functionalization of white phosphorus with aryl bromides and chlorides

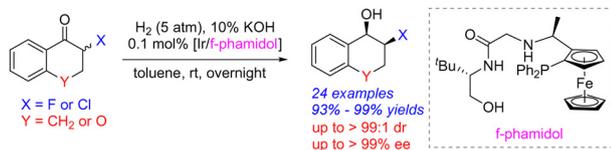
Martin Gawron, Janes Rückel and Robert Wolf\*

9781

Divergent synthesis of pyrrolidone fused pyrimido[1,2-*b*]indazole through selective trapping of an enone intermediate by 1*H*-indazol-3-amine

Xi Shen, Zhi-Cheng Yu, You Zhou, Yan-Dong Wu and An-Xin Wu\*

9785



## Highly efficient synthesis of enantioenriched vicinal halohydrins via Ir-catalyzed asymmetric hydrogenation using dynamic kinetic resolution

Bin He, Gen-Qiang Chen\* and Xumu Zhang\*

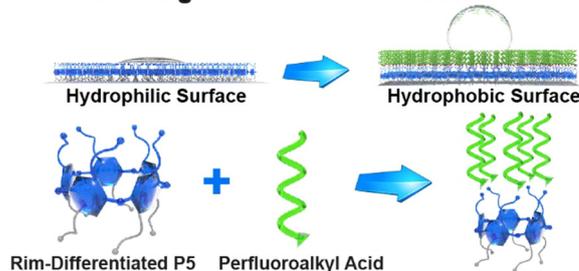


9789

### Rim-differentiated pillar[5]arene-modified surfaces for rapid PFOA/PFOS detection

Tu-Nan Gao, Zhen Yang, Jesse M. S. Goed, Han Zuilhof\* and Fedor M. Miloserdov\*

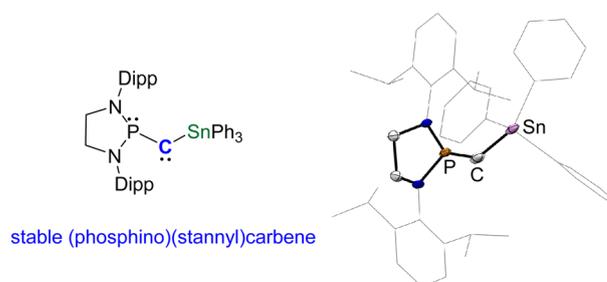
### Contact Angle-Based PFOS/PFOA Detection



9793

### (Phosphino)(stannyl)carbene

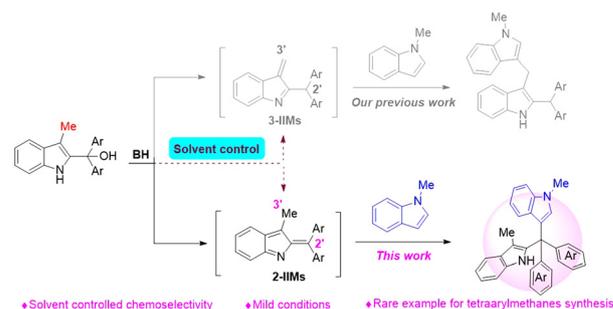
Rui Wei, Xin-Feng Wang, Chaopeng Hu and Liu Leo Liu\*



9797

### Trifluoroethanol promoted formal nucleophilic substitution of indol-2-yl diaryl methanol for the synthesis of tetraarylmethanes

Cuicui Nian, Run Yu, Zhengyu Han, Yang Bai, Jianhao Wang, Jianwei Sun\* and Hai Huang\*



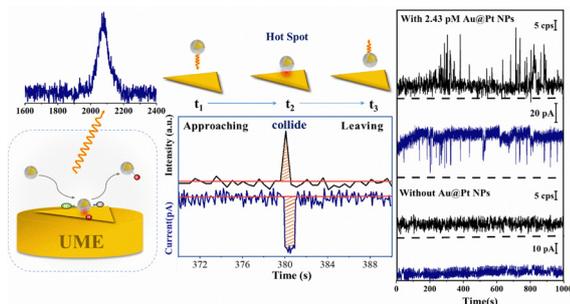
9801

### Metal-free visible-light-mediated aerobic nitroxylation for the synthesis of nitrate esters with *t*-BuONO

Yufen Lv,\* Jindong Hao, Jian Huang, Lianhui Song, Huilan Yue, Wei Wei\* and Dong Yi\*



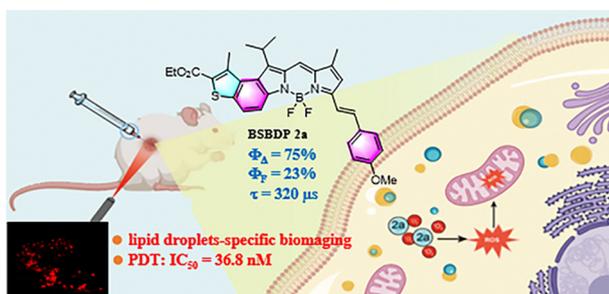
9805



### Improving insight into the localized electrochemical Volmer reaction based on surface enhanced Raman spectroscopy and collisions

Xiaoyu Liu, Chenjie Zhang, Chen Wang, Yaxian Yuan\* and Jianlin Yao\*

9809



### Heavy-atom-free triplet benzothiophene-fused BODIPY derivatives for lipid droplet-specific bioming and photodynamic therapy

Weibin Bu, Changjiang Yu,\* Yingxiu Man, Jiazhu Li,\* Qinghua Wu, Shuangying Gui,\* Yaxiong Wei,\* Lijuan Jiao and Erhong Hao\*

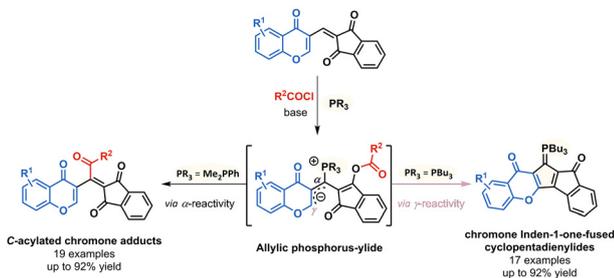
9813



### A selective photoinduced radical O-alkenylation of phenols and naphthols with terminal alkynes

V. Praveen Kumar, C. S. Athira, B. Mohan, S. Priya and B. S. Sasidhar\*

9817



### Diversity-oriented synthesis of chromone inden-1-one-fused cyclopentadienylides and C-acylated chromone adducts via allylic phosphorus ylides

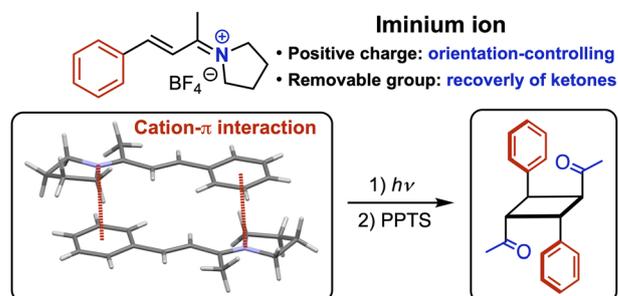
Durga Prasad Gurram, Gangababu Marri, Naveen Jothimani, Yi-Ru Chen and Wenwei Lin\*



9821

### Solid-state [2+2] photodimerization of iminium salts: stereoselective syntheses of 1,3-diacetylcyclobutanes

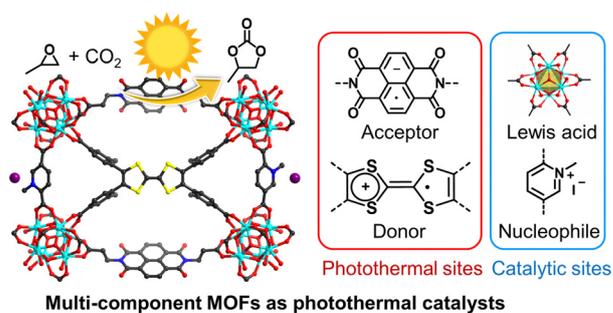
Shinji Yamada\* and Yuka Honda



9825

### Designing photothermal catalytic systems in multi-component MOFs for enhanced conversion of carbon dioxide

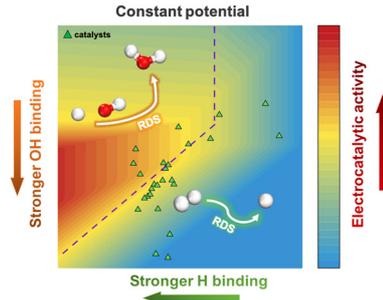
Yulun Wu, Lei Gao, Xiao-Cheng Zhou, Xiang Yu, Ya-Ru Meng, Jing-Lin Zuo, Jian Su\* and Shuai Yuan\*



9829

### Modelling the activity trend of the hydrogen oxidation reaction under constant potential conditions

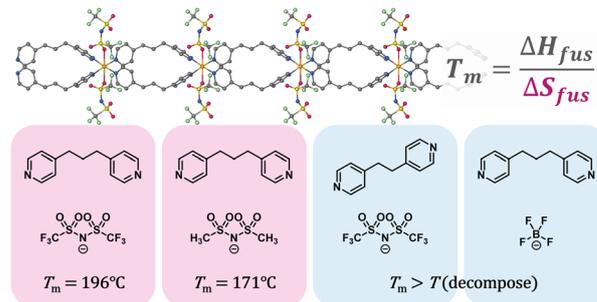
Wenhui Ling, Jian Liu and Bo Yang\*



9833

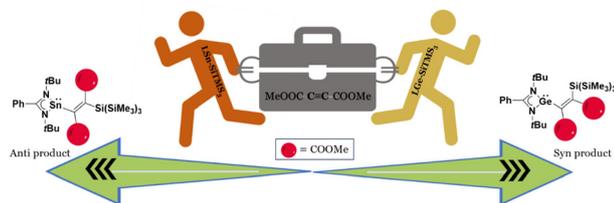
### Entropically driven melting of Cu-based 1D coordination polymers

Yuki Ohara, Taichi Nishiguchi, Xin Zheng, Shin-ichiro Noro,\* Daniel M. Packwood\* and Satoshi Horike\*



## COMMUNICATIONS

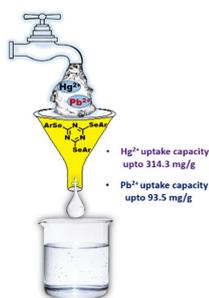
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### Stereodivergent sila-germylation vs. sila-stannylenation of an internal alkyne

V. S. Ajithkumar, Pratiksha B. Ghanwat, Sougata Saha, Swapan K. Pati\* and Sakya S. Sen\*

9841



### Removal of mercury and lead ions from water using bioinspired $N_3Se_3$ type small sized moieties

Avinash Chaurasia and Abhishek Kumar\*

## CORRECTIONS

9845

### Correction: Oral delivery of a platinum anticancer drug using lipid assisted polymeric nanoparticles

Qinqin Cheng, Hongdong Shi, Hai Huang, Zhiting Cao, Jun Wang\* and Yangzhong Liu\*

9846

### Correction: Co-delivery of all-*trans*-retinoic acid enhances the anti-metastasis effect of albumin-bound paclitaxel nanoparticles

Hai Huang, Hongdong Shi, Jing Liu, Yuanzeng Min, Yucai Wang, Andrew Z. Wang, Jun Wang and Yangzhong Liu\*

