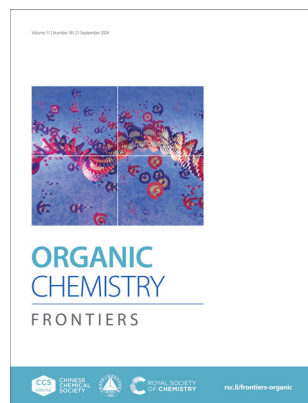


### IN THIS ISSUE

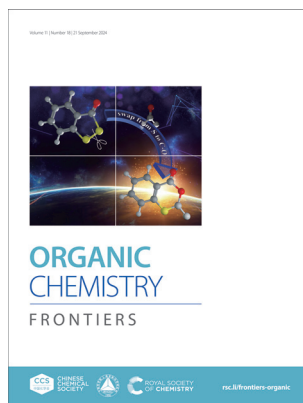
ISSN 2052-4129 CODEN OCFRA8 11(18) 4957-5326 (2024)



#### Cover

See L. Sánchez, F. García *et al.*, pp. 4970–4978.

Image reproduced by permission of L. Sánchez from *Org. Chem. Front.*, 2024, **11**, 4970.



#### Inside cover

See Yao Zhou *et al.*, pp. 4979–4985.

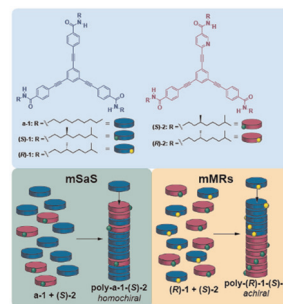
Image reproduced by permission of Yao Zhou from *Org. Chem. Front.*, 2024, **11**, 4979.

### RESEARCH ARTICLES

4970

#### Pyridine-based tricarboxamides: complementary monomers for supramolecular copolymerization with C<sub>3</sub>-symmetric oligophenylene-tricarboxamides

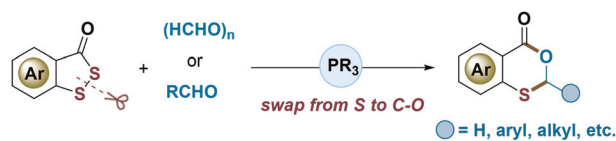
L. López-Gandul, L. Sánchez\* and F. García\*



4979

#### Skeletal editing of benzodithiol-3-ones for the assembly of benzo[d][1,3]oxathiin-4-ones

Wenxin Lv, Xuan Kong, Yushang Qing, Jing Zheng, Yuan Yin, Yao Zhou\* and Dunjia Wang



- skeletal editing of benzo[c][1,2]dithiol-3-ones
- oxidant-free
- readily scalable
- no inert gas protection
- mild conditions
- good yields
- simple operation



**GOLD  
OPEN  
ACCESS**

# EES Solar

**Exceptional research on solar  
energy and photovoltaics**

Part of the EES family

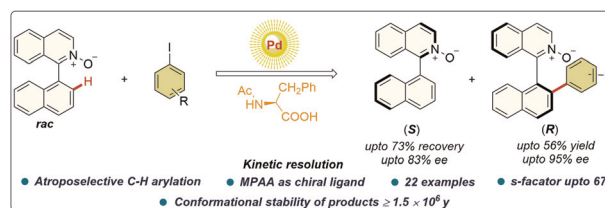
**Join  
in** | Publish with us  
[rsc.li/EESolar](https://rsc.li/EESolar)

## RESEARCH ARTICLES

4986

**Synthesis of axially chiral biaryls via Pd(II)-catalysed direct C(sp<sup>2</sup>)-H arylation**

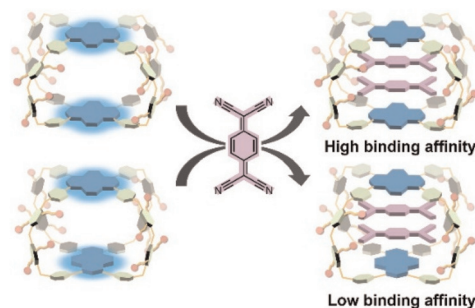
Diksha Parmar, Rohit Kumar, Sarthi, Akhilesh K. Sharma\* and Upendra Sharma\*



4992

**Two pyrene-based cagearene constitutional isomers: synthesis, separation, and host-guest chemistry**

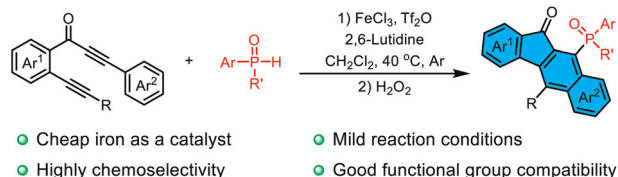
Yating Li, Shang Li, Mengbin Wang, Li Shao, Shuai Fang,\* Bin Hua\* and Feihe Huang\*



4997

**Iron-catalyzed cascade cyclization of diaryldiyn-3-ones with P(O)H compounds: a rapid method for accessing 10-phosphorylated benzo[b]fluorenes**

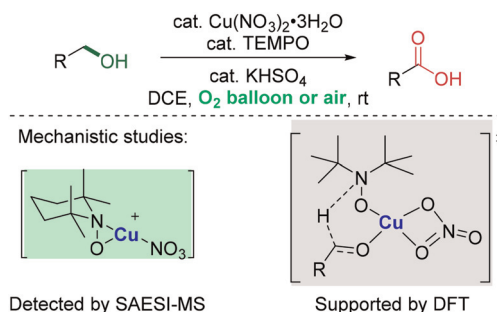
Yinwei Cao, Yue Ying, Jieyi Wu, Fushan Chen,\* Guo Tang\* and Yufen Zhao



5003

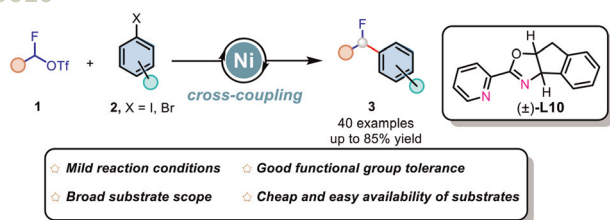
**Mechanistic studies on Cu(NO<sub>3</sub>)<sub>2</sub>/TEMPO-catalyzed aerobic oxidation of alcohols to carboxylic acids**

Yibo Yu, Zhao Sun, Yin-Long Guo,\* Xue Zhang,\* Hui Qian\* and Shengming Ma\*



## RESEARCH ARTICLES

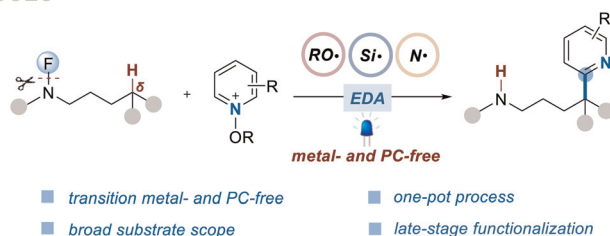
5010



### Nickel-catalyzed reductive cross-coupling of monofluoroalkyl triflates with aryl halides for monofluoroalkylated arenes

Zhi-Heng Li, Hao Peng,\* Panke Zhang, Yu-Ang Hu, Chao Pi,\* Cuiju Zhu\* and Hao Xu

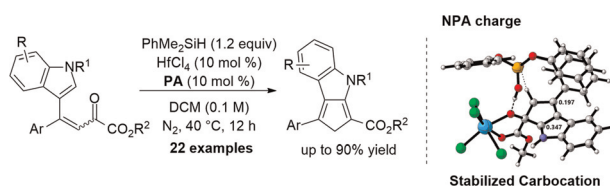
5016



### Remote C(sp<sup>3</sup>)-H heteroarylation of *N*-fluoroaryl-sulfonamides via a silyl radical process under visible light irradiation

Ya-Jian Hu, Jin-Chang Liu, Guang-Yi Zhang, Ting-Ting Yuan, Shan Wang, Xiao-Xia Liang, Ping Lan, Ren-Wang Jiang,\* Martin G. Banwell\* and Yu-Tao He\*

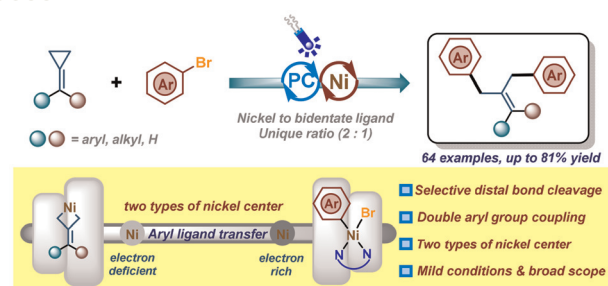
5026



### HfCl<sub>4</sub>-phosphoric acid catalyzed reduction of *in situ* generated carbocations with hydrosilane: facile approaches to 2,4-dihydrocyclopenta[*b*]indoles

Man Wang, Junyan Zhao, Junda Zhao, Ran Song, Daoshan Yang, Long Zhang\* and Jian Lv\*

5033



### Ni/photoredox-catalyzed coupling of aryl bromides and methylenecyclopropanes via selective distal bond cleavage

Ben Mao, Min Shi\* and Yin Wei\*

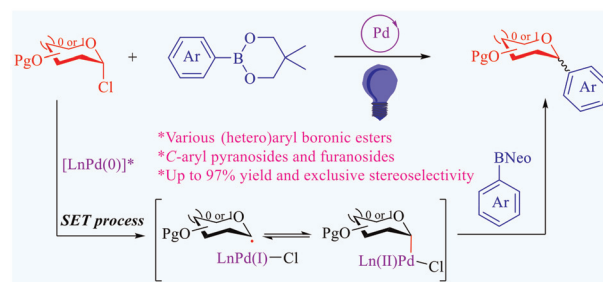


## RESEARCH ARTICLES

5044

**Visible light induced palladium-catalyzed Suzuki–Miyaura cross-coupling of glycosyl chlorides to form C-aryl glycosides**

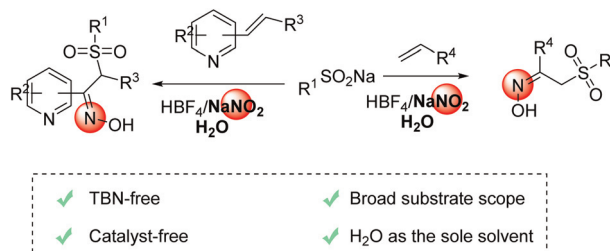
Jinsheng Lai, Yufeng Zhang, Ying Zhan, Zhuoyi Zhou, Zhen Wang, Hui Liu, Qingju Zhang,\* Jian-Song Sun and Liming Wang\*



5054

**Facile synthesis of  $\alpha$ -sulfonyl ketoximes from alkenes using sodium sulfinatate and  $\text{NaNO}_2$  in water**

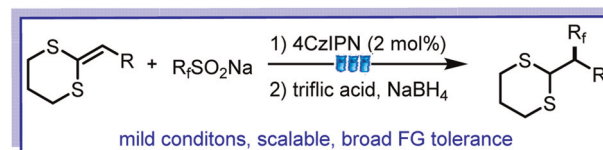
Zhenlei Zhang,\* Ning Zhu and Tianheng Liu



5061

**Photoinduced regioselective trifluoroalkylation of ketene dithioacetals with  $\text{CF}_3\text{SO}_2\text{Na}$** 

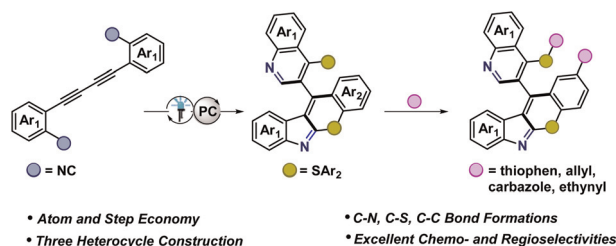
Xiaoxiao Yang, Xinyue Ma, Pan Zhou, Shuaiqi Lu, Yongxin Zhang and Chao Shu\*



5067

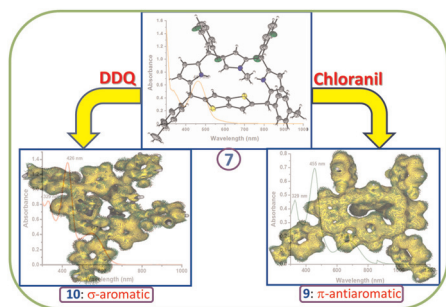
**A visible-light-induced cascade cyclization strategy for the synthesis of N,S-containing polycyclic compounds**

Shichao Yang, Ruihua Zhao, Dan Liu, Huanfeng Jiang, Gui-Juan Cheng\* and Wanqing Wu\*



## RESEARCH ARTICLES

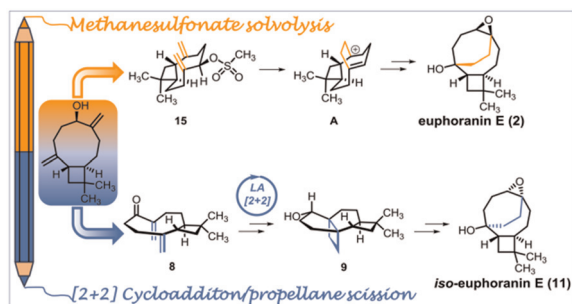
5077



### X-ray characterization of core-modified N-confused fused porphyrinogen and genesis of $\pi(\sigma)$ (anti)aromatic N-confused fused porphyrinoids

Manik Jana, Gunasekaran Velmurugan, Peter Comba\* and Harapriya Rath\*

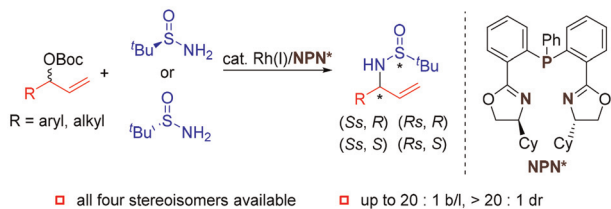
5086



### Bridgehead epoxide iso-euphoranin E from $\beta$ -caryophyllene oxide via sequential cationic formation and scission of [4.3.2]propellane

Georgijs Stakanovs,\* Dace Rasina, Sergey Belyakov, Artis Kinens and Aigars Jirgensons\*

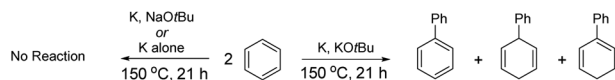
5093



### Rh-catalyzed asymmetric allylation of tert-butanesulfinamide

Min Liu and Changkun Li\*

5099



### Reductive activation of arenes by potassium metal with potassium salts

Giuseppe Nocera, Iain Robb, Kenneth F. Clark, Thomas M. McGuire, Laura Evans, Shunsuke Chiba and John A. Murphy\*

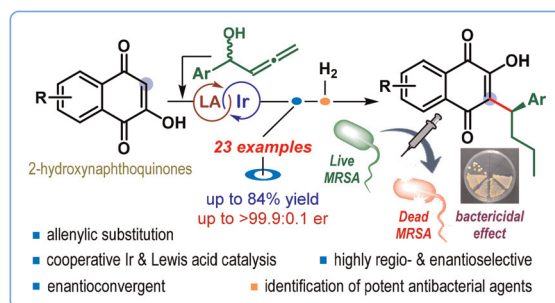


## RESEARCH ARTICLES

5107

### Rational design of naphthoquinone-based antibacterial agents through iridium-catalyzed enantioselective $\beta$ -allylation of 2-hydroxynaphthoquinones

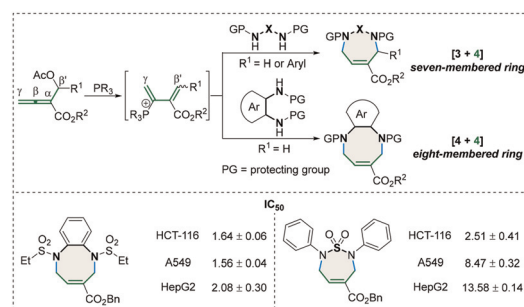
Aditya Chakrabarty, Komal Jaiswal, Mrinmoy De\* and Santanu Mukherjee\*



5116

### Phosphine-catalyzed [4 + 3] and [4 + 4] annulations of $\beta'$ -acetoxy allenates with *N,N*-dinucleophiles: access to 1,3-diazepine and 1,4-diazocine derivatives

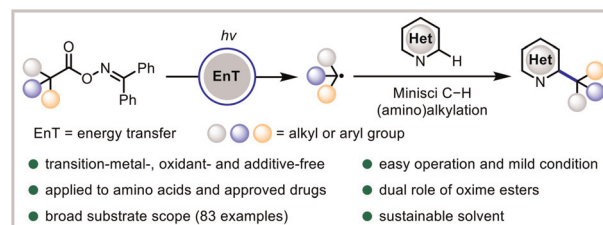
Chunjie Ni,\* Zhanhang Liang, Xiaojuan Xu, Fan Yu, Yining Zhao\* and Chen Chen\*



5122

### Energy-transfer photocatalysis for Minisci C–H (amino)alkylation of heteroarenes using oxime esters as dual-role reagents

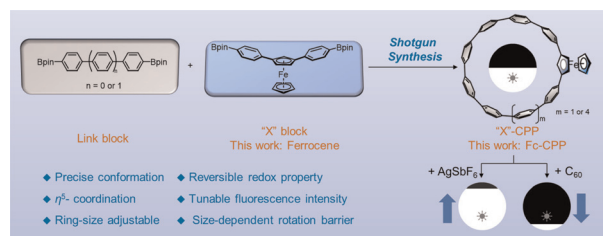
Jun Xu, Yuru Zhang, Ruiyuan Xu, Yuxin Wang, Jiabin Shen\* and Wanmei Li\*



5130

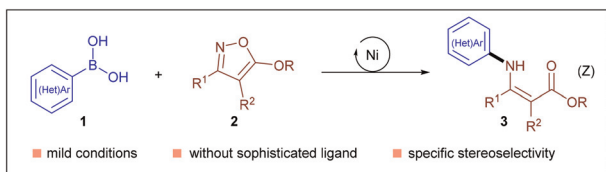
### Ferrocene-based conjugated macrocycles: shotgun synthesis, size-dependent properties and tunable fluorescence intensity

Lingyun Zhu, Jingdong Xu, Bin Lan, Xinyu Chen, Hideya Kono, Hui Xu, Jianfeng Yan, Wenjuan Li, Akiko Yagi, Yaofeng Yuan, Kenichiro Itami and Yuanming Li\*



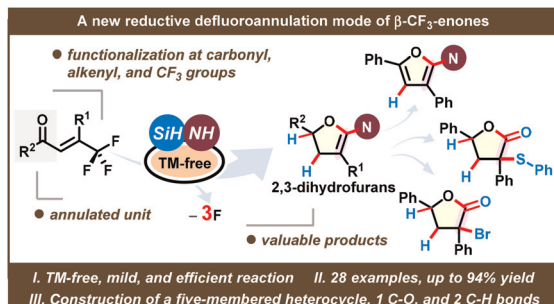
## RESEARCH ARTICLES

5138

**Nickel-catalysed C–N cross-coupling of organoboronic acids and isoxazoles**

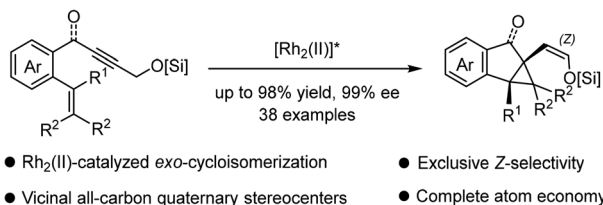
Yupeng Zhao, Changshu Wu, Jiaming Zhang, Yang Gao,\*  
Zhuoxuan Yuan, Xianwei Li, Qian Chen and  
Yanping Huo

5144

**Multi-functionalization of  $\beta$ -trifluoromethyl enones enabled 2,3-dihydrofuran synthesis**

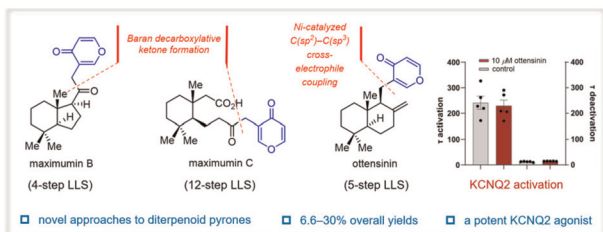
Ya-Fei Hu, Wei Han, Ye-Kun Chen, Mengtao Ma,  
Zhi-Liang Shen\* and Xue-Qiang Chu\*

5151

**Dirhodium(II)-catalyzed regio- and stereoselective cycloisomerization towards 6,5,3-tricyclic skeletons containing vicinal all-carbon quaternary stereocenters**

Zurong Xu, Jiajun Lu, Huanfeng Jiang, Rui Wu\* and  
Shifa Zhu\*

5160

**Concise syntheses of (+)-maximumins B and C and (+)-ottensinin**

Qing-Xin Li, Lin-Lin Wang, Yue-Ming Zheng,  
Zhao-Bing Gao,\* Jin-Xin Zhao\* and Jian-Min Yue\*

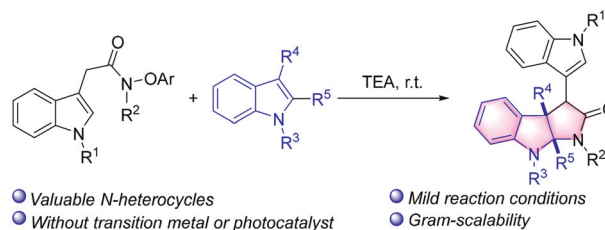


## RESEARCH ARTICLES

5167

### Synthesis of indolyl pyrroloindolines via a cascade arylation/cyclization of indole acetamides with 3-substituted indoles

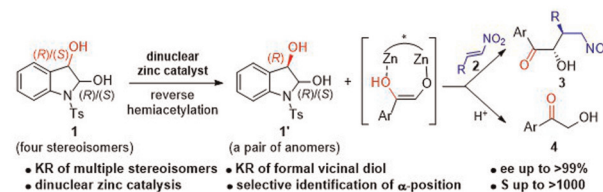
Wei Zhang, Shuai Han, Si-Yi Zhang, Dong-Xiao Jiang, Jinjin Chen, Zhen Wang\* and Yao-Fu Zeng\*



5172

### Dinuclear zinc catalysis of a kinetic resolution strategy for distinguishing one pair of diastereoisomers from multiple stereoisomers

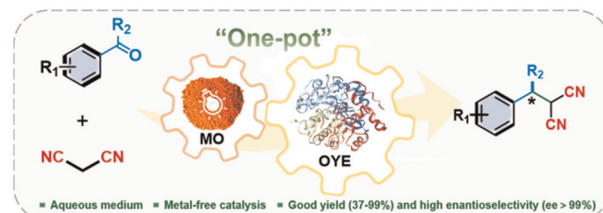
Ying-Hui Zhai, Jia-Qi Wen, Meng-Meng Liu,\* Guang-Jian Mei, Shi-Kun Jia,\* Min-Can Wang and Yuan-Zhao Hua\*



5179

### One-pot photoenzymatic synthesis of $\beta$ -chiral malononitrile derivatives

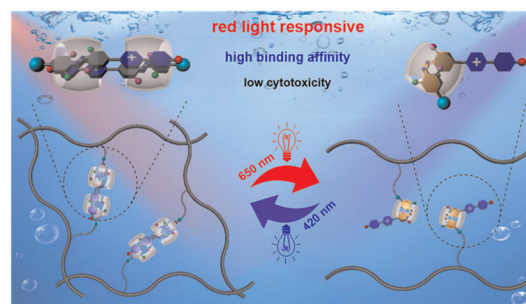
Xin-Yue Fan, Yuan Yu, Ru-De Lin, Yao Yao, Ming-Liang Shi, Kun Li, Xiao-Qi Yu, Yan-Hong Liu\* and Na Wang\*



5188

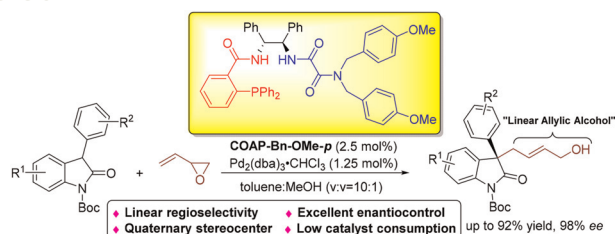
### Red-light-responsive cucurbit[8]uril based host-guest interaction enabling the construction of a photoswitchable supramolecular polymeric hydrogel

Yan-Yan Yuan, Yu Hai, Li-Juan Liu, Tian-Guang Zhan,\* Li-Chun Kong and Kang-Da Zhang\*



## RESEARCH ARTICLES

5196

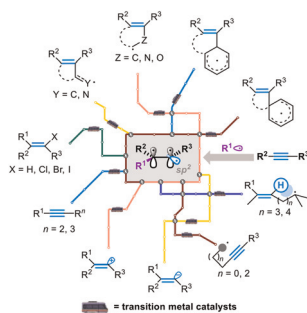


### COAP/Pd-catalyzed asymmetric linear allylic alkylation for synthesizing chiral 3,3'-disubstituted oxindoles bearing all-carbon quaternary stereocenters and primary allylic alcohol structures

Wen-Kai Liu, Bai-Lin Wang, Xing-Yun Sun, Jia-Yu Song and Xing-Wang Wang\*

## REVIEWS

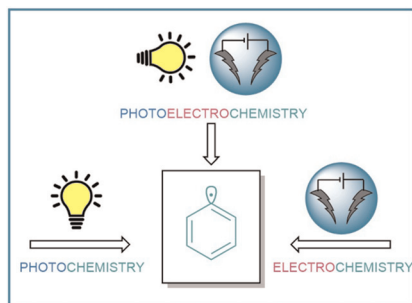
5202



### Vinyl radicals in transition metal-catalyzed organic transformations

Mu-Han Li, Xiao-Rong Shu, Yue-Jiao Lu, Wen-Chan Tian, Yu He, Qiang Li, Zheng-Jun Wang,\* Guo-Ping Ge\* and Wen-Ting Wei\*

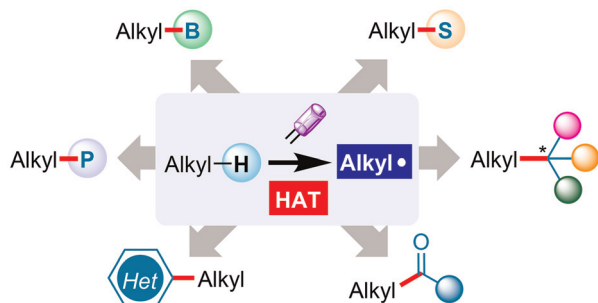
5232



### Modern photo- and electrochemical approaches to aryl radical generation

Krzysztof Grudzień, Andrei Zlobin, Jan Zadworny, Katarzyna Rybicka-Jasińska\* and Bartłomiej Sadowski\*

5278



### Visible-light induced direct C(sp<sup>3</sup>)-H functionalization: recent advances and future prospects

Jia-Lin Tu, Yining Zhu, Pengcheng Li\* and Binbin Huang\*



5306

## Recent advances in electrochemical difunctionalization of alkenes and alkynes for the synthesis of organohalides

Yu Zheng,\* Wenguang Lu, Chunxi Chen, Yanju Lu and Shenlin Huang\*

