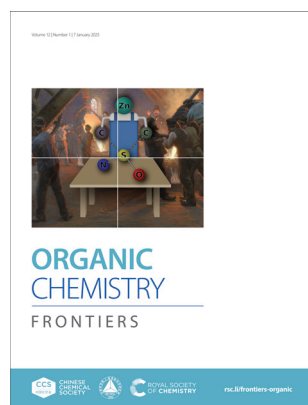


### IN THIS ISSUE

ISSN 2052-4129 CODEN OCFRA8 12(1) 1-372 (2025)

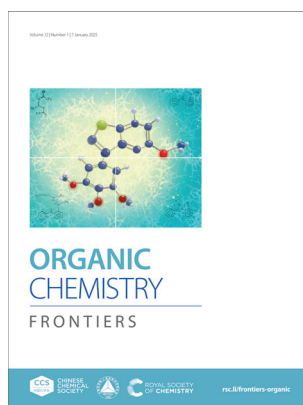


#### Cover

See Edgars Suna *et al.*, pp. 14–23.

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Acknowledgment: Cover art created by Dzonatans Melgalvis, based on The Iron Foundry by P. S. Krøyer.



#### Inside cover

See Olivier Provot, Christine Tran, Abdallah Hamze *et al.*, pp. 24–32.

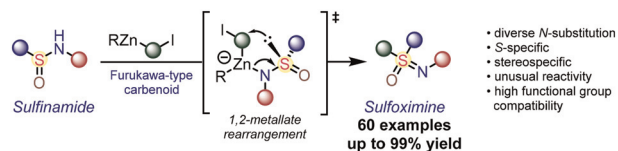
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### RESEARCH ARTICLES

14

#### S-Alkylation of sulfinamides with Zn-carbenoids: expanding stereoselective sulfoximine synthesis beyond NH derivatives

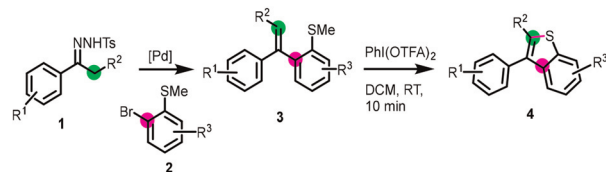
Glebs Jersovs, Dzonatans Melgalvis, Artis Kinens, Pavel A. Donets and Edgars Suna\*



24

#### PIFA-mediated cyclization of methyl(2-(1-phenylvinyl)phenyl)sulfane for the concise, flexible, and scalable *de novo* synthesis of C3-arylated benzo[*b*]thiophenes

Xinya Liu, Olivier Provot,\* Christine Tran,\* Jean François Soulé and Abdallah Hamze\*



⊗ Mild condition for the cyclization step ⊗ Access to C3 aryated benzothiophenes ( $R^2 = H$ )  
⊗ Access to disubstituted 2,3 benzothiophenes ( $R^2 = Me, cycle$ )



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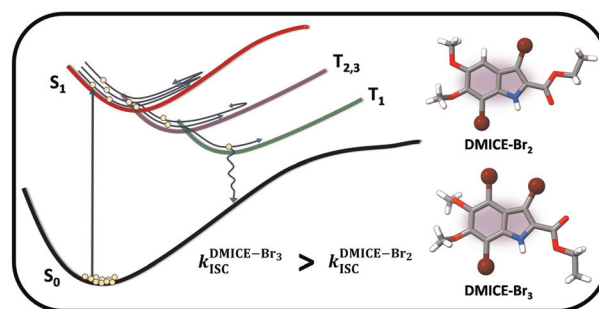
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## RESEARCH ARTICLES

33

### Probing intersystem crossing in multi-brominated eumelanin through transient absorption and surface hopping dynamics

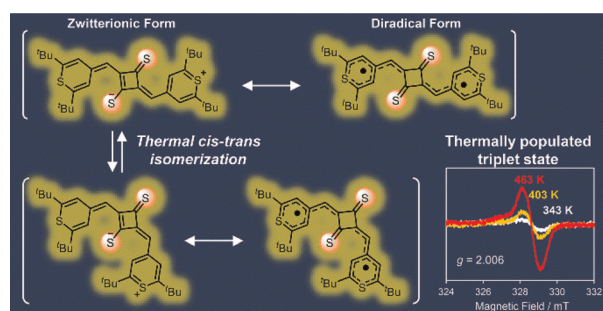
Kavya Vinod, Lukhmanul Hakeem K., Diana Thomas, Pallavi Panthakkal Das and Mahesh Hariharan\*



42

### Intermediate diradical character and thermal *cis-trans* isomerization of near-infrared absorbing thionated squaraine dyes

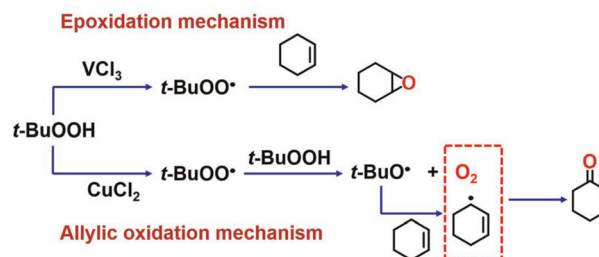
Taishi Oka, Takeshi Maeda,\* Daisuke Sakamaki, Naoya Suzuki, Shigeyuki Yagi, Shintaro Kodama and Hideki Fujiwara\*



48

### Unravelling the different pathways of cyclohexene oxidation via a peroxy radical generated from *tert*-butyl hydroperoxide (TBHP) by various metal salts

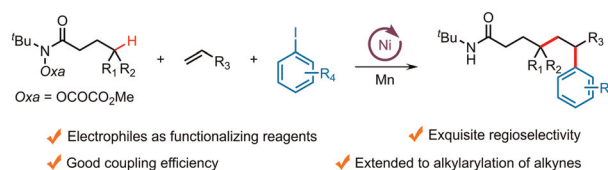
Lu-Jian Zhou, Xiao-Hui Liu,\* Han-Wen Zhang, Can Xue, Han-Kang Zhong and Xian-Tai Zhou\*



57

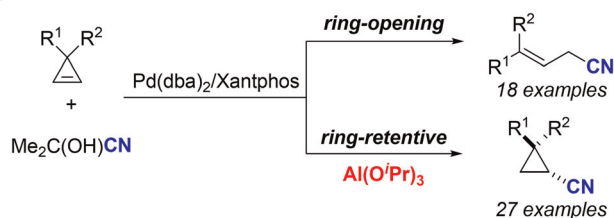
### Nickel-catalyzed reductive 1,2-alkylarylation of alkenes via a 1,5-hydrogen atom transfer (HAT) cascade

Xi Chen, Qiang Wang, Xiao-Ping Gong, Rui-Qiang Jiao, Xue-Yuan Liu\* and Yong-Min Liang\*



## RESEARCH ARTICLES

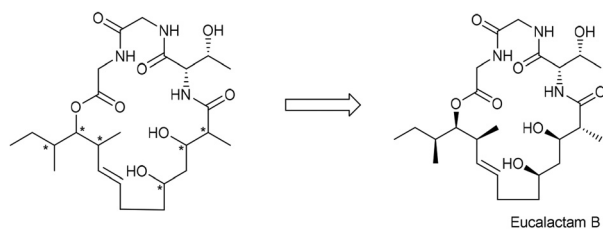
64



## Lewis acid-controlled Pd-catalyzed chemodivergent hydrocyanation of cyclopropenes

Rongrong Yu, Song-Zhou Cai and Xianjie Fang\*

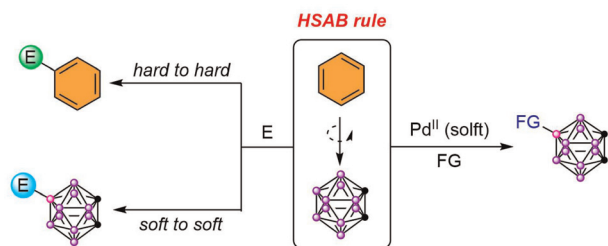
70



## Synergy of prediction rule and total synthesis in solving the stereochemical puzzle of eucalactam B

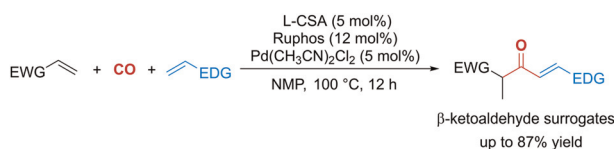
Chenqi Wang, Junyang Liu\* and Tao Ye\*

76

HSAB theory guiding electrophilic substitution reactions of *o*-carborane

Yan Wang, Yi-Ge Li, Feijing Chen, Yan-Na Ma\* and Xuenian Chen\*

85



## Palladium-catalyzed hydrocarbonylative cross-coupling with two different alkenes

Yi Chen, Jianing Wu, Yongzheng Ding\* and Hanmin Huang\*

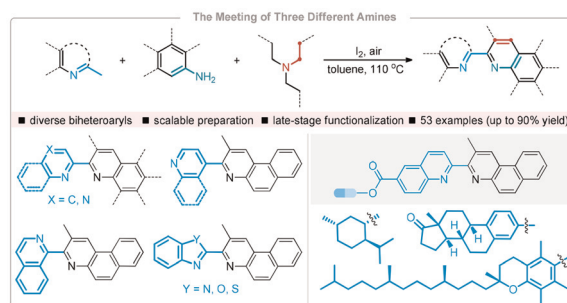


## RESEARCH ARTICLES

90

**I<sub>2</sub>-Promoted oxidative annulation of three different amines to access diverse biheteroaryls**

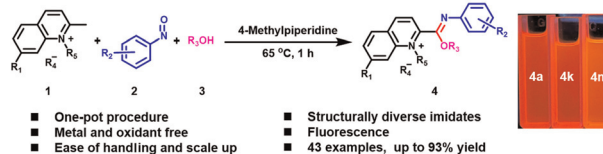
Guangping Fan, Penghui Cao, Fang Bai, Yanyan Yin, Xueyan Hou, Yani Liu, Zhenzhen Xing, Yanhui Wang, Tangqiang Sun\* and Qinghe Gao\*



97

**Facile one-pot synthesis of novel imidates as multifunctional organic fluorescent materials**

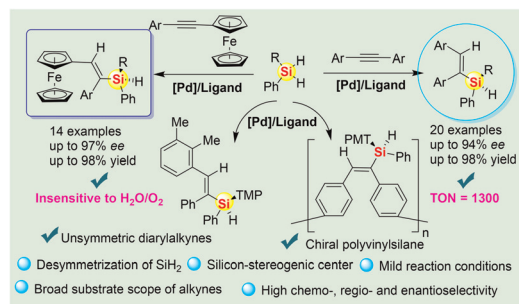
Feng-Ting Liu, Shuo Wang, Yong-Shun Chen, Jun-Ying Miao, Bao-Xiang Zhao\* and Zhao-Min Lin\*



106

**General ppm-level Pd-catalysed asymmetric diarylalkyne hydrosilylation to access structurally diverse Si-stereogenic vinylsilanes**

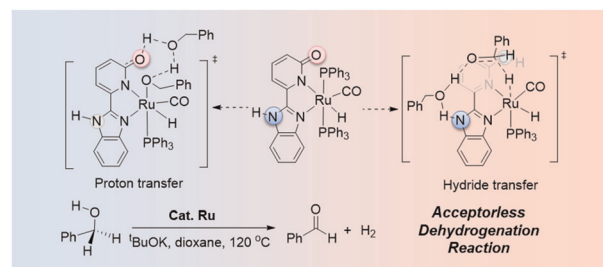
Heng Xu, Han-Xiao Yu, An-Jiu Wen, Fang-Ying Ling, Fei Ye, Li Li, Fuk Yee Kwong and Li-Wen Xu\*



115

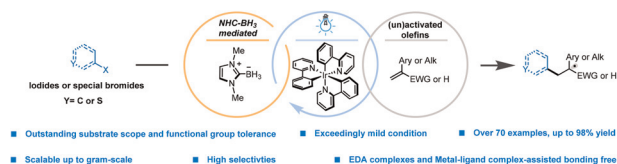
**Mechanistic insight into the dehydrogenation reaction catalyzed by an MLC catalyst with dual ancillary ligand sites**

Gui-Xiang Zhou and Cheng Hou\*



## RESEARCH ARTICLES

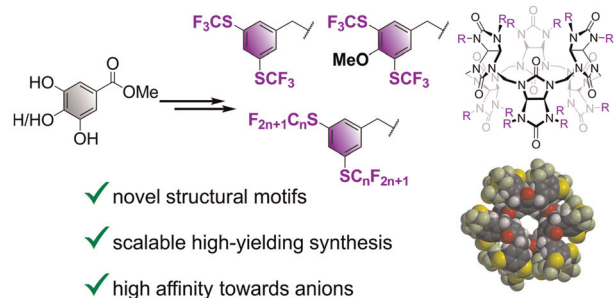
123



### Photocatalytic arylation/alkylation of olefins/alkynes *via* halogen-atom transfer mediated by NHC-BH<sub>3</sub>

Xinhan Li, Yao Zhong, Fengsong Tan, Yusong Fei, Xiaohan Zhao, Jianbin Xu\* and Baomin Fan\*

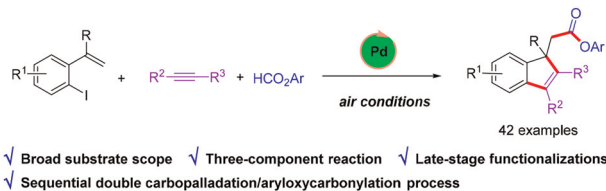
130



### Synthesis of bambusurils with perfluoroalkylthiobenzyl groups as highly potent halide receptors

Matuš Chvojka, Hennie Valkenier\* and Vladimír Šindelář\*

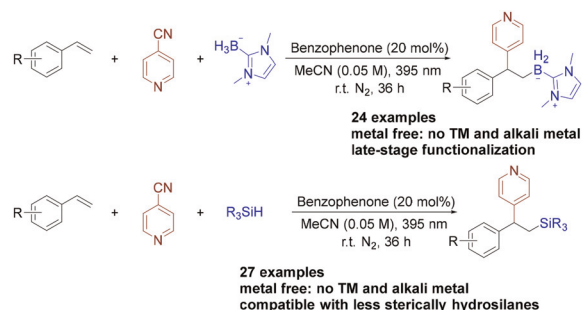
136



### Palladium-catalyzed synthesis of indene-1-acetates *via* sequential double carbopalladation and aryloxyacylation

Fei Sun, Yiyi Zheng, Zhongyao Jiang, Mingxia Wu, Zeng Lv, Hongsen Ji and Xin-Xing Wu\*

142



### Metal-free visible-light-induced borylative/silylative pyridylation of vinylarenes

Yiting Zhou and Bin Liu\*

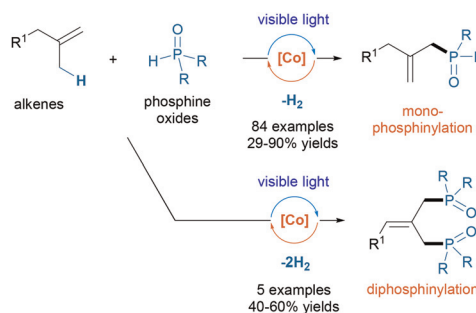


## RESEARCH ARTICLES

148

### Photoinduced cobaloxime catalysis for allylic mono- and diphosphinylation of alkenes with hydrogen evolution

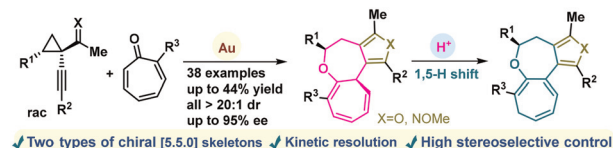
Aijun Zhang, Miao-Miao Li,\* Lei Guo, Huaixiang Yang, Jiefei Guo, Da Xu and Wei Ding\*



159

### Stereoselective access to furan-fused [5.5.0] bicyclic heterocycles enabled by gold-catalyzed asymmetric [8 + 4] cycloaddition

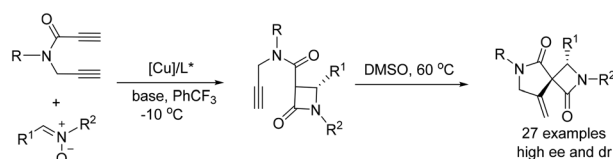
Xunhua Wang, Jianhua Wang\* and Xiaoxun Li\*



167

### A two-step Kinugasa/Conia-ene-type sequential reaction for the asymmetric synthesis of 8-methylene-2,6-diazaspiro[3.4]octane-1,5-diones

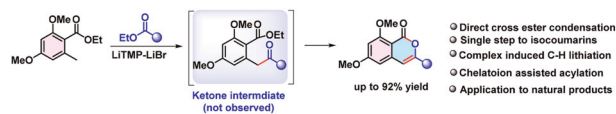
Shanyue Li, Qicai Ma, Bohua Wu, Haowen Ma, Wei Zhou\* and Qian Cai\*



173

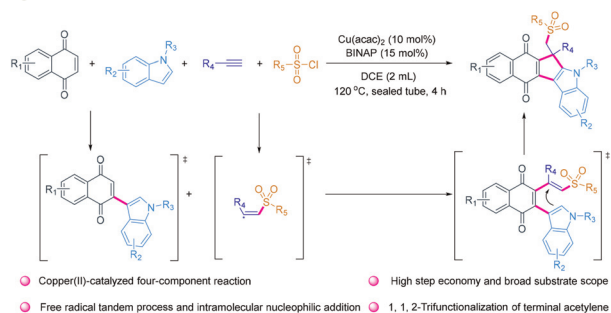
### LiTMP-LiBr complex-induced lateral lithiation and cross ester condensation: direct access to isocoumarins from 2-methoxy *o*-toluate esters

Mintu Rehman, Sajib Daimary, Rasajna Madhusudhana and Rajendar Goreti\*



## RESEARCH ARTICLES

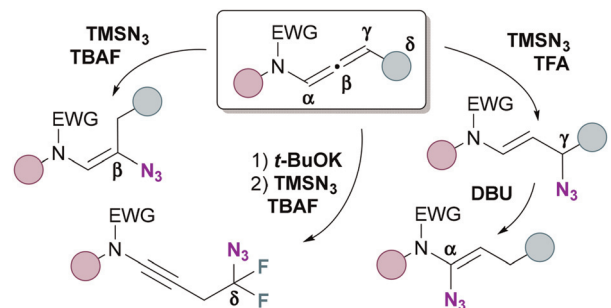
179



### Copper(II)-catalyzed synthesis of sulfonyl-functionalized quinone-fused cyclopenta[*b*]indoles via four-component cascade annulation

Hong Xu, Jie Liao, Fei Ren, Chuan-Rong Zhou, Xiao-Zhuo Liu, Yao Xiao, Dong-Wei Hang, Fuyu Li, Bei Wang\* and Ji-Yu Wang\*

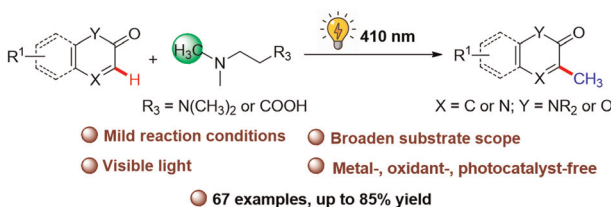
185



### Regio- and stereoselective azidation of activated *N*-allenamides: an entry to $\alpha$ , $\beta$ , $\gamma$ and $\delta$ -amido-azides

Dorian Schutz, Maxime Hourtoule and Laurence Miesch\*

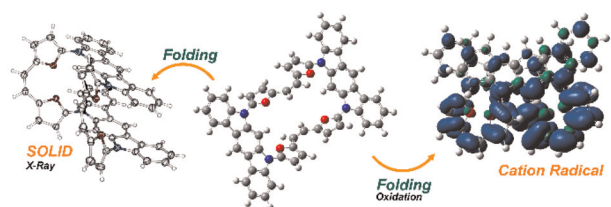
192



### Catalyst-free C–H methylation of heteroarenes enabled by electron donor–acceptor complex photoactivation

Jiayang Wang, Baoer Shao,\* Haixia Ge, Huiyu Xue, Xiangyuan Ding, Yuqi Li and Peiyao Sheng

200



### Folding of a dynamic macrocyclic system to stabilize its cation radical state

Arnab Dutta, Krzysztof Dzieszowski, Marco Farinone, Łukasz Orzeł, Krzysztof Kruczata, Monika Kijewska and Miłosz Pawlicki\*

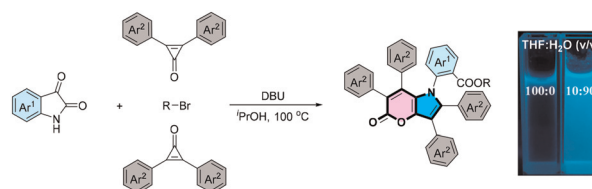


## RESEARCH ARTICLES

209

### Facile single-step synthesis of pentaaryl-substituted pyrano[3,2-*b*]pyrrol-5(1*H*)-ones showing aggregation-induced emission

Yongfeng Wang, Ruijun Chu, Yanxiao Wang, Mengyuan Zhou, Yuan Chen, Cheng Xu,\* Jingyu Sun and Guodong Yin\*

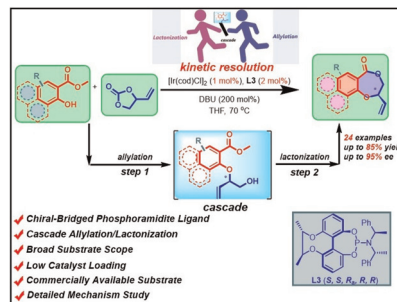


- Novel heterocyclic AIEgens
- Functional group tolerance and simplicity of operation
- >30 examples, up to 92% yield
- Easy for structural modification

217

### Iridium-catalyzed asymmetric cascade allylation/lactonization of methyl salicylates: enantioselective construction of chiral benzodioxepinones

Bendu Pan, Yunru Wu, Yaqi Zhang, Xiaobo He, Long Jiang and Liqin Qiu\*

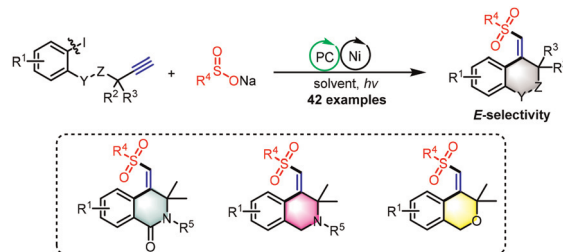


- ✓ Chiral-Bridged Phosphoramidite Ligand
- ✓ Cascade Allylation/Lactonization
- ✓ Broad Substrate Scope
- ✓ Low Catalyst Loading
- ✓ Commercially Available Substrate
- ✓ Detailed Mechanism Study

224

### Stereocontrolled synthesis of heterocycles from unactivated alkynes by photoredox/nickel dual-catalyzed cyclization

Bo-Rong Leng, Feng Yang, Jin-Lian Bai, Yu-Wen Huang, Qing-Quan Liu,\* Ping Wei, De-Cai Wang\* and Yi-Long Zhu\*

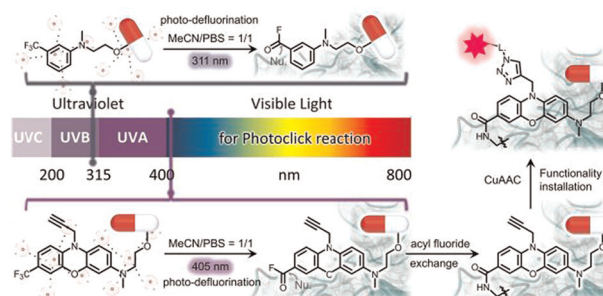


- ✓ High chemo- & regioselectivity
- ✓ Unactivated alkynes
- ✓ Efficient & mild conditions
- ✓ Broad functional group tolerance

231

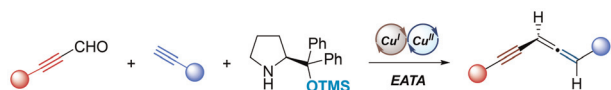
### Visible-light responsive defluorination-acyl fluoride exchange for photoclick labeling based on phenoxazine chromophores

Lijun Deng, Sitong Li, Cefei Zhang, Yuqiao Zhou, Zhishan Su,\* Changwei Hu, Xiaohu Zhao and Zhipeng Yu\*



## RESEARCH ARTICLES

243

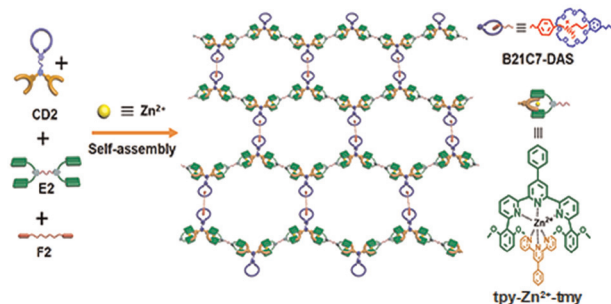


- High efficiency, enantio- and regioselectivity
- Broad substrate scope (34 examples)
- Applicable in the late-stage modification

### Magic effect of diphenylprolinol silyl ether for the enantioselective allenation of 2-alkynals

Guolin Wu, Zhen Liu, Shiwen Fan, Wenyao Li, Xue Zhang,\* Hui Qian\* and Shengming Ma\*

248

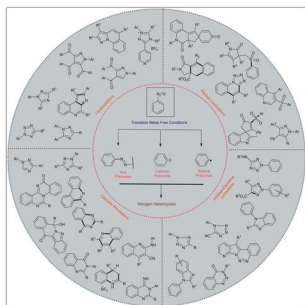


### Hierarchical supramolecular assembly based on metal coordination of asymmetric ligand pairs and host-guest recognition

Hui Li,\* Yan Dong, RiQiang Li, Yan Zhang, Shengyong Liu and Wei Tian\*

## REVIEWS

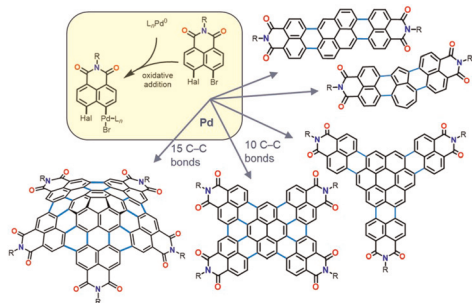
256



### Transition-metal-free approaches to access N-heterocycles and valuable intermediates from aryldiazonium salts

Mani Ramanathan\* and Ziad Moussa\*

328



### Convergent synthetic approaches to polycyclic aromatic dicarboximides

Kazutaka Shoyama\* and Frank Würthner\*

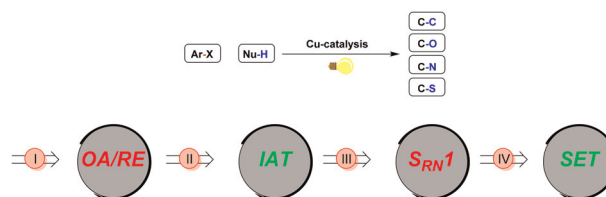


## REVIEWS

346

**Photoinduced Ullmann-type cross-coupling reactions: mechanistic insights and emerging challenges**

Ahmed Th. Abdulghaffar, Haolong Zhang, Qiankun Zhang, Qian Tong, Ruirui Tian, Hao Xu,\* Jiawei Yang\* and Yuanqing Xu\*



## CORRECTIONS

368

**Correction: Calix[4]pyrrole bis-crowns as ion pair receptors: cation selectivity modulated by counter anions**

Ju Ho Yang, Ju Hyun Oh, Seung-Ryong Kwon and Sung Kuk Kim\*

369

**Correction: Hierarchical supramolecular assembly based on metal coordination of asymmetric ligand pairs and host-guest recognition**

Hui Li,\* Yan Dong, RiQiang Li, Yan Zhang, Shengyong Liu and Wei Tian\*

