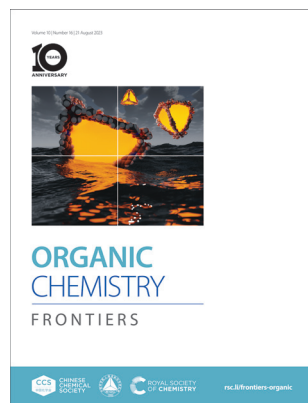


### IN THIS ISSUE

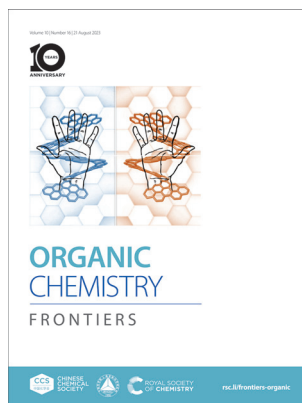
ISSN 2052-4129 CODEN OCFRA8 10(16) 3953-4212 (2023)



#### Cover

See Severin T. Schneebeli *et al.*, pp. 3965–3974.

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#### Inside cover

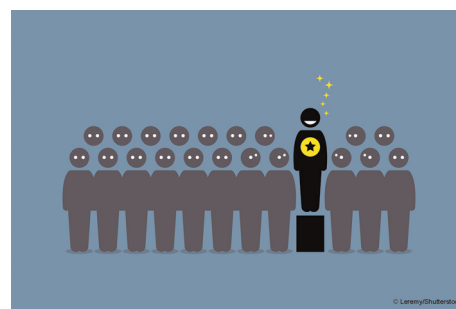
See Wesley A. Chalifoux *et al.*, pp. 4167–4197.

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3964

#### Outstanding Reviewers for *Organic Chemistry Frontiers* in 2022

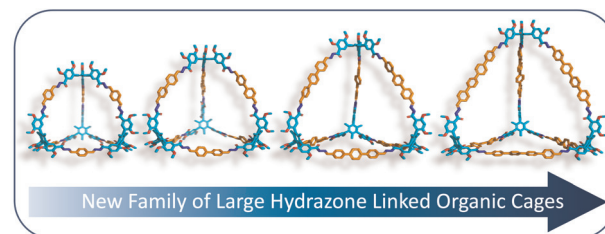


### RESEARCH ARTICLES

3965

#### Efficient multigram procedure for the synthesis of large hydrazone-linked molecular cages

Olav Vestrheim, Mica E. Schenkelberg, Qingsheng Dai and Severin T. Schneebeli\*



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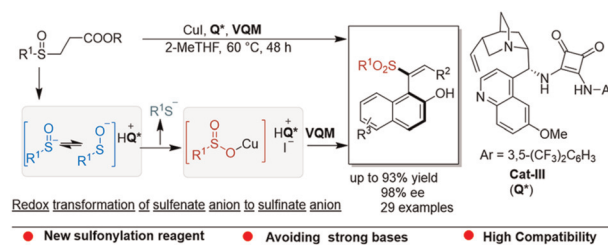


## RESEARCH ARTICLES

3975

**Redox transformation of  $\beta$ -sulfinyl esters for asymmetric synthesis of sulfone-based axially chiral styrenes**

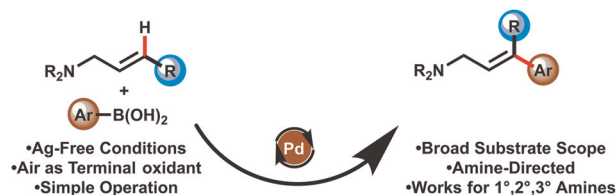
Shiyu Xiang, Taotao Lu, Junjun Liu and Qingyang Zhao\*



3982

**Oxidative Mizoroki–Heck reaction of unprotected cinnamylamines at ambient temperature under air**

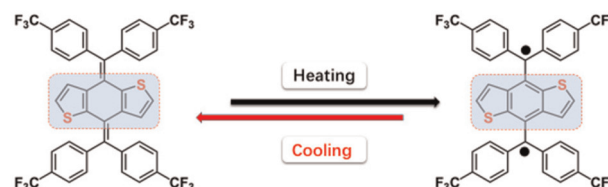
Olutayo N. Farinde, Vanaparthi Satheesh, Kendra K. Shrestha, Carmen R. Rhinehalt, Vinod G. Landge and Michael C. Young\*



3989

**Thermal-responsive ground-state spin switching in novel butterfly-shaped overcrowded ethylene featuring a benzodithiophene core**

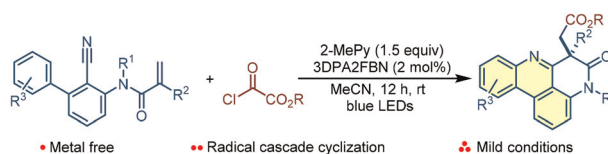
Yi Han, Fei Ying, Enxi Wu, Xiaoxiao Yu, Guangpeng Gao, Jing Xie and Xu-Hui Jin\*



3995

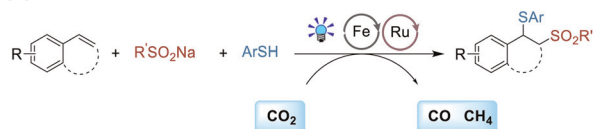
**Synthesis of ester-containing phenanthridines via photoredox-catalyzed radical cascade cyclization of *N*-arylacrylamides with alkyloxalyl chlorides**

Meiling Chen, Jian-Qiang Chen, Zhengkai Chen\* and Jie Wu\*



## RESEARCH ARTICLES

4002

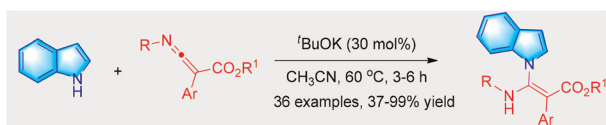


- CO<sub>2</sub> as an oxidant
- CO<sub>2</sub>-to-fuel conversion
- 38 examples, up to 95% yield
- Without extra stoichiometric reductant
- CO and CH<sub>4</sub> released
- Good functional group compatibility

### Visible-light-promoted CO<sub>2</sub> oxidative 1,2-thio-sulfonylation of styrenes with sodium sulfinites and thiophenols

Shiwei Xia, Linna Wu, Guizhi Zhai, Zechao Wang\* and Junliang Wu\*

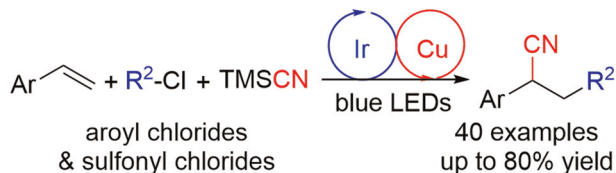
4010



### Synthesis of *N*-β-aminoacrylate substituted indoles via <sup>t</sup>BuOK catalyzed addition of indoles to ketenimines

Yan-Qiu Deng, Man-Zhen Gu, Guo-Shu Chen,\* Xin-Yu Li, Ying He, Yi-Lin Zheng, Qi-Mei Yang and Yun-Lin Liu\*

4016

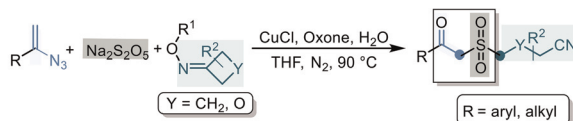


- ◆ Good functional group tolerance
- ◆ Substrates without pre-preparation
- ◆ Applicable to aryl chlorides, aromatic and aliphatic sulfonyl chlorides

### Direct acylcyanation of aryl alkenes by dual photoredox and copper catalysis

Chun-Lin Dong, Zhi Guan\* and Yan-Hong He\*

4023



- Three-component radical cascade reaction
- Involving radical relay, radical addition, hydrogen abstraction, hydrolysis or oxidation
- Using CuCl as the catalyst under mild reaction conditions
- Construction of four new bonds in one-pot

### Copper-catalyzed multicomponent cascade synthesis of polyfunctionalized β-ketone sulfones

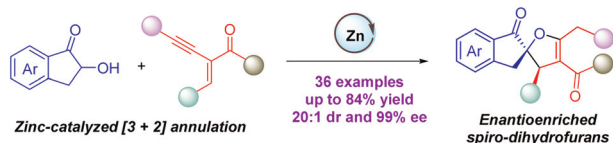
Chun-Mei Luo, Yong-Bin Sun, Ling-Tao Wang, Nan-Nan Dai, Jiao-Zhe Li, Jianfeng Zhang,\* Jin-Yang Chen, Wen-Ting Wei\* and Guo-Ping Ge\*





## RESEARCH ARTICLES

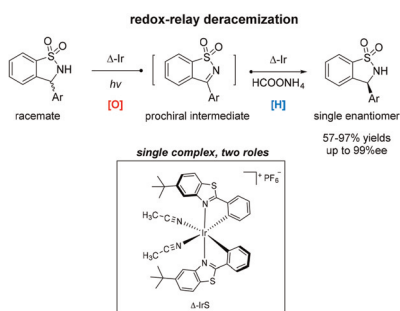
4061



### Enantioselective access to spiro[2,3-dihydrofuran-2,2'-inden-1-ones] via zinc catalyzed [3 + 2] annulation of $\alpha$ -hydroxy-1-indanones with yne-enones

Jiao-Jiao Han, Tao Jiang, Cui Zhang, Dan-Dan Cui, Yuan-Zhao Hua,\* Guang-Jian Mei, Min-Can Wang\* and Shi-Kun Jia\*

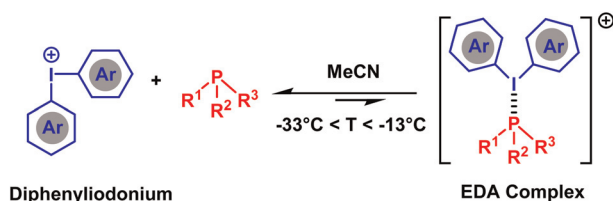
4068



### Light-driven redox-relay deracemization of cyclic sulfonamides catalyzed by a chiral-at-metal iridium complex

Yunfei Liu, Junfeng Yang, Linlin Wei, Wenfeng Jiang and Lei Shi\*

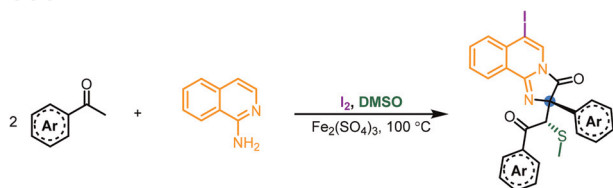
4073



### NMR spectroscopy as a unique tool for the quantification of weak interactions between trivalent phosphorus compounds and diphenyliodonium ions

Hend Besrou, Matthieu Hedouin, Lina Truong, Sami Lakhdar\* and Hassan Oulyadi\*

4080



- Readily available starting materials
- Multiple C-C/C-N/C-S/C-I bond formation
- Formal five-component cascade reaction
- Construction of quaternary carbon center

### $I_2$ -DMSO mediated multicomponent convergent synthesis of imidazo[2,1-a]isoquinoline derivatives via a triple *in situ* cross-trapping strategy

Yong-Xing Tang, Shi-Yi Zhuang, Jin-Yi Liu, You Zhou, Li-Sheng Wang, Yan-Dong Wu and An-Xin Wu\*

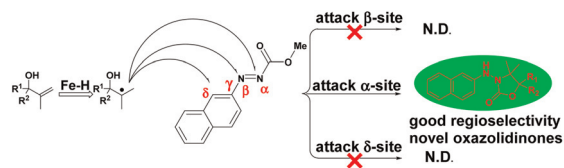


## RESEARCH ARTICLES

4086

**Synthesis of polysubstituted oxazolidinones via regioselective addition of azonaphthalenes**

Fu-Yu Li, Bei Wang, Hong Xu, Yao Xiao, Dong-Wei Huang and Ji-Yu Wang\*

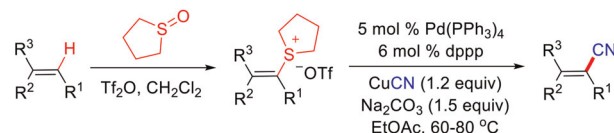


- Regioselective addition of azonaphthalenes
- Multiple membered spiro oxazolidinones
- Construction of oxadiazin-2-one and  $\beta$ -hydroxyhydrazine compounds
- Mild conditions and broad substrate scopes

4092

**Site-selective olefinic C–H cyanation via alkenyl sulfonium salts**

Juan Ma, Jie Lin, Zilong Huang, Ping Wu, Yong-Gui Zhou\* and Zhengkun Yu\*

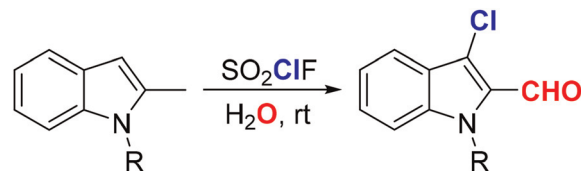


- Bench-stable sulfonium salts
- Broad functional group tolerance
- Up to 99% yields
- High chemo- and regioselectivities

4100

**SO<sub>2</sub>ClF-promoted chlorination-oxidation of 2-methylindoles: a one-step synthetic method to access 2,3-difunctionalized indoles**

Yu Zheng,\* Tianting Ma, Bingcong Liu and Shenlin Huang\*

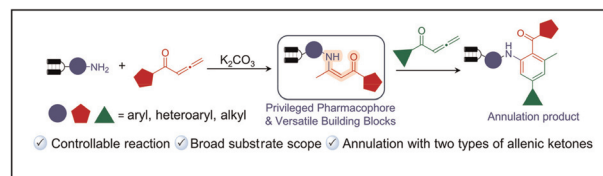


- ✓ Commercially available substrates
- ✓ One-step operation
- ✓ Mild conditions
- ✓ Broad substrate scope

4105

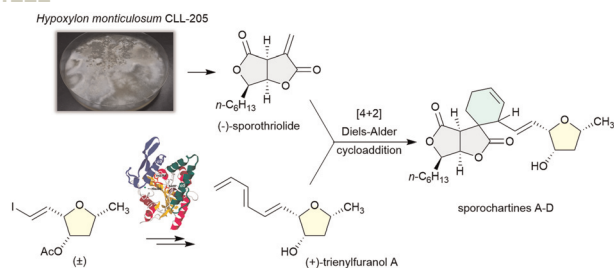
**DNA-compatible synthesis of enamminones via amination of allenic ketones**

Huihong Wang, Xiaohong Fan, Teng Chen, Yangfeng Li, Gong Zhang,\* Wei Fang\* and Yizhou Li\*



## RESEARCH ARTICLES

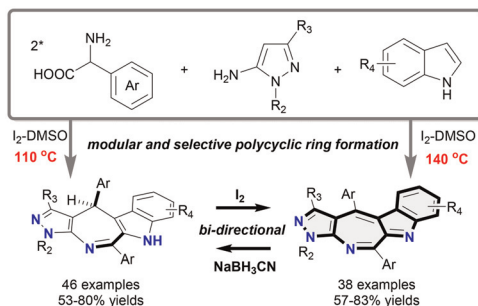
4111



### Biomimetic-inspired synthesis of sporochartines through Diels–Alder reaction between enantiopure (–)-sporothriolide and (+)-trienylfuranol A

Guillaume Arcile, Théo Massard, Elsa van Elslande, Jamal Ouazzani\* and Jean-François Betzer\*

4122



### Modular and selective synthesis of pyrazolo-azepino-centred polycyclic aromatic and non-aromatic architectures

Ting Chen, Jin-Tian Ma, Xiang-Long Chen, You Zhou, Zhi-Cheng Yu, Shuang-Gui Lei, Yan-Dong Wu, Jia-Chen Xiang\* and An-Xin Wu\*

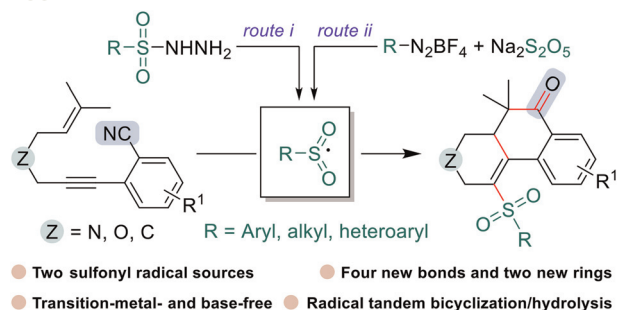
4131



### Accessing aryl azides *via* copper powder-catalyzed cross-coupling of arylboronic acids with the hypervalent azido-iodine reagent ABZ(I)

Zhifang Yang, Feng-Huan Du, Chi Zhang\* and Yunfei Du\*

4139



### Sulfonyl radical-triggered two/three-component tandem bicyclization of CN-containing 1,6-enynes under transition metal- and base-free conditions

Hui Qiu, Liu-Bin Li, Xue-Er Cai, Mu-Han Li, Yue-Jiao Lu, Ling-Tao Wang, Keqi Tang,\* Hongxin Liu,\* Jin-Yang Chen and Wen-Ting Wei\*

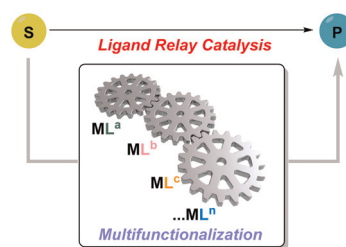


## HIGHLIGHT

4146

**Ligand relay catalysis: a newly emerged synthetic strategy**

Yufeng Sun, Bingcheng Wang and Zhan Lu\*



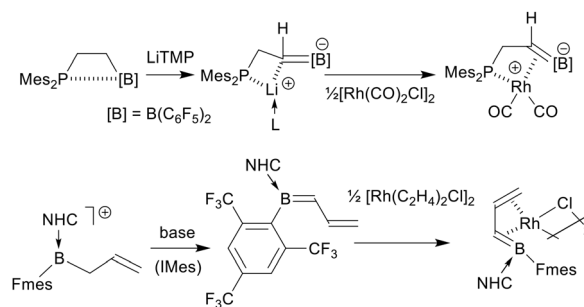
- Utility and controllability
- High efficiency and selectivity
- w/o Tedious ligand modification

## CHEMISTRY FRONTIERS

4161

**The B=C bond: some recent developments**

Chaohuang Chen, Gerald Kehr and Gerhard Erker\*

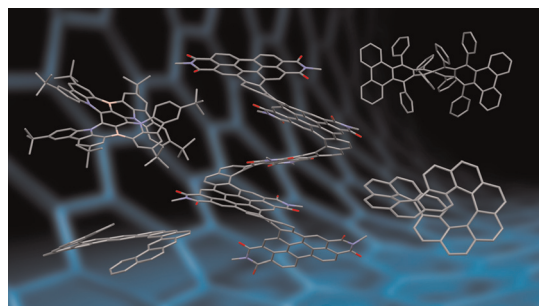


## REVIEWS

4167

**New advances in chiral nanographene chemistry**

Hannah V. Anderson, Nicolai D. Gois and Wesley A. Chalifoux\*



4198

**Recent advances in the photocatalytic synthesis of aldehydes**

Yi Wang, Xiao-Fei Liu and Wei-Min He\*

