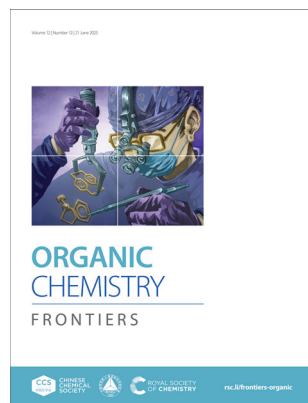


### IN THIS ISSUE

ISSN 2052-4129 CODEN OCFRA8 12(12) 3537–3740 (2025)



#### Cover

See Stefan Bräse *et al.*, pp. 3546–3550.

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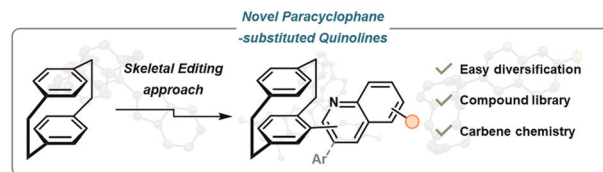
Cover image created by Vincenzo Pani.

### RESEARCH ARTICLES

3546

#### [2.2]Paracyclophane-substituted quinolines by skeletal editing strategies

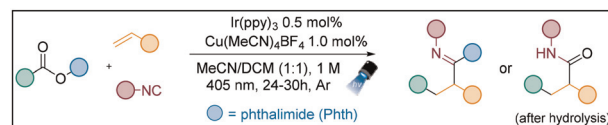
Tilman Köhler, Olaf Fuhr and Stefan Bräse\*



3551

#### Pseudo-4-component photoredox-catalyzed alkylative amidination/carbamoylation of styrenes with isocyanides and redox-active esters

Alexandre Simon, Virgile Rouffeteau, Camilla Acconcia, Sylvestre P. J. T. Bachollet, Jérémy Forté, Mariateresa Giustiniano, Laurence Grimaud\* and Maxime R. Vitale\*



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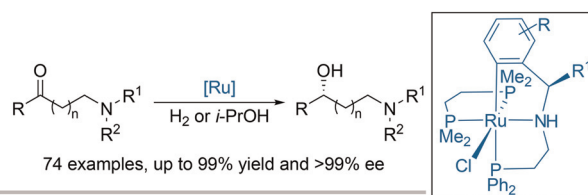
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## RESEARCH ARTICLES

3558

## Cyclometallated chiral Ru complexes with a single labile coordination site for asymmetric reduction of aminoketones

Haoying Liu, Weijun Tang,\* Jianliang Xiao and Chao Wang\*

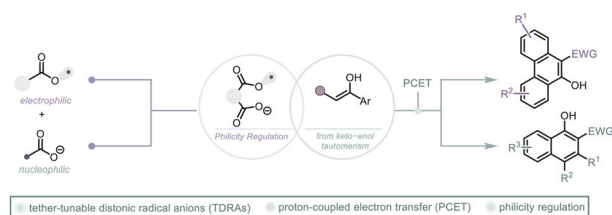


- AH and ATH of aminoketones with excellent enantioselectivities
- Modular cyclometallated catalysts with a single labile coordination site

3568

## Intramolecular and intermolecular benzannulation of arylethanone derivatives enabled by visible light-induced catalytic generation of tether-tunable distonic radical anions

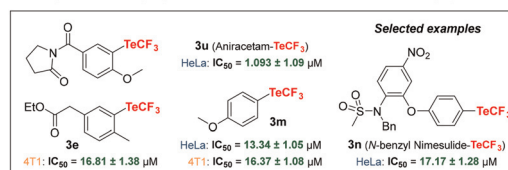
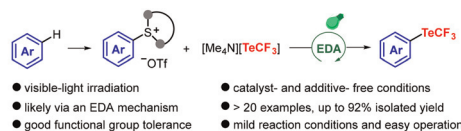
Zhiyou Yu, Ziyue Zhan, Kang Fu and Lei Shi\*



3579

## Photoinduced synthesis and biological investigation of aryl trifluoromethyl tellurides

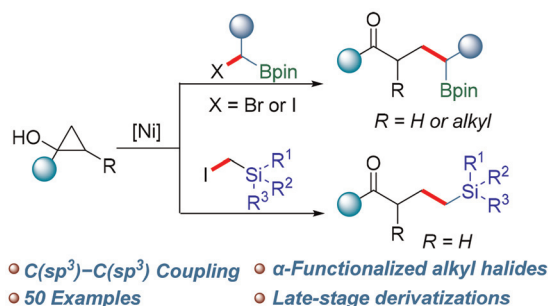
Peng-Yu Guan, Fei Li, Lijun Han, Yao Yu and Cheng-Pan Zhang\*



3587

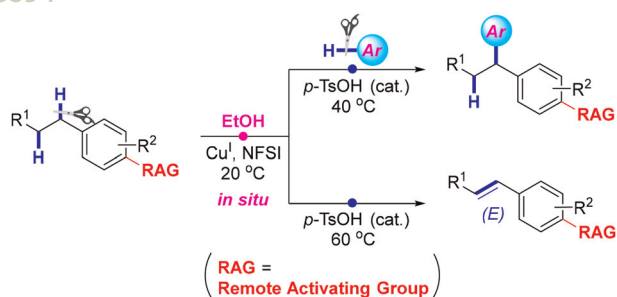
Ni-catalyzed C(sp<sup>3</sup>)-C(sp<sup>3</sup>) cross-coupling to access γ-carbonyl alkylboronates and alkylsilicons enabled by cyclopropanol-derived homoenolates

Linfei Zhu, Yang Sun and Hui Wang\*



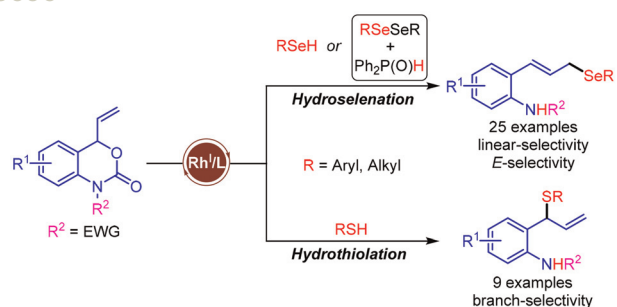
## RESEARCH ARTICLES

3594

**Selective benzylic cross-dehydrogenative arylation and  $\alpha,\beta$ -dehydrogenation under mild conditions**

Zhenyang Wan, Jiahao Gu, Yuhong Lu, Xiangmin Tian, Ziyue Zeng, Yichuan Yan, Xinyao Li,\* Dailin Zhuang\* and Ziyuan Li\*

3606

**Rhodium-catalyzed regioselective decarboxylative hydroselenation and hydrothiolation of vinyl benzoxazinones**

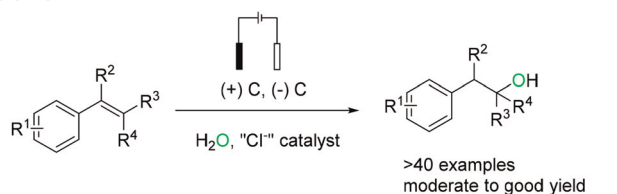
Yuan-Yi Lu, Guirong You, Yu Teng, Jun Zhao, Yi-Dong Zhong\* and Hong-Shuang Li\*

3614

**Pd-catalyzed arylation annulation of alkynyl nitriles with boronic acids to functionalized cyclopenten-3-ones/2-indenones**

Chada Raji Reddy,\* Banoth Subhash and Veeramalla Ganesh

3620

**Metal-free electrochemical anti-Markovnikov hydration of aryl alkenes**

Rongxing Linghu, Jun Shi, Biaobiao Jiang, Junrong Song, Wei Wu\* and Hai Ren\*

● anti-Markovnikov selectivity ● transition metal free

● cheap electrodes and electrolyte ● undivided cell

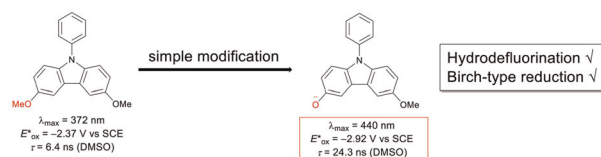


## RESEARCH ARTICLES

3626

### Carbazol-3-olate photosensitizers enable photocatalytic hydrodefluorination and Birch-type reduction reactions

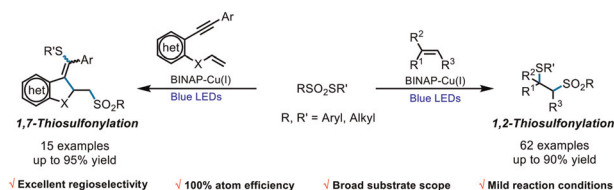
Huilong Kuang, Weibin Xie,\* Tatsushi Yabuta, Masaaki Fuki, Masahiro Higashi, Yasuhiro Kobori,\* Nozomi Sakai, Seiji Akimoto, Masahiko Hayashi and Ryosuke Matsubara\*



3636

### Copper-photocatalyzed atom transfer radical addition of thiosulfonates to alkenes

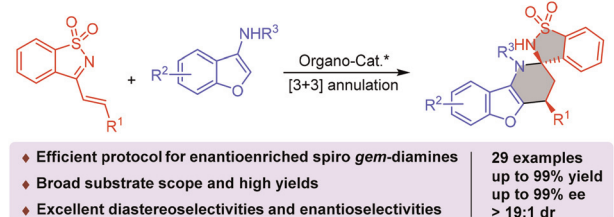
Ben Ma,\* Zheng Zhao, Min Ma, Rui Zhang and Jingya Yang\*



3643

### Asymmetric construction of enantioenriched spiro *gem*-diamines via [3 + 3] annulation of $\alpha,\beta$ -unsaturated *N*-sulfonyl ketimines and 3-aminobenzofurans

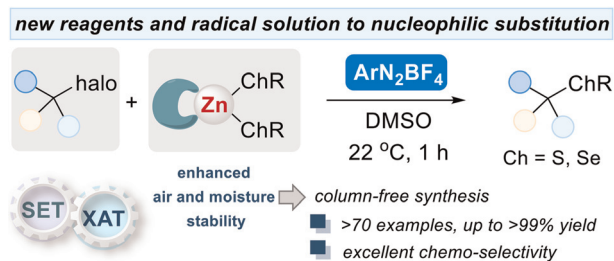
Xin Shu, Tingting Zhang, Yongxing Zhang, Kexin Tong, Shumin Wang and Yang Wang\*



3649

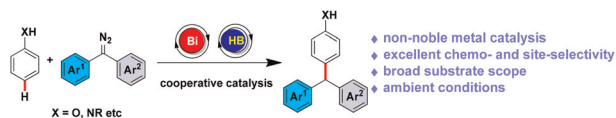
### Discovery of zinc-bound dithiolates for C(sp<sup>3</sup>)-S couplings of alkyl iodides: a radical solution to nucleophilic substitution

Yanchuang Zhao, Yuenian Xu, Han Qian, Aman Ullah, Shao-Fei Ni,\* Ying Bai and Xinxin Shao\*



## RESEARCH ARTICLES

3658



### Highly chemo- and site-selective C(sp<sup>2</sup>)-H bond functionalization of aniline and phenol derivatives with aryl/aryl diazo compounds

Yuzhu Wang, Xiaoyan Wei, Yinuo Chen, Yueyue Liu and Lu Liu\*

3665



**Proposed structure**

**Revised structure**

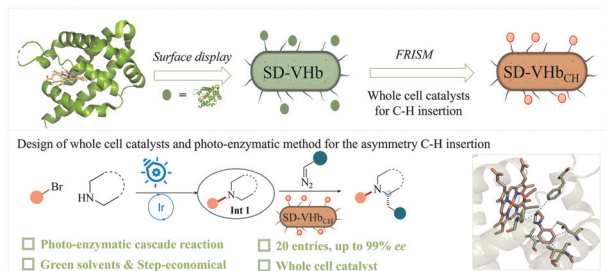
### Gonioheptenolactone

(significant cytotoxicities against a panel of human cancer cells)

### Total synthesis and structure revision of gonioheptenolactone

Jun Liu,\* Jingjing Bi, Yuxin Cui, Minhao Chen, Chuanfang Zhao, Wenting Li, Aishuang Zhan and Yuguo Du

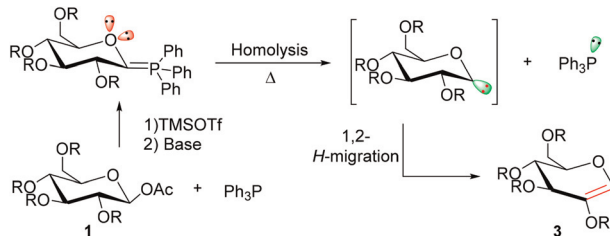
3673



### Enantioselective synthesis of $\alpha$ -functionalized phenylpyrrolidine via photo-enzymatic cascade multi-component reaction

Fengxi Li, Shenhan Xie, Wenxian Dong, Yihang Dai, Qikai Sun, Zhengqiang Li, Chuang Du,\* Zhi Wang\* and Lei Wang\*

3681



### Fragmentation of glucosylphosphonium ylides for the synthesis of glycols

Chao Chen, Zhichao Mei, Mengyao You, Ziwei Zhang, Haiyang Huang\* and Qiang Xiao\*

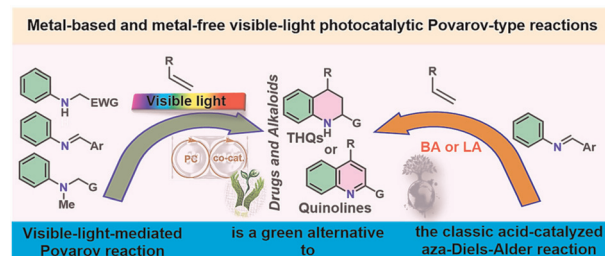


## REVIEWS

3687

### Achievements in photocatalytic Povarov-type reactions: a key step in green diversification of the quinoline chemical space

Vladimir V. Kouznetsov\* and Fedor I. Zubkov



3725

### Recent advances in the diverse transformations of trifluoromethyl alkenes

Fei Liu, Qi Wu, Xin Wang,\* Qinghao Dong and Kai Sun\*

