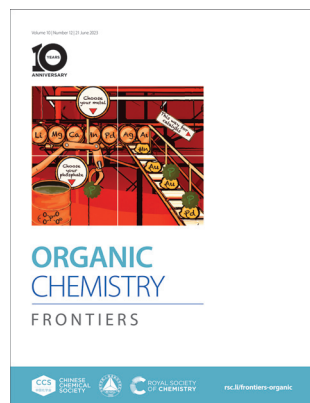


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ISSN 2052-4129 CODEN OCFRA8 10(12) 2881–3170 (2023)

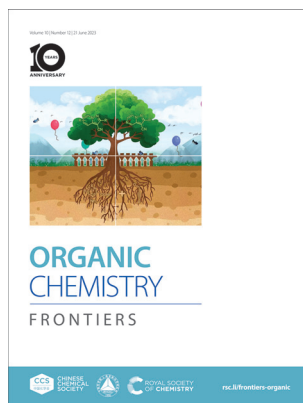


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See Nikolai Brodt and Jochen Niemeyer, pp. 3080–3109.

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We would like to thank Mrs. Dana Kauerhof for creating the cover artwork.



#### Inside cover

See Hua Cao, Xiang Liu *et al.*, pp. 2892–2897.

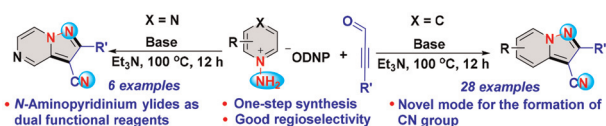
Image reproduced by permission of Xiang Liu from *Org. Chem. Front.*, 2023, **10**, 2892.

### RESEARCH ARTICLES

2892

#### One-step synthesis of cyanated pyrazolo[1,5-*a*]pyridines utilizing *N*-aminopyridines as a 1,3-dipole and a nitrogen source

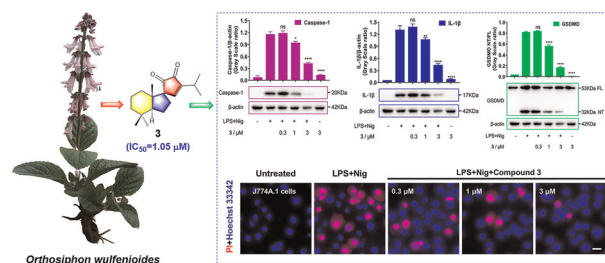
Xiaotian Shi, Yu Lin, Jiaohang Wei, Limin Zhao, Pengfeng Guo, Hua Cao\* and Xiang Liu\*



2898

#### Diterpenoids with a novel 6/5-5 spiro tricyclic skeleton from *Orthosiphon wulfenoides* and their NLRP3 inflammasome inhibitory activity

Wen-Chao Tu, Xing-Jie Zhang, Ying-Xin Zhao, Wei-Chi Chen, Xing-Yu Zhang, Chang-Lin Yang, Muhammad Aurang Zeb, Xiao-Li Li,\* Kaunda-Joseph Sakah, Rui-Han Zhang, Mei-Feng Liu\* and Wei-Lie Xiao\*



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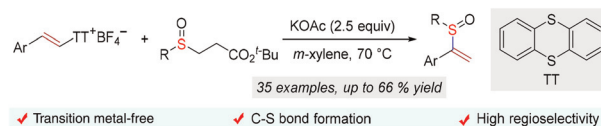


## RESEARCH ARTICLES

2907

### Transition metal-free and regioselective alkenyl C–S cross-coupling reaction of alkenylsulfonium salts

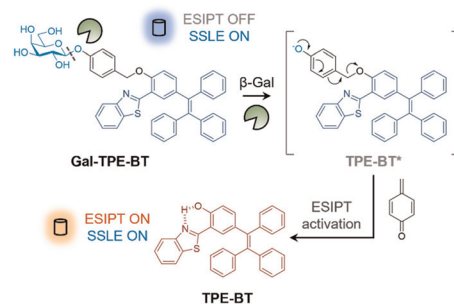
Qiang Wang, Shuaijie Wu, Yi-Dong Wang,\* Jing Sun, Ying Han,\* Chao-Guo Yan and Lei Wang\*



2913

### Ratiometric sensing of $\beta$ -galactosidase based on excited-state intramolecular proton transfer (ESIPT) and solid-state luminescence enhancement

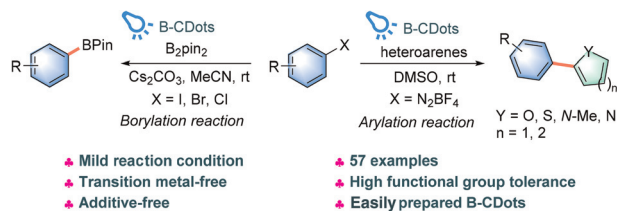
He Tian, Jr., Wei Lin, Xi-Le Hu, Jing-Bo Wang, Min-Yu Zhang, Yi Zang, Xin-Yan Wu, Jia Li,\* Tony D. James\* and Xiao-Peng He\*



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### Visible light-induced borylation and arylation of small organic molecules using carbon dots

Tiantong He, Heping Wei, Yuanbo Zhou, Li-ya Jiang, Jonathan B. Baell, Yang Yu\* and Fei Huang\*

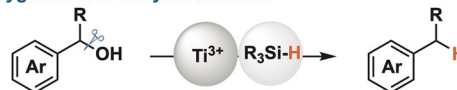


2927

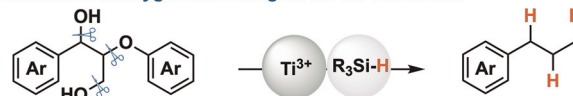
### Titanium-catalysed deoxygenation of benzylic alcohols and lignin model compounds

Alexandru Căciuleanu, Felix Vöhringer and Ivana Fleischer\*

#### Deoxygenation of benzylic alcohols



#### Exhaustive deoxygenation of lignin model substrates

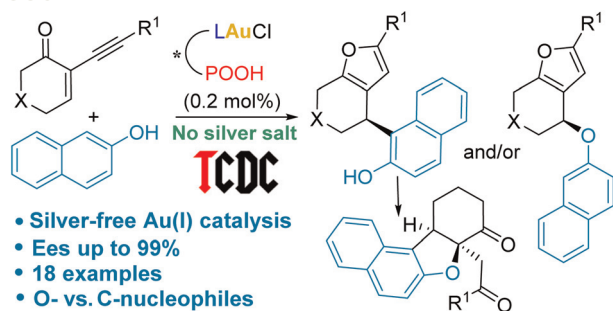


- sustainable 3d-metal catalyst
- silane as H-donor and activator
- functional group tolerance
- reusable side products



## RESEARCH ARTICLES

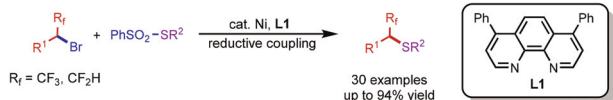
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### Enantioselective Au(I)-catalyzed tandem reactions between 2-alkynyl enones and naphthols by the tethered counterion-directed catalysis strategy

Yunliang Yu, Nazarii Sabat, Meriem Daghmoum, Zhenhao Zhang, Pascal Retailleau, Gilles Frison,\* Angela Marinetti\* and Xavier Guinchard\*

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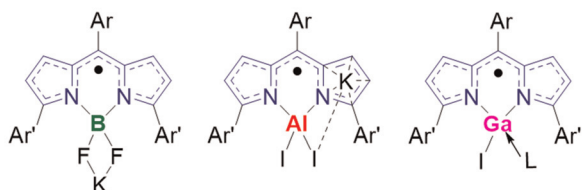


### Synthesis of trifluoromethylated thioethers via Ni-catalyzed reductive C–S coupling

Wei Liu, Yan He, Zhi-Yuan Liu, Yanlin Li, Yan Li, Bing-Bing Wu, Ruo-Xin Jin and Xi-Sheng Wang\*

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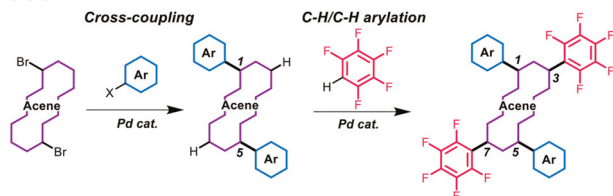
### Crystalline radicals derived from BODIPY and its heavier analogues



### Crystalline radicals derived from boron-dipyrromethene and its heavier analogues

Xinxin Wang, Zhuofeng Xie, Yuyang Dai, Xiaona Liu, Manling Bao, Chen Liu, Qiqi Han, Chunmeng Liu\* and Yuanting Su\*

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### Straightforward and regioselective synthesis of 1,3,5,7-tetra-arylated acene bearing different aryl groups

Ryota Sato, Kunfeng Chen, Takeshi Yasuda, Takaki Kanbara\* and Junpei Kuwabara\*

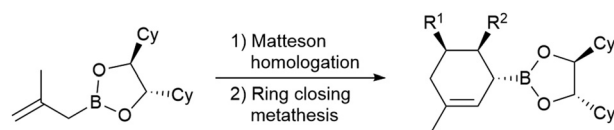


## RESEARCH ARTICLES

2963

### Stereoselective synthesis of five- and six-membered carbocycles via Matteson homologation/ring closing metathesis

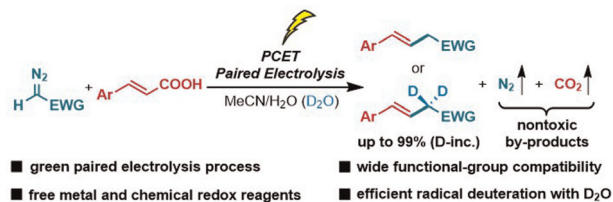
Thorsten Kinsinger and Uli Kazmaier\*



2968

### Paired electrolysis enables decarboxylative coupling of alkenyl acids with diazo compounds

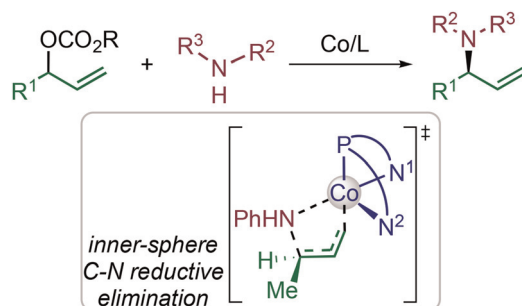
Jingchao Jiao, Yapeng Yan, Qiumin Ke, Yusen Zhang, Hang Huang, Qianwen Gao, Jie Liu\* and Xi Wang\*



2976

### A computational study on cobalt-catalyzed allylic carbonate substitution of racemic allylic carbonates with amines: inner-sphere C–N reductive elimination and origins of regio- and enantioselectivities

Zhen Shen, Hongli Wu, Jinjin Yang, Deping Kong, Jiaao Ge and Genping Huang\*



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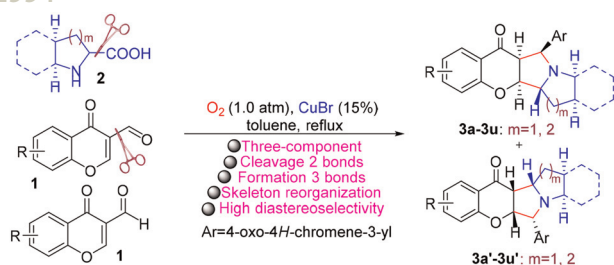
### Chemo- and regioselective cyclization of diene-tethered enynes via palladium-catalyzed aminomethylation

Renren Li, Haocheng Zhang, Bangkui Yu\* and Hanmin Huang\*



## RESEARCH ARTICLES

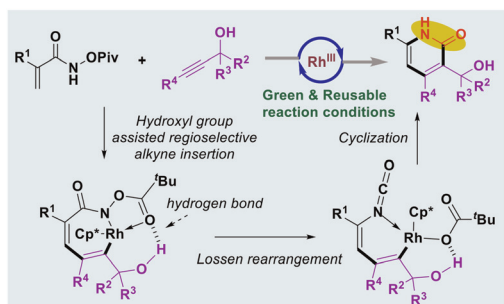
2994



### Cu-catalyzed decarboxylative annulation of proline derivatives: multi-component synthesis of functionalized chromeno[2,3-c]-pyrrol-9(1H)-one derivatives

Li Chen, Jin-Mei Qi, Shu Yang, Si-Nuo Sun and Sheng-Jiao Yan\*

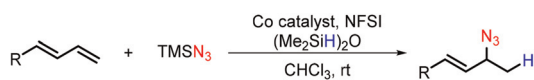
3000



### Rhodium-catalyzed regioselective C–H activation/Lossen rearrangement/annulation for the green synthesis of trisubstituted 2-pyridones

Yidi Li, Huiying Xu, Lin Huang, Zhi Zhou,\* Zhenhao Tang, Haifang Meng, Wei Zhang, Wei Yi\* and Xiaowei Wu\*

3010

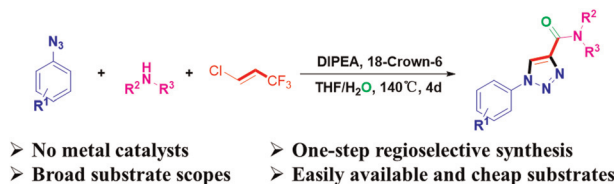


- Mild conditions
- Readily available substrates
- High 1,2-regioselectivity

### Cobalt-catalyzed regioselective hydroazidation of 1-aryl-1,3-dienes: facile access to allylic azides

Mei-Hua Shen, Xiao-Wen Qi, De-Xia Li, Xin-Yi Wang, Chi-Fan Zhu\* and Hua-Dong Xu\*

3016



### Metal-free 1,3-dipolar cyclization of azides with HFO-1233zd(E) in the presence of amines: one-step regioselective synthesis of 1-N-substituted 1,2,3-triazole-4-carboxamide derivatives

Jing Wang, Qian Yu, Zheng Wang, Zheteng Zhang, Linghui Zeng, Chong Zhang, Huajian Zhu,\* Jiaan Shao\* and Jiankang Zhang\*

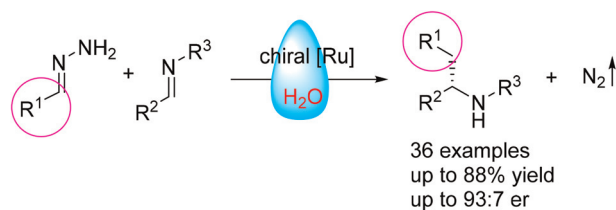


## RESEARCH ARTICLES

3021

**Asymmetric addition of hydrazones as alkyl carbanion equivalents with aryl imines in water**

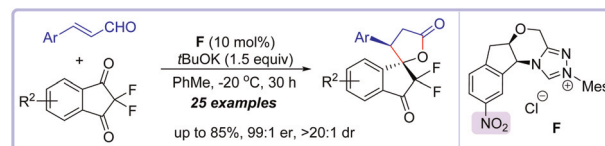
Yi-Zhan Wang, Shao-Dong Liu, Liang Cheng, Li Liu\* and Chao-Jun Li\*



3027

**N-heterocyclic carbene-catalyzed enantioselective synthesis of spirocyclic ketones bearing gem-difluoromethylenes**

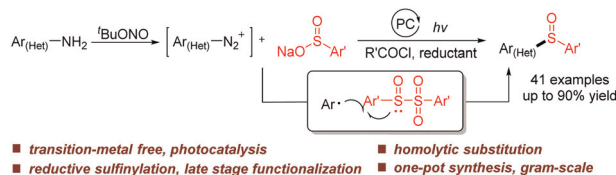
Zheng Liang, Jibin Li, Chaolei Liu, Yiwei Zhu\* and Ding Du\*



3033

**A reductive Sandmeyer-type reaction for the synthesis of sulfoxides from anilines under photocatalysis**

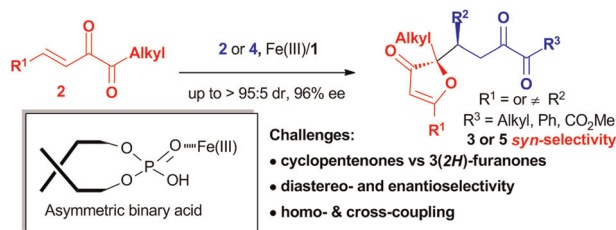
Gangqi Peng, Hao Cheng, Xiya Cheng, Yang He, Yuanyuan An,\* Jie Wu\* and Danqing Zheng\*



3039

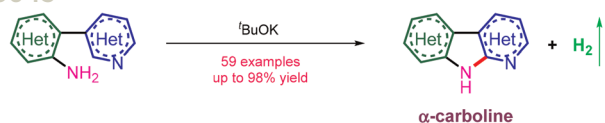
**Asymmetric binary-acid catalysis: a diastereo- and enantioselective oxa-Nazarov cyclization-Michael addition of conjugated 1,2-diketones**

Yuan Tian, Mengdie Tang, Changshuo Lian, Ran Song, Daoshan Yang and Jian Lv\*



## RESEARCH ARTICLES

3045

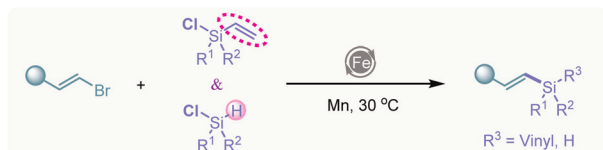


- Transition metal-free
- H<sub>2</sub> as the sole by-product
- Intramolecular Chichibabin-type amidation with weak nucleophilic anilines
- Atom- and step-economy
- Without pre-functionalization

### Metal-free heteroarene C(sp<sup>2</sup>)-H amination with unprotected (hetero)arylamines

Tao Wen, Zhen Zhang,\* Lihua Ye, Chihong Zhang, Bo Jin, Wenkun Wang, Zhong-Ning Chen and Hu Cai\*

3052



- ★ ~60 examples, up to 99% yield
- ★ simple and mild conditions
- ★ excellent functional group tolerance
- ★ modifications and synthetic applications

### Iron-catalyzed cross-electrophile coupling of bromostyrenes and chlorosilanes

Ying Lin, Liang Zou, Renren Bai, Xiang-Yang Ye,\* Tian Xie\* and Yang Ye\*

3061

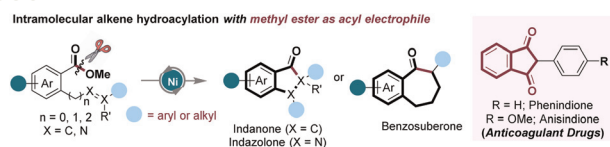


- Dual nickel/photoredox catalysis.
- Modular and facile protocol.
- Good functional group compatibility.
- Readily available starting materials

### Cross-coupling of aldehydes and $\alpha$ -bromophosphonates to modularly access $\alpha$ -substituted- $\beta$ -ketophosphonates under dual nickel/photoredox catalysis

Xinxuan Li, Hepan Wang and Tao XU\*

3067



- > 40 examples, up to 94 %
- Good functional group tolerance
- Easy post-synthetic modification
- Total synthesis and LSF of pharmaceuticals
- Excellent free radical scavenging activities

### Expedient assembly of densely functionalized indanones via nickel-catalyzed alkene hydroacylation with methyl esters

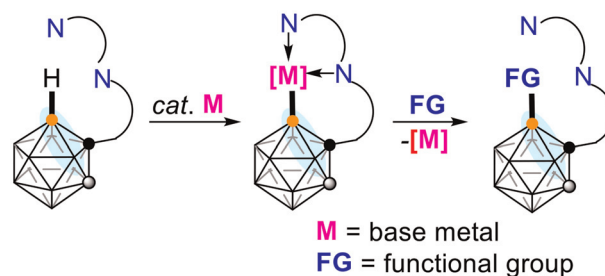
Min Zeng, Fuli Huang, Minghui Zhu, Jichao Ding, Tong Qin, Maoting Xu, Wanqing Liu, Jun Lu, Jicheng Wu,\* Xurong Qin\* and Qiao Ren\*



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### A strategy for regioselective B–H functionalization of *o*-carboranes via base metal catalysis

Jie Zhang and Zuowei Xie\*



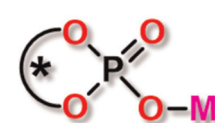
## REVIEWS

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### Chiral organophosphates as ligands in asymmetric metal catalysis

Nikolai Brodt and Jochen Niemeyer\*

#### Asymmetric catalysis with metal-phosphates

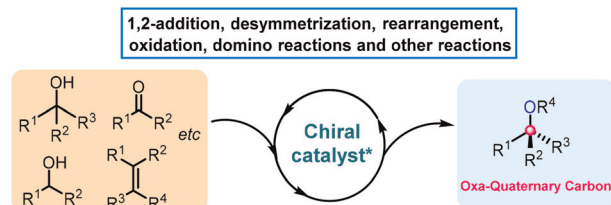


**M** = Li, Mg, Ca, In, Bi,  
Ti, Mn, Rh, Pd, Ag, Au,  
Yb

3110

### Recent advances in the asymmetric catalytic construction of oxa-quaternary carbon centers

Yu-Ping He, Di Tian, Xing-Zi Li and Hua Wu\*



3130

### Progress in catalytic asymmetric $\alpha$ -functionalization of vinylogous nucleophilic species

Zhen-Hua Wang,\* Yong You, Jian-Qiang Zhao, Yan-Ping Zhang, Jun-Qing Yin and Wei-Cheng Yuan\*

