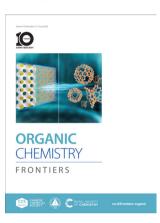
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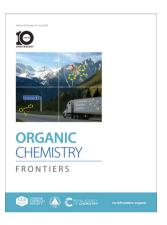
ISSN 2052-4129 CODEN OCFRA8 10(11) 2607-2880 (2023)



#### Cover

See Zhaohui Wang et al., pp. 2808–2812.

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#### Inside cover

See Akio Saito *et al.*, pp. 2618–2623.

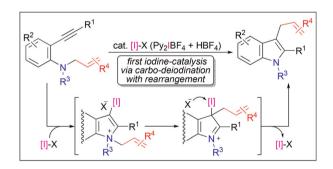
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Sae Tsubata, Akira Tsubouchi and Akio Saito\*



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Xin-Rui Zhu and De-Cai Fang\*

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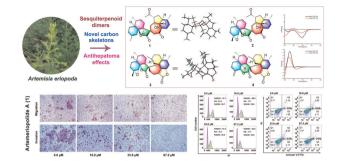
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Artemeriopolides A-D, two types of sesquiterpenoid dimers with rare carbon skeletons from Artemisia eriopoda and their antihepatoma cytotoxicity

Xiao-Feng He, Qi-Hao Li, Tian-Ze Li, Yun-Bao Ma, Wei Dong, Ke-Xin Yang, Chang-An Geng, Hao-Wei Zhang, Yuan Wang and Ji-Jun Chen\*



#### 2642

A practical synthesis of 3,4-diamino-6-azido-1Hpyrazolo[4,3-c]pyridin-5-ium energetic ionic compounds

Wen-Hao Cui, Wen-Biao Zhou, Zhiwen Ye and Ying He\*

#### 2648

Palladium-catalyzed asymmetric (4 + 3) cycloaddition of N-2,2,2-trifluoroethylisatin ketimines: access to optically active spirooxindoles

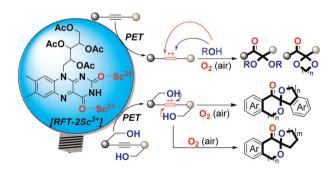
Yinggao Meng, Manman Song, Yue Wang, Yuxin Wang and Er-Qing Li\*

- wide substrate scope, mild reaction conditions
- Efficient chirality control (up to 97% ee; > 20:1 dr)
- Free base and umpolung

#### 2653

Aerobic oxyfunctionalization of alkynes by a bioinspired flavin-metal ion photocatalytic system

Duyi Shen,\* Fubi Zhong, Linghui Li, Haixing Zhang, Ting Ren, Chaoyue Sun, Bin Wang, Mian Guo, Mianran Chao\* and Shunichi Fukuzumi\*



#### 2663

$$\begin{array}{c} R_1O \\ R_1O \\ R_1O \\ \end{array}$$

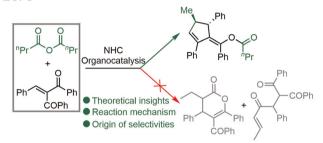
$$\begin{array}{c} R_1O \\ \end{array}$$

- Pillar[n]arene-based Diels-Alder adducts
- New chiral centres embedded in backbone
- Distorted "non-pillar-like" conformations

# Synthesis, structures, and conformational characteristics of pillararene-based Diels-Alder adducts with embedded chiral centres

Haiying Wang, Tushar U. Thikekar, Jingfeng Xue, Yumei Zhu, Wangjian Fang, Jiong Xu, Andrew C.-H. Sue\* and Hongxia Zhao\*

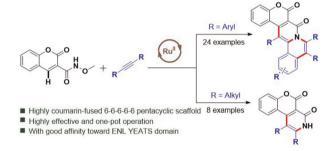
#### 2670



# Exploring a general mechanistic map on NHC-catalyzed activation/transformation reactions of saturated carboxylic anhydrides

Shuang-Liang Liu, Yan Qiao\* and Yang Wang\*

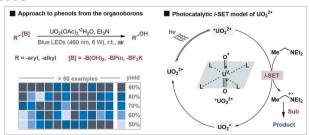
#### 2680



# A Ru(II)-catalyzed C-H activation and annulation cascade for the construction of highly coumarinfused benzo[a]quinolizin-4-ones and pyridin-2-ones

Jing Wang, Xiaoxue Zhang, Jianhui Zhou, Liping Yan, Yuan Li, Naixuan Zhao, Hong Liu, He Huang\* and Yu Zhou\*

#### 2688



# Hydroxylation of organoborons *via* uranyl photocatalysis

Yixin Jia, Jiaolong Meng, Deqing Hu, Hao Kang and Xuefeng Jiang\*

#### 2695

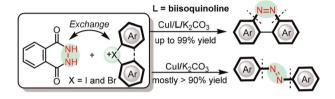
Synthesis of 2-pyrrolidinone derivatives *via* N-heterocyclic carbene catalyzed radical tandem cyclization/coupling reactions

Huiping Yin, Tianjiao Huang, Bai Shi, Wei Cao, Chenxia Yu, Tuanjie Li, Kai Zhang\* and Changsheng Yao\*

#### 2701

Efficient synthesis of benzo[c]cinnolines and azoarenes via dual C-N coupling of phthalhydrazide and trivalent halogen reagents

Yanyan Yang, Rongrong Xie, Yiwen Wang, Peiyan Zhu, Jinhua Wang and Shiqing Li\*



#### 2708

Synthesis of 1,4-dithiins and 1,4-diselenins from alkynes and elemental sulfur/selenium under transition metal-free conditions with high regioselectivity

Lu Cheng, Mengdan Wang, Yingge Gu, Peng He, Zongkang Wang, Ziyi Zhuang, Lingkai Kong\* and Yanzhong Li\*

#### 2714

 $^t$ BuOK/DMSO/O $_2$  catalyzed direct  $\alpha$ -C(sp $^3$ )-H alkylation with styrenes: productive  $\alpha$ -amino radicals for hydroaminoalkylation

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

# OH + X—NH<sub>2</sub> Ni<sup>0</sup> Reductive X—NH + H<sub>2</sub>O Elimination

A substrate-dependent mechanism for nickelcatalyzed *N*-allylation with allylic alcohols: nucleophilic attack *vs.* reductive elimination

Ruiming Yao, Yaru Jing, Jiahao Liu, Yan Liu,\* Tiejun Wang and Zhuofeng Ke\*

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Synthesis of unsymmetrical diaryl oxindoles/ isoquinolinediones using 2-phenoxy-1*H*-benzo[*d*] imidazole as an integrated diarylating reagent

Guiqing Xu, Yue Wang, Kangli Liu, Yuqin Jiang, Xinying Zhang\* and Xuesen Fan\*

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Asymmetric synthesis of cyclopenta[b]indoles via organocatalytic formal (3 + 2) cyclization of  $\beta$ -keto ester with azonaphthalene

Yanji Song, Shi Tang, Qianping Chen, Qingfa Tan, Weidi Cao, Xiaoming Feng and Xiaohua Liu\*

Enantioselective construction of dihydropyranonefused indoles by [3 + 3] annulation of *in situ*derived indolin-3-ones and unsaturated carboxylic esters

Hongling Wang, Qiangqiang Zhang, Shuai Xiao, Guanjie Wang, Xuan Huang, Xingkuan Chen\* and Junmin Zhang\*

#### 2746

Palladium-catalyzed (3 + 2) annulations of 1,3-bis-electrophilic motifs: straightforward synthesis of functionalized pyrrolidines

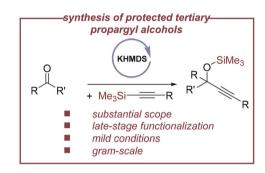
Li Jing, Zhong-Jun Li\* and Er-Qing Li\*

- ♥ 24 examples up to 98% yield; ♥ New 1,3-bis electrophiles
- ♥ Complete regio- and chemoselectivity; ♥ Mild reaction conditions
- ♥ Scale-up synthesis and various synthetic transformations

#### 2752

Base-catalyzed addition of silylacetylenes to ketones: a route to protected tertiary propargyl alcohols

Krzysztof Kuciński,\* Alicja Łuczak, Aliaksei Mankouski and Grzegorz Hreczycho



#### 2760

## De novo three-component synthesis of meta-substituted anilines

Anton S. Makarov,\* Arthur N. Bakiev and Diana A. Eshmemeteva



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## Controllable cyclization of alkynyl thioethers *via* Brønsted acid-catalyzed dearomatization

Xin-Yang Fan, Xin Liu, Yin-Zhu Kong, Bo-Han Zhu, Jian Lin, Peng-Cheng Qian,\* Bo Zhou and Long-Wu Ye\*

- ♦ mild conditions ♦ 1st intramolecular alkyne hydroarylation via spirodearomatization

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- readily availability of each reaction component excellent chemo-, regio- and enantioselectivity
- redox-neutral conditions and wide scope

Photoinduced copper-catalyzed asymmetric radical three-component cross-coupling of 1,3enynes with oxime esters and carboxylic acids

Guo-Qing Li, Fan-Rong Meng, Wen-Jing Xiao and Jia-Rong Chen\*

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Characterization of GvgD and GvgH encoded in the biosynthetic gene cluster of 4-formylaminooxyvinylglycine

Linlin Pang, Weijing Niu, Yuwei Duan, Xiaoying Bian, Youming Zhang and Guannan Zhong\*

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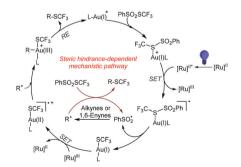
Electrosynthesis of asymmetrical biaryls through arylation of in-situ generated fused polycyclic heteroaromatics

Practical and mild conditions 

Electro-catalytic multicomponent reaction toward asymmetrical biaryls through heteroarylation of in situ generated fused polycyclic heteroaromatics

Wenjing Guan, Jinlin Hang, Yaqi Qiao, Chengkou Liu,\* Chengcheng Yuan, Jiawei Chen, Hong Qin, Zheng Fang, Dong Ji and Kai Guo

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Mechanistic understanding of the dual gold and photoredox-catalyzed thiosulfonylation of alkynes and envnes: a DFT study

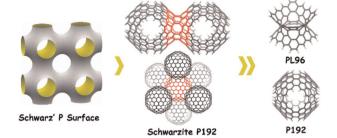
Kaifeng Wang and Xiaoguang Bao\*

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# Precise synthesis of schwarzite carbon: hypothesis or reality?

Ming-Wei Wang, Zuoyu Li, Yujian Liu, Wei Jiang and Zhaohui Wang\*

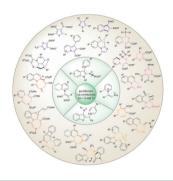


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Recent advances in the cyclization reactions of pyridinium 1,n-zwitterions (n = 4 and 5): scope and mechanism

Jiali Huang, Lei Zhang and Xiangtai Meng\*



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Recent advances in the electrochemical generation of 1,3-dicarbonyl radicals from C-H bonds

Qinhui Wan, Zhongyi Zhang, Zhong-Wei Hou\* and Lei Wang\*

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Dirhodium: carbene transformations and beyond

Rui Wu, Dong Zhu and Shifa Zhu\*

