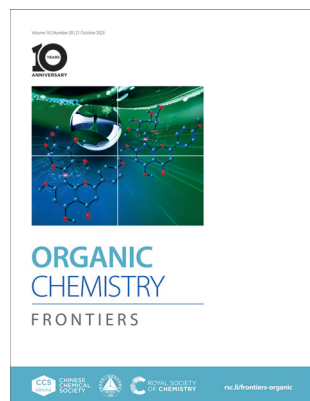


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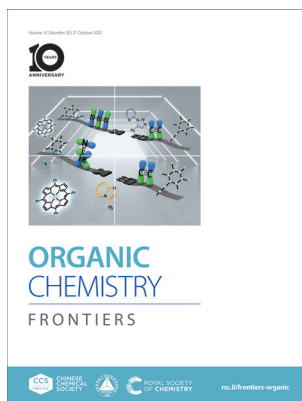
ISSN 2052-4129 CODEN OCFRA8 10(20) 5031-5332 (2023)



## Cover

See Karine N. de Andrade, Rodolfo G. Fiorot *et al.*, pp. 5044–5054.

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## Inside cover

See Yuan-Bin She, Yun-Fang Yang *et al.*, pp. 5055–5063.

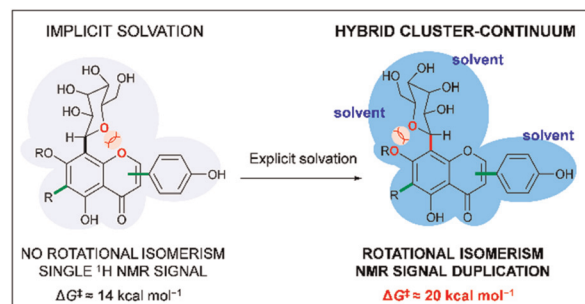
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## RESEARCH ARTICLES

5044

### Going beyond structural effects: explicit solvation influence on the rotational isomerism of C-glycosylated flavonoids

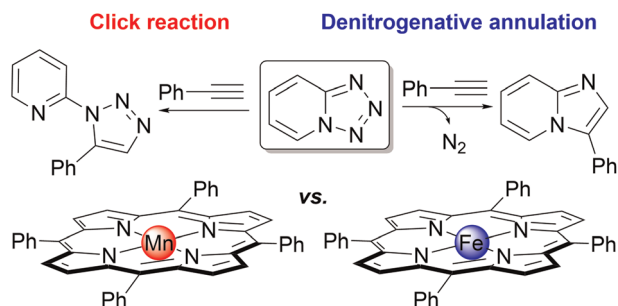
Karine N. de Andrade,\* Lucas H. Martorano, Guilherme S. Correa, Fernando M. dos Santos, Jr, José Walkimar de M. Carneiro, Ana Carolina F. de Albuquerque, Anne Caroline C. Gomes and Rodolfo G. Fiorot\*



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### Computational insights into the dual reactivity of 1,2,3,4-tetrazole: a metalloporphyrin-catalyzed click reaction and denitrogenative annulation

Debo Ding, Xiahe Chen, Xingxing Su, Yuan-Bin She\* and Yun-Fang Yang\*



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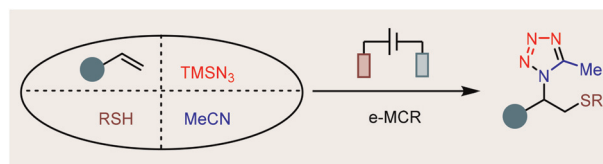


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**Electrochemical multicomponent reaction toward vicinal sulfenyltetrazolization of unactivated alkenes**

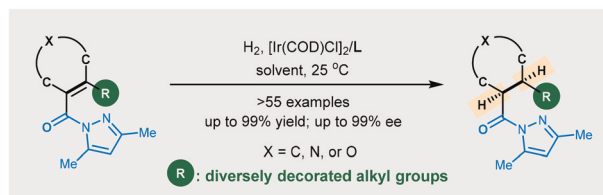
Xiao-Bin Zhu, Yi Yu, Yaofeng Yuan and Ke-Yin Ye\*



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**Asymmetric hydrogenation of all-carbon tetrasubstituted  $\alpha$ -acylpyrazole- $\beta$ -alkyl cycloalkenes**

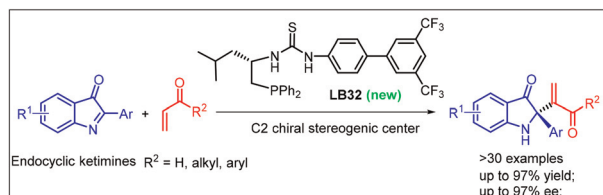
Minjie Zhang, Peng Cui, Kai Zhang, Zhen Shi, Xu Cheng, Xiang Ji, Hao Song,\* Bowen Ke and Yong Qin\*



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**Phosphine-catalyzed asymmetric aza-Morita–Baylis–Hillman reaction of endocyclic ketimines and activated alkenes**

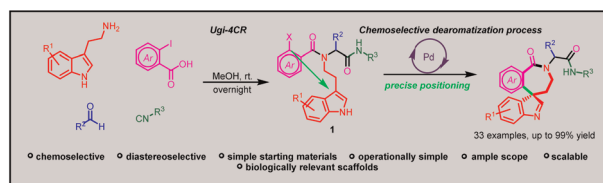
Yue Lu, Fangfang Zhu, Xinyu Liu and De Wang\*



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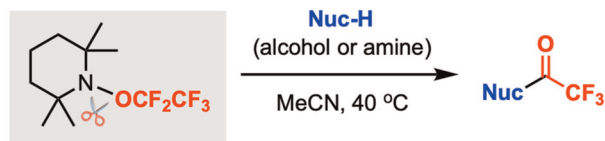
**Palladium-catalyzed highly chemoselective dearomative spirocyclization of Ugi adducts: facile access to functionalized benzoazepinespiroindolenines with diastereoselectivity**

Chuan-Hua Qu, Shu-Ting Li, Jian-Bo Liu, Dian-Yong Tang, Zhi-Gang Xu,\* Zhong-Zhu Chen\* and Gui-Ting Song\*



## RESEARCH ARTICLES

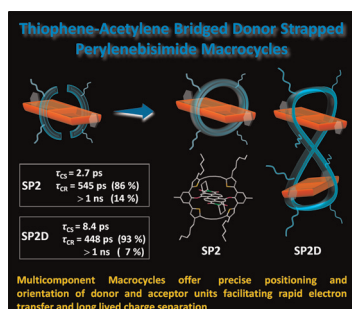
5092

**N-O bond heterolysis**

**Thermal N–O bond heterolysis of TEMPO- $\text{CF}_2\text{CF}_3$  towards trifluoroacetylation of alcohols and amines**

Tao Dong, Yihan Tang and Gavin Chit Tsui\*

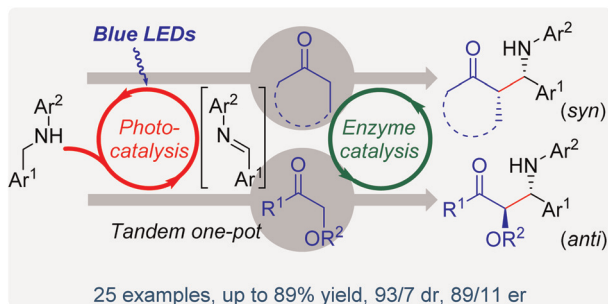
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**A donor strapped perylene bisimide macrocycle and its lemniscate dimer with extended charge separation**

Sairam Dnyaneshwar Veer, Tanmay Goswami, Sapna Ravindranathan, Rajesh Gonnade, Nitika Kharbanda, Hirendra N. Ghosh\* and Sukumaran Santhosh Babu\*

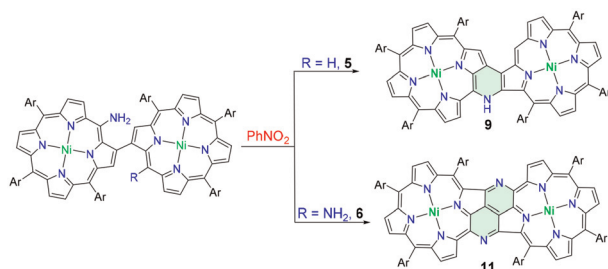
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**Direct enantioselective  $\alpha$ -alkylation of secondary acyclic amines with ketones by combining photocatalysis and lipase catalytic promiscuity**

Chao-Jiu Long, Hong-Ping Pu, Yan-Hong He\* and Zhi Guan\*

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**N-Heterocycle-fused Ni(II) porphyrin dimers upon heating of *meso*-amino Ni(II) porphyrins in nitrobenzene**

Qingjie Pan, Li Liu, Ying Pan, Mingbo Zhou,\* Ling Xu, Yutao Rao, Bangshao Yin, Jianxin Song\* and Atsuhiko Osuka

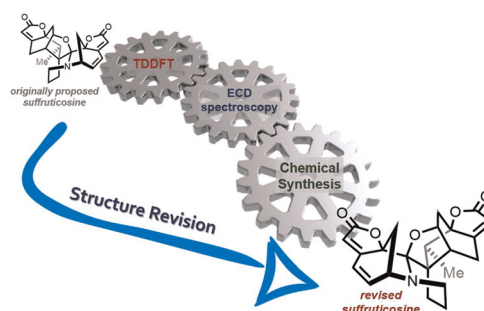


## RESEARCH ARTICLES

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### Re-examining the stereochemistry of polycyclic suffruticosine *via* TDDFT calculations, ECD spectroscopy, and chemical synthesis

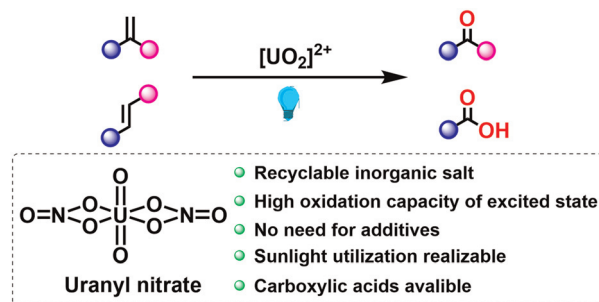
Taewan Kim, Samhwan Kim, Garam Chung, Kyoung Park\* and Sunkyu Han\*



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### Photocatalytic oxidative cleavage of aryl alkene C=C bonds using a uranyl cation

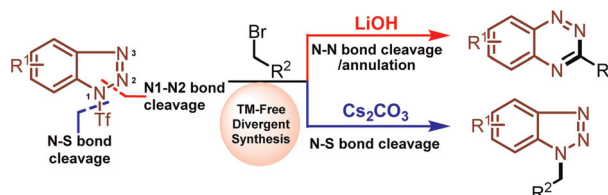
Song-Bai Tang, Shu-Yun Zhang, Wen-Jing Li, Yan-Xin Jiang, Zi-Xin Wang, Bo Long and Jing Su\*



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### Selective N–N or N–S bond cleavage of 1-trifluoromethyl benzotriazoles enables divergent synthesis of 1,2,4-benzotriazines and benzotriazoles

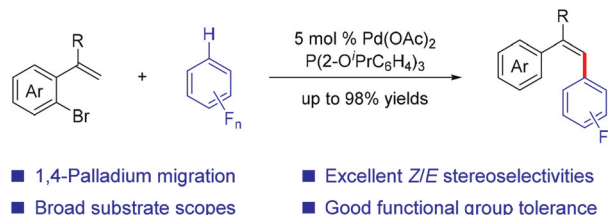
Xinyuan Wang, Yueyue Shan, Hui Mao, Xiao Xiao, Nengzhong Wang,\* Xin Lv\* and Liejin Zhou\*



5144

### Regioselective polyfluoroarylation of alkenyl C–H bonds *via* aryl to vinyl 1,4-palladium migration

Jie Lin, Juan Ma, Liandi Wang, Kaikai Wu, Yong-Gui Zhou\* and Zhengkun Yu\*



- 1,4-Palladium migration
- Excellent *Z/E* stereoselectivities
- Broad substrate scopes
- Good functional group tolerance



## RESEARCH ARTICLES

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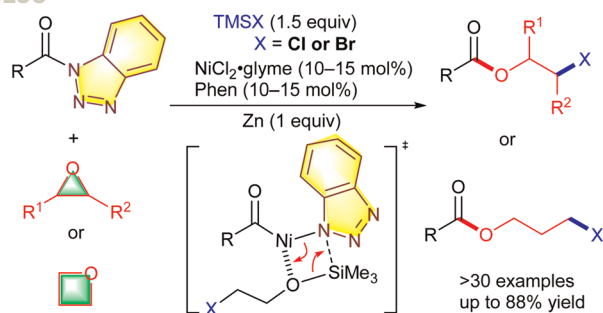


Ar = aryl, R = 1°, 2°, 3° alkyl

**Iron-photocatalyzed double decarboxylative coupling reactions of alkynoic acids and alkyl carboxylic acids: access to alkylated alkynes**

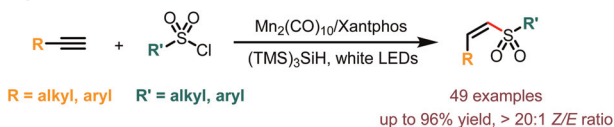
Hyemin Kang, Seunghwan An and Sunwoo Lee\*

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**Nickel-catalyzed cross-coupling of *N*-acyl benzotriazoles with oxiranes and oxetanes for the synthesis of  $\beta$ -haloethyl and  $\gamma$ -halopropyl esters**

Jin Bai, Erdong Qu, Shangzhang Li, Riqian Zhu, Qinyue Deng\* and Wanfang Li\*

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R = alkyl, aryl R' = alkyl, aryl

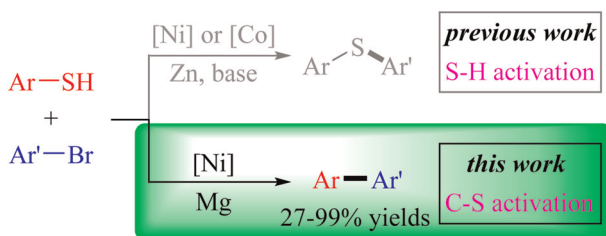
49 examples  
up to 96% yield, > 20:1 Z/E ratio

- ✓ Earth abundant metal catalyst
- ✓ High regio- and Z-stereoselectivity
- ✓ Mild reaction conditions
- ✓ Versatile substrate scope and scalable

**Regio- and stereoselective manganese-catalyzed hydrosulfonylation of alkynes: facile access to *Z*-vinyl sulfones**

Jian Han,\* Li-Li Zeng, Rong-Hui Huang, Xiao-Qing Feng and Fen-Er Chen\*

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**Nickel-catalyzed cross-electrophile coupling of aryl thiols with aryl bromides via C–S bond activation**

Hao Xu,\* Cai-Yu He, Bo-Jie Huo, Jia-Wen Jing, Chengping Miao, Weidong Rao, Xue-Qiang Chu, Xiacong Zhou\* and Zhi-Liang Shen\*



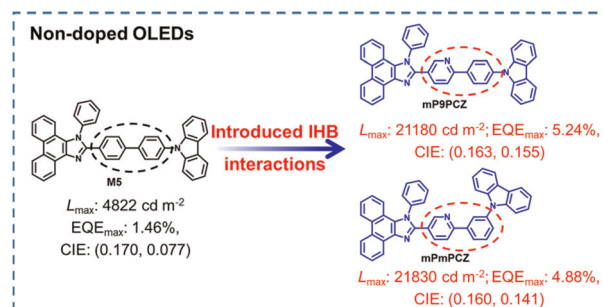


## RESEARCH ARTICLES

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### Improving the optoelectronic properties of blue hybridized local and charge-transfer emitters via rational utilization of intramolecular hydrogen bonds

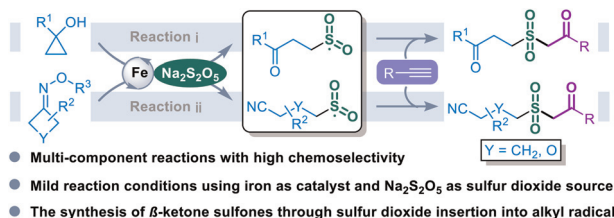
Xinyong Liu, Chenglin Ma, Xu Qiu,\* Jingwei Li, Jiadong Zhou and Shanfeng Xue\*



5190

### Iron-catalyzed oxosulfonylation of alkynes with small-ring compounds and $\text{Na}_2\text{S}_2\text{O}_5$ for the synthesis of $\beta$ -keto sulfones

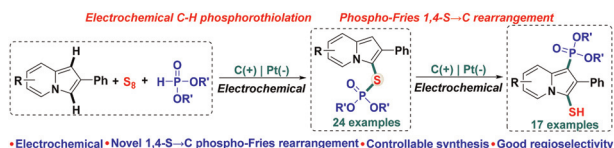
Liu-Bin Li, Hui Qiu, Mu-Han Li, Nan-Nan Dai, Lan Mei, Yu He, Lei Yu, Ting Li\* and Wen-Ting Wei\*



5198

### Electrochemical phosphorothiolation and 1,4-S $\rightarrow$ C phospho-Fries rearrangement: controlled access to phosphorothiolated and mercapto-phosphono substituted indolizines

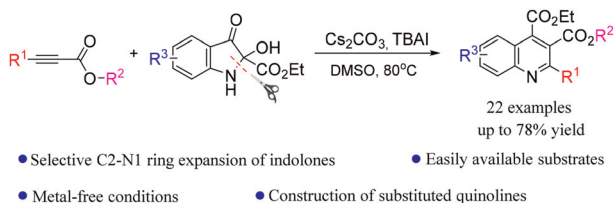
Xiang Liu, Wenxuan Jiang, Changfeng Huang, Shaohong Ma, Qiong Wang and Hua Cao\*



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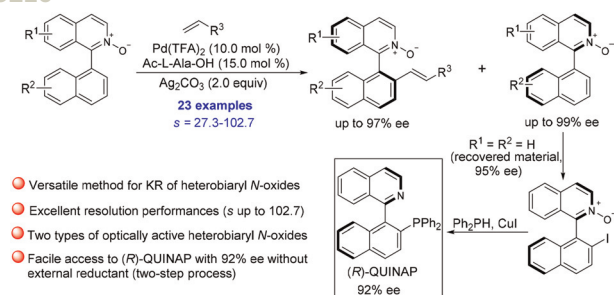
### Base-promoted selective C2–N1 ring-expansion reaction of indolones toward substituted quinolines

Qiongwen Kang, Mengdan Wang, Zongkang Wang, Lu Cheng, Yilin Zhu, Chengyu Wang\* and Yanzhong Li\*



## RESEARCH ARTICLES

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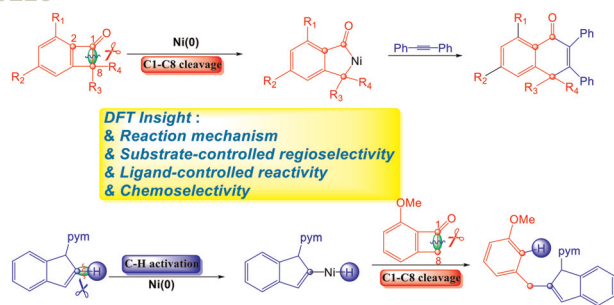


- Versatile method for KR of heterobiaryl *N*-oxides
- Excellent resolution performances ( $s$  up to 102.7)
- Two types of optically active heterobiaryl *N*-oxides
- Facile access to (*R*)-QUINAP with 92% ee without external reductant (two-step process)

### Kinetic resolution of heterobiaryl *N*-oxides by asymmetric C–H olefination: an expeditious access to (*R*)-QUINAP

Qi-Ying Zhang,\* Hai-Yang Wang, Songlin Wang, Jing Ma and Hai-Ming Guo\*

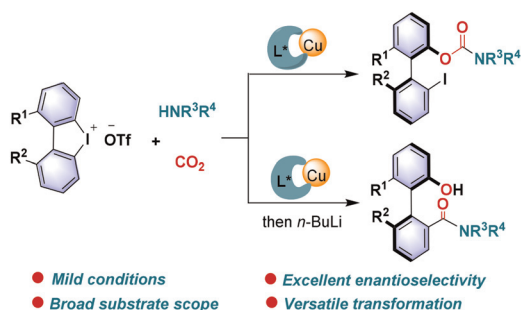
5216



### Nickel-catalyzed selective C1–C8 bond cleavage of benzocyclobutenones: theoretical insights into mechanism, substituent effects on regioselectivity, ligand effects on reactivity, and chemoselectivity

Mumin Zhang, Jiangping Yang, Wei Rong and Juan Li\*

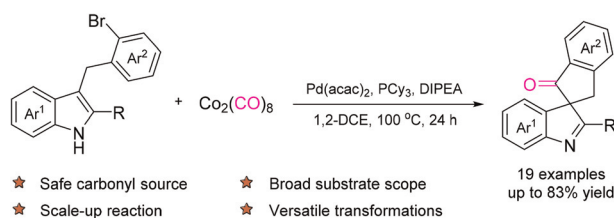
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### Enantioselective synthesis of axially chiral carbamates and amides with carbon dioxide via copper catalysis

Bangxiong Kang, Lu Wang, Xihu Sun, Hongjian Liu, Zhonglin Wen, Yanwei Ren, Chaorong Qi\* and Huanfeng Jiang\*

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### Dearomatization of indoles via palladium-catalyzed carbonylation using $\text{Co}_2(\text{CO})_8$ as the carbonyl source leading to carbonyl-containing spiroindolenines

Weiming Hu,\* Jiali Huang, Wenting Wu, Wenting Guo, Gang Gao, Xiaoqin Pei, Huiyan Wang, Chuanzhou Tao and Huayou Hu



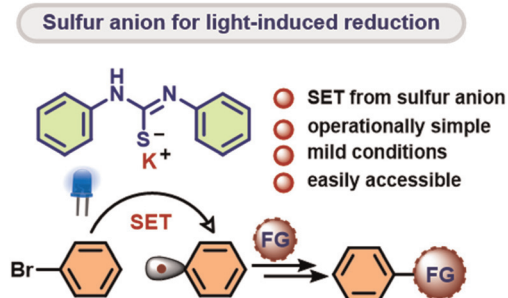


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## Single electron transfer catalysis by diphenylthiourea under visible light photoredox conditions

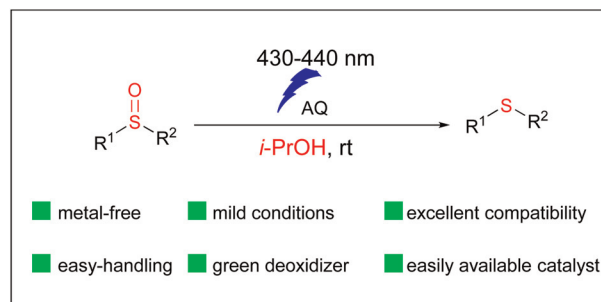
Dhananjay Dey, Abhishek Kundu, Monojit Roy, Vikramjeet Singh, Shyamali Maji and Debashis Adhikari\*



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## Visible light induced deoxygenation of sulfoxides with isopropanol

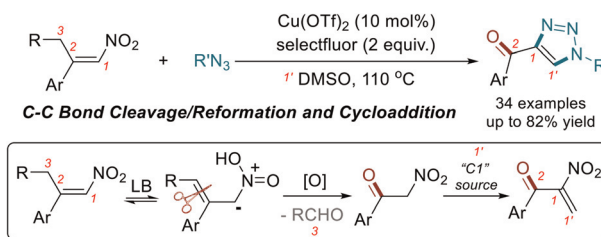
Jinwu Zhao,\* Zhigao Luo, Yipeng Liu, Shiting Chen, Junye He, Jingxiu Xu, Weigao Hu, Zunnan Huang\* and Wenfang Xiong\*



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Cascade C–C bond cleavage/reformation and cycloaddition for the synthesis of 4-acyl 1,2,3-triazoles from  $\beta$ -alkyl nitroalkenes and organic azides

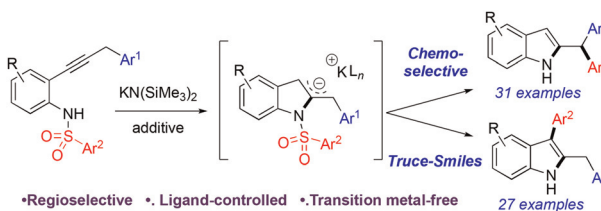
Lei Zheng, Tao Yi, Ruilin Fang, Zhongzhen Zhou, Can Wang\* and Yunfeng Chen\*



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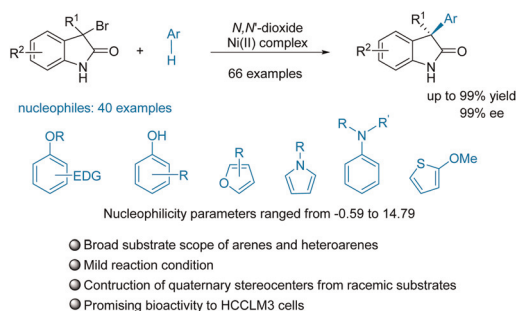
A regiodivergent Truce–Smiles rearrangement: a strategy for the synthesis of arylated indoles promoted by KN(SiMe<sub>3</sub>)<sub>2</sub>

Fan Zhou, Huimin Jin, Zhenhua Xiang, Patrick J. Walsh\* and Jie Li\*



## RESEARCH ARTICLES

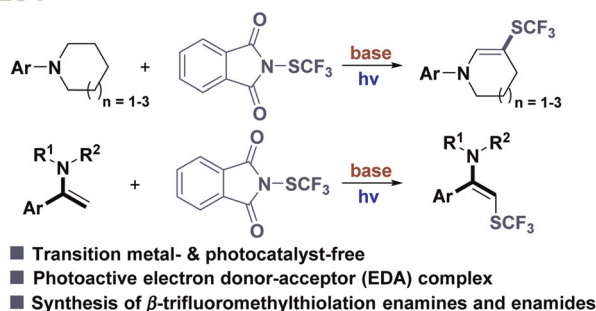
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### Asymmetric catalytic Friedel–Crafts alkylation with arenes and heteroarenes: construction of 3,3-disubstituted oxindoles

Tinghui Zhang, Ziwei Zhong, Zi Zeng, Zitong Zhu, Fei Wang, Yuxin Zhang, Xiaohua Liu, Maoping Pu\* and Xiaoming Feng\*

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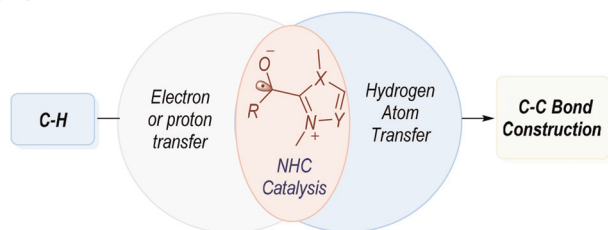


### Visible-light-induced dehydrogenative $\beta$ -trifluoromethylthiolation of tertiary amines and direct $\beta$ -trifluoromethylthiolation of enamides

Yaqi Song, Zhongling Jiang, Yi Zhu, Tian-Yu Sun, Xiao-Feng Xia\* and Dawei Wang\*

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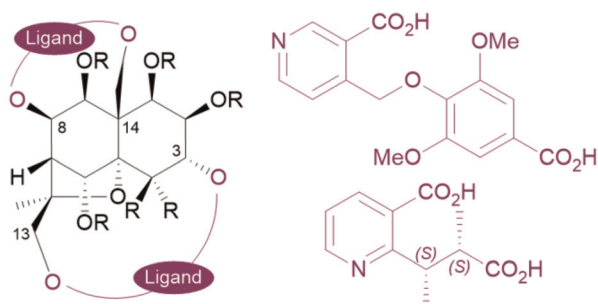


### Direct coupling of inert C–H bonds in NHC organocatalysis

Hongling Wang, Fen Su, Yanyan Wang, Xingxing Wu\* and Yonggui Robin Chi\*

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### Celastraceae sesquiterpene pyridyl ligands

Chen Dai and Alan C. Spivey\*



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**Recent advances in electrochemical C–H bond amination**

Chen Liu, Jixuan Liu, Wenyi Li, Huan Lu and Yunfei Zhang\*

