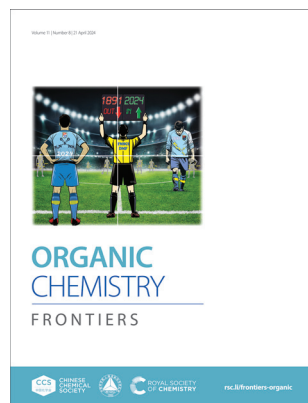


IN THIS ISSUE

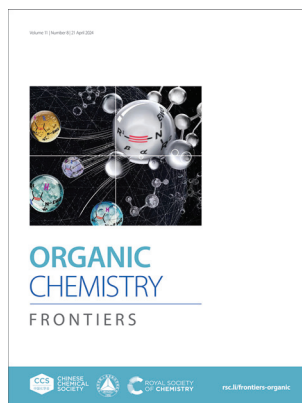
ISSN 2052-4129 CODEN OCFRA8 11(8) 2137–2420 (2024)



Cover

See Dmytro M. Volochnyuk, Serhiy V. Ryabukhin et al., pp. 2155–2160.

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Inside cover

See Yan-Cheng Hu et al., pp. 2351–2374.

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PROFILE

2149

Contributors to the *Organic Chemistry Frontiers* Emerging Investigator Series 2022–2023

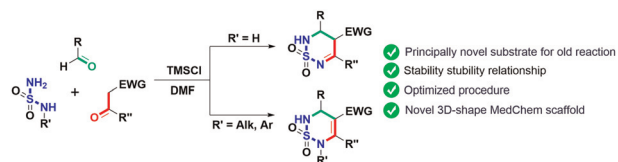


RESEARCH ARTICLES

2155

Sulfamide instead of urea in Biginelli reaction: from black box to reality

Alexander Yu. Lyapunov, Andriy V. Tarnovskiy, Sergey Yu. Boron, Eduard B. Rusanov, Galyna P. Grabchuk, Dmytro M. Volochnyuk* and Serhiy V. Ryabukhin*



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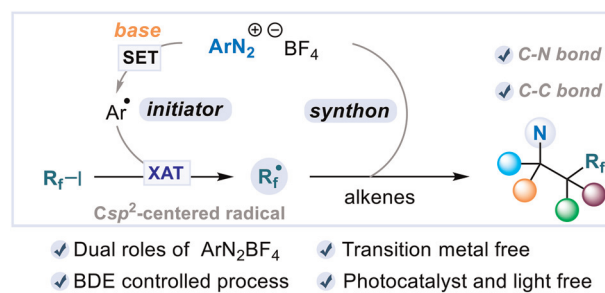
Fundamental questions
Elemental answers

RESEARCH ARTICLES

2161

Base-induced azofluoroalkylation of unactivated alkenes via halogen atom transfer

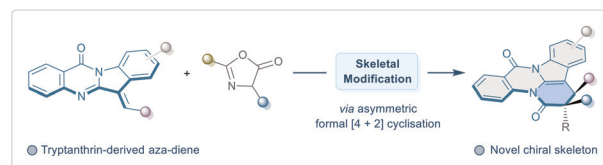
Jing Zhang, Yanchuang Zhao, Yu-Yi Zhu, Peng Lei, Hanru Liu, Chang-Sheng Wang, Shuya Xing, Yong Liu, Shao-Fei Ni,* Thomas Castanheiro,* Li-Wen Xu and Xinxin Shao*



2171

Stereoselective skeletal modification of tryptanthrins to install chiral piperidine-2-ones enabled by Brønsted acid catalysis

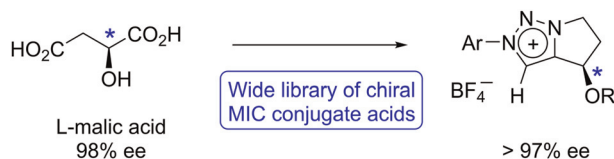
Rong Zeng, Xiang Zhang, Yuan-Yuan Lei, Zhuo-Zhuo Zhang, Min Jiang, Qing-Zhu Li, Jun-Long Li* and Bo Han*



2178

Synthesis of enantiopure 1,2,3-triazolylidene-type mesoionic carbene (MIC) conjugate acids featuring a rigid bicyclic scaffold

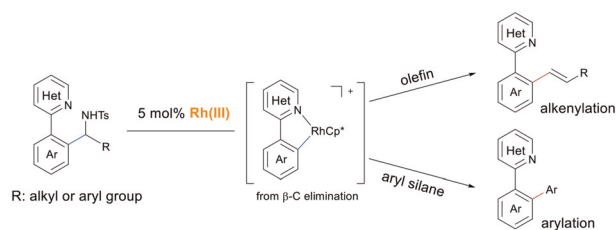
Vojtěch Dočekal, Mohand Melaimi, Simona Petřelová, Jan Veselý, Xiaoyu Yan and Guy Bertrand*



2182

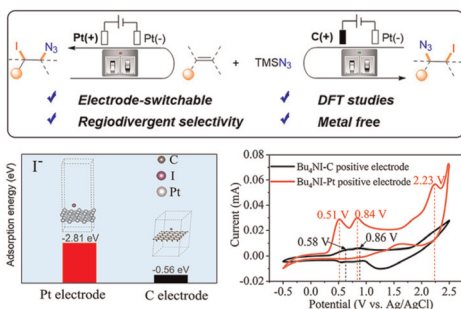
Rhodium-catalyzed C–C bond alkenylation and arylation of α -branched *N*-sulfonyl amines

Lun Xu, Yucheng Liu, Hang Shi* and Lun Li*



RESEARCH ARTICLES

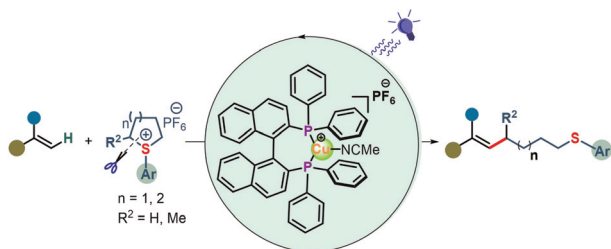
2189



Electrode-switchable: exploring this new strategy to achieve regiodivergent azidoiodination of alkenes

Xin-Lei Sun, Chen-Xi Xia, Yue Ren,* Yu-Jin Li, Zhi-Qian Cao and Ling-Guo Meng*

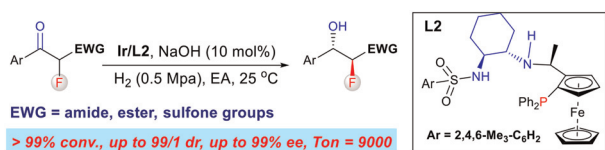
2195



Visible light/copper catalysis enabled Heck-like coupling between alkenes and cyclic sulfonium salts via selective C–S bond cleavage

Xianqin Liu, Xufeng Li, Linyuan Wang, Yongjia Shi, Jian Lv and Daoshan Yang*

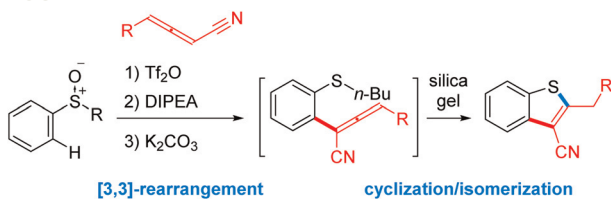
2201



Dynamic kinetic resolution of α -F- β -ketone amides (esters) via Ir/f-diaphos-catalyzed asymmetric hydrogenation

Pengtao Yang, Dingguo Song, Lingxin Chen, Xianghua Zhao, Yirui Chen, Feiyang Shen, Fei Ling* and Weihui Zhong*

2208



Synthesis of benzothiophenes via sulfonium-[3,3]-rearrangement of aryl sulfoxides with allenitriles

Lei Zhang, Kun Wan, Huanhuan Wang, Mengyao Wang, Ao Cui, Xin Huang and Bo Peng*

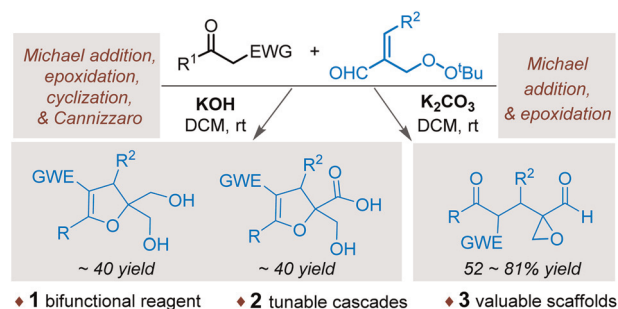


RESEARCH ARTICLES

2215

A formal (3 + 2) annulation–Cannizzaro cascade of bifunctional peroxides for the synthesis of dihydrofurans

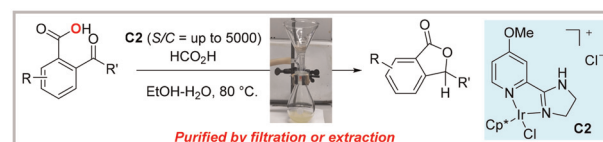
Yiwei Chen, Min Gao, Qianlan Xu, Jiumeng Zhang* and Lin Hu*



2220

Iridium-catalyzed reductive γ -lactonization of *ortho*-acylbenzoic acids in water: sustainable access to phthalides

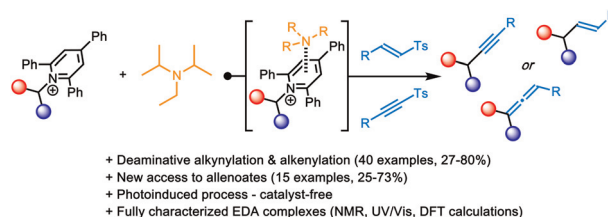
Yang Chen, Jingyu Zhang, Hongguang Du,* Renshi Luo,* Jiayi Xu and Zhanhui Yang*



2231

Electron donor–acceptor complex photoactivation for deaminative alkynylation, alkenylation and allenylation: a comprehensive study

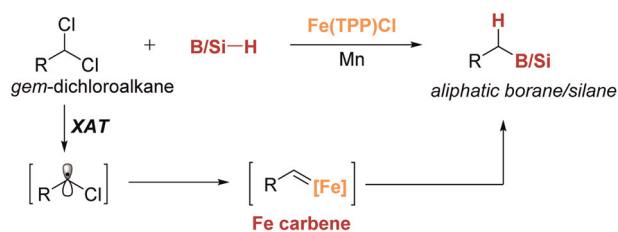
Romain Lapierre, Lina Truong, Matthieu Hedouin, Hassan Oulyadi,* Bruno Schiavi, Alexandre Jean, Philippe Jubault* and Thomas Poisson*



2241

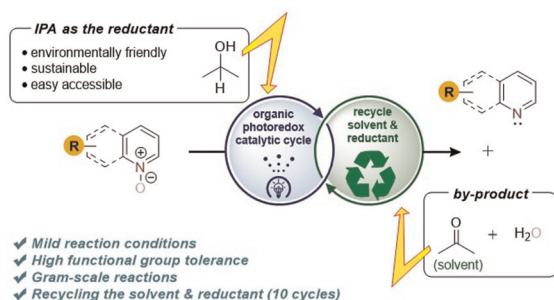
Fe-catalyzed B–H and Si–H insertion reactions of *gem*-dichloroalkanes

Xinyu Wang and Zhaobin Wang*



RESEARCH ARTICLES

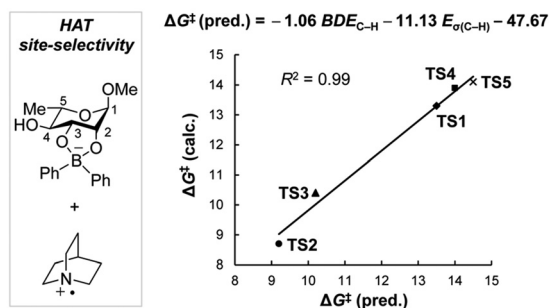
2249



Deoxygenation of N-heterocyclic N-oxides using isopropanol as a recyclable reductant

Ho Kyeong Ryu, Yun Do Song and Jun Hee Lee*

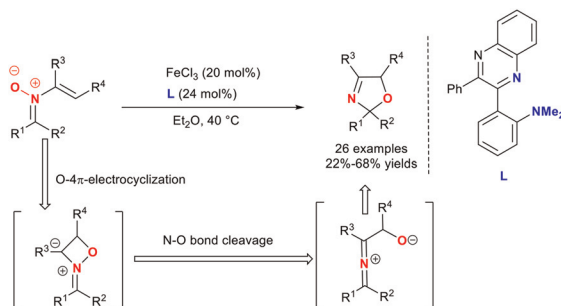
2269



Origin of site-selectivity of hydrogen atom transfer in carbohydrate C–H alkylations via photoredox catalysis

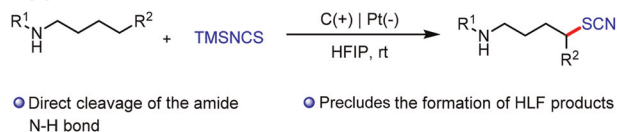
Yujie Ji, Lingfei Hu, Han Gao, Yan-Bo Wu, Xiangying Lv* and Gang Lu*

2277

Iron(III)/quinoxaline-derived N,N-ligand catalyzed oxygen transfer reaction of N-vinyl nitrones through selective 4 π -electrocyclization and N–O bond cleavage

Yan-Jiao Lu, Feng-Lan Lu, Jin-Qi Zhang, Chun-Hua Chen,* Cui Liang, Xiao-Pan Ma* and Dong-Liang Mo*

2283

Electrochemical remote C(sp³)–H thiocyanation

Xinyu Pang, Hui He, Xiangrui Meng, Linbao Zhang, Shaofei Ni,* Ming Li* and Weisi Guo*

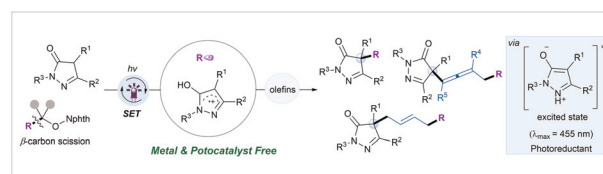


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2289

Photoinduced alkylation of pyrazolones via β -scission of unstrained aliphatic alcohol derivatives

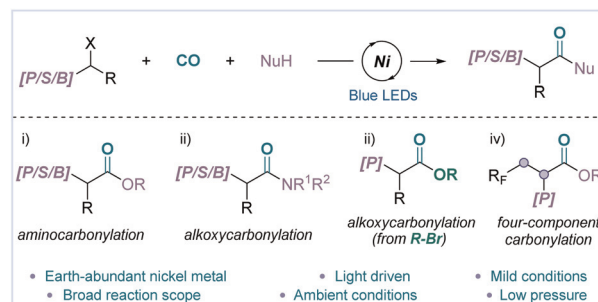
Xinxin Geng, Pan Tao, Yujun Li and Ke Zheng*



2297

Nickel/photoredox-catalyzed carbonylative transformations of α -phosphorus-, α -sulfur-, and α -boron-substituted alkyl halides

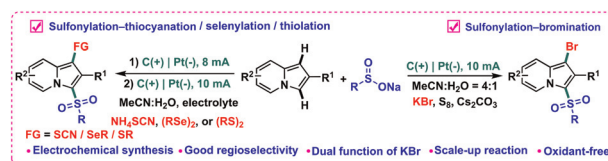
Le-Cheng Wang and Xiao-Feng Wu*



2306

Regioselective electrochemical cascade C–H sulfonylation–bromination of indolizines to access difunctionalized indolizines

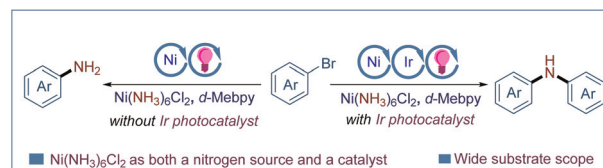
Wenxuan Jiang, Xiang Liu,* Chuanying Zhu, Meiyl Chen, Weidan Li and Hua Cao*



2313

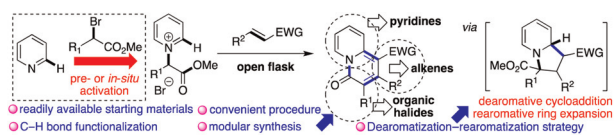
Selective photochemical synthesis of primary arylamines and symmetric diarylamines via amination of aryl bromides using $\text{Ni}(\text{NH}_3)_6\text{Cl}_2$ as a nitrogen source and catalyst

Zhehui Xu, Jianyang Dong, Geyang Song, Fuqiang Kong, Gang Li and Dong Xue*

Selective photochemical synthesis of primary arylamines and symmetric diarylamines via the amination of aryl bromides using $\text{Ni}(\text{NH}_3)_6\text{Cl}_2$ as both a nitrogen source and catalyst

RESEARCH ARTICLES

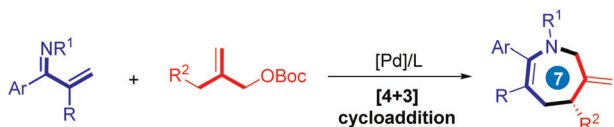
2319



A dearomatization–rearomatization strategy for construction of 4*H*-quinolizin-4-ones via C–H bond functionalization of pyridines

Dong Qiu and Yijin Su*

2326



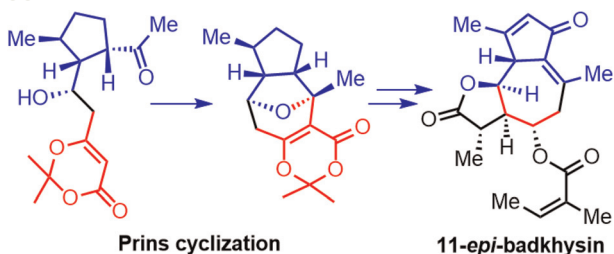
- ◆ Exclusive regioselectivity
- ◆ High enantioselectivity
- ◆ Mild reaction conditions
- ◆ Broad substrate scope

19 examples
up to 90% yield
up to 97% ee

Palladium-catalyzed asymmetric [4 + 3] cycloaddition of acyclic α,β -unsaturated imines with trimethylenemethane donors: access to chiral non-fused azepines

Ting-Peng Li, Shuixiu Su, Jia-Huan Shen, Meng Zang, Yang-Zi Liu, Quannan Wang* and Wei-Ping Deng*

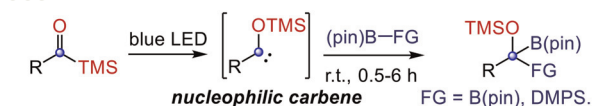
2332



Prins cyclization of 1,3-dioxinone: synthesis of 11-epi-badkhsyin

Xiaoliang Xu, Ping Hua, Yiren Xu, Baoqing He, Jingfeng Zhao, Liang Li, Wen Chen* and Hongbin Zhang*

2339



- no base & catalyst
- up to 99% yield
- transformations of products
- mild conditions
- siloxy rearrangement when R is 2-furyl, 2-thiophenyl

Photo-induced catalyst-free formal carbon insertion of acylsilanes into B–B and B–Si bonds

Xiongxiang Lu, Qingbin Zhao, Hao Zhang, Pan Xu, Xuenian Chen and Zhenxing Liu*

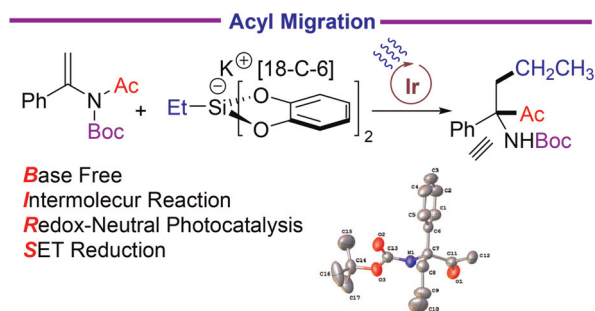


RESEARCH ARTICLES

2344

Unprecedented single-electron-transfer reduction-based N → C acyl migration reactions of imides enabled by redox-neutral photocatalysis

Linge Huai, Li Zhang,* Zhentao Wang* and Yewen Fang*

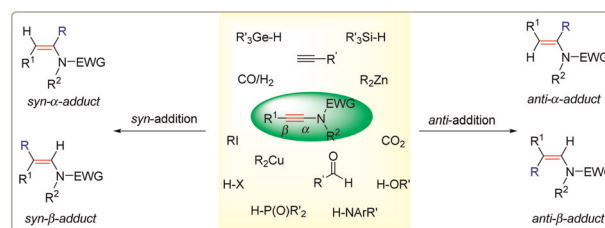


REVIEWS

2351

Catalytic intermolecular hydrofunctionalizations of ynamides

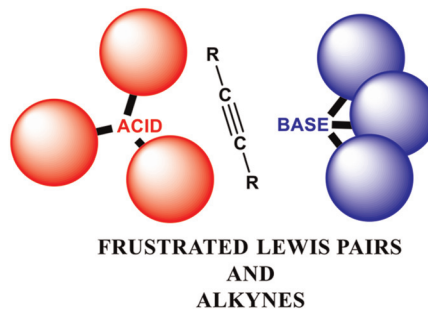
Ying-Ying Zhao, Yu-Jing Jia and Yan-Cheng Hu*



2375

Frustrated Lewis pair chemistry of alkynes

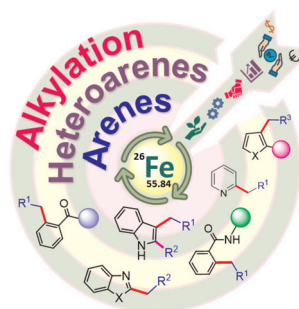
Jing Guo,* Maying Yan and Douglas W. Stephan*



2397

Advancement in the C–H bond alkylation of (hetero)arenes catalyzed by the most abundant transition metal–iron

Chandini Pradhan and Benudhar Punji*



CORRECTION

2418

Correction: Cu-catalyzed arylation of *S*-tosyl peptides with arylboronic acids

Junjie Ying, Jingrong Huang, Chenguang Liu, Fa-Jie Chen,* Chunfa Xu* and Fen-Er Chen*

