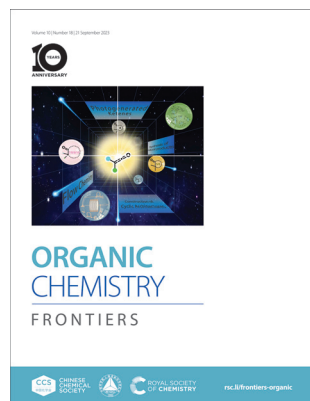


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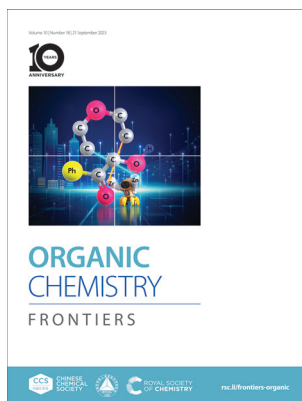
ISSN 2052-4129 CODEN OCFRA8 10(18) 4463–4720 (2023)



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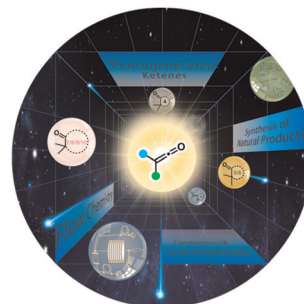
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REVIEWS

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Lighting the way to diverse cyclic architectures: expanding the horizons with photogenerated ketenes in sustainable chemistry

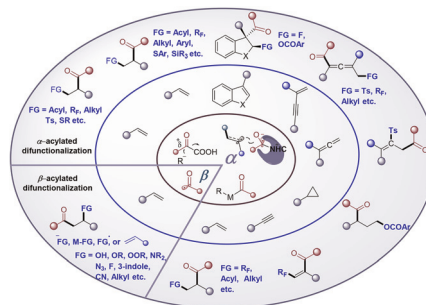
Wei-Fang Zuo, Qian Liu, Xin Xie, Qiwen Pang, Wei Li,*
Cheng Peng, Xiang Li* and Bo Han*



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Recent advances in three-component radical acylative difunctionalization of unsaturated carbon–carbon bonds

Jiaqiong Sun, Lihong Wang, Guangfan Zheng* and
Qian Zhang*



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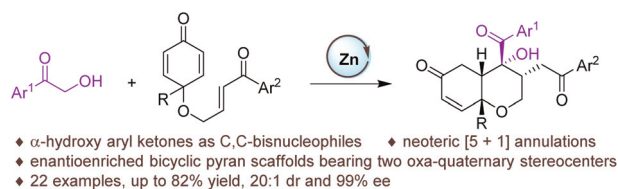


RESEARCH ARTICLES

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Asymmetric synthesis of bicyclic pyran scaffolds bearing two oxa-quaternary stereocenters via zinc-catalyzed [5 + 1] annulations

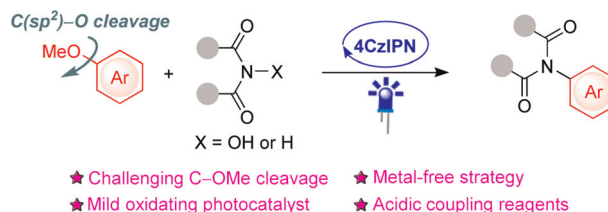
Cui Zhang, Tao Jiang, Yuan-Zhao Hua,*
Guang-Jian Mei, Min-Can Wang and Shi-Kun Jia*



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Photocatalytic C(sp²)-OMe bond cleavage and amidation of anisoles with *N*-hydroxyphthalimides and phthalimides

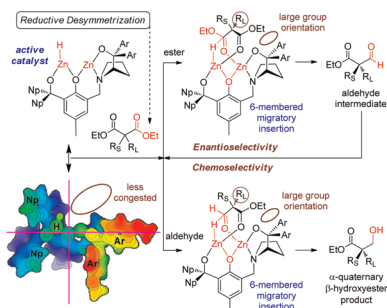
Zhentao Pan, Maier Wu, Jingxi Fang, Aiguo Zhong,
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Yongmin Ma*



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Unveiling the mechanism and origin of stereocontrol in dinuclear-zinc-catalyzed reductive desymmetrization of malonic esters

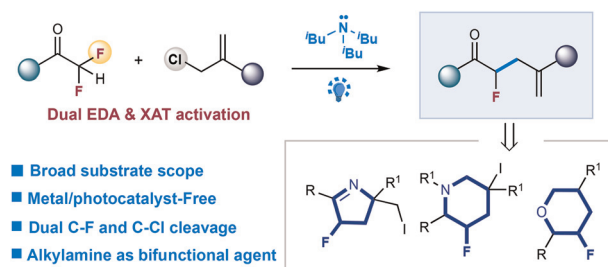
Hui Xu and Yanfeng Dang*



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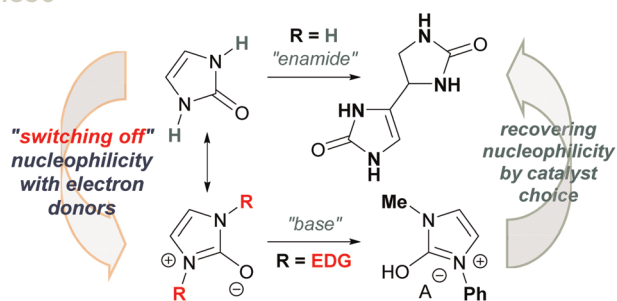
Visible-light-induced defluorinative allylation of difluoromethyl ketones using alkylamines as bifunctional agents

Xiaorui Jiao, Zhonghou Huang, Weidong Meng,
Shengqing Zhu* and Lingling Chu*



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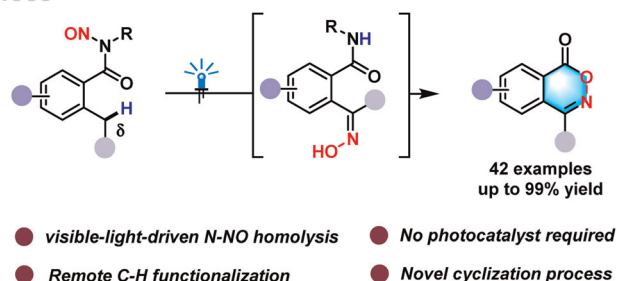
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The "cobra effect" in the imidazolinone series: how a donor can disable the nucleophilicity

A. S. Gazizov,* E. A. Kuznetsova, A. Z. Kamaletdinov, A. V. Smolobochkin, O. A. Lodochnikova, D. P. Gerasimova, A. R. Burilov and M. A. Pudovik

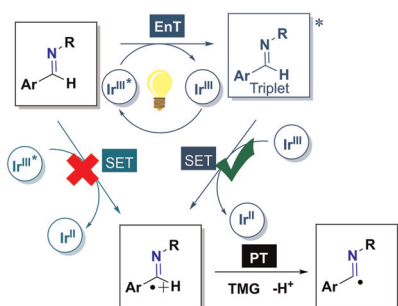
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A Barton nitrite ester-type remote functionalization and cyclization of N-nitrosobenzamides

Tao Huang, Pan-Feng Yuan, Kui Dong, Yuan-Yuan Zong, Can Liu, Rui-Heng Wang, Xiao-Ling Jin and Qiang Liu*

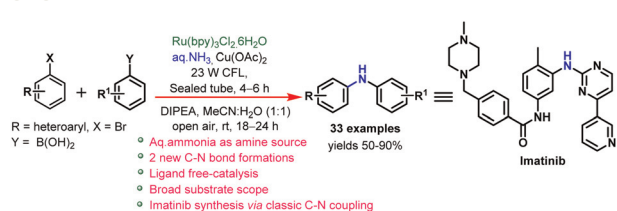
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Mechanism of photocatalyzed imine conversion: a relay process of sequential energy transfer, single electron transfer and proton transfer

Shuangshuang Ji, Jianfeng Sheng, Shang Gao, Zhipeng Pei, Fuming Ying, Jinshuai Song* and Yanyan Zhu*

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Visible-light-mediated photocatalytic sequential N-arylation: an eco-friendly synthetic route to unsymmetrical diarylamines and the imatinib drug

Sravani Sana, Sowmya Dastari, Dannarm Srinivas Reddy, Ramya Tokala, Manda Sathish, Rajesh Sonti and Nagula Shankaraiah*

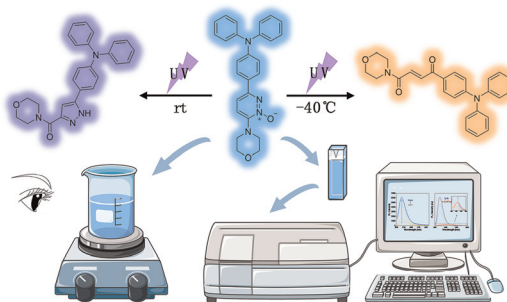


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In situ fluorescence visualizing of a temperature-dependent photoreaction process of pyridazine N-oxide

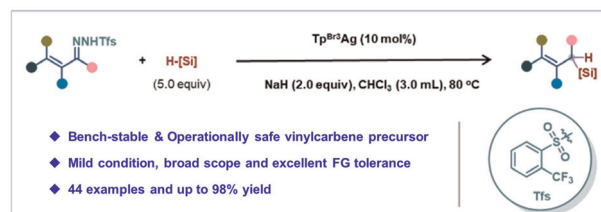
Jianye Gong, Junyi Gong, Yumao He, Chunbin Li, Bo Yang, Lingxiu Liu, Guoyu Jiang* and Jianguo Wang*



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Silver-catalyzed vinylcarbene insertion into Si–H bonds with vinyl N-trifosylhydrazones leading to allylsilanes

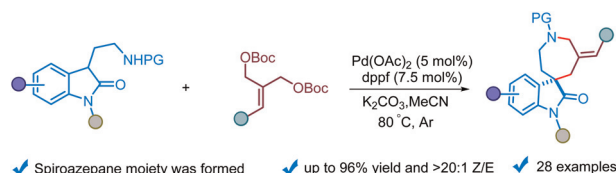
Yong Wu, Qingmin Song, Ying Xia, Yongquan Ning,* Paramasivam Sivaguru and Xihe Bi*



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Palladium-catalyzed [4 + 3]-annulations of oxotryptamines with allyl dicarbonates: an approach toward spiro[azepane-4,3'-oxindoles]

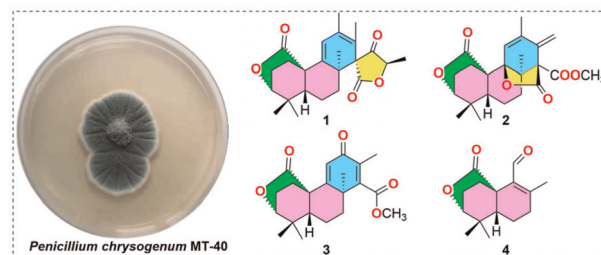
Jun-An Xiao,* Ru-Fang Meng, Xu-Rong Shi, Xue-Ling Luo, Huan Zhang, Wei Wang, Peng-Ju Xia,* Chenxiang Lin and Wei Su



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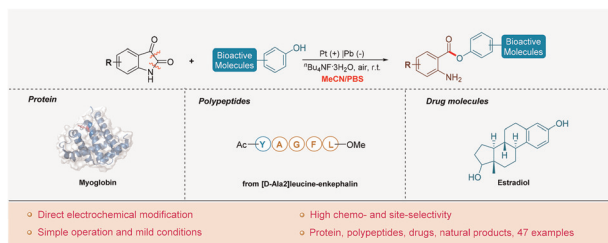
Terpenoids from *Penicillium chrysogenum* MT-40, an endophytic fungus isolated from *Huperzia serrata*

Fangfang Jia, Mingliang Zhang, Jiangping Fan, Yang Wang, Xiangyu Ge, Xinyu Mi, Xiao Liu, Juan Wang, Peng-Fei Tu and She-Po Shi*



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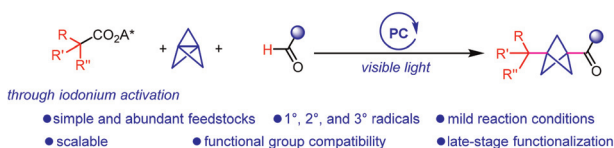
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Electrochemical chemoselective hydroxyl group transformation: anthranilic acyl modification of tyrosine bioconjugations

Shiqi You, Ruitao Wang, Chao Ma, Cuifen Lu, Guichun Yang, Li Liu, Yue Weng and Meng Gao*

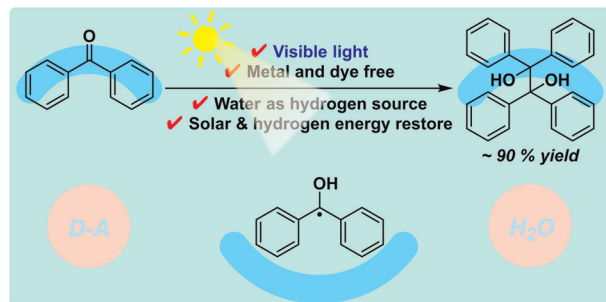
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Photocatalyzed radical multicomponent alkylacylation of [1.1.1]propellane to synthesize 1,3-disubstituted BCP ketones

Yong-Ze Liu, Yan Jiang, Jun-Lei Zhang, Yan Mei, Dong-Jie Li and Fei Pan*

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Visible light induced boryl radical and its application in reduction of unsaturated X=O (X = C, N, S) bonds

Lingfeng Yin, Guanglong Huang, Xiuhua Lin, Xinluo Song, Yanqi Chen, Tianhong Yan, Mingde Li* and Li Dang*

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Synthesis of 3-chloropiperidines by iodide-mediated electrolysis

Michael Kirchner, Yana Dubinina and Richard Göttlich*

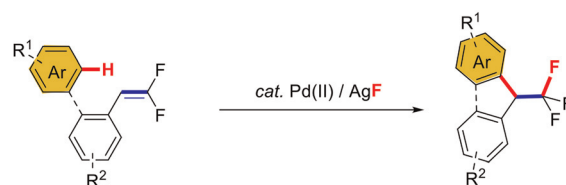


RESEARCH ARTICLES

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Fluoroarylation of *gem*-difluorostyrenes through a Pd-catalysed aryl C–H bond activation cascade

Lei Chen, Jun Pu, Peng Ye, Shuang Wang,
Yang-Jie Mao, Zhen-Yuan Xu, Shao-Jie Lou* and
Dan-Qian Xu*



- ✓ Fluoroarylation of C=C bond through domino aryl C-H activation;
- ✓ Rapid Access to CF₃-containing fluorene and 1,1-diaryl methane;
- ✓ Ligand-free; ✓ Dual role of AgF; ✓ Broad substrate scope;

4643

Ligand-controlled cobalt-catalyzed isomerization and reductive C–O bond cleavage of allylic ethers

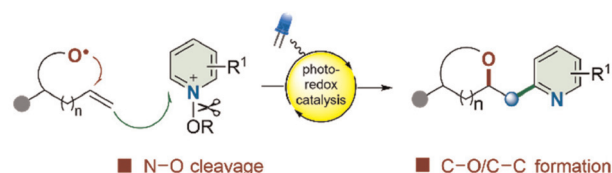
Lijun Chang, Cheng Cai, Ran Chen, Jianhui Chen,*
Yanshu Luo and Yuanzhi Xia*



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Visible light-mediated syntheses of unsymmetrical methylene-bridged *bis*-heterocycles via an alkoxy radical relay reaction

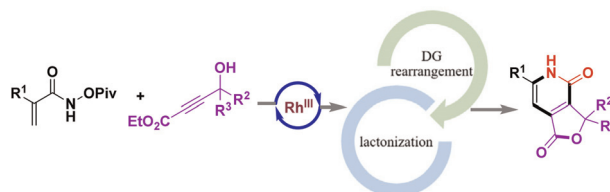
Ting-Ting Yuan, Jing Chen, Le Nhan Pham, Sayan Paul,
Lorenzo V. White, Jialong Li, Ping Lan,
Michelle L. Coote, Martin G. Banwell* and Yu-Tao He*



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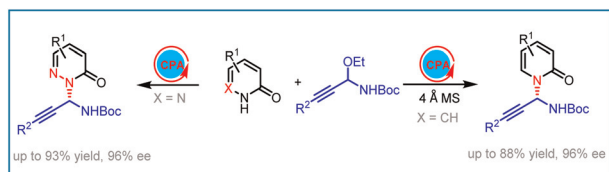
An unusual four-step cascade reaction for accessing furo[3,4-*c*]pyridine-1,4-diones via rhodium catalysis

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



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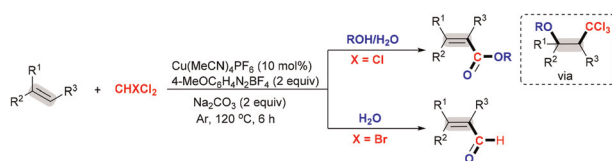
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Phosphoric acid-catalyzed asymmetric *N*-propargylation of pyridazinones and 2-pyridones

Qiongya Li, Tian Chen and Jiangtao Sun*

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Polyhaloalkanes as the C1 source: radical-mediated migratory carbonylation of alkenes with polyhaloalkanes toward α,β -unsaturated carbonyls

Tian-Bao Zhang, Yong Yao, Jing-Hao Qin, Qing Sun, Aimin Li, Qing He,* Jin-Heng Li* and Xuan-Hui Ouyang*

4679

X = I, *N*-hydroxyphthalimide (NHPI) ester, and Katritzky salt

- broad scope, at room temperature
- mild conditions, scalable
- vinylation, thioetherification, selenation and hydrogenation

Electrochemically enabled C(sp³)-C(sp) cross-coupling of alkyl iodides, *N*-hydroxyphthalimide esters, and Katritzky salts with acetylenic sulfones

Jiawen Yin, Xiao Zhang, Lulu Zhao, Mengqi Luo, Lin Guo, Chao Yang* and Wujiong Xia*

4687



- ✓ External chemical oxidants free
- ✓ Green solvent
- ✓ Broad scope, mild conditions

38 examples
22-83% yields

Electrochemical synthesis of pyridine carboxamides from pyridine carbohydrazides and amines in an aqueous medium

Peng Qian,* Yuhua Ma, Kun Yin, Na Li, Siqi Jiang, Hui Zhang and Liangquan Sheng*

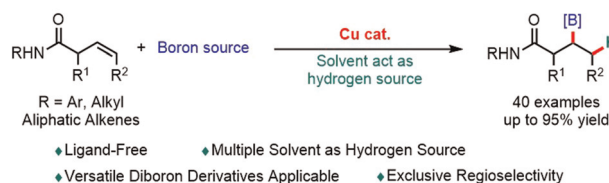


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Copper-catalyzed Markovnikov hydroboration of aliphatic terminal alkenes using carbonyl as a weak directing group

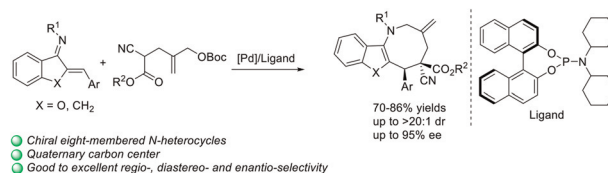
Cancan Feng, Luqing Tang, Fan Yang* and Yangjie Wu*



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Pd-catalyzed enantioselective [4 + 4] dipolar cycloaddition of aliphatic 1,4-dipoles with azadienes to access eight-membered N-heterocycles

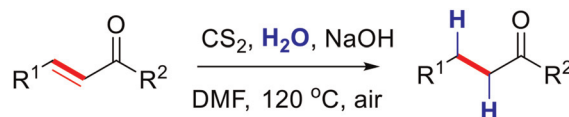
Gen-Hui Chen, Ying Ye, De-Xin Zhang, Hong-Jiao Li, Ning Zhang, Guo-Juan Liang, Dong Zhang,* Jing Zhou* and Hui Zhou*



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Transition-metal-free chemoselective reduction of α,β -unsaturated ketones using H_2O as a hydrogen source

Enbo Yu, Guojiang Mao, Guo-Jun Deng* and Fuhong Xiao*



Transition-metal-free H_2O as hydrogen source
 Excellent functional group tolerance

4709

Photoinduced regioselective difluorination of secondary inert $\text{C}(\text{sp}^3)\text{-H}$ bonds in sulfonamides via 1,5-hydrogen-atom transfer

Zhi Chen, Wenkai Zhu, Chaodong Wang, Ning Xu, Qianxi Jin, Xule Huang, Shengjie Song and Jianjun Li*

