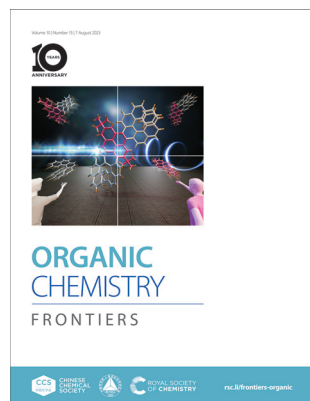


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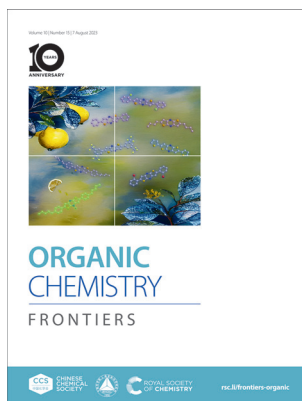
ISSN 2052-4129 CODEN OCFRA8 10(15) 3703–3952 (2023)



Cover

See Asim Swain and Prince Ravat, pp. 3714–3725.

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Inside cover

See A. Stephen K. Hashmi *et al.*, pp. 3726–3731.

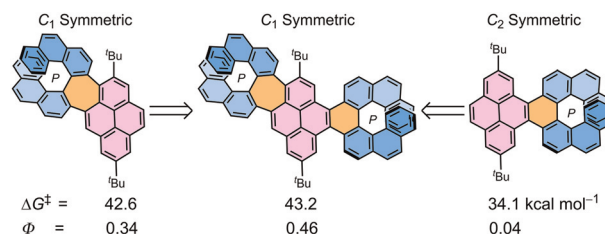
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RESEARCH ARTICLES

3714

Pyrene bridged double[7]helicene embedded with a heptagonal ring

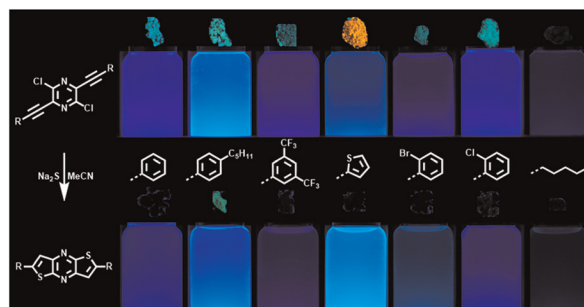
Asim Swain and Prince Ravat*



3726

Facile two-step synthesis of *para*-dithienopyrazines

Christopher Hübler, Justin Kahle, Martin C. Dietl, Petra Krämer, Frank Rominger, Matthias Rudolph and A. Stephen K. Hashmi*



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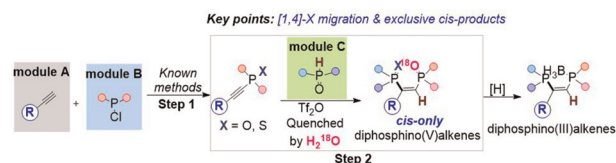


RESEARCH ARTICLES

3732

Modular and stereoselective access to *cis*-diphosphinoalkenes

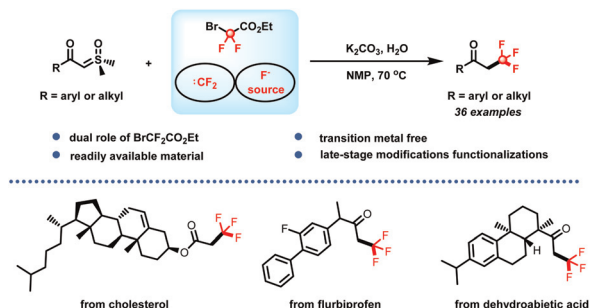
Bingbing Dong, Min Liu, Yunpu Li, Wenjuan Zhu, Siyuan Li, Tongtong Wang, Ying-Guo Liu* and Junliang Wu*



3741

Dual role of $\text{BrCF}_2\text{CO}_2\text{Et}$: difluorocarbene-enabled access to α -trifluoromethyl ketones from sulfoxonium ylides

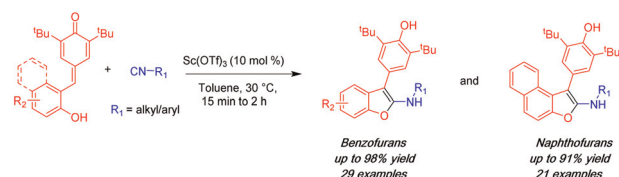
Chun-Yan Wu, Xiang-Long Chen, Huai-Yu Wang, Dong-Sheng Yang, Shi-Yi Zhuang, You Zhou, Zhi-Cheng Yu, Yan-Dong Wu, Xiao Geng* and An-Xin Wu*



3746

Synthesis of *N*-functionalized 2,3-disubstituted benzofurans/naphthofurans from *para*-quinone methides and isocyanides via the [4 + 1] annulation pathway

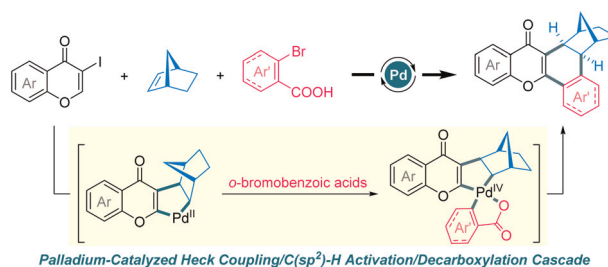
Someshwar B. Kale, Manish Kumar, Dinesh R. Shinde, Gamidi Rama Krishna and Utpal Das*



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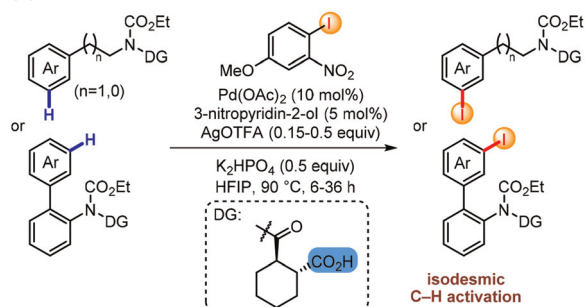
Palladium-catalyzed decarboxylation [2 + 2 + 2] annulation approach to chromone-containing polycyclic compounds

Yu-Chen Fang, Jia-He Chen, Ren-Feng Xiu, Li-Ren Zhang, Fang-Hua Zheng, Yong-Zheng Chen, Zi-Wei Gao* and Wen-Yong Han*



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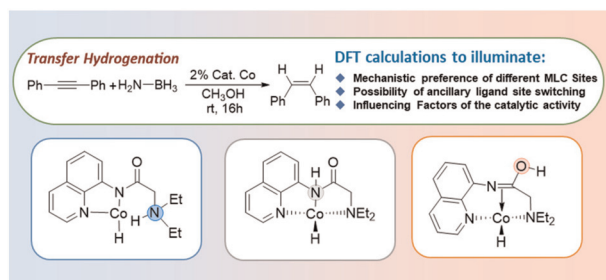
3760



Carboxyl group assisted isodesmic *meta*-C–H iodination of phenethylamines, benzylamines, and 2-aryl anilines

Lei Yang, Xinchao Wang, Meng Zhang, Shangda Li, Xinqiang Fang* and Gang Li*

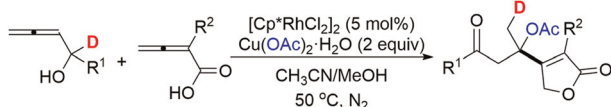
3766



Mechanistic investigation of the transfer hydrogenation of alkynes catalysed by an MLC catalyst with multiple ancillary ligand sites

Yuan Zhang, Lan-Yu Li and Cheng Hou*

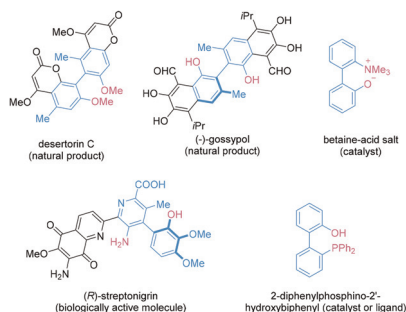
3776



[Cp*RhCl₂]₂ catalyzed three-component coupling cyclization of 2,3-allenoic acids with 2,3-allenols in the presence of Cu(OAc)₂·H₂O

Junjie Fan, Xiaoyan Wu, Chunling Fu and Shengming Ma*

3781



Transition-metal-free synthesis of functional 2-arylphenols by an intermolecular S_NAr reaction between dibenzofurans and various nucleophiles

Yueping Lin, Changhui Lu, Yue Zeng, Huanfeng Jiang and Liangbin Huang*

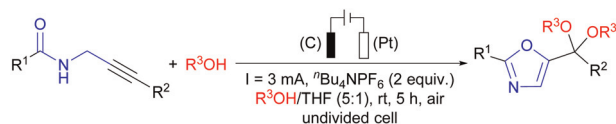


RESEARCH ARTICLES

3786

Metal-free electrochemical oxidative intramolecular cyclization of *N*-propargylbenzamides: facile access to oxazole ketals

Huaxin Zhang, Yongge Xiong, Mu-Jia Luo,*
Ruchun Yang,* Jiang Bai, Xian-Rong Song and
Qiang Xiao*



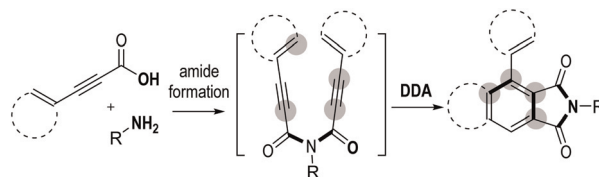
- ◆ Metal-/external-oxidant-free
- ◆ Simple operation

- ◆ Good functional group tolerance
- ◆ General: 26 examples, up to 93% yield

3792

Facile access to 1-aryl-2,3-naphthalimides *via* consecutive amidation/dehydro-Diels–Alder reactions

Chaoyang Song, Tingwei Shen, Lingzhu Chen* and
Tingting Li*



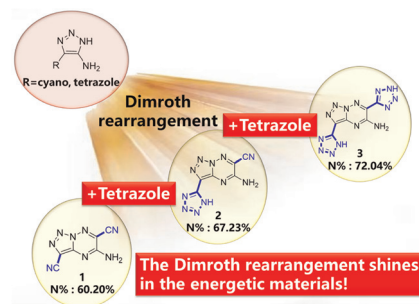
- ◆ facile & efficient cascade process
- ◆ broad substrate scope

- ◆ functional 2,3-naphthalimide products
- ◆ promising anti-bacterial activities

3799

Assembling tetrazole-rings on a fused ring framework: toward energetic materials with enhanced performance

Shangbiao Feng, Boqian Yang, Baoseng Zhang,
Chuanhao Xu, Yang Liu,* Shuangfei Zhu, Ruijun Gou,
Shuhai Zhang* and Ping Yin*

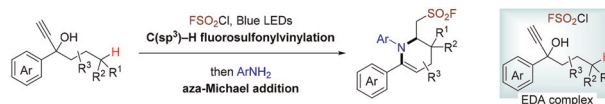


The Dimroth rearrangement shines in the energetic materials!

3805

C(sp³)-H fluorosulfonylvinylation/aza-Michael addition approach to FSO₂-functionalized tetrahydropyridines

Shuai Shi, Xueyan Zhao, Dengfeng Chen, Jinyue Luo,
Saihu Liao and Shenlin Huang*



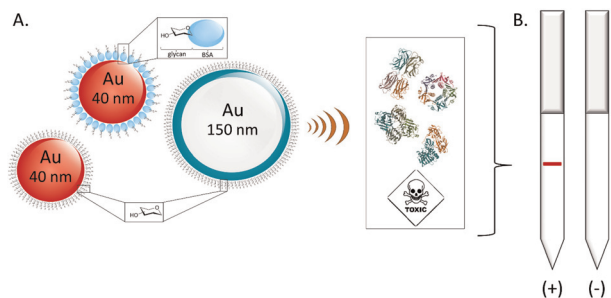
RESEARCH ARTICLES

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**Copper-catalysed controllable hydrodefluorination of trifluoromethylated alkenes**

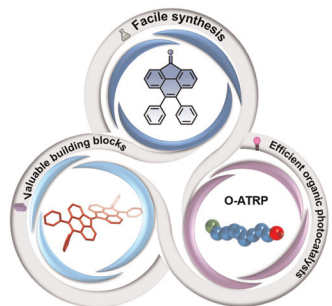
Chong Lian, Longlong Xi, Yu Yuan,* Zhuangzhi Shi* and Minyan Wang*

3819

**Sensitive dipstick assays for lectin detection, based on glycan–BSA conjugate immobilisation on gold nanoparticles**

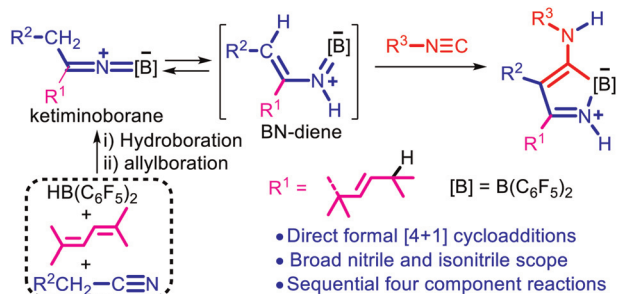
Pedro J. Hernando, Irina M. Ivanova, Simona Chessa, María J. Marín, Simone Dedola and Robert A. Field*

3830

**Synthesis, properties, and application of phenanthrenone: an undeveloped building block and a photocatalyst**

Ziyang Gan, Jie Zhou, Lingyun Zhu, Xinyu Chen, Qiang Ma, Jianfeng Yan, Wei Jiang, Saihu Liao* and Yuanming Li*

3837

**Formal [4 + 1] cycloadditions of ketiminoboranes and isonitriles**

Jie Cui and Tongdao Wang*

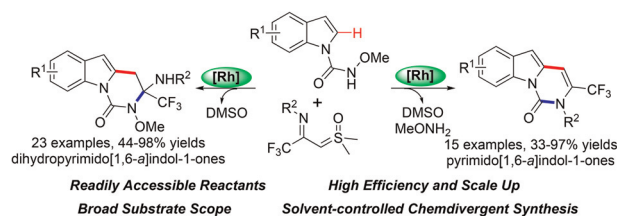


RESEARCH ARTICLES

3843

Rh(III)-catalyzed C–H activation/annulation of *N*-carbamoylindoles with CF₃-imidoyl sulfoxonium ylides for the divergent synthesis of trifluoromethyl-substituted (dihydro)pyrimidoindolones

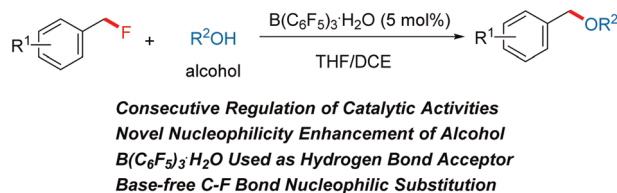
Yubo Duan, Shu-Ning Lu, Zuguang Yang, Zhengkai Chen* and Xiao-Feng Wu*



3849

Consecutive regulation of catalytic activities of B(C₆F₅)₃·H₂O: direct nucleophilic substitution of benzyl fluorides with alcohol *via* dual activation

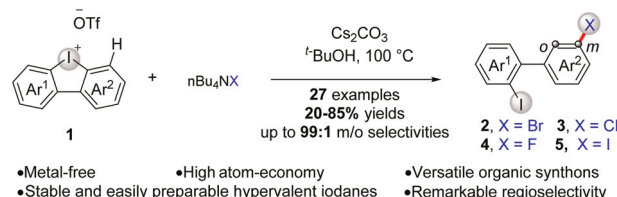
Shi-Jun Wang, Jun-Jia Zhai, Long Wang and Xiang-Ying Tang*



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Metal-free *meta*-halogenation of cyclic diaryliodonium salts *via* aryne intermediates

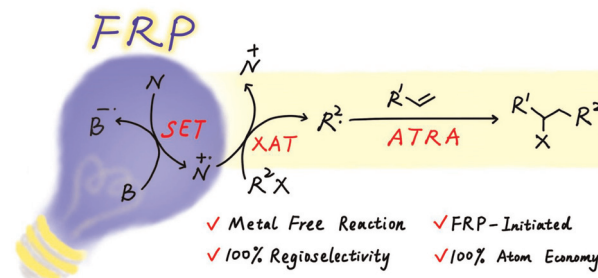
Hongqiang Jiang, Min Liu, Zenghui Ye, Zongqiang Song, Yanqi Wu* and Fengzhi Zhang*



3861

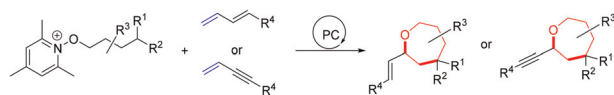
Frustrated-radical-pair-initiated atom transfer radical addition of perfluoroalkyl halides to alkenes

Fuyu Xie, Jianghua He* and Yuetao Zhang*



RESEARCH ARTICLES

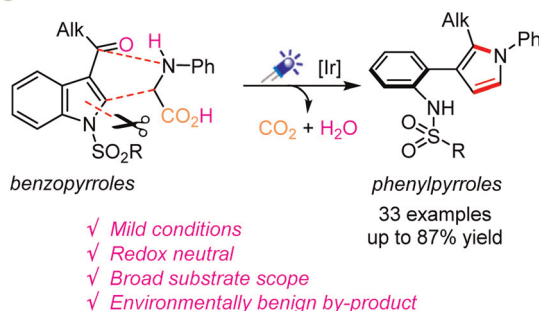
3870



Photoredox-catalyzed, oxygen-directed unactivated δ -C(sp³)-H functionalization toward oxepanes

Hao Wu, Shi-Hui He, Hai-Tao Qin and Feng Liu*

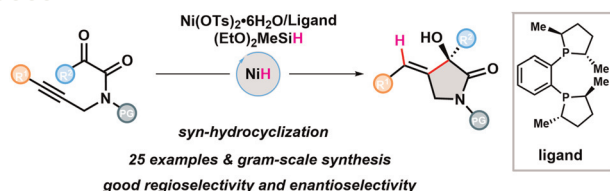
3875



From benzopyrroles to phenylpyrroles: remodeling of indoles enabled by photoredox catalysis

Wei Xu, Bin Cheng,* Yaoge Zhang, Lijing Fang, Hongbin Zhai, Cuiping Wang* and Taimin Wang*

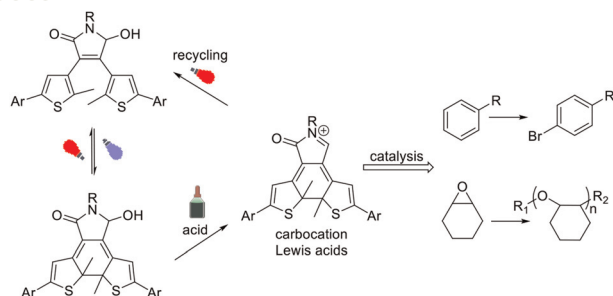
3883



Enantioselective Ni-catalyzed *syn*-hydrometalative cyclization of alkyne-tethered ketoamides to α -hydroxy- γ -lactams

Hai-Xiang Zeng, Xiao-Wen Zhang, Qi-Yang Li and Wen-Bo Liu*

3889



Photoinduced generation of carbocations enabled by the promotion of aromaticity

Meilan Zhang, Hanwei Lu,* Hebo Ye,* Ziyi Li, Yu Hai and Lei You*

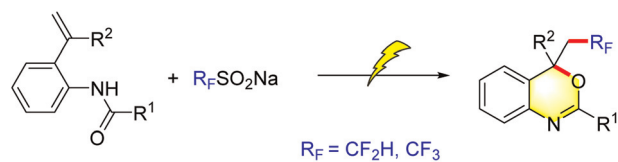


RESEARCH ARTICLES

3898

Electrochemical oxidative radical cascade reactions for the synthesis of difluoromethylated benzoxazines

Xiang Chen, Jun Jiang, Xiao-Jun Huang and Wei-Min He*

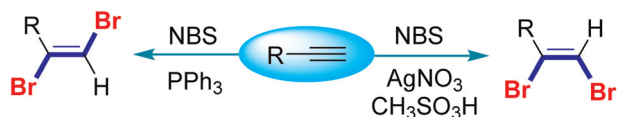


- Mild conditions
- 29 Examples, up to 87% in yield
- Good functional group tolerance
- Late-stage synthesis

3903

Stereoselective synthesis of (Z/E)-1,2-dibromoalkenes from terminal alkynes

Wei-Jun Wang, Meng-Yue Wang, Wen-Hua Xu, Bao-Yin Zhao, Hong-Xia Zhang, Ya-Ru Gao, Shi-Huan Guo and Yong-Qiang Wang*

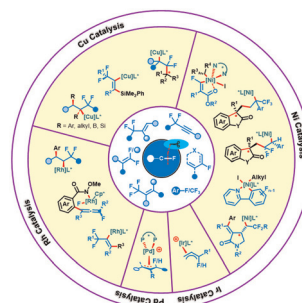


REVIEWS

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Transition-metal-catalyzed asymmetric defluorinative reactions

Danhua Ge,* Jia-Wei Chen, Yu-Lan Chen, Mengtao Ma, Zhi-Liang Shen* and Xue-Qiang Chu*



3929

Recent advances in electrochemical synthesis of diversely functionalized oxindole derivatives

Xiaocong Zhou, Ju Wu* and Yufen Zhao

