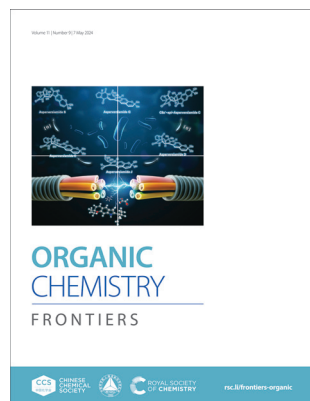


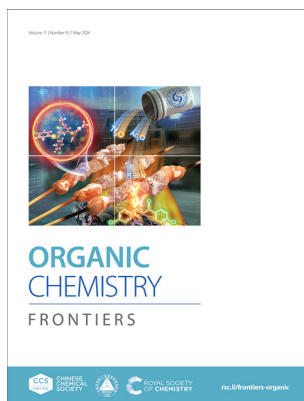
IN THIS ISSUE

ISSN 2052-4129 CODEN OCFRA8 11(9) 2421–2696 (2024)

**Cover**

See Ping Lan,
Martin G. Banwell *et al.*,
pp. 2433–2441.

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Chem. Front.*, 2024, **11**, 2433.

**Inside cover**

See Xin Huang,
Weimin Zhang *et al.*,
pp. 2442–2447.

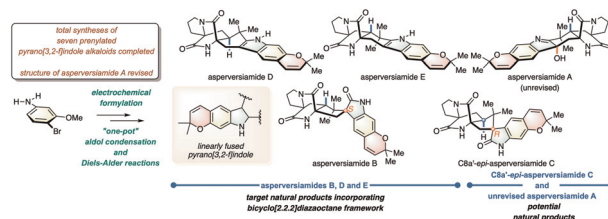
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2024, **11**, 2442.

RESEARCH ARTICLES

2433

Total syntheses of certain aspersiviamides, linearly-fused and prenylated indole alkaloids

Zhongnan Xu, Xin-Ting Liang, Ping Lan* and
Martin G. Banwell*



2442

Regio- and stereo-selective synthesis of β -phenylthio enamides via intramolecular 1,2-thiol migration

Yunqing Zhuang, Jin Zhang, Kai Yang, Gehua Bi,
Xin Huang* and Weimin Zhang*



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Fundamental questions
Elemental answers

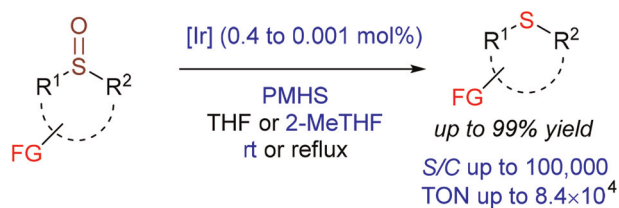


RESEARCH ARTICLES

2448

Vaska's complex–PMHS combination enabled mild and chemoselective reduction of sulfoxides to sulfides with low catalyst loading

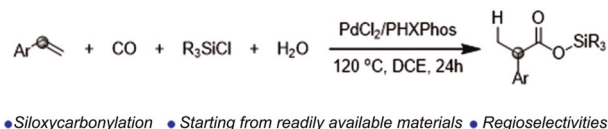
Fang-Fang Xu, Zhong-Lei Ruan and Pei-Qiang Huang*



2457

Palladium-catalyzed siloxycarbonylation of alkenes to synthesize silyl esters

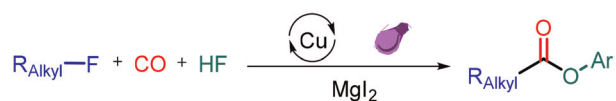
Fei Wu, Yi-Chuan Zhong, Bo Wang, Zhi-Hui Ren and Zheng-Hui Guan*



2462

Photoinduced copper-catalyzed alkoxy carbonylation of alkyl fluorides

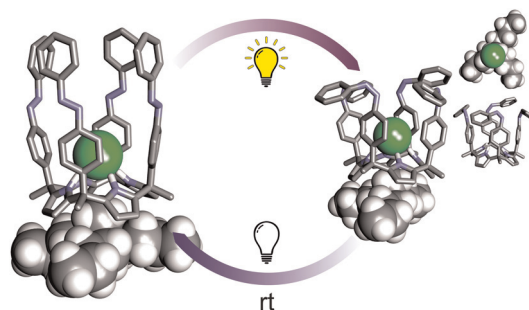
Peng Yang, Yan-Hua Zhao and Xiao-Feng Wu*



2468

Tetra-azobenzene extended calix[4]pyrroles: influence of photo-isomerization on chloride binding and its transport through liposomal membranes

Pedro Ferreira, Gemma Aragay* and Pablo Ballester*



RESEARCH ARTICLES

2477

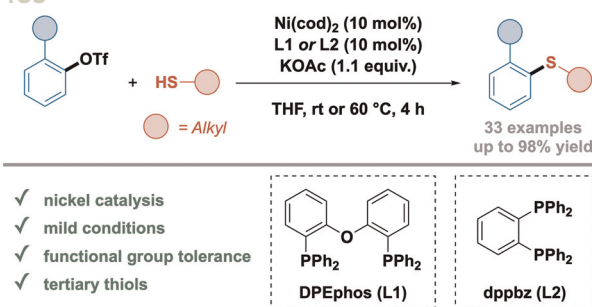


♦ Readily available chemicals! ♦ Easy scale up! ♦ Easy purification!
♦ Mild reaction conditions! ♦ Excellent ee and efficiency!

$\text{Pd}((R)\text{-DTBM-SEGphos})\text{Cl}_2$ -catalyzed kinetic resolution of tertiary propargylic alcohols

Jie Wang, Wei-Feng Zheng, Yuling Li, Yin-Long Guo,*
Hui Qian* and Shengming Ma

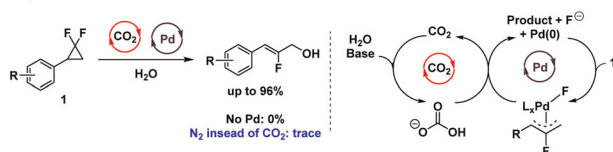
2485



Nickel catalyzed C-S cross coupling of sterically hindered substrates enabled by flexible bidentate phosphines

Ivo H. Lindenmaier, Robert C. Richter and
Ivana Fleischer*

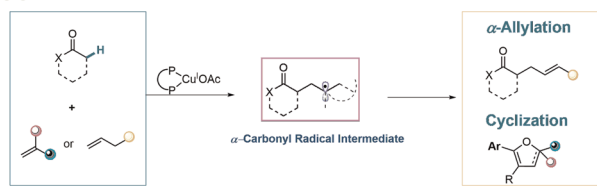
2494



CO_2 and palladium enabled highly chemoselective hydroxylation of *gem*-difluorocyclopropanes

Xingben Wang, Fang Xiao and Frederic W. Patureau*

2502



- 50 examples, up to 86% yield
- broad substrate scope
- practical synthetic routes
- wide application

Straightforward α -allylation of carbonyl compounds with alkenes via α -carbonyl radical intermediates

Sien Liu, Yanjing Liao, Hongyi Li, Biping Xu,
Xiaofeng Zhang, Yaping Shang* and Weiping Su*

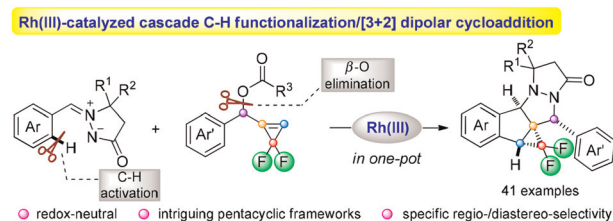


RESEARCH ARTICLES

2512

Synthesis of *gem*-difluorinated pentacyclic indenopyrazolopyrazolones via Rh(III)-catalyzed cascade C–H functionalization/[3 + 2] dipolar cycloaddition

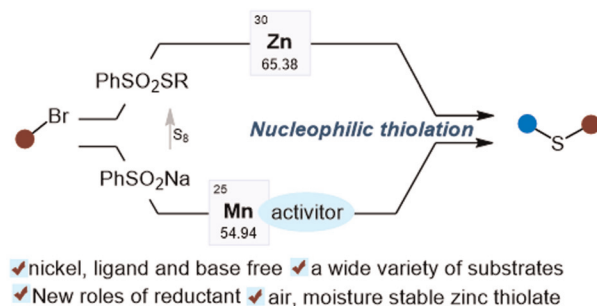
Fu-Xiaomin Liu, Weijie Chen, Ying Cai, Zhi Zhou,*
Wei Yi* and Kui Cheng*



2518

Nickel-free cross-electrophile coupling of unactivated alkyl bromides with thiosulfonates and sulfinyl sulfones

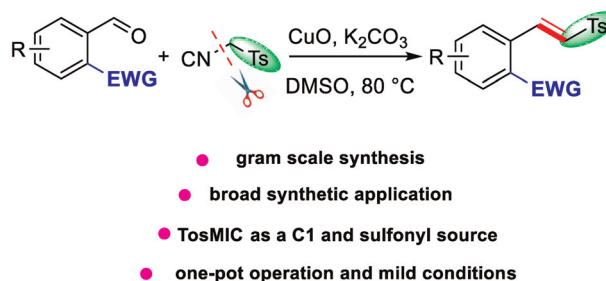
Qiujin Fan, Yanchuang Zhao, Jintao Liang, Yan Zhang,
Yuenian Xu, Qingqing Zhang, Hua Zhu, Min Jiang* and
Xinxin Shao*



2528

Copper-catalyzed selective construction of vinyl sulfones employing TosMIC as a C1 synthon and sulfone source

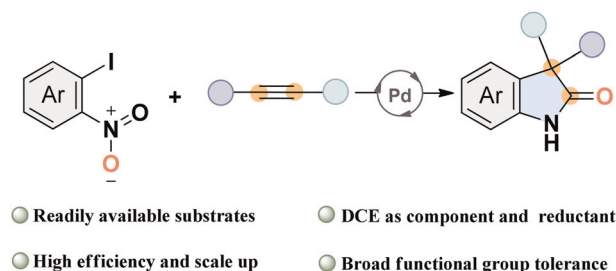
Qun Cai,* Meng-Jie Si, Xin-Ru Shi, Meng Liao,
Fa-Chuang Liu, Min Wang, Ke-Xin Li, Yong-Ting Chen*
and An-Xin Wu*



2534

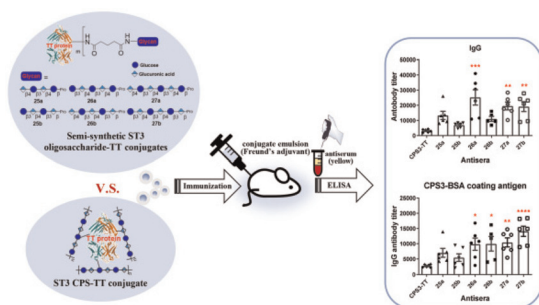
Palladium-catalyzed alkyne insertion and rearrangement reaction to synthesize oxindoles from *o*-iodonitroheteroarenes and alkynes

Zhenjie Qi,* Weijie Jia, Yang Chen, Jingbo Wang,
Yafeng Zhao, Zhiqi Wang, Lin Huang, Baojing Ji,
Shuai Liu* and Dongfang Jiang*



RESEARCH ARTICLES

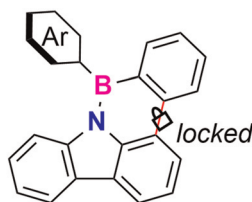
2539



Synthesis and immunogenicity evaluation of oligosaccharide epitopes for the development of a glycoconjugate vaccine against *Streptococcus pneumoniae* serotype 3

Xiaolin Ma, Jielin Zhao, Guirong Wang, Jiaxin Chen, Jiaqi Li, Zhen Huang and Guofeng Gu*

2548



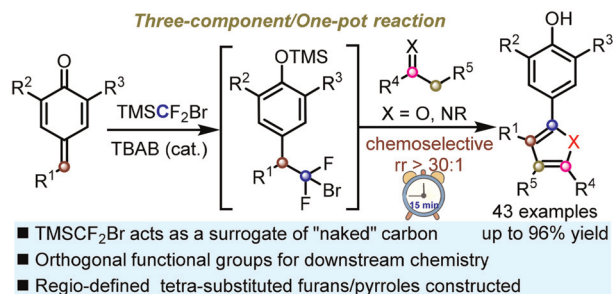
BN-benzo[b]fluoranthene Rotation-restricted carbazole-borane

- * concise synthesis
- * intensive fluorescence
- * electronic modification
- * computational studies

BN-Benzo[b]fluoranthenes: facile synthesis, characterization, and optoelectronic properties

Yuyi Wang, Siqi Liu, Peng Yang, Tao Shi, Jiawei Fan, Guijiang Zhou* and Bochao Su*

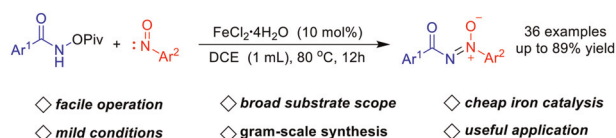
2554



Three-component approach to modular synthesis of tetra-substituted furans and pyrroles

Pei Zhang, Wenqing Ti, Tianfeng Gao, Jie Zhu, Aijun Lin, Shang Gao, Xuanyi Li* and Hequan Yao*

2561



An iron-catalyzed nitrene transfer reaction of nitrosobenzenes with *N*-acyloxyamides for accessing *N*-acyl azoxy molecules

Weimin Huang, Haobo Yan, Qianqian Wang, Jianhui Chen,* Yanshu Luo and Yuanzhi Xia*

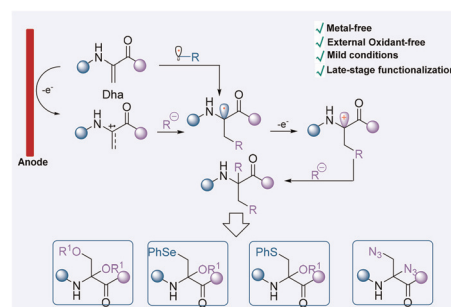


RESEARCH ARTICLES

2566

Electrochemical oxidative heterodifunctionalization of dehydroalanine: access to unnatural α,α -disubstituted amino esters

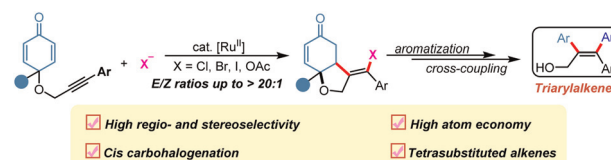
Hui Cao, Ruitao Wang, Qianqiu Zhang, Cuifen Lu, Yue Weng and Meng Gao*



2572

Ru(II)-catalyzed cascade *cis* carbohalogenation and cyclization of alkyne-tethered cyclohexadienones for synthesizing tetrasubstituted alkenes

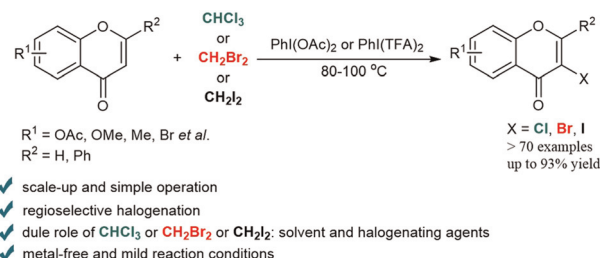
Xiaoli Huang, Cui Yi, Ruji Xiong, Meiqi Bai, Yuhai Tang, Silong Xu and Yang Li*



2579

Iodine(III)-mediated oxidative chlorination, bromination and iodination of chromone derivatives using alkyl halides as the solvent and halogen source

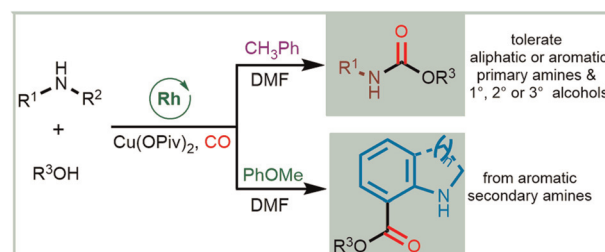
Yu-Ping Zhao, Jia-Lu Liao, Jiuzhong Huang, Shi-Kai Xiang* and Chen-Fu Liu*



2585

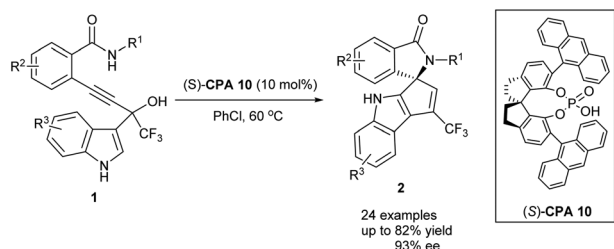
Access to carbamates and *o*-aminobenzoates via oxidative carbonylation of amines with CO and alcohols under rhodium/copper catalysis

Xiaoqi Chen, Xuyao Zhong, Lei Wang, Houyun Teng, Jingsheng Li, Shuai Chen, Rongjing Hu* and Lei Yang*



RESEARCH ARTICLES

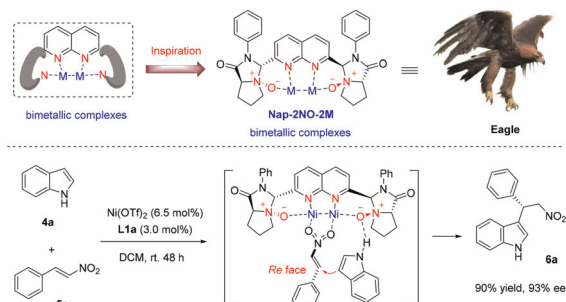
2591



Enantioselective intramolecular tandem cyclization of o-alkynylbenzamides: generation of enantioenriched CF₃-containing spiro-indole-indoles

Wenzhe Li, Min Li, Shuang Yang, Yingkun Yan and Xiaomei Zhang*

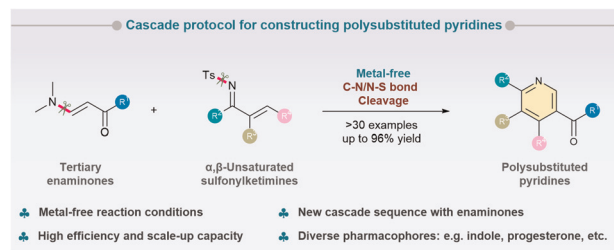
2600



Naphthyridine-2NO, a new C₂-symmetric rigid tetradentate bimetallic ligand and its application in asymmetric Friedel–Crafts alkylation

Pan Hu, Ke-Lan Xu, Xi-Rui Wang, Zi-Yue Chen, Wen-Hui Zhang, Ying Zhou, Wen-Jing Zhang and Xiong-Li Liu*

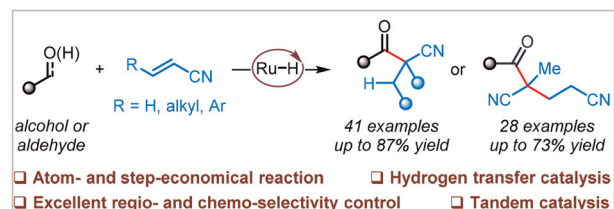
2607



Metal-free assembly of diverse polysubstituted pyridines via an efficient cascade approach using tertiary enaminones and α,β -unsaturated sulfonylketimines

Xiang Li, Qiwen Pang, Yang Zhang, Yang Li, Qian-Qian Yang,* Xinyu Lin, Xin Xie* and Wei Huang*

2613



Selective cross-coupling of α,β -unsaturated nitriles with aldehydes or alcohols by hydrogen transfer catalysis towards β -ketonitriles and glutaronitriles

Shi-Qi Zhang and Ji-Bao Xia*

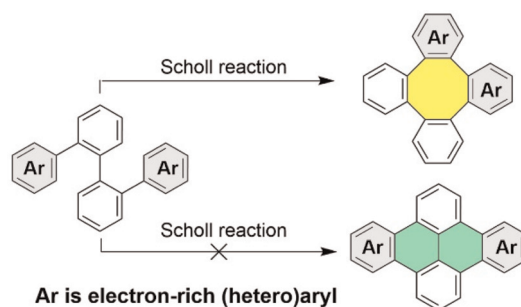


RESEARCH ARTICLES

2624

An eight-membered ring formed by the Scholl reaction of *o*-quateraryls

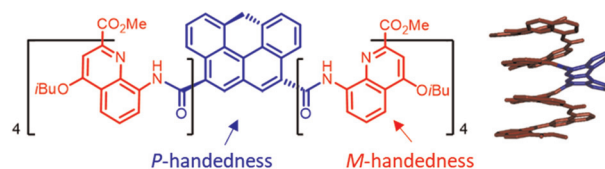
Xinhe Yang, Man Gao, Han Chen, Qi Gong and Qian Miao*



2632

Solvent dependent hierarchical dual helicity in a fused [4]carbohelicene/quinoline oligoamide foldamer

Rita Borges-Anastácio, Kevin Moreno, Eric Merlet, Thierry Buffeteau, Brice Kauffmann, Nathan McClenaghan, Yann Ferrand* and Céline Olivier*

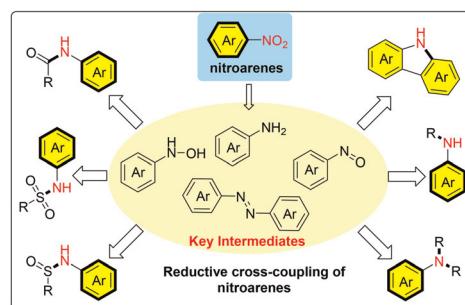


REVIEWS

2638

Recent progress in the synthesis of *N*-substituted arylamines by reductive cross-coupling of nitroarenes

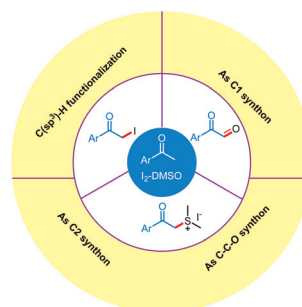
Jing-Hao Qin, Yao Wang, Jun-Yao Ouyang, Min Liu* and Xuan-Hui Ouyang*



2665

Review of application of the I₂ and dimethyl sulfoxide combined reagent system to aryl methyl ketones for diverse transformations

Dong-Sheng Yang, Xiang-Long Chen* and An-Xin Wu*



CORRECTION

2693

Correction: Stereodivergent and enantioselective total syntheses of isochaetominines A–C and four pairs of isochaetominine C enantiomers: a six-step approach

Zhong-Yi Mao, Hui Geng, Tian-Tian Zhang, Yuan-Ping Ruan, Jian-Liang Ye and Pei-Qiang Huang*

