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七月七日（元末明初·刘基）
百年佳会几今宵，脉脉相看一水遥。
漫道天孙解专巧，却教乌鹊为成桥。



Fe-catalyzed coupling reactions of organolithium reagents

Provided by Henry N.C. Wong's group, CUHK, China



REVIEW

Xuechen Li et al.
Establishing the structure-activity relationship
of teixobactin

COMMUNICATION

Zhen Yang, Jianxian Gong et al.
Total syntheses of dehydrobotrydienal,
dehydrobotrydienol and
10-oxodehydrodihydrobotrydial

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Chinese Chemical Society

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万方数据



Graphical Abstracts/Chin Chem Lett 30 (2019) iii–vii

Special Issue: Dedicated to Prof. Henry N.C. Wong

Editorial

Professor Henry N.C. Wong, extraordinary synthetic chemist and great mentor

Chinese Chemical Letters 30 (2019) 1461

Zhen Yang^a, Xuechen Li^b^a School of Chemical Biology & Biotechnology, Peking University, Shenzhen 518055, China^b Department of Chemistry, State Key Laboratory of Synthetic Chemistry, The University of Hong Kong, Hong Kong, China

Reviews

Recent advances on iron-catalyzed coupling reactions involving organolithium reagents

Chinese Chemical Letters 30 (2019) 1463

Zhuliang Zhong, Xiao-Shui Peng, Henry N.C. Wong

Department of Chemistry, and State Key Laboratory of Synthetic Chemistry, The Chinese University of Hong Kong, Hong Kong, China

Several iron-catalyzed cross- and homo-coupling reactions involving organolithiums were developed to form diverse carbon-carbon bonds. The usefulness of this protocol was demonstrated by producing gram-scale products in good yields.

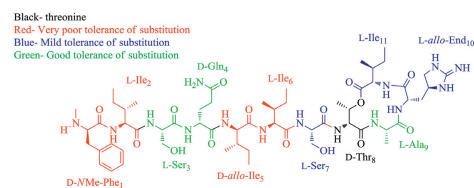


Establishing the structure-activity relationship of teixobactin

Chinese Chemical Letters 30 (2019) 1468

Eilidh Matheson^c, Kang Jin^a, Xuechen Li^{a,b}^a Department of Chemistry, State Key Laboratory of Synthetic Chemistry, The University of Hong Kong, Hong Kong, China^b Laboratory of Marine Drugs and Bioproducts, Qingdao National Laboratory for Marine Science and Technology, Qingdao 266237, China^c School of Chemistry, University of Edinburgh, Edinburgh, UK

The updated studies have been summarized to provide structure-activity relationship of teixobactin.



Recent progress in transition metal catalyzed cross coupling of nitroarenes

Lifen Peng^a, Zhifang Hu^a, Zilong Tang^a, Yinchun Jiao^a, Xinhua Xu^b

^a Key Laboratory of Theoretical Organic Chemistry and Functional Molecule of Ministry of Education, Hunan

Provincial Key Laboratory of Controllable Preparation and Functional Application of Fine Polymers, School of Chemistry and Chemical Engineering, Hunan University of Science and Technology, Xiangtan 411201, China

^b State Key Laboratory of Chemo/Biosensing and Chemometrics, College of Chemistry and Chemical Engineering, Hunan University, Changsha 410082, China

The recent development in transition metal catalyzed cross coupling of nitroarenes was highlighted. And nitroarenes were efficient electrophilic coupling partners for constructing C–O, C–S, C–C and C–N bonds.

Chinese Chemical Letters 30 (2019) 1481

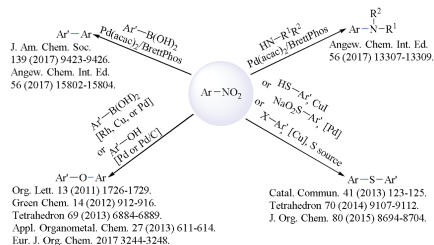


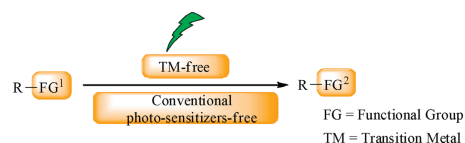
Photo-promoted transition metal-free organic transformations in the absence of conventional photo-sensitizers

Zhenhua Jia, Yalin Yuan, Xinlong Zong, Bingquan Wu, Jingyu Ma

Institute of Advanced Synthesis, School of Chemistry and Molecular Engineering, Jiangsu National Synergetic Innovation Center for Advanced Materials, Nanjing Tech University, Nanjing 211816, China

During the last decade, photo-catalysis is emerging as a powerful tool in synthetic organic chemistry. This review summarizes the recent advances of photo-promoted organic transformations under transition metal-free conditions in the absence of conventional photo-sensitizers.

Chinese Chemical Letters 30 (2019) 1488



Recent advances of allenes in the first-row transition metals catalyzed C–H activation reactions

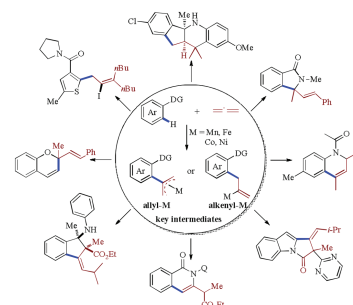
Xiang-Lei Han^a, Peng-Peng Lin^a, Qingjiang Li^{a,b}

^a School of Pharmaceutical Sciences, Sun Yat-sen University, Guangzhou 510006, China

^b State Key Laboratory of Natural and Biomimetic Drugs, Peking University, Beijing 100191, China

Reviewed herein is the recent progress of the first-row transition metals catalyzed C–H functionalization reactions with allenes until the end of 2018. This review is organized by the pivotal metal complexes which catalyze the sp² C–H bond cleavage.

Chinese Chemical Letters 30 (2019) 1495



Communications

Total syntheses of dehydrobotrydienal, dehydrobotrydienol and 10-oxodehydrodihydrobotrydial

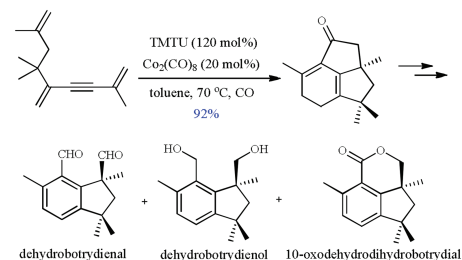
Zichun Zhang^a, Dandan Zhao^a, Yingdong He^a, Zhen Yang^{a,b}, Jianxian Gong^a

^a State Key Laboratory of Chemical Oncogenomics, Key Laboratory of Chemical Genomics, Peking University Shenzhen Graduate School, Shenzhen 518055, China

^b Key Laboratory of Bioorganic Chemistry and Molecular Engineering of Ministry of Education and Beijing National Laboratory for Molecular Science (BNLMS), and Peking-Tsinghua Center for Life Sciences, Peking University, Beijing 100871, China

Concise total syntheses of dehydrobotrydienal, dehydrobotrydienol, and 10-oxodehydrodihydrobotrydial were accomplished via tandem Pauson–Khand and 6 π -electrocyclization reactions.

Chinese Chemical Letters 30 (2019) 1503



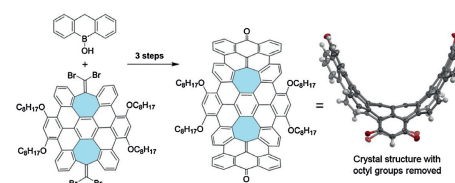
A ketone-functionalized aromatic saddle as a potential building block for negatively curved carbon nanobelts

Kwan Yin Cheung, Qian Miao

Department of Chemistry, The Chinese University of Hong Kong, Hong Kong, China

Herein, we report the synthesis and crystal structure of a novel ketone-functionalized aromatic saddle, which is a potential building block for synthesis of negatively curved carbon nanobelts.

Chinese Chemical Letters 30 (2019) 1506



Electrochemical synthesis of β -hydroxy-, β -alkoxy-, and β -carbonyloxy sulfones by vicinal difunctionalization of olefins

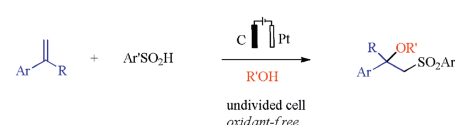
Zhefan Zhang^{a,b}, Jiyao Yan^{a,b}, Dengke Ma^{a,b}, Jianwei Sun^{a,b}

^a Shenzhen Research Institute, The Hong Kong University of Science and Technology (HKUST), Shenzhen 518057, China

^b Department of Chemistry, The Hong Kong University of Science and Technology (HKUST), Hong Kong, China

Disclosed here is an oxidant-free vicinal oxysulfonation of olefins using electrochemical conditions.

Chinese Chemical Letters 30 (2019) 1509



Diastereo- and enantioselective palladium-catalyzed dearomative [4+2] cycloaddition of 3-nitroindoles

Jia-Jia Suo^a, Juan Du^a, Yang-Jie Jiang^a, Di Chen^a, Chang-Hua Ding^{a,b}, Xue-Long Hou^{a,c}

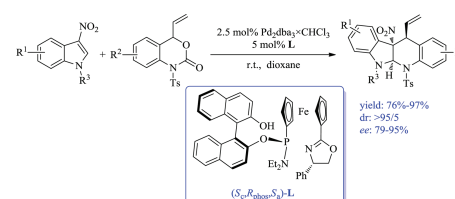
^a State Key Laboratory of Organometallic Chemistry, Center for Excellence in Molecular Synthesis, Shanghai Institute of Organic Chemistry (SIOC), Chinese Academy of Sciences (CAS), Shanghai 200032, China

^b Department of Chemistry, Innovative Drug Research Center, Shanghai University, Shanghai 200444, China

^c Shanghai-Hong Kong Joint Laboratory in Chemical Synthesis, SIOC, CAS, Shanghai 200032, China

A Pd-catalyzed asymmetric decarboxylative [4+2] cycloaddition of 3-nitroindoles and vinyl benzoxazinanes is developed through a dearomatization approach. The reaction provides an efficient protocol for constructing a series of chiral tetrahydro-5H-indolo[2,3-b]quinolines in high yields and with excellent diastereo- and enantioselectivities.

Chinese Chemical Letters 30 (2019) 1512



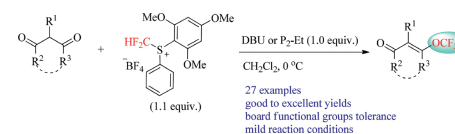
Chinese Chemical Letters 30 (2019) 1515

Selective O-difluoromethylation of 1,3-diones using S-(difluoromethyl) sulfonium salt

Guo-Kai Liu, Xin Li, Wen-Bing Qin, Wei-Feng Lin, Li-Ting Lin, Jia-Yi Chen, Jian-Jian Liu

School of Pharmaceutical Sciences, Shenzhen University Health Science Centre, Shenzhen University, Shenzhen 518060, China

A facile and highly efficient approach for selective O-difluoromethylation of 1,3-diones with S-(difluoromethyl)sulfonium salt was developed, and a wide variety of difluoromethyl enol ethers were readily synthesized.



Chiral iminophosphorane catalyzed asymmetric Henry reaction of α,β -alkynyl ketoesters

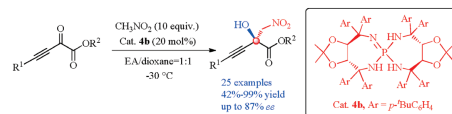
Chinese Chemical Letters 30 (2019) 1519

Yanxia Zhang^{a,b}, Xin-Yan Wu^a, Jianwei Han^{a,b}

^a Key Laboratory for Advanced Materials, Institute of Fine Chemicals, School of Chemistry & Molecular Engineering, East China University of Science and Technology, Shanghai 200237, China

^b Shanghai–Hong Kong Joint Laboratory in Chemical Synthesis, Shanghai Institute of Organic Chemistry, The Chinese Academy of Sciences, Shanghai 200032, China

α,β -Alkynyl ketoesters were introduced to the enantioselective Henry reaction (nitroaldol condensation) with nitromethane catalyzed by tartaric acid derived chiral iminophosphoranones. As such, a variety of optically active β -nitro-substituted tertiary alcohols bearing alkyne moieties were obtained in good to excellent yields (42%–99%) and moderate to good level of enantiomeric excess (up to 87% ee).



Intramolecular (4+3) cycloadditions of nitrogen-tethered epoxy enosilanes for the synthesis of heteropolycycles

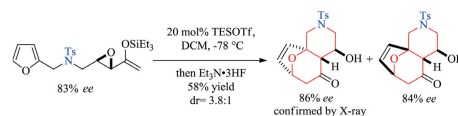
Chinese Chemical Letters 30 (2019) 1523

Jiayun He^a, Shuk Mei Lam^a, Jerome P.L. Ng^a, Wing-Tak Wong^b, Pauline Chiu^a

^a State Key Laboratory of Synthetic Chemistry, Department of Chemistry, The University of Hong Kong, Hong Kong, China

^b Department of Applied Biology and Chemical Technology, The Hong Kong Polytechnic University, Hong Kong, China

Furans bearing epoxy enosilane units linked by a nitrogen heteroatom tether undergo intramolecular (4 + 3) cycloadditions to generate bis-heteroatomic polycyclic adducts having piperidine moieties in their frameworks. The cycloadducts, ultimately derived from furfural, a renewable chemical feedstock, are obtained with up to 4:1 dr and with ee retained from the epoxide.



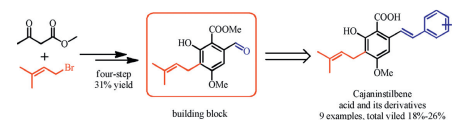
A facile synthesis of cajaninstilbene acid and its derivatives

Chinese Chemical Letters 30 (2019) 1527

Qi Chen, Kuo Lu, Chang Zheng, Xiao-Fang Xu, Jing Lin, Wei-Min Chen

College of Pharmacy, Jinan University, Guangzhou 510632, China

A facile synthesis of cajaninstilbene and its derivatives by using a building block has been developed.



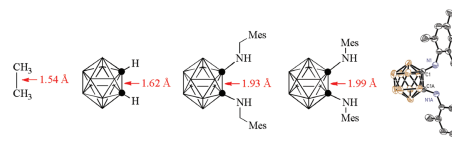
How long a C–C bond can be? An example of extraordinary long C–C single bond in 1,2-diarylamino-*o*-carborane

Chinese Chemical Letters 30 (2019) 1530

Yile Wu, Jie Zhang, Zuowei Xie

Department of Chemistry and State Key Laboratory of Synthetic Chemistry, The Chinese University of Hong Kong, Hong Kong, China

The longest C–C single bond of 1.990(4) Å known thus far is observed in the single crystal X-ray structure of 1,2-(NHMe)₂-*o*-carborane (Mes = 2,4,6-trimethylphenyl), which is readily synthesized via a one-pot process.



Copper-mediated *O*-arylation of lactols with aryl boronic acids

Jing-Jing Sui^{a,b}, De-Cai Xiong^{b,c}, Xin-Shan Ye^{a,b}

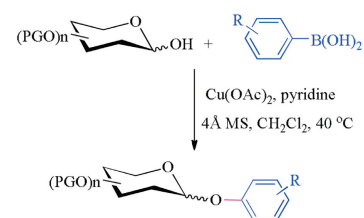
^a National Research Center for Carbohydrate Synthesis, Jiangxi Normal University, Nanchang 330022, China

^b State Key Laboratory of Natural and Biomimetic Drugs, School of Pharmaceutical Sciences, Peking University, Beijing 100191, China

^c State Key Laboratory of Drug Research, Shanghai Institute of Materia Medica, Chinese Academy of Sciences, Shanghai 201203, China

A novel and efficient method to access phenolic glycosides has been established by using copper-mediated coupling reaction of aryl boronic acids with hemiacetals. The reaction enjoyed a wide range of substrate scope, and many phenolic glycosides can be synthesized in good yields.

Chinese Chemical Letters 30 (2019) 1533



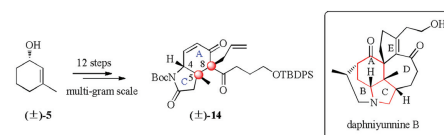
Synthetic studies towards daphniyunnine B: Construction of AC bicyclic skeleton with two vicinal all carbon quaternary stereocenters

Haiyu Sun, Guangmiao Wu, Xingang Xie

State Key Laboratory of Applied Organic Chemistry, College of Chemistry and Chemical Engineering, Lanzhou University, Lanzhou 730000, China

The AC bicyclic skeleton of daphniyunnine B with the required two vicinal all carbon quaternary stereocenters (C-5 and C-8) was accomplished in 12 steps from the known cyclohexenol (±)-5.

Chinese Chemical Letters 30 (2019) 1538



A practical synthesis of β -carbolines by tetra-*n*-butylammonium bromide (TBAB)-mediated cycloaromatization reaction of aldehydes with tryptophan derivatives

Zhen Wang^a, Zhenzhen Yu^a, Yao Yao^a, Yakai Zhang^a, Xuefeng Xiao^b, Bin Wang^a

^a College of Pharmacy and Tianjin Key Laboratory of Molecular Drug Research, Nankai University, Tianjin 300353, China

^b Tianjin University of Traditional Chinese Medicine, Tianjin 300193, China

A mild and efficient *n*Bu₄NBr-mediated oxidative cycloaromatization to prepare β -carbolines from readily available tryptophans and aldehydes is described. The reaction is practical and allows the synthesis of β -carbolines on gram-scale. Some of products crystallized from the reaction mixture and were easily removed by filtration, obviating the need for chromatographic separation.

Chinese Chemical Letters 30 (2019) 1541

