有机化学

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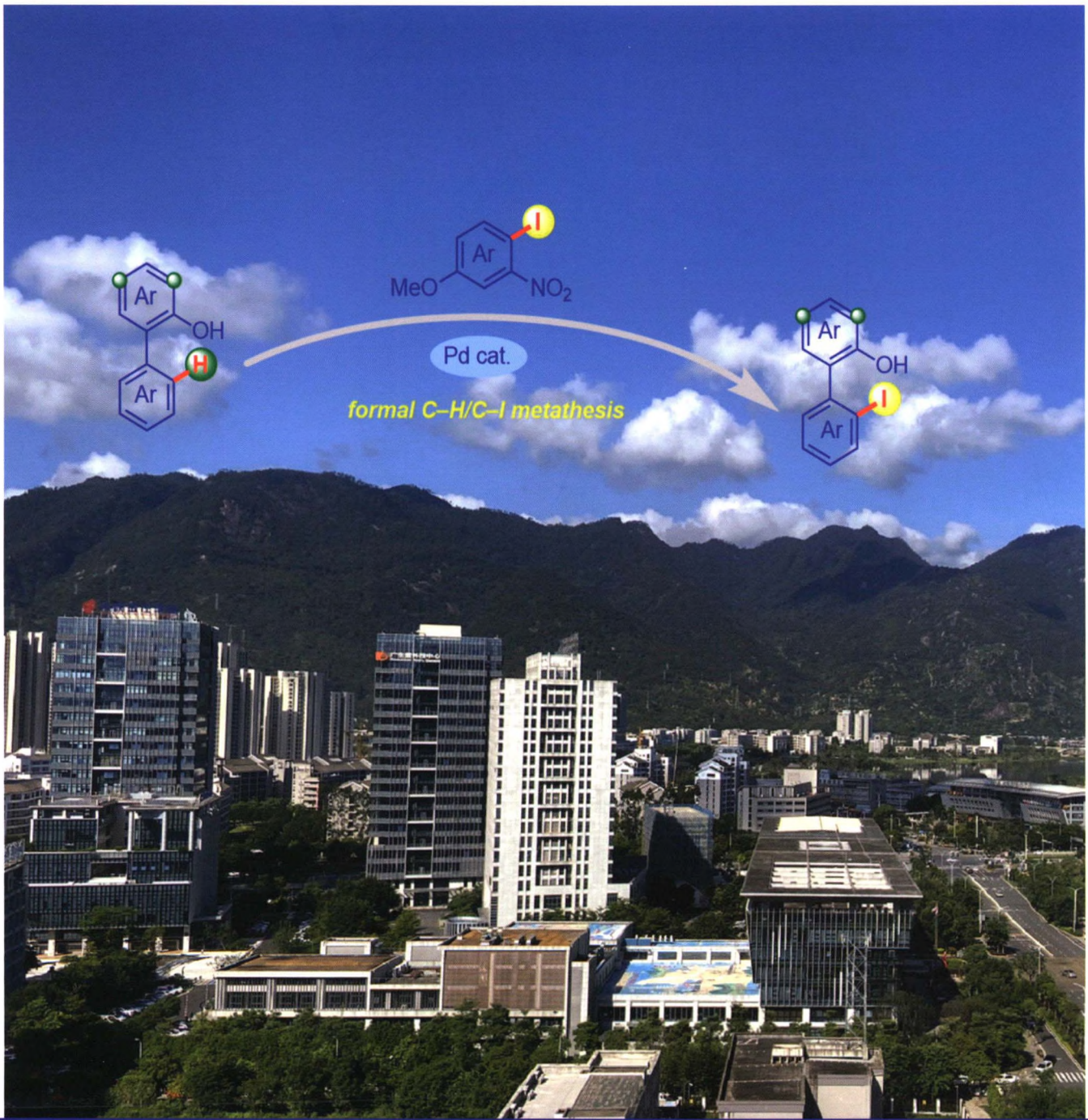

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* 通讯联系人.

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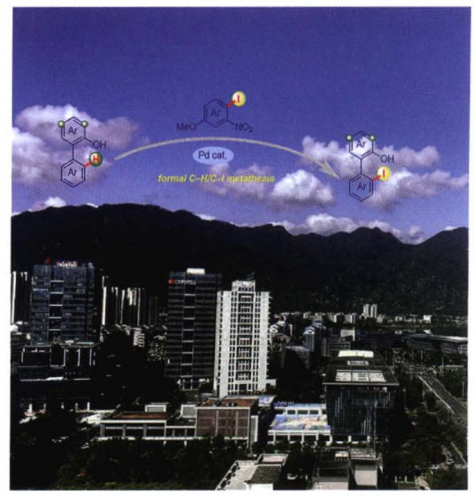
Cover Picture: Site-Selective C—H Iodination of Phenol Derivatives Using Aryl Iodide as Iodinating Reagent



A novel Pd(II)-catalyzed C—H iodination of free 2-aryl phenols and 2-phenoxyacetic acids using 4-iodo-3-nitroanisole as the mild iodinating reagent via a formal C—H/C—I metathesis has been developed. Excellent site-selectivity and good functional group tolerance were obtained with a range of electron rich phenol derivatives by Zhang, Li, Zhou, Wang, Zhang, Gao, and Li on page 3511.

REVIEWS

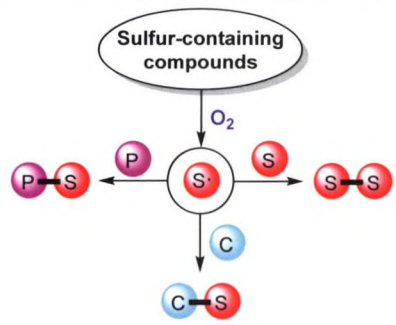
Progress in the Synthesis of C(sp^2)—C(sp^3) Bond by Reductive Heck Reactions of Alkenes

Transition-metal catalyzed C(sp^2)—C(sp^3) cross-coupling is of great significance in organic chemistry for synthesizing complex natural products and pharmaceutical molecules. Recently, reductive Heck reactions have emerged as one of the simple and efficient strategies for the construction of C(sp^2)—C(sp^3) bond. The recent advances in the reductive Heck reactions of alkenes are summarized on the basis of different hydride sources. The related mechanisms are provided, and the future development of this field is also prospected.

Xiao, Xiao; Liu, Jianchao*

Chin. J. Org. Chem. **2021**, *41*(9), 3349

Recent Progress in the Construction of S—S, P—S and C—S Bonds Involving O_2-Initiated Sulfur-Centered Radicals



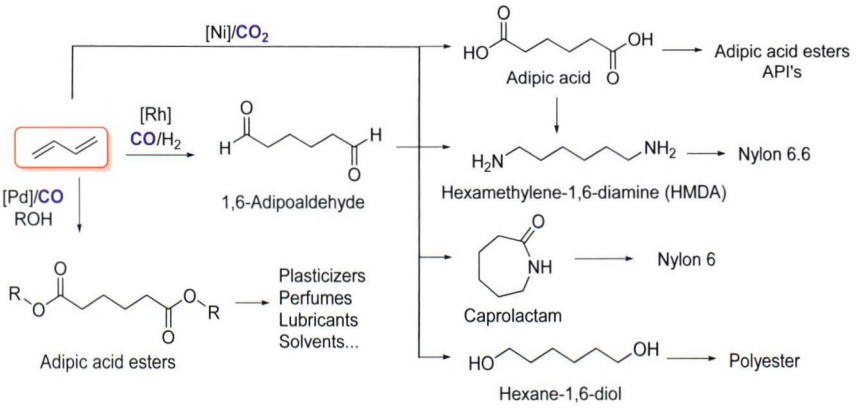
Some sulfur-containing compounds can be initiated by O_2 as the ideal green oxidant to generate sulfur-centered radicals, and the corresponding radical reactions provide a novel approach to the construction of S—S, P—S and C—S bonds. These reactions can be performed under mild conditions without the use of toxic reagents, transition metals and strong oxidants. In this review, the recent progress in the construction of S—S, P—S and C—S bonds involving O_2-initiated sulfur-centered radicals is introduced on the basis of different reaction types.

Zhao, Xi; Ou, Yingcong; Liu, Yan; Maruoka, Keiji; Chen, Qian*

Chin. J. Org. Chem. **2021**, *41*(9), 3366

CONTENT

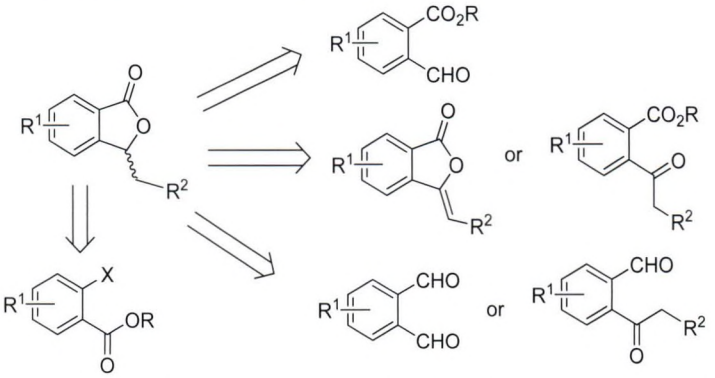
Recent Advances on Carbonylation of 1,3-Dienes



The progress of carbonylation of 1,3-dienes (especially 1,3-butadiene) to construct high value-added chemicals is reviewed, then the difficulties and future development of this method are prospected.

Wang, Peng*; Yang, Da; Liu, Huan
Chin. J. Org. Chem. **2021**, *41*(9), 3379

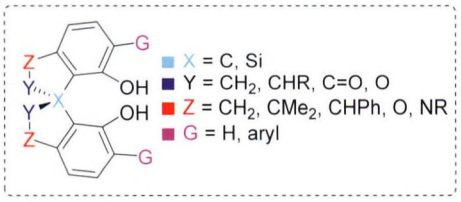
Progress in the Synthesis of 3-Substituted Phthaides



The recent progress in the synthesis of phthalides is reviewed. The main methods include an aldol/lactonization cascade reaction of 2-acylbenzoates, a reduction/lactonization reaction of 2-acylbenzoates or 3-alkylideneisobenzofuran-1(3*H*)-one, and an intramolecular redox reaction of acylbenzaldehyde.

Li, Quancheng; Jiang, Lan; Bai, Rui; Han, Yongkang; Li, Zhengning*
Chin. J. Org. Chem. **2021**, *41*(9), 3390

Construction of Spiro Skeletons in 2,2',3,3'-Tetrahydro-1,1'-spirobi[1*H*-indene]-7,7'-diol (SPINOL) and Analogues



The synthetic methods of 2,2',3,3'-tetrahydro-1,1'-spirobi[1*H*-indene]-7,7'-diol (SPINOL) and analogues in the past 20 years, including those bearing heteroatoms in the spiro skeleton, are summarized.

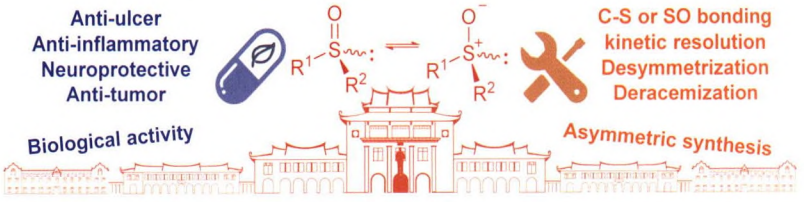
Zhao, Qihang; Tang, Longchang; Jiao, Peng*
Chin. J. Org. Chem. **2021**, *41*(9), 3400

Recent Advances in the Oxidative Coupling Reaction of Enol Derivatives

The oxidative coupling reaction of enol derivatives has been developed rapidly in the field of synthetic methodology and the total synthesis of natural products. These advances in methodologies and its applications in the total synthesis of natural products in the last decades are mainly summarized.

Chen, Wei; Liu, Qiang*
Chin. J. Org. Chem. **2021**, *41*(9), 3414

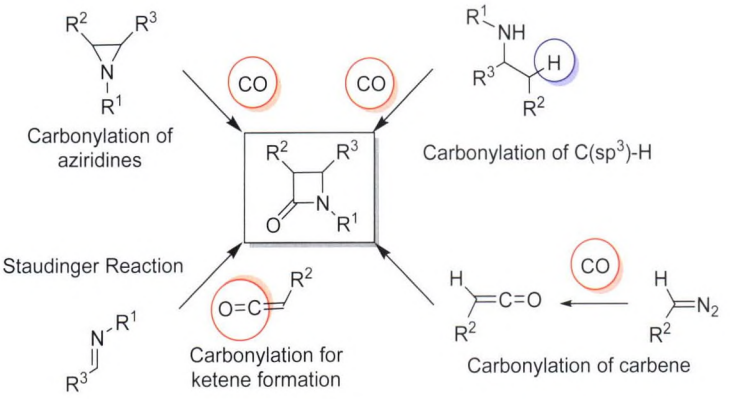
Progress on Biological Activity Study and Enantioselective Synthesis of Sulfoxides



Zhu, Haimeng; Wang, Chao*; Zong, Lili*
Chin. J. Org. Chem. **2021**, *41*(9), 3431

This review addresses the biological activities of sulfoxides and recent representative accomplishments in asymmetric synthesis of chiral sulfoxide.

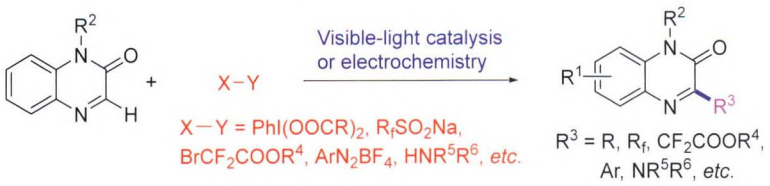
Recent Advances on the Synthesis of β-Lactams by Involving Carbon Monoxide



Wang, Peng*; Yang, Da; Liu, Huan
Chin. J. Org. Chem. **2021**, *41*(9), 3448

The carbonylation of different substrates with carbon monoxide (CO) to synthesize β-lactams in recent years is reviewed, and the existing problems and future development of this strategy are prospected.

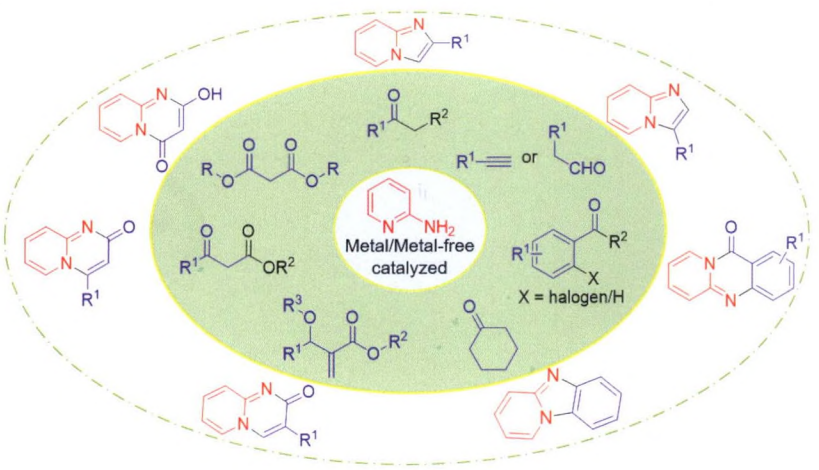
Application of Photochemical/Electrochemical Synthesis in C—H Functionalization of Quinoxalin-2(1*H*)-one



Liu, Xiang*; Li, Wen; Zhuang, Canzhan; Cao, Hua
Chin. J. Org. Chem. **2021**, *41*(9), 3459

In recent years, the construction of 3-functionalized quinoxalin-2(1*H*)-one by C—H functionalization has attracted the attention of many scholars and made important progress. Among them, green chemistry oriented photocatalysis and electrochemical synthesis are becoming powerful tools for C—H functionalization of quinoxaline-2(1*H*)-one.

Application of 2-Aminopyridines in the Synthesis of Five- and Six-Membered Azaheterocycles

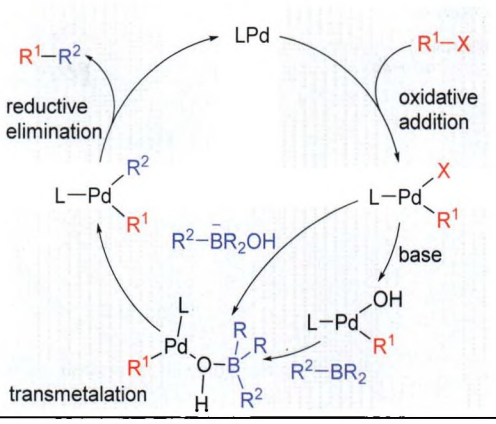


Chen, Qi; Chen, Sihong; Wu, Hanqing; Zeng, Xiaoqing; Chen, Weiqing; Sun, Guoxing*; Wang, Zhaoyang*
Chin. J. Org. Chem. **2021**, *41*(9), 3482

General protocols to synthesize heterocycles from 2-aminopyridines have been summarized.

CONTENT

Research Progress of Suzuki-Miyaura Cross-Coupling Reaction Mechanism

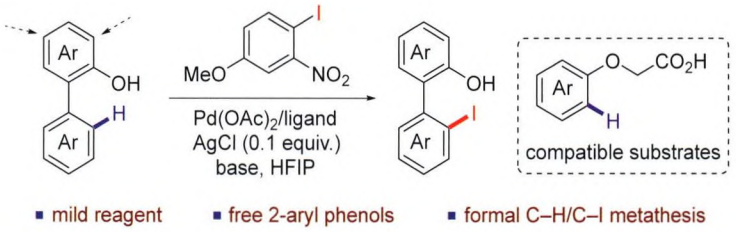


The recent progress of mechanism studies is summarized and discussed. The steps of oxidative addition, transmetalation and reductive elimination are discussed in detail. Moreover, a brief introduction of transition-metal-free and base-free Suzuki-Miyaura cross-coupling reactions which show more possibilities of the reaction mechanism is given.

Zhang, Lei; Yang, Chen; Guo, Xuefeng*; Mo, Fanyang*
Chin. J. Org. Chem. **2021**, *41*(9), 3492

ARTICLES

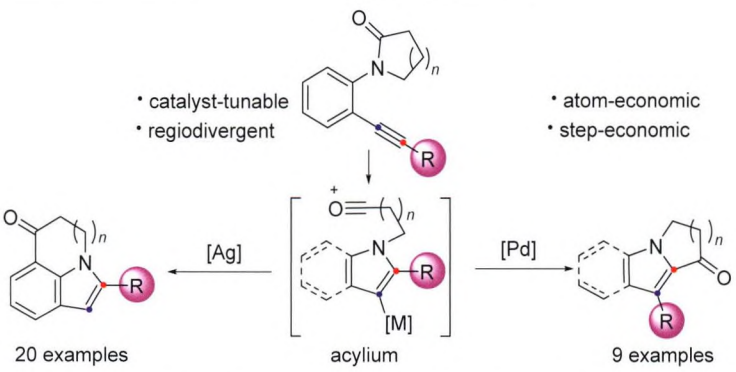
Site-Selective C—H Iodination of Phenol Derivatives Using Aryl Iodide as Iodinating Reagent



A Pd(II)-catalyzed C—H iodination of free 2-aryl phenols and 2-phenoxyacetic acids using 4-iodo-3-nitroanisole as the mild iodinating reagent was reported. Excellent site-selectivity and good functional group tolerance were obtained with a range of electron rich phenol derivatives.

Zhang, Tao; Li, Shangda*; Zhou, Chunlin; Wang, Xinchao; Zhang, Meng; Gao, Zezhong; Li, Gang*
Chin. J. Org. Chem. **2021**, *41*(9), 3511

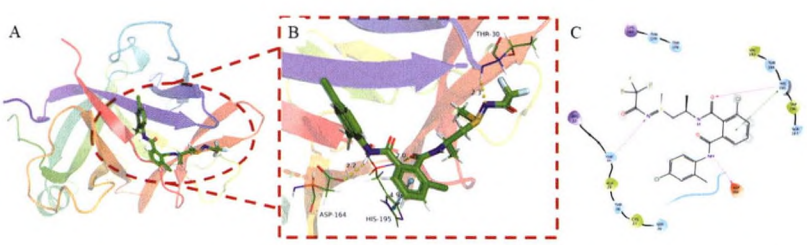
Divergent Synthesis of Ketone-Fused Indoles/Pyrroles via Metal-Guided Friedel-Crafts Cyclization



A metal-guided method for divergent synthesis of ketone-fused indoles/pyrroles from *N*-(2-alkynylaryl) lactam is described. The reaction is proposed to proceed through a regioswitchable Friedel-Crafts cyclization of acylium.

Luo, Hejiang; Cao, Tongxiang*; Zhu, Shifa*
Chin. J. Org. Chem. **2021**, *41*(9), 3521

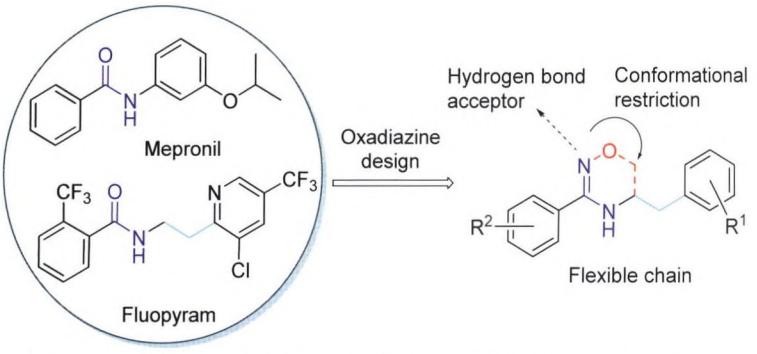
Synthesis and Insecticidal Activities of Novel Optically Active Dicarboxamides Containing *N*-Trifluoroacetyl Sulfulimiyl Substituents



To explore new structures acting on RyR, a series of new dual chiral *N*-$COCF_3$ sulfiliminyl derivatives were designed and synthesized. Their insecticidal activities against oriental armyworm (*Pseudaletia separata* Walker) were evaluated and the structure-activity relationships were summarized. The bioactivity revealed that some compounds showed favourable insecticidal activities against oriental armyworm.

Zhou, Sha*; Wang, Mukuo; Xie, Weibin; Zhou, Shaa; Xiong, Lixia; Zhao, Yu*; Li, Zhengming*
Chin. J. Org. Chem. **2021**, *41*(9), 3532

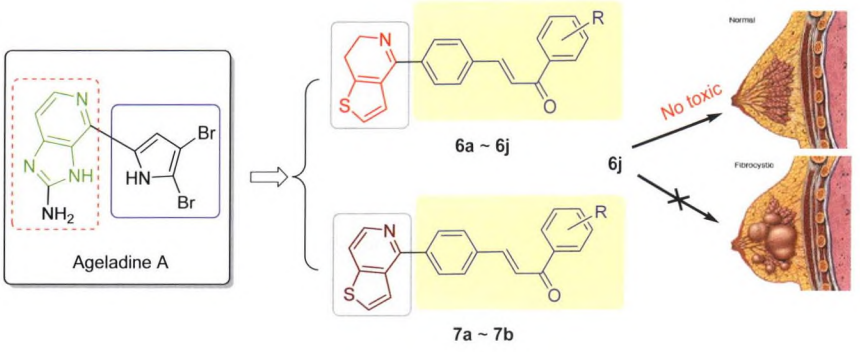
Design and Synthesis of 1,2,4-Oxadiazine Derivatives as Promising Fungicide and Insecticide Lead Compound



Based on the general framework of marketed succinate dehydrogenase inhibitors, twenty-four 1,2,4-oxadiazine compounds were designed and synthesized. The bioactivity test results showed that most of compounds exhibited good activities against *Pseudoperonospora cubensis* at 400 mg/L. In addition, the oxadiazine compounds have a 100% mortality against armyworms at 600 mg/L.

Zhang, Letian; Su, Jiayuan; Xu, Xiaoyong*
Chin. J. Org. Chem. **2021**, *41*(9), 3539

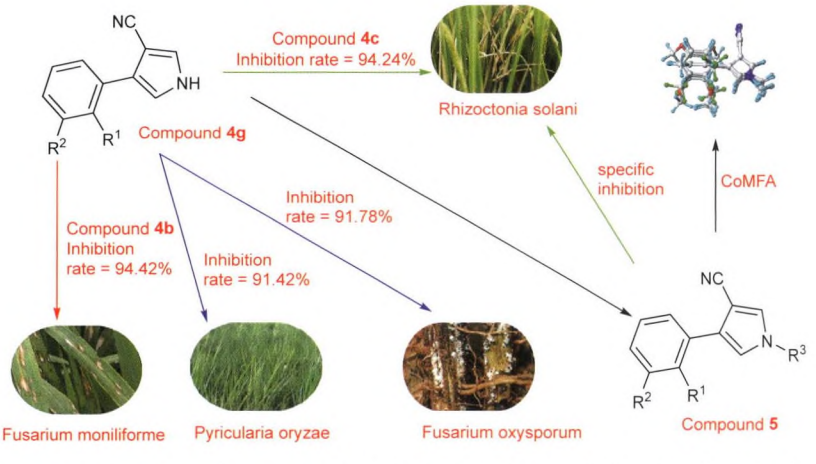
Synthesis and Evaluation *in vitro* of Dihydrothiophenopyridine-Chalcone Derivatives as Anticancer Activity Agents



The amide intermediates **5a**～**5j** were prepared by acylation, which used 2-thiopheneethylamine and several self-synthetic chalcone acids as starting materials. Then ten dihydrothiophenopyridine-chalcone derivatives **6a**～**6j** were synthesized by Bischer-Napieralski cyclization reaction from the intermediates. In addition, two new thiophenopyridine-chalconone derivatives **7a** and **7b** were obtained by further dehydrogenation. The anti-cancer activity and safety *in vitro* of 11 kinds of cells were evaluated by methyl thiazolyl tetrazolium (MTT) assay.

Liu, Xin; Xu, Runmei; Wang, Lin; Liu, Yaxue; Chen, Zhihao; Qin, Wei; Tian, Yushun*
Chin. J. Org. Chem. **2021**, *41*(9), 3550

Synthesis, Design and Three-Dimensional Quantitative Structure Activity Relationship (3D-QSAR) Research of Phenylpyrrole Fungicides

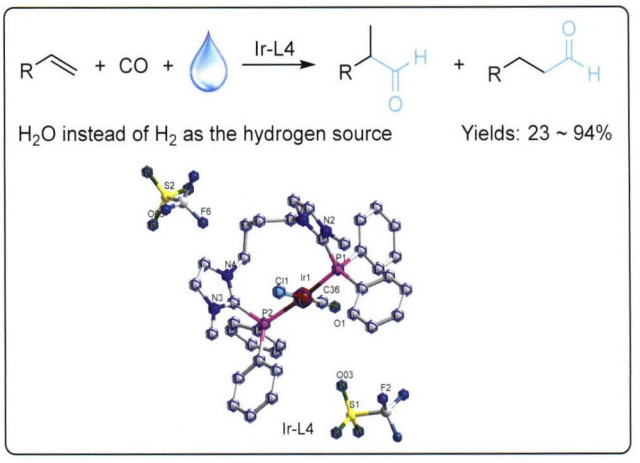


Twenty one phenylpyrrole compounds **4a**～**4k**, **5a**～**5j** were designed and synthesized. The biological activity test results show that compound **4** has excellent inhibitory effects on four pathogens, while compound **5** has obvious inhibitory effect on *Rhizoctonia solani*. A CoMFA model (q^2=0.503, r^2=0.974) was established, which showed good predictive ability, and also provided theoretical support for the further optimization of this series of compounds.

Xu, Hongliang; Su, Jing; Wang, Zishi*; Hou, Chenxin; Wu, Pengchong; Xing, Yue; Li, Xiangshuai; Zhu, Xiaolei; Lu, Yuncai*; Xu, Lijian
Chin. J. Org. Chem. **2021**, *41*(9), 3560

CONTENT

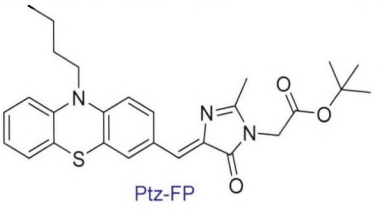
Novel Ir-Complexes for Hydroformylation of Olefins with H_2O as the Hydrogen Source

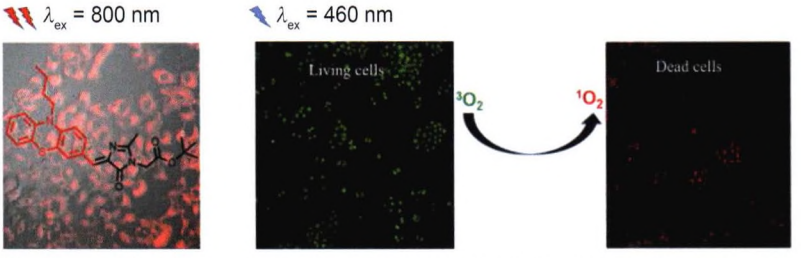


The hydroformylation of olefins with H_2O as the hydrogen source could effectively promote by **Ir-L4** complex which contained the ionic bi-dentate phosphines **L4** with a strong π-accepting ability ($^1J^{31}P\text{-}^{77}Se$=781 Hz). The yields of aldehydes were 23%~94%, and the side reaction of olefin hydrogenation could be almost completely inhibited.

Liu, Huan; Lin, Xufeng*; Yang, Da*
Chin. J. Org. Chem. **2021**, *41*(9), 3571

Synthesis, S Atom Promoted Photodynamic Therapy and Two-Photon Fluorescence Imaging of Phenothiazine Fluorescent Protein Chromophore Analogue





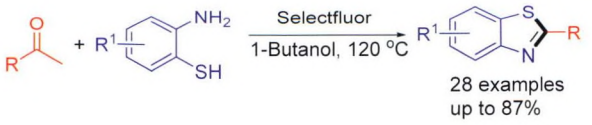
Fluorescence imaging guided PDT

- A novel Ptz-FP photosensitizer with singlet oxygen for 33.1%
- S atom to improve intersystem crossing
- Low dark toxicity (89.9%) and high photo toxicity (IC_{50} = 3 μmol/L)
- Red emission (626 nm)
- Two photon fluorescence imaging

A new phenothiazine-fluorescent protein chromophore (Ptz-FP) photosensitizer was synthesized by [2+3] cycloaddition reaction. Ptz-FP was a heavy-atom free photosensitizer that promoted by S atom and showed excellent singlet oxygen generation which can be used in photodynamic therapy. Ptz-FP was successfully used in two-photon fluorescence imaging and simulated photodynamic therapy in A-549 cells.

Xiang, Wenhui; Zhang, Lei; Zhi, Xu; Qian, Ying*
Chin. J. Org. Chem. **2021**, *41*(9), 3578

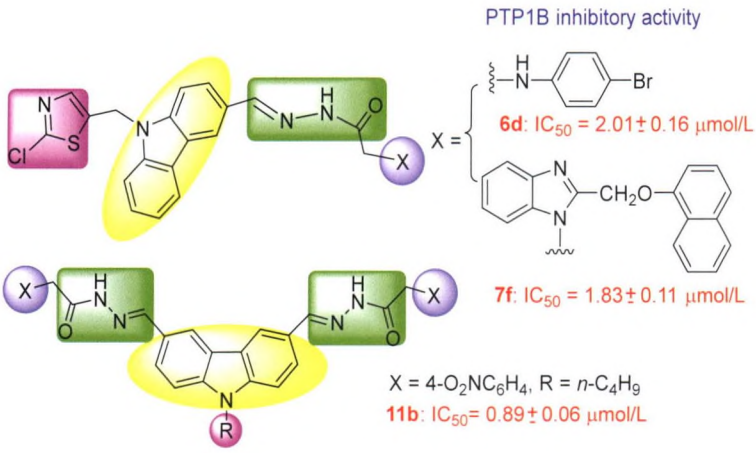
A New Method for the Synthesis of 2-Arylbenzothiazoles Oxidized by Selectfluor



2-Arylbenzothiazoles were effectively synthesized via the oxidation by Selectfluor, using 2-arylbenzothiazoles and aryl methyl ketones as starting materials. Bioactive pharmaceutical intermediates were obtained by selecting substituents on the ring of aryl methyl ketones.

Fu, Qinjiao; Zhang, Ruiqin; Qiu, Huanyi; Ma, Renchao*; Ma, Yongmin*
Chin. J. Org. Chem. **2021**, *41*(9), 3585

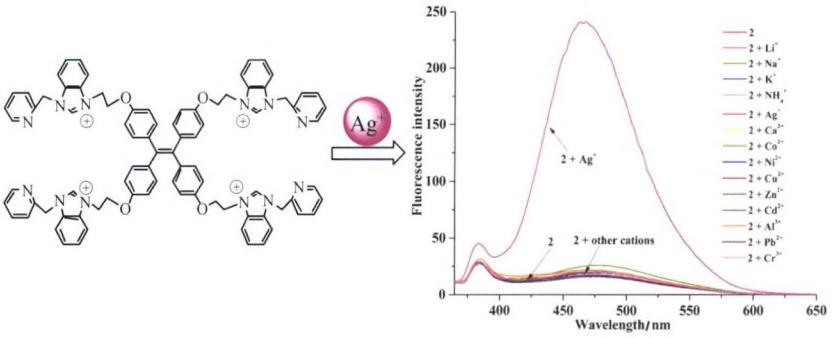
Synthesis and Protein Tyrosine Phosphatase 1B (PTP1B) Inhibitory Activity Evaluation of Novel *N*-Acylhydrazone Derivatives Containing Carbazole and Aromatic Ring/Aromatic Fused Heterocycle



Li, Yingjun*; Lin, Ledi; Liu, Jihong; Gao, Lixin; Sheng, Li; Jin, Kun; Liu, Xuejie; Yang, Hongjing; Li, Jia*
Chin. J. Org. Chem. **2021**, *41*(9), 3593

In order to find more efficient and low toxicity protein tyrosine phosphatase 1B (PTP1B) inhibitors, a series of novel *N*-acylhydrazone derivatives containing carbazole and aromatic ring/aromatic fused heterocycle **6**~**8** and **11** were designed and synthesized. The inhibitory activities of all the target compounds against PTP1B were evaluated. The experimental results indicated that all the target compounds had potent inhibitory activity against PTP1B. Among them, *N*,*N*′-[(9-butylcarbazolyl)-3,6-dimethylene]-2,2′-[di(4-nitrophenylamino)]bisacetohydrazide (**11b**) had the highest inhibitory activity against PTP1B with IC_{50} of (0.89±0.06) μmol/L.

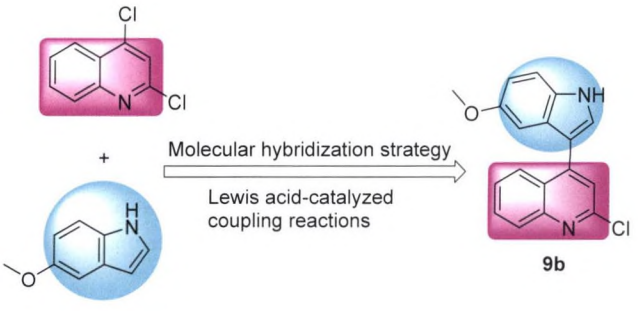
Tetraphenylethylene-Based Tetradentate Azolium Salts: Synthesis and Selective Recognition for Ions



Li, Xinying; Zhao, Zhixiang; Hu, Linhai; Wei, Dengche; Liu, Qingxiang*
Chin. J. Org. Chem. **2021**, *41*(9), 3608

Two new tetraphenylethylene-based tetradentate azolium salts have been synthesized and characterized, and their recognitions to ions were studied.

Design, Synthesis and Anticancer Activity Studies of Novel Quinoline-Indole Derivatives



Wang, Shenghui; Guan, Yongfeng; Liu, Xiujuan; Yuan, Xinying; Yu, Guangxi; Li, Yinru; Zhang, Yanbing; Song, Jian*; Li, Wen*; Zhang, Saiyang*
Chin. J. Org. Chem. **2021**, *41*(9), 3617

A series of novel quinoline-indole derivatives were designed and synthesized by molecular hybridization strategy and Lewis acid-catalyzed coupling reactions. 2-Chloro-4-(5-methoxy-1*H*-indol-3-yl)quinoline (**9b**) exhibited potent inhibitory activity against MGC-803, HCT-116 and Kyse450 cells with IC_{50} values of 0.58, 0.60 and 0.68 μmol·L^{-1}, respectively. Compound **9b** down-regulated the levels of apoptosis related proteins, induced an intrinsic apoptosis in MGC-803 and HGC-27 cells and arrested MGC-803 and HGC-27 cells at the G2/M phase.

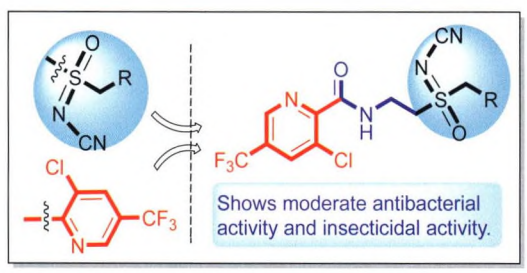
CONTENT

Direct Assembly of Polysubstituted Benzenes via Base-Catalyzed Benzannulation Reaction of α-Cyano-β-methylalkenyl-(hetero)aryl Ketones

A mild and transition-metal free method for rapid construction of benzene frameworks has been developed. Under the catalysis of 10 mol% Cs_2CO_3, a variety of α-cyano-β-methylalkenyl(hetero)aryl ketones undergo [4+2] annulation with different dialkyl butynedioates efficiently to produce 1,2-diesteryl-3-(hetero)aryl-4-cyanobenzene derivatives in 62%~94% yields.

An, Yi; Zhang, Fang; Cai, Zhihua; Du, Guangfen*
Chin. J. Org. Chem. **2021**, *41*(9), 3625

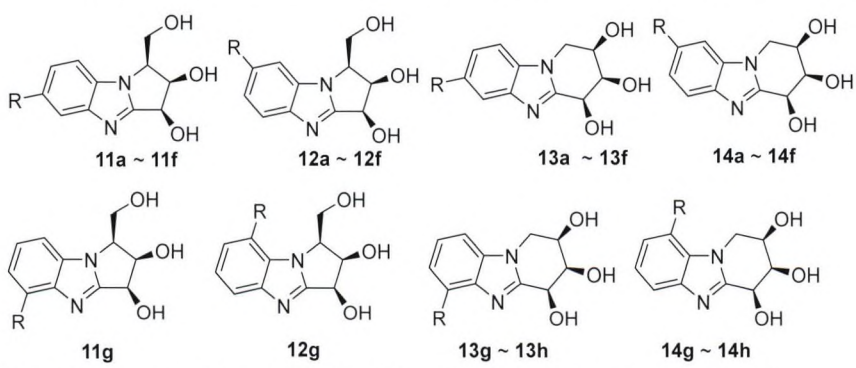
Synthesis and Biological Activity of *N*-Cyano Sulfonimide Derivatives Bearing Trifluoromethyl Pyridinamide



A series of novel *N*-cyano sulfonyimide derivatives containing trifluoromethyl pyridinamide were designed and synthesized by combination method of active substructure. Their antibacterial activity against *Xanthomonas axonopodis pv. citri* (*Xac*), *Ralstonia solanacearum* (*R solanacearum*), *Xanthomonas oryzae pv. oryzae* (*Xoo*) and insecticidal activity on *Plutella xylostella* (*P. xylostella*) were investigated.

Dai, Ali; Zhang, Renfeng; Li, Chuanhui; Yu, Lijiao; Wang, Ya; Wu, Jian*
Chin. J. Org. Chem. **2021**, *41*(9), 3633

Structural Modification of Benzimidazole-Iminosugars and Their Inhibitory Activities against β-Glycosidases

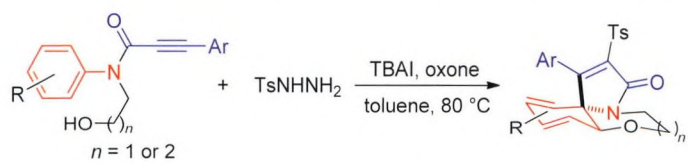


a: R = F, **b**: R = Cl, **c**: R = Br, **d**: R = CF_3, **e**: R = OCH_3, **f**: R = CH_3, **g**: R = Cl, **h**: R = CH_3

Thirty novel fused tricyclic iminosugar derivatives were synthesized with mono substituent on the different positions on phenyl ring. Compound **13e** and the mixture of **13f** and **14f** exhibited significantly inhibitory activities against β-glucosidase with IC_{50} values of 0.49 and 0.25 μmol/L, respectively.

Li, Fengxing; Lu, Xin; Liu, Xu; Su, Lulu; Li, Xiaoliu; Chen, Hua*
Chin. J. Org. Chem. **2021**, *41*(9), 3643

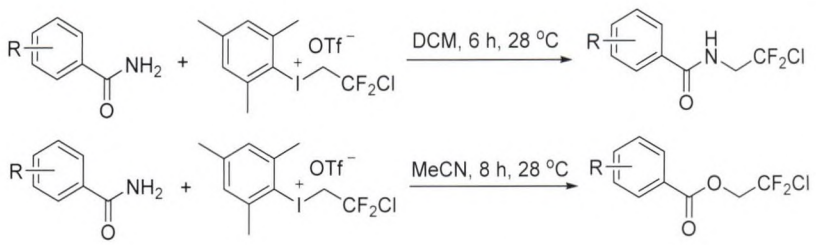
Arylsulfonylative *spiro*-Tricyclization of *N*-Hydroxylethyl-*N*-arylpropiolamides



A facile procedure was reported for the synthesis of various 1-phenyl-2-tosyl-5,6-dihydrobenzo[*b*]pyrrolo[2,1-*c*][1,4]oxazin-3(7a*H*)-one via a radical arylsulfonylation-induced *ipso* cyclization-*ortho* cyclization sequence of *N*-hydroxylethyl-*N*-arylpropiolamides in the presence of tetra-*n*-butylammonium iodide (TBAI) and oxone. The radical cyclization sequence involves a sulfonyl radical α-addition into the alkyne, *ipso*-cyclization, and *ortho*-trapping of the spirocyclic intermediate.

Ren, Shangfeng; Wang, Yuchao; Liu, Jinbiao*; Qiu, Guanyinsheng*
Chin. J. Org. Chem. **2021**, *41*(9), 3652

Study on the Selective Difluorochloroethylation Reactions of Amides with Hypervalent Iodine Reagent



The selective synthesis of N-CH_2CF_2Cl and O-CH_2CF_2Cl derivatives of amides was realized by the reaction of chlorodifluoroethyl hypervalent iodine reagent and amides. Compared with traditional methods, the target product can be obtained only by controlling the solvent system of the reaction without additives, which is very favorable for the derivatization of the reaction.

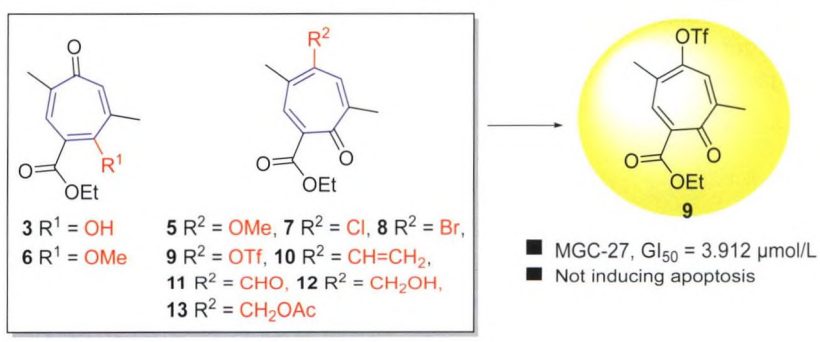
Yan, Tingxun; Chen, Chao*; Wen, Lirong*
Chin. J. Org. Chem. **2021**, *41*(9), 3660

Efficient Oxidative Coupling of Isochroman with Primary Arylamines Catalyzed by Heterogeneous Ni-Containing Layered Double Oxide

An efficient heterogeneous catalytic system based on NiGa layered double oxide (Ni_3Ga-LDO) for the C—N coupling between isochroman and primary arylamines has been described. Various primary arylamines were tolerated by the catalytic system, and good to excellent yields for the corresponding coupled products could be obtained.

Qian, Junfeng; Tian, Xiaoting; Wu, Zhong; Yao, Jie; Wang, Hui; Zhou, Weiyou*
Chin. J. Org. Chem. **2021**, *41*(9), 3668

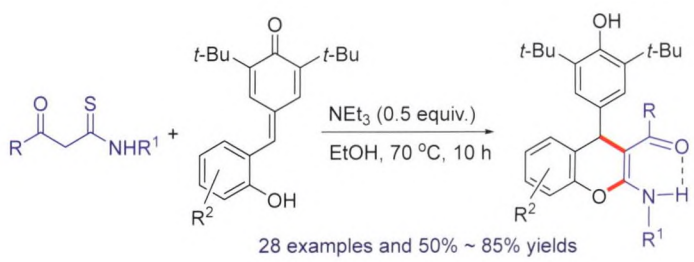
Synthesis and Bioactivity of Tropone Derivatives as Potential Compounds against Human Gastric Cancer Cells Growth



A series of tropone derivatives were synthesized based on application of the known strategy of Au-catalyzed oxidative ring expansion of six-membered rings. Tropone derivatives **3**, **9** and **10** displayed antiproliferative activity against human gastric cancer cells MGC-27. Additionally, preliminary study demonstrated that antiproliferative activity of **9** was not realized through the promotion of apoptosis of gastric cancer cells MGC-27.

Shao, Jiyan; Li, Zhijie; Wang, Yajun; Xiong, Yuyan*; Hu, Xiangdong*
Chin. J. Org. Chem. **2021**, *41*(9), 3675

NEt_3-Promoted Construction of Functionalized 4*H*-Chromenes via [4+2] Cycloaddition Reaction of *ortho*-Quinone Methides with β-Ketothioamides



A novel efficient method for the synthesis of highly substituted 4*H*-chromene derivatives by NEt_3-promoted annulation of β-ketothioamides (KTAs) and *ortho*-quinone methides (*o*-QMs) has been developed.

Nan, Guangming; Zhan, Jingbo; Yuan, Chunming; Wen, Lirong*; Li, Ming*
Chin. J. Org. Chem. **2021**, *41*(9), 3682

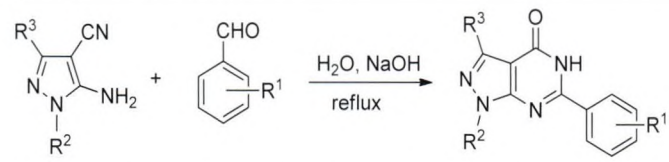
CONTENT

Synthesis of Mutisubstituted Dihydropyridino[1,2-*a*]benzimidazole Derivatives via Tandem Reaction of 2-Arylbenzimidazoles

A new one-pot method for the synthesis of dihydropyridino[1,2-*a*]benzimidazole derivatives has been developed. Under the mediation of base and oxidant, mutisubstituted dihydropyridino[1,2-*a*]benzimidazoles were obtained in 38%~85% yields and 4∶1 to > 25∶1 *d.r.* through a tandem intermolecular Michael addition/intramolecular Michael addition/oxidative dehydrogenation process of 2-arylbenzimidazoles.

Guo, Yuyu; Chen, Xiangjie; Li, Shiwu*; Cai, Zhihua; He, Lin*
Chin. J. Org. Chem. **2021**, *41*(9), 3692

An Efficient and Rapid Synthesis of 1*H*-Pyrazolo[3,4-*d*]pyrimidin-4(5*H*)-one in Water

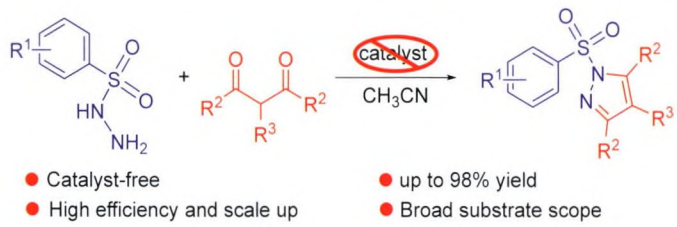


A clean, efficient and convenient method for the synthesis of 1*H*-pyrazolo[3,4-*d*]pyrimidin-4(5*H*)-ones in the presence of sodium hydroxide using water as media has been developed.

Su, Ziqi; Zhang, Qi; Zhao, Jieqiang; Zhao, Tao; Liu, Wenyi; Wang, Huiping; Xu, Juan*; Li, Jiarong*
Chin. J. Org. Chem. **2021**, *41*(9), 3701

NOTES

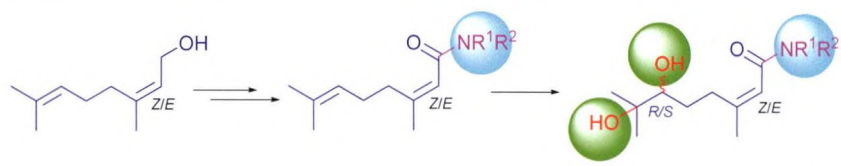
A Catalyst-Free One-Pot Protocol for the Construction of Substituted Sulfonyl Pyrazoles



A novel and efficient protocol for the construction of substituted pyrazoles from benzenesulfonohydrazides and pentane-2,4-diones under catalyst-free conditions was developed. This protocol features excellent tolerance to a variety of functional groups, step economy, simple operation with inexpensive reagents, mild reaction conditions, and can be scaled-up.

Ma, Haojie; Zhou, Xiaoqiang; Han, Bo; Li, Ran; Hou, Xueyan; Ji, Xingyue; Zhang, Yuqi*; Huang, Guosheng*; Wang, Jijiang
Chin. J. Org. Chem. **2021**, *41*(9), 3710

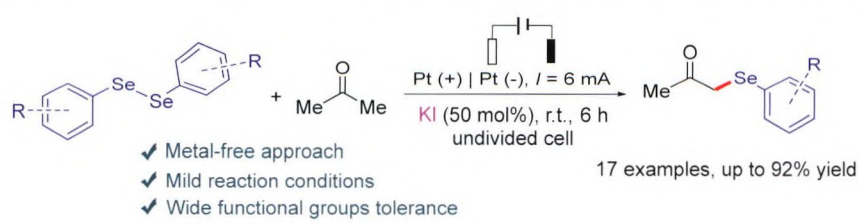
Synthesis and Fungicidal Activity of Novel 3,7-Dimethylocta-2,6-dienamides and 3,7-Dimethyl-6,7-dihydroxyoct-2-enamides



A series of novel (*Z*/*E*)-3,7-dimethylocta-2,6-dienamides and (2*Z*/2*E*,6*R*/6*S*)-3,7-dimethyl-6,7-dihydroxyoct-2-enamides were designed and synthesized. Their *in vitro* and *in vivo* fungicidal activities were evaluated against several phytopathogens.

Wang, Weiwei; Li, Yihao; Liu, Xinlei; Zhao, Yu; Wang, Mingan*
Chin. J. Org. Chem. **2021**, *41*(9), 3717

Electrochemical Oxidated-Iodide Promoted α-H Aryl(alkyl)selenation of Acetone for the Preparation of α-Aryl(alkyl)selenoacetones

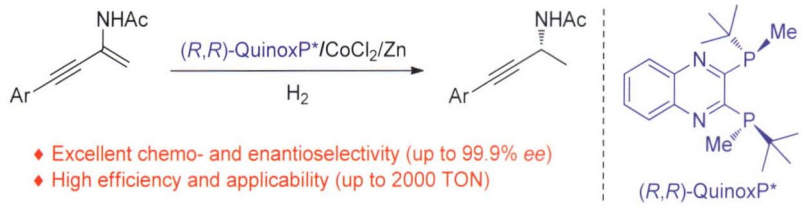


A new route to α-aryl (alkyl) selenoacetones via the electrochemical oxidated iodide promoted α-H aryl(alkyl)selenation of acetone by using stable and easy available diaryl(alkyl)diselenides as selenide reagent is reported.

Yi, Rongnan; Liu, Dongxian; Wu, Qilin; Zhao, Mingming; Wang, Yong*; Wang, Zheng*
Chin. J. Org. Chem. **2021**, *41*(9), 3726

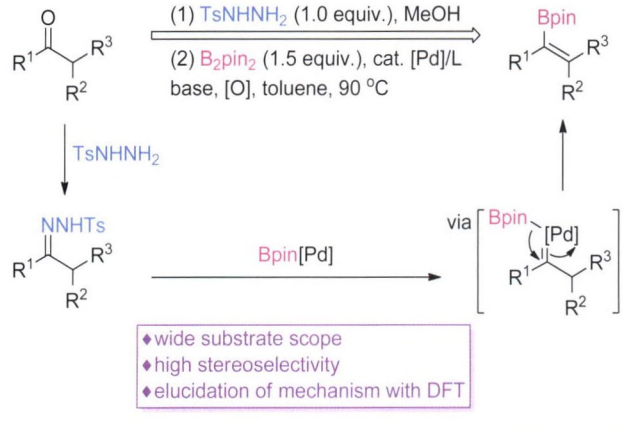
HIGHLIGHTS

Cobalt-Catalyzed Chemo- and Enantioselective Hydrogenation of Conjugated Enynes



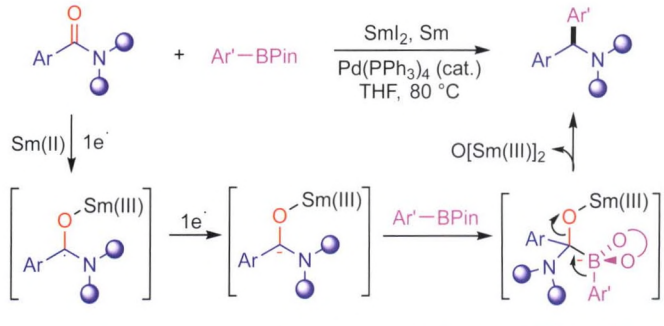
Wan, Feng; Tang, Wenjun*
Chin. J. Org. Chem. **2021**, *41*(9), 3733

Synthesis of Alkenylboronates via Pd-Catalyzed Carbene Migration Insertion



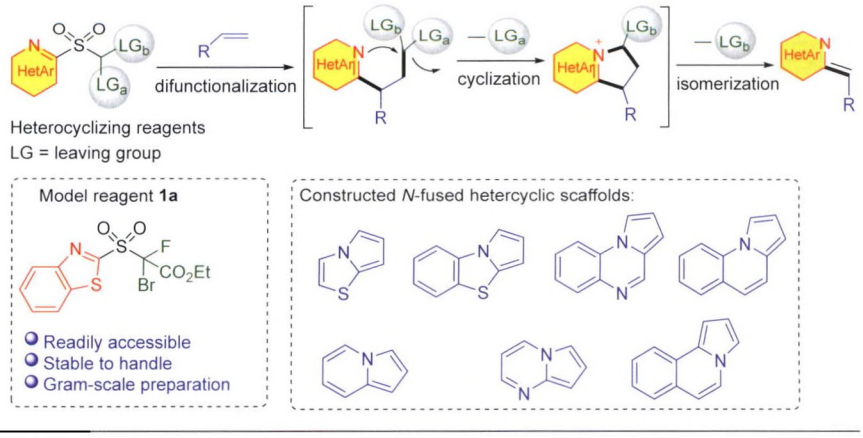
Wang, Zikun; Wang, Ya; Bi, Xihe*
Chin. J. Org. Chem. **2021**, *41*(9), 3736

SmI_2/Sm-Arylboronic Esters Combination for the Reductive Arylation of Aromatic Tertiary Amides



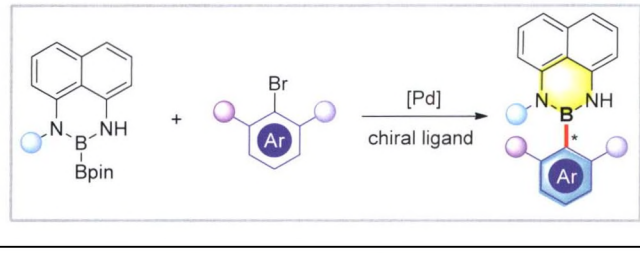
Wang, Ai-E*; Huang, Pei-Qiang*
Chin. J. Org. Chem. **2021**, *41*(9), 3738

Heterocyclization Reagents for Rapid Assembly of N-Fused Heteroarenes from Alkenes



Ouyang, Xuanhui; Li, Jinheng*
Chin. J. Org. Chem. **2021**, *41*(9), 3740

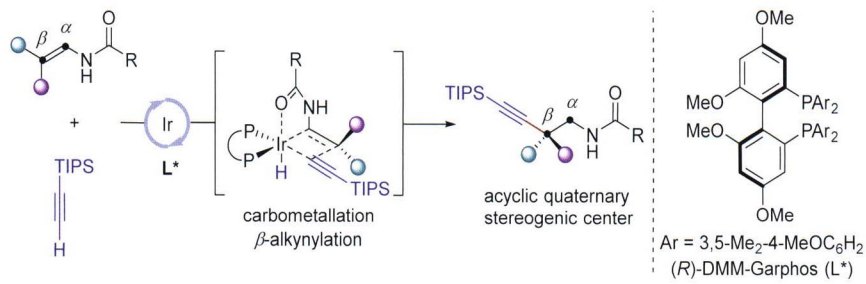
Catalytic Asymmetric Borylation to Construct Axially Chiral Arylborons



Zhang, Jian; Tan, Bin*
Chin. J. Org. Chem. **2021**, *41*(9), 3742

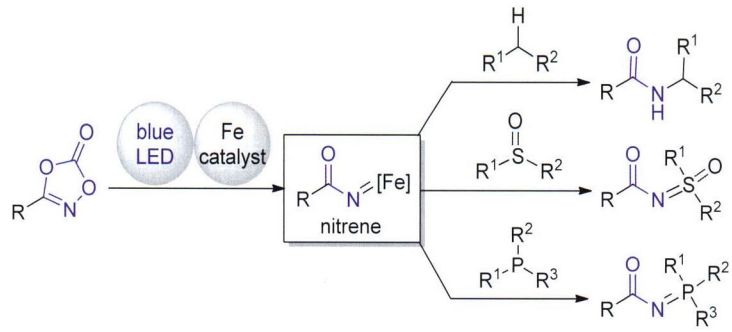
CONTENT

Ir-Catalyzed Regio- and Enantio-selective Hydroalkynylation of β,β-Disubstituted Enamides Forming Homopropargyl Amides Bearing a β-Quaternary Stereocenter



Jiang, Xiaoli; Zhu, Shaolin*
Chin. J. Org. Chem. **2021**, *41*(9), 3745

Visible-Light-Induced Iron Catalysis for Nitrene Transfer Reactions with Dioxazolones



Chen, Jiajia; Xia, Yuanzhi*
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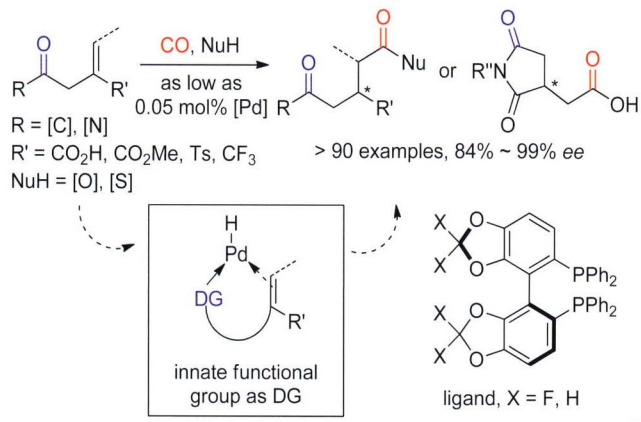
β-Carbonyl-Directed Asymmetric Alkoxy- and Hydroxy-carbonylation of Functionalized Alkenes



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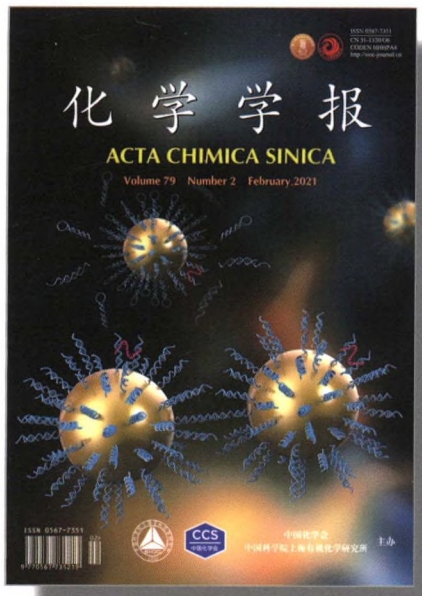

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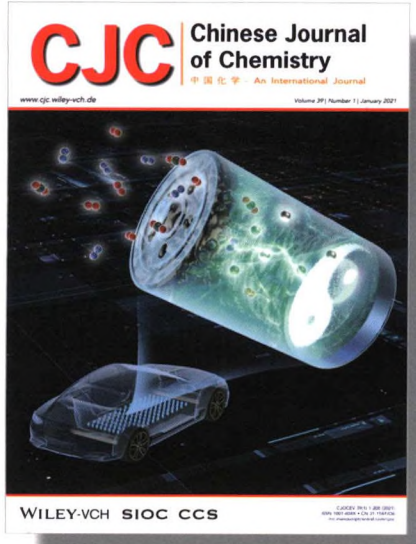

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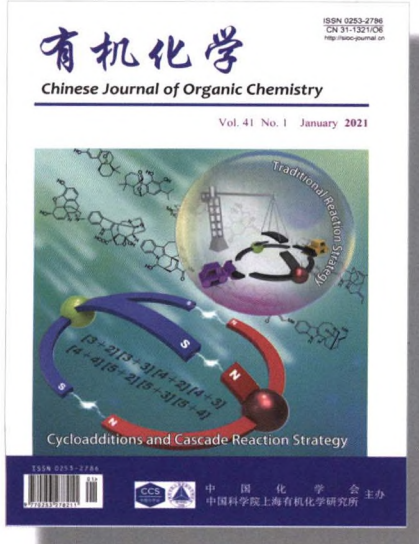

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