

目次

综述与进展

- 傅-克酰基化反应的机理及动力学研究进展.....黄志良 靳立群 雷爱文\* (775)
- 联苯类化合物的合成.....李文燕 赵冬梅\* 熊绪琼 马倩倩 程卯生 (784)
- 环糊精衍生物在液相有机合成中的应用.....沈海民 纪红兵\* (791)
- 芳香化合物氧化溴化研究进展.....张国富 王涌 丁成荣\* 刘仁华 梁鑫淼 (804)

研究论文

- 不需加催化剂在纯水相介质中进行芳香醛与5,5-二甲基-1,3-环己二酮的缩合反应.....张岩 程梅园 商志才\* (814)
- 硫代杯[8]芳烃衍生物的合成及其对金属离子的选择性识别研究.....李春斌 岳玉莲 刘宝全 范圣第\* (819)
- 含1,3,4-噁二唑和1,3,4-噻二唑的硫醚类化合物的合成.....武现丽 朱春风 吕志丹 魏成事 廖新成\* (824)
- L-氨基酸席夫碱的无溶剂法合成及其结构表征.....由君 王鑫 刘波\* 陈艳琼 (832)
- 含反式环己烷结构的C-葡萄糖苷类SGLT2抑制剂的设计、合成与降血糖活性研究.....邵华 高云龙 楼袁媛 王玉丽 刘巍 徐为人 王建武 赵桂龙\* 汤立达\* (836)
- N-苯甲酰胺基取代的双咪唑马来酰亚胺类化合物的合成与荧光性质研究.....范梅 谢志雄 徐之涵 平冰 赵圣印\* (843)
- 双季铵盐稳定的纳米钯催化Suzuki反应的研究.....周波 李毅群\* (850)
- 3-取代-4(3*H*)-喹唑啉酮在酸性离子液体中的一锅法、微波辅助合成.....李心忠\* 林棋 吾满江·艾力 (855)

研究简报

- 无催化剂条件下微波辐射一步法合成2-氨基-4-芳基-5-氧代-5,6,7,8-四氢-4*H*-苯并吡喃-3-腈.....栾长军 王建强 张国华 王伟 唐拾贵 郭成\* (860)

\* 通讯联系人.

2-氟基-3-取代胺基-3-[2-(4-氟苯基)-乙胺基]丙烯酸乙酯类化合物的合成及生物活性研究.....	周进康* 宋宝安 薛伟 金林红 千正洋	(865)
无溶剂条件下“一锅法”催化合成胺基烷基萘酚衍生物.....	宋志国* 赵爽 万鑫	(870)
树状分子胺催化的 Henry 反应研究.....	易兵* 张阳 束晓马 杨艳 杜文乐 刘展鹏	(874)
偏钒酸铵催化合成 2-芳基取代苯并噻唑.....	肖立伟	(878)
1,5-二取代六氢三嗪-2- <i>N</i> -硝基亚胺的合成和杀虫活性的测定.....	薛思佳* 马旭波 步洪飞	(881)
鱼藤酮脂肪酸酯的合成和生物活性.....	叶姣 彭俊梅 胡艾希* 王超 邹孟 欧晓明	(886)
5-噻啶基-1,2,4-噁二唑衍生物的合成及生物活性研究.....	黄统辉 涂海洋* 刘名 侯昌健 张爱东*	(891)
微波辐射下 2-硝基苄与芳香醛的 Knoevenagel 反应.....	胡卫兵* 冯 駉 黎云攀 周红艳 王 辉 田大昕	(897)
4-苯氨基唑啉类衍生物的合成、表征及晶体结构.....	严和平 欧阳贵平*	(901)
Boc 或 Cbz 保护的 <i>L</i> -脯氨酸衍生物的稳定性的研究.....	王 闾 曹小辉 孙慧超 陈立功*	(908)
5,6-2 <i>H</i> -1,2,4-三唑[3,4- <i>b</i> ][1,3,4]噻二嗪衍生物的合成及抗癌活性测定.....	郑五国 薛伟* 郭晴晴 卢 平 王贞超 袁 凯	(912)
辣椒碱新同系物的合成、表征及辣构关系的初步探讨.....	王俊莲 周圣泽 彭争宏 周祥凤 张孝彬 彭必先*	(917)
Schiff 碱铁配合物催化环己烯环氧化.....	张付利* 汤 昆	(921)
<b>学术动态</b>		
亚砷类化合物的合成及应用进展.....	陈春玉* 李 毅 肖 英 朱 林 程长明 刘 杨	(925)
环硅氮烷的合成与应用研究进展(1)——环二硅氮烷.....	滕雅婧* 孙驰宇 盛永刚 王淑丽	(932)
亮点介绍.....		(946)

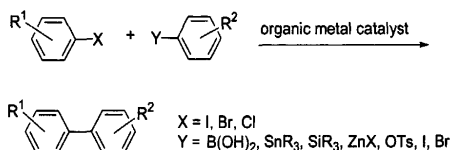
CONTENTS

Development of Mechanism Studies and Kinetic Investigations in Friedel-Crafts Acylation

Huang, Zhiliang; Jin, Liqun; Lei, Aiwen\*  
*Chin. J. Org. Chem.* **2011**, 31(6), 775

For the Friedel-Crafts acylation, the kinetic studies, the structure discussion and properties of the intermediate have been summarized. Basing on these studies, the possible mechanisms have been proposed and explained. According to the foregone results, a lot of indistinct doubts remain exist and the direction for the development of the kinetic and mechanism is put forward.

Synthesis of Biphenyls



Li, Wenyan; Zhao, Dongmei\*; Xiong, Xu-qiong; Ma, Qianqian; Cheng, Maosheng  
*Chin. J. Org. Chem.* **2011**, 31(6), 784

The construction of biphenyl bond plays an important role in organic synthesis. Three methods of construction of biphenyl bond are reviewed in this paper classified by reaction substrates.

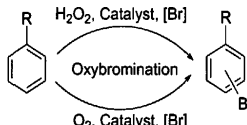
Application of Cyclodextrin Derivatives in Liquid-Phase Organic Synthesis

Shen, Haimin; Ji, Hongbing\*  
*Chin. J. Org. Chem.* **2011**, 31(6), 791

The application of cyclodextrin ( $\alpha$ -cyclodextrin,  $\beta$ -cyclodextrin and  $\gamma$ -cyclodextrin) derivatives in liquid-phase organic synthesis has been reviewed, especially as artificial enzymes, supramolecular photochirogeneses, dipolarophiles and microchannel reactors in oxidation, hydrolysis, reduction, photoisomerization, cycloaddition and so on. The cyclodextrin derivatives employed as artificial enzymes are used most widely in which the modifying groups play the role of the catalytic active site.

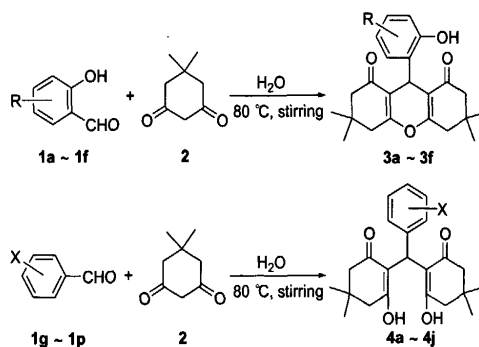
Recent Advances in Oxybromination of Aromatic Compounds

Recent researches on the oxybromination of aromatic rings, one of the most atom-economic protocols to obtain brominated aromatic compounds, are reviewed in this paper, which includes stoichiometric and catalytic ones. Hydrogen peroxide and oxygen, the best candidates for oxidants in the catalytic oxybromination, are discussed in detail.



Zhang, Guofu; Wang, Yong; Ding, Cheng-rong\*; Liu, Renhua; Liang, Xinmiao  
*Chin. J. Org. Chem.* **2011**, 31(6), 804

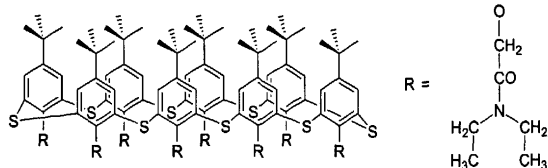
Condensation Reactions between Aldehydes and 5,5-Dimethyl-1,3-cyclohexanedione in Water without Catalyst



Zhang, Yan; Cheng, Meiyuan; Shang, Zhicai\*  
*Chin. J. Org. Chem.* **2011**, 31(6), 814

An efficient, green and convenient approach for the synthesis of xanthenedione derivatives from aldehydes and 5,5-dimethyl-1,3-cyclohexanedione in the absence of any catalyst by stirring in water is described. This method provides many advantages such as environmental friendliness, high yields and simple workup procedure.

Research on Synthesis of Thiocalix[8]-arene Derivative and Its Selective Recognition of Metal Ion

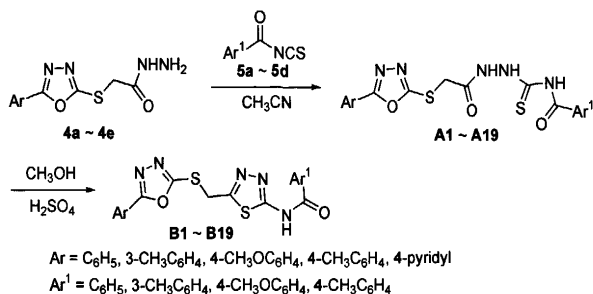


A new derivative matter amidothiocalix[8]arene [TC8A-CH<sub>2</sub>CON(CH<sub>2</sub>CH<sub>3</sub>)<sub>2</sub>] has been synthesized by modified the lower rims of *p*-*tert*-butylthiocalix[8]arene (TC8A) in acetone by using *p*-*tert*-butylthiocalix[8]arene and  $\alpha$ -chloro-*N,N*-diethyl-acetamide as substrate, and cesium carbonate as catalyst. The metal extraction properties of TC8A and amidothiocalix[8]arene from automotive catalyst residue solution containing platinum-group metal (PGM) cations have been investigated.

Li, Chunbin; Yue, Yulian; Liu, Baoquan; Fan, Shengdi\*

*Chin. J. Org. Chem.* 2011, 31(6), 819

Synthesis of Sulfur Ethers Containing 1,3,4-Oxadiazole and 1,3,4-Thiadiazole

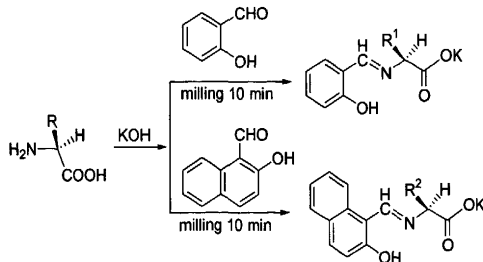


The biacyl thiosemicarbazide derivatives **A1**~**A19** were synthesized by the reaction of corresponding compounds **4a**~**4e** with aroyl isothiocyanates **5a**~**5d**. The target compounds **B1**~**B19** were prepared by cyclization of compounds **A1**~**A19** in the presence of CH<sub>3</sub>OH/H<sub>2</sub>SO<sub>4</sub>.

Wu, Xianli; Zhu, Chunfeng; Lü, Zhidan; Wei, Chengshi; Liao, Xincheng\*

*Chin. J. Org. Chem.* 2011, 31(6), 824

Solvent-Free Synthesis and Characterization of *L*-Amino Acids Schiff Bases

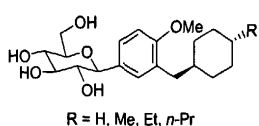


A new solvent-free method was described for the synthesis of *L*-amino acids Schiff bases by the reactions of *L*-alanine, *L*-serine, *L*-valine, *L*-leucine, *L*-isoleucine, *L*-phenylglycine, *L*-phenylalanine with salicylaldehyde or 2-hydroxy-1-naphthaldehyde, respectively, in the present of KOH at the room temperature.

You, Jun; Wang, Xin; Liu, Bo\*; Chen, Yanqiong

*Chin. J. Org. Chem.* 2011, 31(6), 832

Design, Synthesis and Anti-hyperglycemic Activity of *trans*-Cyclohexane-Bearing C-Glucosides as SGLT2 Inhibitors



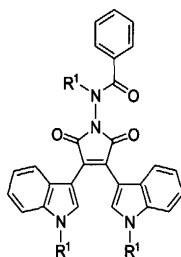
A series of *trans*-cyclohexane-bearing C-glucosides were designed and synthesized as SGLT2 inhibitors, with the key step being the region-selective Friedel-Crafts alkylation of *trans*-cyclohexanecarbonyl chloride and 4-bromoanisole mediated by anhydrous aluminum chloride. All the synthesized compounds were characterized by <sup>1</sup>H NMR and HRMS techniques. Evaluation of these compounds by mice oral glucose tolerance test (OGTT) revealed that all the synthesized compounds **11a**~**11d** exhibited potent antihyperglycemic activity, with **11e** being more potent than the positive control dapagliflozin, which is a promising agent for the treatment of type 2 diabetes.

Shao, Hua; Gao, Yunlong; Lou, Yuanyuan; Wang, Yuli; Liu, Wei; Xu, Weiren; Wang, Jianwu; Zhao, Guilong\*; Tang, Lida\*

*Chin. J. Org. Chem.* 2011, 31(6), 836

### Synthesis and Fluorescence Properties of *N*-Benzamidobisindolylmaleimide Derivatives

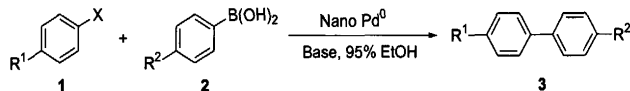
Fan, Mei; Xie, Zhixiong; Xu, Zhihan; Ping, Bing; Zhao, Shengyin\*  
*Chin. J. Org. Chem.* **2011**, *31*(6), 843



Five novel *N*-benzamidobisindolylmaleimide derivatives were designed and synthesized from succinimide by bromination, indole addition, hydrazine reaction, acylation, alkylation, and so on. Their ultraviolet, fluorescent properties and thermal behavior have been studied. The effect of structure of the compounds on fluorescent properties was also discussed.

### Suzuki Reaction Catalyzed by Nanopalladium Stabilized by Gemini Quaternary Ammonium Salt

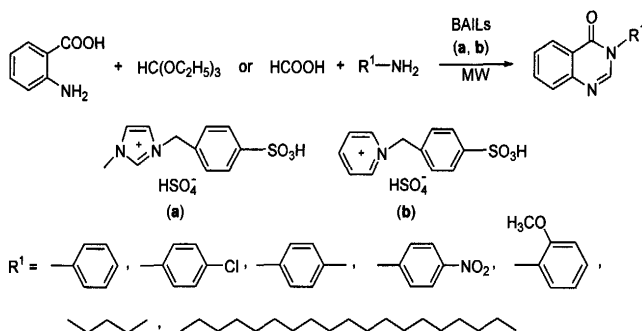
Zhou, Bo; Li, Yiqun\*  
*Chin. J. Org. Chem.* **2011**, *31*(6), 850



Palladium nanoparticles with the size ranged from 5 nm to 25 nm confirmed by transmission electron microscopy (TEM), generated *in situ* from the reaction of palladium(II) chloride and stabilized by Gemini quaternary ammonium salt, have been demonstrated to be an efficient catalyst for Suzuki carbon-carbon cross coupling reaction. A variety of aryl boronic acid and aryl halides have been proceeded smoothly to afford the corresponding biaryls in high yields by using palladium nanoparticles in the presence of potassium carbonate without any ligands.

### One-Pot Synthesis of 3-Substituted-4(3*H*)-quinazolinones in Acidic Ionic Liquids under Microwave Irradiation Conditions

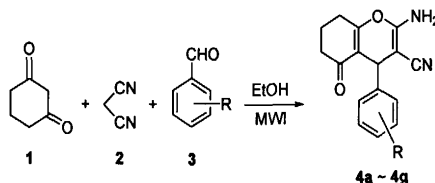
Li, Xinzhong\*; Lin, Qi; Eli, Wumanjiang  
*Chin. J. Org. Chem.* **2011**, *31*(6), 855



A rapid and efficient one-pot approach for the synthesis of 3-substituted-4(3*H*)-quinazolinones were developed. The reaction carried out in Brønsted acidic ionic liquids 1-(4-sulfonic)-benzyl-3-methylimidazolium hydrogen sulfate (a) and 1-(4-sulfonic)-benzyl pyridinium hydrogen sulfate (b) under microwave irradiation using anthranilic acid, triethyl orthoformate or formic acid and aromatic or aliphatic amines as starting materials. The reactions completed within 4~6 min with the yields of 74%~94%. The ionic liquids could be recovered easily and recycled three times without any significant loss in catalytic activity.

### One-Pot Synthesis of 2-Amino-4-aryl-5-oxo-5,6,7,8-tetrahydro-4*H*-chromene-3-carbonitriles under Microwave Irradiation without Catalyst

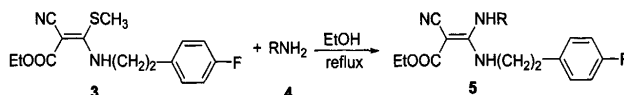
Luan, Changjun; Wang, Jianqiang; Zhang, Guohua; Wang, Wei; Tang, Shigui; Guo, Cheng\*  
*Chin. J. Org. Chem.* **2011**, *31*(6), 860



4a R = C<sub>6</sub>H<sub>5</sub>; 4b R = 4-CH<sub>3</sub>OC<sub>6</sub>H<sub>4</sub>; 4c R = 4-NO<sub>2</sub>C<sub>6</sub>H<sub>4</sub>; 4d R = 2,4-Cl<sub>2</sub>C<sub>6</sub>H<sub>3</sub>; 4e R = 2-FC<sub>6</sub>H<sub>4</sub>; 4f R = 3,4-F<sub>2</sub>C<sub>6</sub>H<sub>3</sub>; 4g R = 3-CH<sub>3</sub>C<sub>6</sub>H<sub>4</sub>

Compounds 4a~4g were prepared by using 1,3-cyclohexanedione, aromatic aldehydes and malononitrile in anhydrous alcohol under microwave irradiation without catalyst.

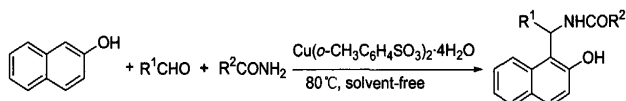
Synthesis and Bioactivity of Ethyl 2-Cyano-3-substituted-amino-3-[2-(4-fluorophenyl)-ethylamino]-acrylates



A series of ethyl 2-cyano-3-substituted-amino-3-[2-(4-fluorophenyl)-ethylamino]-acrylates were synthesized in three steps. Firstly, ethyl 2-cyano-3,3-dimethylthioacrylate (1) was prepared from reactions of ethyl cyanoacetate with carbon disulfide and dimethyl sulfate. Secondly, it reacted with 4-fluorophenethylamine to yield ethyl 2-cyano-3-methylthioacrylate-3-[2-(4-fluorophenyl)-ethylamino]-acrylate (3). Thirdly, the title compounds **5a~5h** were obtained by the reactions of **3** with corresponding alkylamines. The structures of as-synthesized compounds were confirmed by elemental analysis, IR,  $^1\text{H}$  NMR and  $^{13}\text{C}$  NMR techniques. Preliminary bioassay test indicated that some compounds showed moderate antiviral activity against Tobacco mosaic virus.

Zhou, Jinkang\*; Song, Baoan; Xue, Wei; Jin, Linhong; Gan, Zhengyang  
*Chin. J. Org. Chem.* **2011**, *31*(6), 865

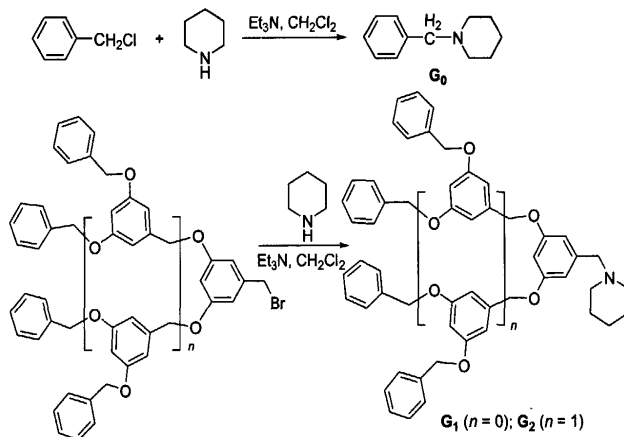
One-Pot Catalytic Synthesis of Amidoalkyl Naphthols Derivatives under Solvent-Free Conditions



Amidoalkyl naphthol derivatives were efficiently synthesized by a three components one-pot reaction of 2-naphthol, aldehydes and amines in the presence of copper *o*-toluenesulfonate without solvent.

Song, Zhiguo\*; Zhao, Shuang; Wan, Xin  
*Chin. J. Org. Chem.* **2011**, *31*(6), 870

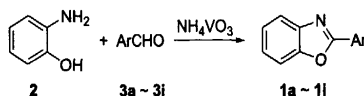
Study on Henry Reaction Catalyzed by Dendritic Amines



With the Henry reaction of benzaldehyde and nitromethane as the model, the catalytic ability of some weak basic catalysts was explored. The first- and the second-generation polyphenyl ether type dendritic piperidine catalysts, which were characterized by  $^1\text{H}$  NMR and MS techniques, were synthesized, and their catalytic abilities were investigated in Henry reaction. The obtained results indicated that the lower generation dendritic piperidine provided preferable catalytic activity in the case of nitromethane, and the higher generation one showed negative dendritic effect.

Yi, Bing\*; Zhang, Yang; Shu, Xiaoma; Yang, Yan; Du, Wenle; Liu, Zhanpeng  
*Chin. J. Org. Chem.* **2011**, *31*(6), 874

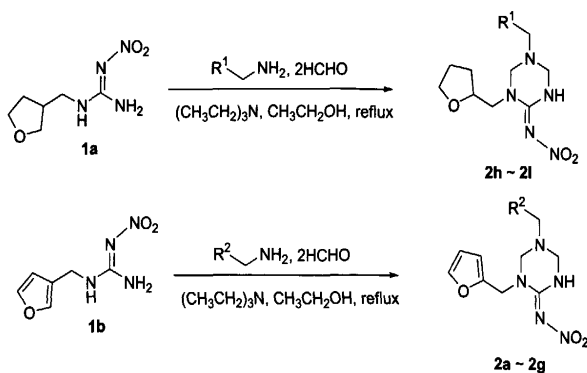
Synthesis of 2-Substituted Aryl Benzoxazoles Catalyzed by Ammonium Metavanadate



Ammonium metavanadate was found to be a practical catalyst for synthesizing 2-substituted aryl benzoxazoles, starting from 2-amino-phenol and aromatic aldehydes in ethanol at room temperature. The method was proved to be simple and convenient, and the product was isolated with excellent yields.

Xiao, Liwei  
*Chin. J. Org. Chem.* **2011**, *31*(6), 878

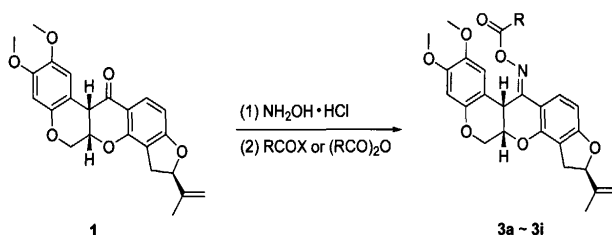
### Synthesis and Insecticidal Activities of 1,5-Disubstituted-hexahydrotriazine-2-*N*-nitroimines



Twelve novel 1,5-disubstituted-hexahydrotriazine-2-*N*-nitroimines (**2a**~**2l**) were synthesized with *N*-nitro-*S*-methylisothiurea and substituted benzylamines as raw materials via nucleophilic substitution and Manich reactions in turn. Their structures were elucidated and confirmed by  $^1\text{H}$  NMR, IR spectra and elemental analysis. The preliminary insecticidal activity tests indicated that all the target compounds have preferable insecticidal activity at the concentration of 500 mg/L.

Xue, Sijia\*; Ma, Xubo; Bu, Hongfei  
*Chin. J. Org. Chem.* **2011**, *31*(6), 881

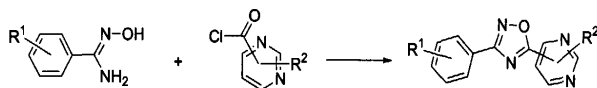
### Synthesis and Biological Activity of Rotenone Oxime Esters



Nine rotenone oxime ester derivatives were synthesized from natural rotenone with two steps. Their structures were clearly established by  $^1\text{H}$  NMR, IR spectra and elemental analysis. The preliminary bioassays indicated that three compounds exhibited strong insecticidal activity.

Ye, Jiao; Peng, Junmei; Hu, Aixi\*; Wang, Chao; Zou, Meng; Ou, Xiaoming  
*Chin. J. Org. Chem.* **2011**, *31*(6), 886

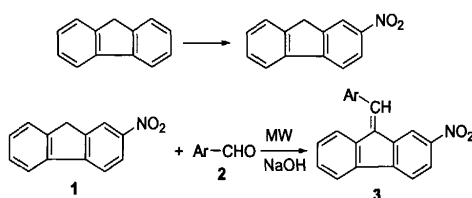
### Synthesis and Biological Activity of 5-Pyrimidinyl-1,2,4-oxadiazole Derivatives



A series of 5-pyrimidinyl-1,2,4-oxadiazole derivatives were prepared by the reaction of substituted benzamidoxime with pyrimidinecarbonyl chloride. Preliminary bioassay showed that most of title compounds have good herbicidal activity.

Huang, Tonghui; Tu, Haiyang\*; Liu, Ming; Hou, Changjian; Zhang, Aidong\*  
*Chin. J. Org. Chem.* **2011**, *31*(6), 891

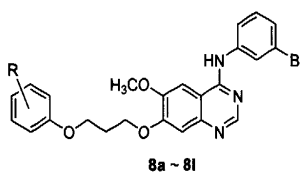
### Microwave-Assisted Knoevenagel Reaction of 2-Nitrofluorene with Aromatic Aldehyde



A series of novel Knoevenagel products of 2-nitrofluorene to a series of aromatic aldehydes were obtained in the presence of sodium hydroxide under microwave irradiation (500 W) within short reaction times (5~8 min) in high yields (78%~89%). The structures of the products were characterized by IR,  $^1\text{H}$  NMR, MS techniques and elemental analysis. The UV absorption and fluorescent spectra of compounds **3a**~**3d** were detected and showed that they had fluorescence.

Hu, Weibing\*; Feng, Fu; Li, Yunpan; Zhou, Hongyan; Wang, Hui; Tian, Dating  
*Chin. J. Org. Chem.* **2011**, *31*(6), 897

### Synthesis, Characterization and X-ray Structure of 4-Phenylamino Quinazoline Derivatives

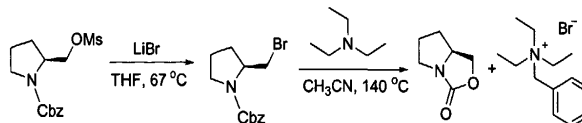


Twelve new compounds, 4-phenylamino quinazoline compounds **8a**~**8l**, were synthesized from vanillin by seven steps reaction. Their structures were characterized by  $^1\text{H}$  NMR,  $^{13}\text{C}$  NMR, IR and MS techniques. Compound **8b** was investigated with X-ray

crystallography. The crystal of **8b** belongs to Triclinic, space group *P*-1 with cell parameters  $a=0.8868(5)$  nm,  $b=1.0239(6)$  nm,  $c=1.4515(9)$  nm,  $\alpha=71.02(2)^\circ$ ,  $\beta=82.42(2)^\circ$ ,  $\gamma=71.78(2)^\circ$ ,  $V=1.1831$  nm $^3$ ,  $Z=2$ ,  $D_c=1.430$  Mg/m $^3$ ,  $\mu(\text{Mo K}\alpha)=1.773$  mm $^{-1}$ ,  $\lambda=0.071073$  nm,  $F(000)=522$ .

Yan, Heping; Ouyang, Guiping\*  
*Chin. J. Org. Chem.* **2011**, *31*(6), 901

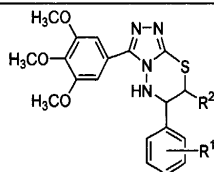
### Stability of Cbz or Boc Protected *L*-Prolinol Derivatives



The stability of Cbz or Boc protected *L*-prolinol derivatives is investigated. It was found that when the hydroxyl group of Boc protected *L*-prolinol is replaced by easily leaving group, it is unstable and cyclization proceeds effectively to give  $\gamma$ -butyrolactone at 67  $^\circ\text{C}$ ; however, Cbz protected *L*-prolinol derivatives are more stable, similar cyclization will happen at 140  $^\circ\text{C}$  in the presence of triethylamine.

Wang, Ge; Cao, Xiaohui; Sun, Huichao;  
Chen, Ligong\*  
*Chin. J. Org. Chem.* **2011**, *31*(6), 908

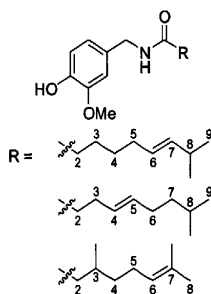
### Synthesis and Antitumor Activity of 5,6-2*H*-[1,2,4]-Triazolo[3,4-*b*][1,3,4]thiadiazine Derivatives



A series of 4-(substituted-3-phenylideneamino)-3-(3,4,5-trimethoxyphenyl)-1*H*-1,2,4-triazole-5(4*H*)-thiones (**3**) were synthesized by the condensation reaction of 4-amino-3-(3,4,5-trimethoxyphenyl)-1*H*-1,2,4-triazole-5(4*H*)-thione (**2**) with various substituted benzaldehydes. Alkylation of **3** with alkyl halides afforded [1,2,4]-triazolo[3,4-*b*][1,3,4]thiadiazine derivatives **4**. Their structures were confirmed by  $^1\text{H}$  NMR,  $^{13}\text{C}$  NMR, IR spectra and elemental analyses. Preliminary bioassay indicated that some compounds posed antitumor activity to human prostate cancer cell line (PC3) *in vitro* by microculture tetrazolium (MTT) method. The antiproliferation activity of compound **4a** to PC3 cells at the concentration of 10  $\mu\text{mol}\cdot\text{L}^{-1}$  was 75.9%.

Zheng, Yuguo; Xue, Wei\*; Guo, Qingqing;  
Lu, Ping; Wang, Zhenchao; Yuan, Kai  
*Chin. J. Org. Chem.* **2011**, *31*(6), 912

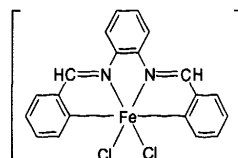
### Synthesis and Characterization of New Members of Capsaicinoids and Preliminary Research on the Relationship between the Structure and Pungency



Two new members of capsaicinoids, *N*-(4-hydroxy-3-methoxybenzyl)-8-methylnon-*trans*-4-enamide and *N*-(4-hydroxy-3-methoxybenzyl)-3,7-dimethyloct-6-enamide, were synthesized, and their structures were confirmed by elemental analysis, FT-IR,  $^1\text{H}$  NMR,  $^{13}\text{C}$  NMR *etc.* Meanwhile, their pungencies were determined through scoville organoleptic test and compared with capsaicin, norcapsaicin and homocapsaicin. The double bond location, branch chain and length of the alcy chain were confirmed to be the structural factors that could affect the pungency remarkably.

Wang, Junlian; Zhou, Shengze; Peng, Zhengong; Zhou, Xiangfeng; Zhang, Xiaobin; Peng, Bixian\*  
*Chin. J. Org. Chem.* **2011**, *31*(6), 917

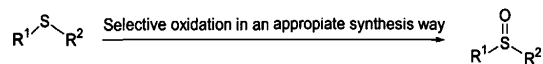
### Epoxidation of Cyclohexene Catalyzed by Metal Iron Schiff Base Complexes



One of pyridinecarboxaldehyde iron(III) Schiff base complexes of  $[\text{Fe}(\text{PA}_2\text{OPd})\text{Cl}_2]\text{Cl}$  was synthesized and its catalytic activities for epoxidation of cyclohexene were studied. The complex of  $[\text{Fe}(\text{PA}_2\text{OPd})\text{Cl}_2]\text{Cl}$  has the highest catalytic activity for cyclohexene epoxidation using hydrogen peroxide as an oxygen source. At optimum reaction condition (ethyl acetate as a solvent, 25  $^\circ\text{C}$ , pH=5.0, 6.0 h), the conversion rate of cyclohexene reached 90.5%, the selectivity of cyclohexene oxide was 97.2%, and the TON (moles of cyclohexene oxide produced per mole of  $[\text{Fe}(\text{PA}_2\text{OPd})\text{Cl}_2]\text{Cl}$ ) was 1759.

Zhang, Fuli\*; Tang, Kun  
*Chin. J. Org. Chem.* **2011**, *31*(6), 921





Chen, Chunyu\*; Li, Yi; Xiao, Ying; Zhu, Lin; Cheng, Changming; Liu, Yang  
*Chin. J. Org. Chem.* **2011**, *31*(6), 925

Sulfoxide compound as an important intermediate has attracted considerable attention. The research advances in synthesis and application of sulfoxide compound are reviewed, and the developing trend and prospects for future application of sulfoxide compound are discussed.

Progress in Synthesis and Application of  
Cyclosilazanes (1)—Cyclodisilazanes

Teng, Yadi\*; Sun, Chiyu; Sheng, Yonggang;  
Wang, Shuli  
*Chin. J. Org. Chem.* **2011**, *31*(6), 932

The progress in synthesis and application of cyclodisilazanes in recent years is reviewed. Three methods of synthesis which made from lithiated cyclotrisilazane, aminosilane and disilicon hexachloride are described. The productions of cyclodisilazanes received by ion ring-opening polymerization, plasma polymerization, copolymerization, hydrolysis and metal coordination, and their applications in ceramic, adhesives and expected catalysts are exhibited.

Highlights

*Chin. J. Org. Chem.* **2011** *31*(6), 946