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有机化学

Chinese Journal of Organic Chemistry

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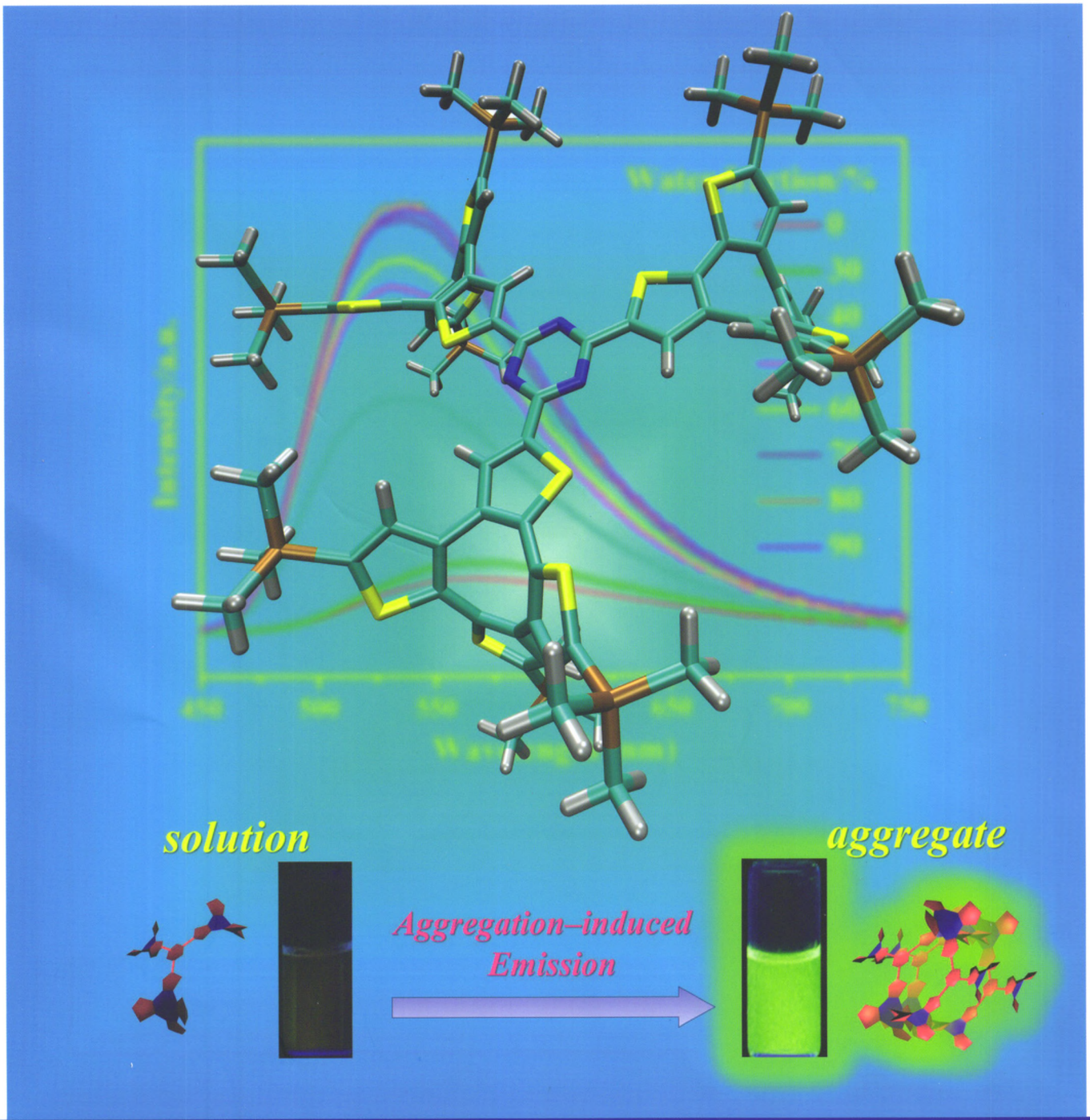

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(YOUJI HUAXUE)

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目 次

综述与进展

研究论文

* 通讯联系人.

研究简报

Chinese Journal of Organic Chemistry

Vol. 38 No. 5 May 2018

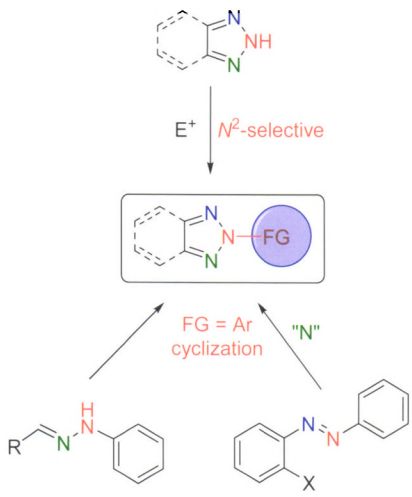
On the Cover

The interesting aggregation-induced emission (AIE) properties of three new compounds with saddle-shaped cyclooctatetrathiophene (**COTh**) and 1,3,5-triazine as building blocks in THF-H_2O binary solvent system are reported by Zhang, Xu, Song, Ma and Wang on Page 1119. Besides the AIE study, the synthetic work, analysis of crystal structure, theoretical calculation and spectroscopic behaviors are also described.

REVIEWS

CONTENT

Recent Progress in the Synthesis of N^2-Substituted 1,2,3-Triazoles

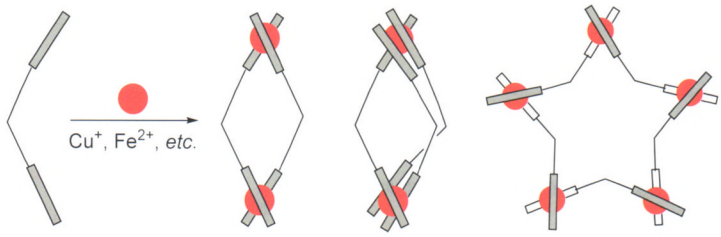


Zhu, Lili*; Zhang, Hui; Wang, Chunjie; Chen, Zili*

Chin. J. Org. Chem. **2018**, *38*(5), 1052

Recent progress for the synthesis of N^2-substituted 1,2,3-triazoles is reviewed. Two types of approaches to obtain N^2-substituted 1,2,3-triazoles, including N^2-selective functionalization of 1,2,3-triazoles and oxidative cyclization of bisarylhydrazones or azobenzenes, are discussed.

Progress in Helicates Directed by Metal Coordination

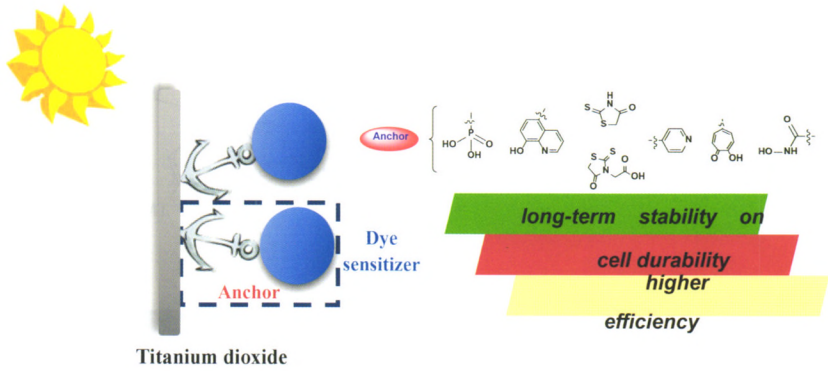


Jiang, Hua*; Li, Qiaolian; Wang, Guangxia

Chin. J. Org. Chem. **2018**, *38*(5), 1065

Coordination bond is widely used in the self-assembly process due to its bond strength and diverse geometry. In this article, we summarize a few types of metal-coordination helical folding systems, including single helicate, double helicates, triple helicates, quadruple helicates and cyclic helicates, and their folding behaviors and structural re-configuration in the coordination process.

Dye-Sensitized Solar Cells: Progress on Robust Anchor Groups in Dyes



Tian, Yajuan; Cai, Ning*; Chen, Yatong; Qian, Sainan; Huo, Yanping*

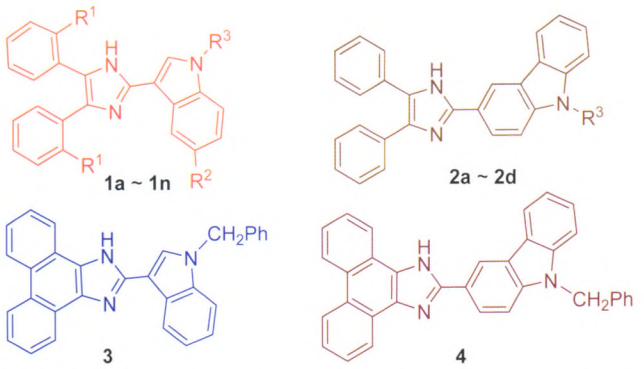
Chin. J. Org. Chem. **2018**, *38*(5), 1085

Several robust anchor groups in recent years and corresponding photovoltaic parameters are reviewed and the relationship between molecular structures and device performance is also discussed. The research progress of anchoring groups in photocatalytic hydrogen and quantum dot sensitized solar cells is also examined.

CONTENT

ARTICLES

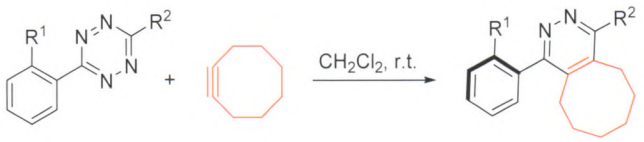
Synthesis and Photophysical Properties of Multi-aryl Imidazoles Containing Nitrogen Heterocyclic Ring



A series of novel imidazole derivatives containing indole or carbazole unit were efficiently synthesized via one-pot reaction of benzil/9,10-phenanthraquinone, indole-3-carbaldehyde/carbazole-3-carbaldehyde and ammonium acetate utilizing glacial acetic acid as solvent and catalyst. The photophysical properties of the synthesized products were also investigated, and two compounds possessing structural characteristics and pH-sensitive were selected as pH fluorescent probes.

Cai, Liu; Lü, Liu; Wang, Mengying; Wu, Yusheng; Huang, Jinfeng; Zeng, Xiangchao*
Chin. J. Org. Chem. **2018**, *38*(5), 1126

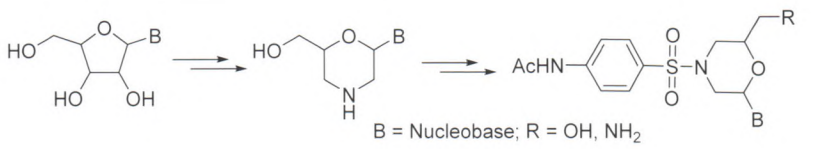
Application of [4+2] Cycloaddition Reaction of Tetrazine with Cyclooctyne in the Construction of Pyridazine Structure with Axial Chirality



The application of [4+2] cycloaddition reaction of tetrazine with cyclooctyne in the construction of pyridazine structure with axial chirality was studied. The reaction underwent a six-membered bridged transition state, gently release a molecule of nitrogen to get axial chiral pyridazine structure. The transformation of the reaction can be determined by the change of color. The reaction could get potential axial chiral pyridazine structure with high yiled (95%) under mild conditions.

Cai, Zhengjun; Gao, Jianbao; Li, Bai; Zhong, Yuan; Feng, Xing; Xue, Jijun*; Jiang, Xianxing*
Chin. J. Org. Chem. **2018**, *38*(5), 1138

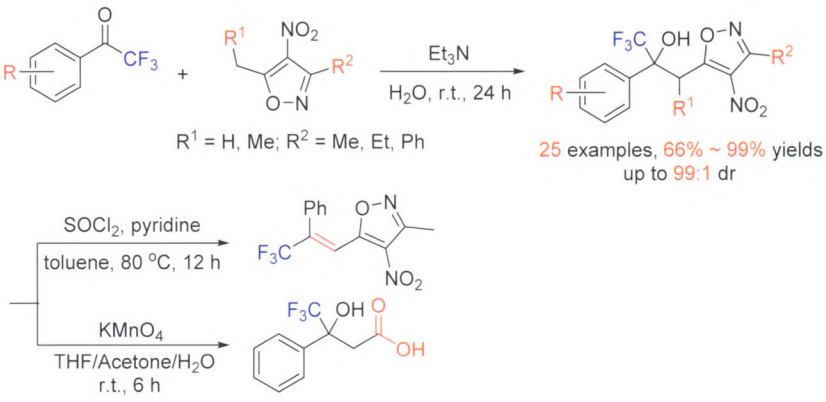
Synthesis and Preliminary Anti-bovine Viral Diarrhea Virus (BVDV) Activity Evaluation of Morpholine Nucleoside Analogues and Their Sulfonamide Derivatives



A series of morpholine nucleosides and 6'-hydroxymethyl and 6'-aminomethyl morpholine nucleoside sulfonamide derivatives were synthesized starting from ribonucleosides. Preliminary evaluation showed poor anti-BVDV activity of the obtained compounds.

Hua, Yingchun; He, Bin; Qin, Zhiyan; Wang, Song; Liu, Huiping; Liu, Fengwu*
Chin. J. Org. Chem. **2018**, *38*(5), 1147

Catalytic Nucleophilic Addition of 3,5-Dialkyl-4-nitroisoxazoles to Trifluoromethyl Ketones on Water

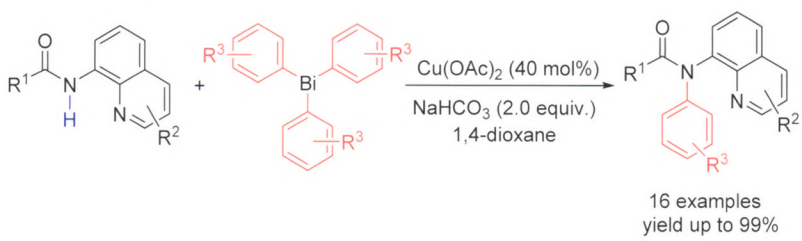


The triethylamine catalyzed nucleophilic addition of 3,5-dialkyl-4-nitroisoxazoles to trifluoromethyl ketones on water has been realized affording trifluoromethyl tertiary alcohol derivatives in 66%~99% yields. The products were easily transformed to the resulting alkenes by dehydration or acids by oxidation.

Wang, Jingjing*; Li, Feng; Xu, Yan; Wang, Juan; Wu, Ziyan; Yang, Chengyu; Liu, Lantao*
Chin. J. Org. Chem. **2018**, *38*(5), 1155

CONTENT

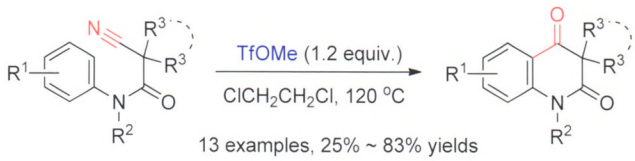
Copper-Promoted *N*-Arylation of 8-Acylaminoquinoline Compounds



Xiao, Zhen; Yue, Qiang; Ran, Ziyao; Zhang, Qian*; Li, Dong*
Chin. J. Org. Chem. **2018**, *38*(5), 1193

A copper-promoted *N*-arylation of 8-acylaminoquinolines with triphenyl bismuth has been developed, which generated the target products in moderate to high yields. The reaction is compatible with a wide range of substrates and provides a new method for synthesis of *N*-arylamide compounds.

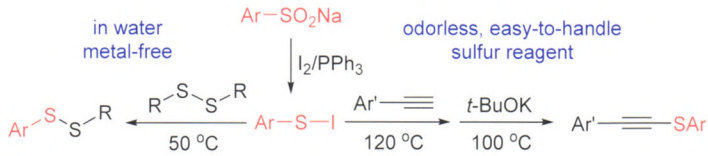
Synthesis of Quinoline-2,4-diones from Cyanoacetanilide Derivatives



Zhong, Shuaishuai; Huang, Peng*; Wang, Xingyue; Lin, Mi; Ge, Chunhua*
Chin. J. Org. Chem. **2018**, *38*(5), 1199

A new approach for the synthesis of quinoline-2,4-diones is developed based on a methyl triflate-promoted intramolecular Houben-Hoesch reaction of α,α-dialkyl substituted cyanoacetanilides. The broad substrate scope, simple operation and mild reaction conditions make this synthetic method very attractive.

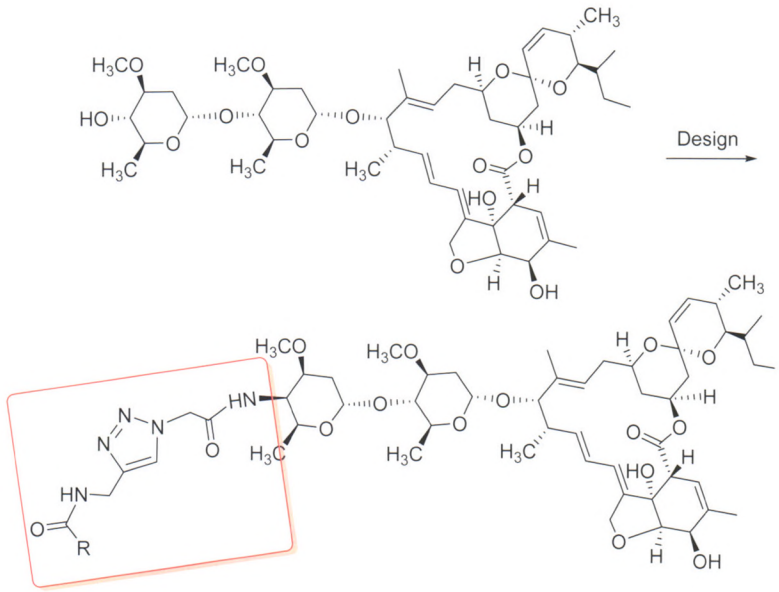
A Route to Alkynyl Sulfides and Asymmetric Disulfides from Sodium Arylsulfiniate



Lin, Yamei; Yi, Wenbin*
Chin. J. Org. Chem. **2018**, *38*(5), 1207

A metal-free approach for the synthesis of alkynyl sulfides and asymmetric disulfides from odorless easy-to-handle sodium arylsulfiniates in water is developed.

Synthesis and Insecticidal Activity of 4"-Avermectin Triazole Derivatives Containing Amide Unit

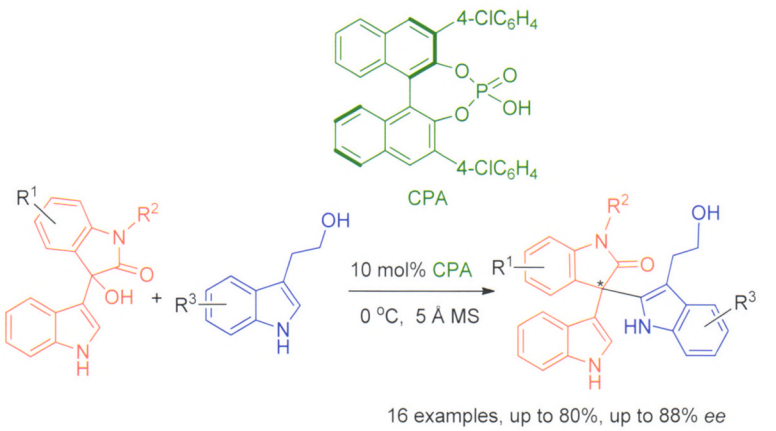


Sun, Guoshao; Zhang, Jingjing; Jin, Shuhui*; Zhang, Jianjun*
Chin. J. Org. Chem. **2018**, *38*(5), 1214

Based on avermectin structure framework, a series of novel 4"-avermectin triazole derivatives containing amide unit were synthesized and evaluated for their insecticidal activity.

CONTENT

Catalytic Asymmetric Dehydrative Arylation of 3-Indolylmethanols with Tryptophols: Enantioselective Synthesis of Bisindolyl-Substituted Triarylmethanes

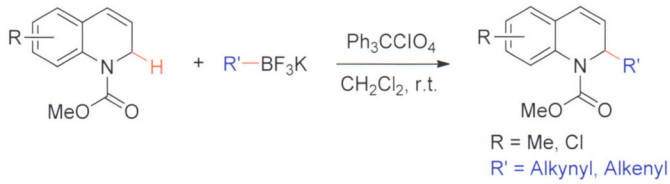


Wu, Ping; Wu, Jiale; Wang, Jingyi; Mei, Guangjian*
Chin. J. Org. Chem. **2018**, *38*(5), 1251

Herein, we reported the chiral phosphoric acid catalyzed dehydrative arylation of 3-indolylmethanols with tryptophols, leading to the efficient synthesis of a series of structurally diversified chiral bisindolyl-substituted triarylmethanes in moderate to good yields (up to 80% yield) with acceptable enantioselectivities (up to 88% *ee*).

NOTES

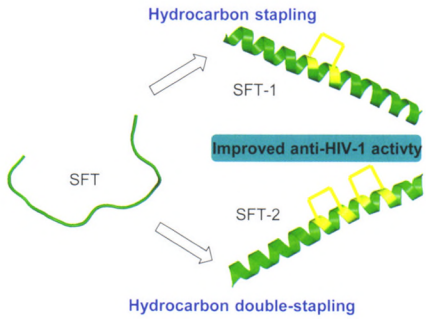
Trityl Ion-Mediated Oxidative C—H Alkynylation of 1,2-Dihydroquinolines



Liu, Ziqiang; Zhao, Ran; He, Ni; Li, Wei*
Chin. J. Org. Chem. **2018**, *38*(5), 1261

A modular and efficient method for the synthesis of α-substituted 1,2-dihydroquinolines through oxidative C—H functionalization strategy is described.

Synthesis and Anti-HIV-1 Activity of Stapled HIV-1 Fusion Inhibitors



Guo, Ye; Fu, Lili; Fan, Xiaowen; Shi, Xuanling*
Chin. J. Org. Chem. **2018**, *38*(5), 1267

n this study, SFT-1 and SFT-2 were synthesized via all-hydrocarbon cross-linking system with replacing the original salt bridge in SFT by hydrocarbon covalent bond, using sifuvirtide as template. The anti-HIV-1 activity was evaluated for all synthetic peptides.

HIGHLIGHTS

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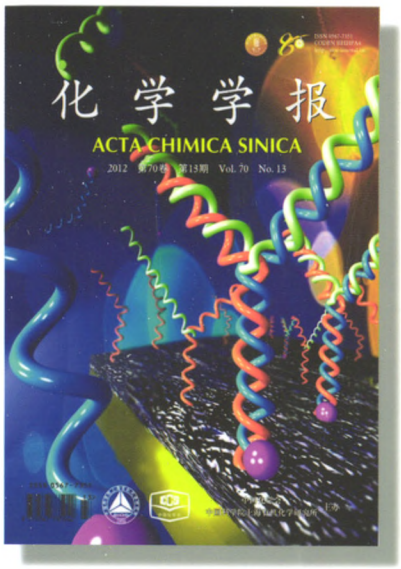

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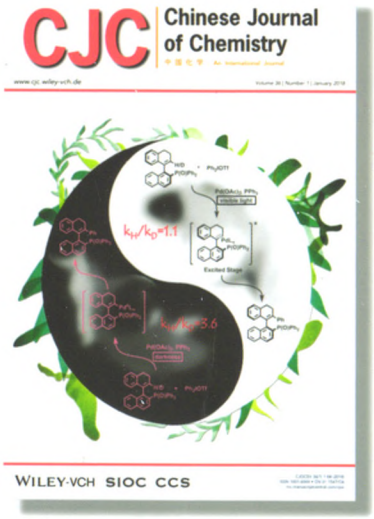

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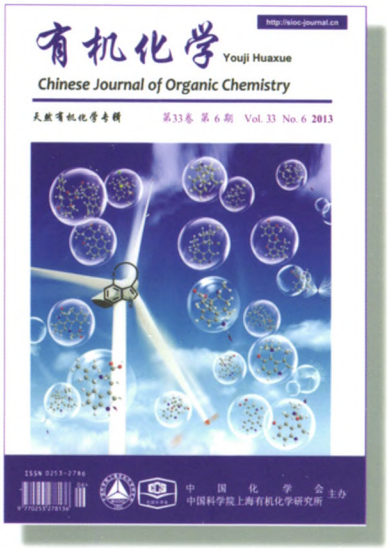

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