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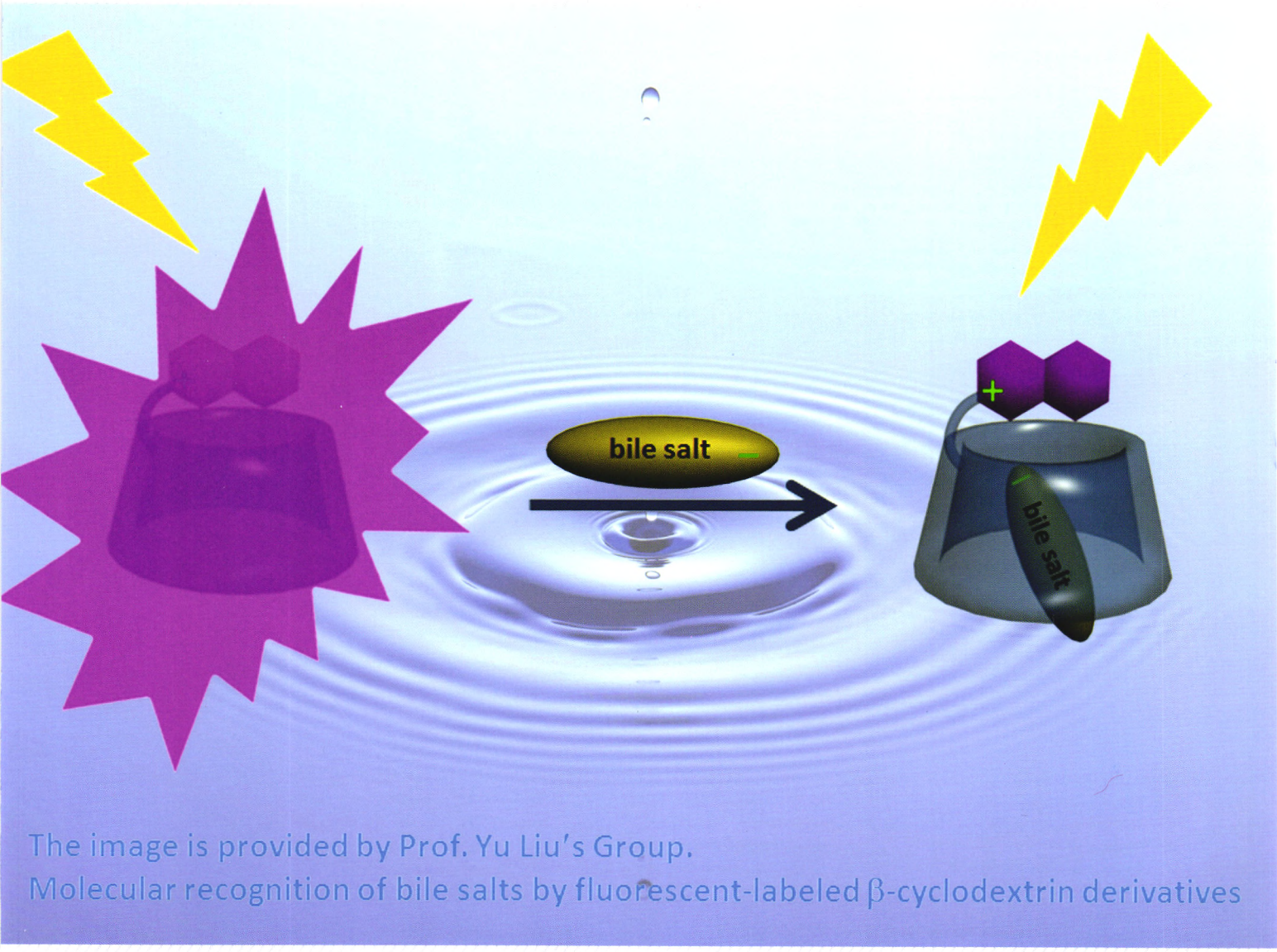

The image is provided by Prof. Yu Liu's Group.
Molecular recognition of bile salts by fluorescent-labeled β-cyclodextrin derivatives

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Graphical Abstracts/Chin Chem Lett 24 (2013) iii-x

Review

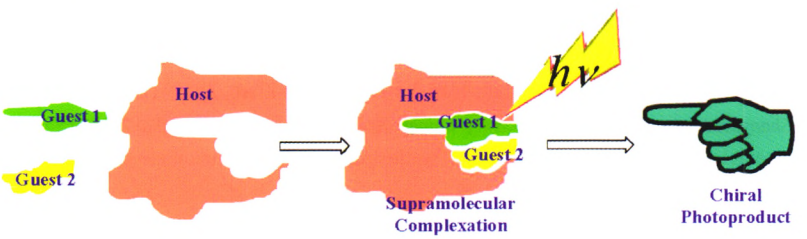
Recent progress in supramolecular chiral photochemistry

Chinese Chemical Letters 24 (2013) 437

Cheng Yang

College of Chemistry, Sichuan University, Chengdu 610064, China

This mini review summarizes recent advances in the rapidly progressing field of supramolecular chiral photochemistry.



Original articles

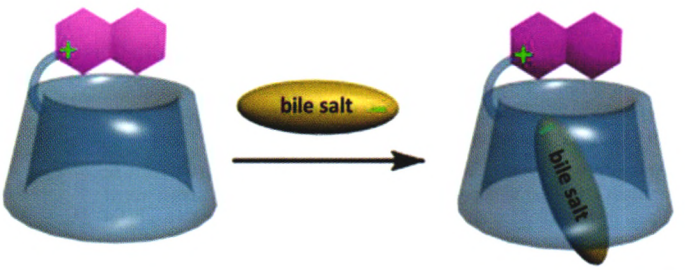
Selective binding of bile salts by β-cyclodextrin derivatives with appended quinolyl arms

Chinese Chemical Letters 24 (2013) 442

Sha-Sha Zhai, Yong Chen, Yu Liu

Department of Chemistry, State Key Laboratory of Elemento-Organic Chemistry, Nankai University, Tianjin 300071, China

A pair of β-cyclodextrin derivatives modified with quinolyl and isoquinolyl arms were synthesized, and their binding modes and binding abilities toward bile salts were investigated to understand their molecular selective binding behaviors.



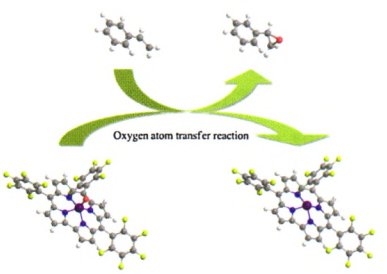
Solvent effects on oxygen atom transfer reaction between manganese(V)-oxto corrole and alkene

Chinese Chemical Letters 24 (2013) 447

Lan Yu[a], Qi Wang[a], Lu Dai[a], Wei-Ying Li[a], Rong Chen[a], Mian HR Mahmood[a], Hai-Yang Liu[a], Chi-Kwong Chang[b]

[a]*Department of Chemistry, South China University of Technology, Guangzhou 510640, China*
[b]*Department of Chemistry, Michigan State University, E. Lansing, MI 48824, USA*

The oxygen atom transfer reaction from Mn(V)-oxo corrole to alkene substrates may proceed *via* different mechanisms in different solvents.



doi:10.1016/S1001-8417(13)00288-X

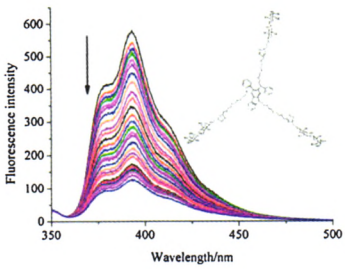
Chinese Chemical Letters 24 (2013) 467

Fluorescence quenching of triazatruxene-based glycocluster induced by peanut agglutinin lectin

Ke-Rang Wang[a,b], Hong-Wei An[a,b], Dan Han[a,b], Feng Qian[a,b], Xiao-Liu Li[a,b]

[a]*Key Laboratory of Chemical Biology of Hebei Province, College of Chemistry and Environmental Science, Hebei University, Baoding 071002, China*
[b]*Key Laboratory of Medicinal Chemistry and Molecular Diagnosis of Ministry of Education, Hebei University, Baoding 071002, China*

A new triazatruxene-based fluorescent glycocluster has been synthesized, which exhibited fluorescence quenching upon binding with peanut agglutinin lectin.



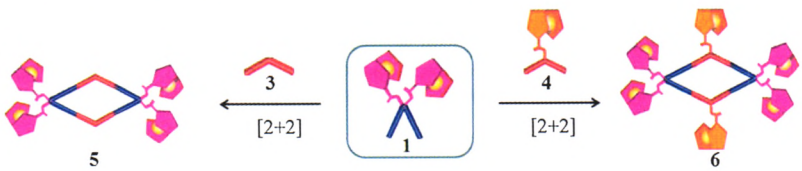
Chinese Chemical Letters 24 (2013) 471

A new family of supramolecular multiferrocenyl rhomboids: Synthesis, characterization, and their electrochemical behavior

Jiang-Kun Ou-Yang, Li-Jun Chen, Lin Xu, Cui-Hong Wang, Hai-Bo Yang

Shanghai Key Laboratory of Green Chemistry and Chemical Processes, Department of Chemistry, East China Normal University, Shanghai 200062, China

Two novel, supramolecular, multiferrocenyl rhomboids **5** and **6** have been successfully constructed from newly designed 60° ferrocenyl donor precursor **1** *via* coordination-driven self-assembly. The structures of all multiferrocenyl rhomboids were characterized by multinuclear NMR (^{1}H and ^{31}P), CSI–TOF-MS, and PM6 semi-empirical molecular simulation, and their electrochemical behaviors have been investigated.



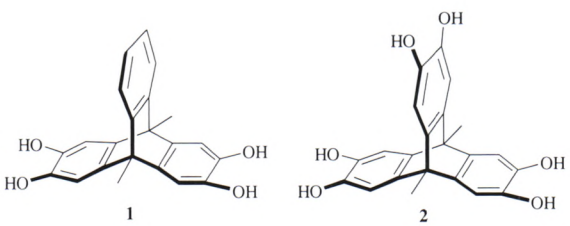
Chinese Chemical Letters 24 (2013) 475

Solid state self-assembly of triptycene-based catechol derivatives by multiple O–H···O hydrogen bonds

Ying Han[a,b], Yi Jiang[a], Chuan-Feng Chen[a]

[a]*Beijing National Laboratory for Molecular Sciences, CAS Key Laboratory of Molecular Recognition and Function, Institute of Chemistry, Chinese Academy of Sciences, Beijing 100190, China*
[b]*University of Chinese Academy of Sciences, Beijing 100049, China*

Two triptycene-based catechol derivatives **1** and **2** could self-assemble into interesting networks in the solid state, in which multiple O–H···O hydrogen bonding interactions played important roles.



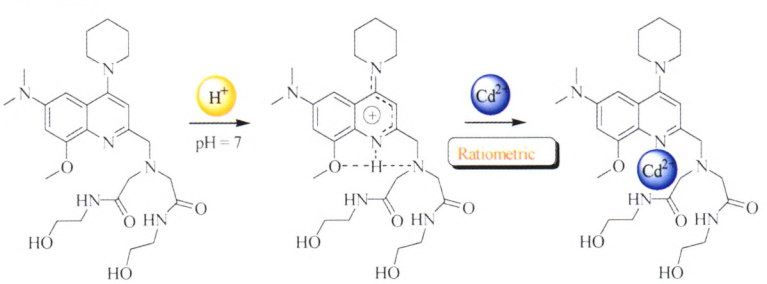
Chinese Chemical Letters 24 (2013) 479

Design of quinoline-based fluorescent probe for the ratiometric detection of cadmium in aqueous media

Qing Liu[a,b], Guo-Ping Li[a,b], Dong-Jian Zhu[a,b], Lin Xue[a], Hua Jiang[a]

[a]*Beijing National Laboratory for Molecular Sciences, CAS Key Laboratory of Photochemistry, Institute of Chemistry, Chinese Academy of Sciences, Beijing 100190 China*
[b]*University of Chinese Academy of Sciences, Beijing 100049, China*

A new fluorescent probe is capable of responding to Cd^{2+} with a significant turn-on and ratiometric fluorescence signal output in aqueous solution.



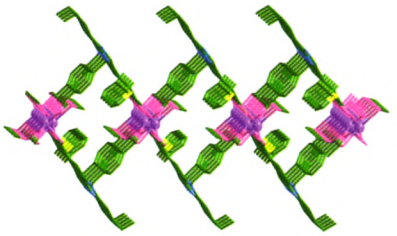
Chinese Chemical Letters 24 (2013) 483

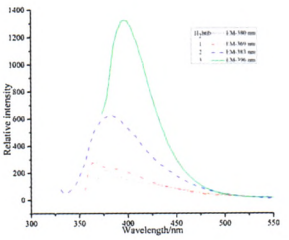
The structure and luminescence properties of three complexes based on bifunctional imidazole-dicarboxylate connector

Jin-An Zhao[a], Shu-Fang Chen[b], Dan-Dan Zhao[b], Yan Guo[b], Kun Peng[b], Ji-Yong Hu[a]

[a]*Department of Chemistry and Chemical Engineering, Henan University of Urban Construction, Pingdingshan 467036, China*
[b]*College of Chemistry and Molecular Engineering, Zhengzhou University, Zhengzhou 450052, China*

To study the diverse coordination modes of the H_2btib, three new coordination architectures have been synthesized. Complex **1** exhibits 1D single chain structure, while **2** shows 1D double metal chain motif, and **3** features a 2D layer topology. Also, **1**, **2** and **3** display strong emission band in the solid state at room temperature.





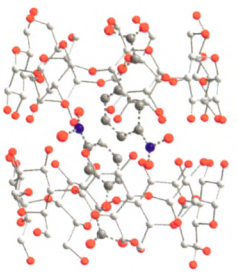
Chinese Chemical Letters 24 (2013) 487

The structural analysis of the inclusion complex of β-cyclodextrin with *m*-nitrophenoxyacetic acid

Chun-Hua Diao, Zhe Xu, Min-Jie Guo, Xin Chen, Jing Liu, Zhi Fan

College of Sciences, Tianjin University of Science and Technology, Tianjin 300457, China

The inclusion behavior of β-cyclodextrin with *m*-nitrophenoxyacetic acid shows that β-cyclodextrin forms a 2:1 complex with *m*-nitrophenoxyacetic acid, in which the disordered guest molecule adjusts itself to attain the most stable accommodation into the cavity. In comparison to the inclusion complex of β-cyclodextrin with *p*-nitrophenoxyacetic acid, the host-guest stoichiometries are different, *i.e.*, 2:1 for *m*-nitrophenoxyacetic acid and 1:1 for *p*-nitrophenoxyacetic acid, while the inclusion orientation and the packing pattern of the host are similar in both complexes.



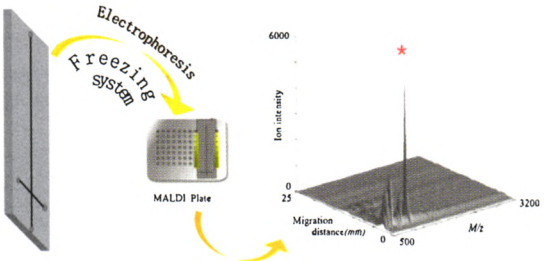
Chinese Chemical Letters 24 (2013) 491

Coupling microchip electrophoresis with MALDI-TOF-MS based on a freezing technique

Lei Nie[a], Guo-Bin Xu[a,b], Xiao-Yan Wang[a], Yun Liu[a], Peng-Yuan Yang[a,b]

[a]*Department of Chemistry, Fudan University, Shanghai 200433, China*
[b]*Institutes of Biomedical Sciences of Shanghai Medical College, Fudan University, Shanghai 200433, China*

A freezing technique was used in coupling microfluidic chip with MALDI-TOF-MS for the first time and this protocol has been applied to peptide analyses successfully.



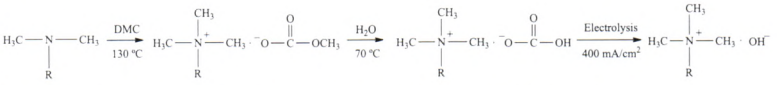
Chinese Chemical Letters 24 (2013) 494

Synthesis and properties of long-chain quaternary ammonium hydroxides

Tao Geng, Xiao-Guang Teng, Qiu-Xiao Li, Ya-Jie Jiang, Guo-Jin Li

China Research Institute of Daily Chemical Industry, Taiyuan 030001, China

We herein report the synthesis of long-chain quaternary ammonium hydroxides using an electrochemical membrane reactor containing a cationic exchange membrane. The present procedure has many advantages, such as mild reaction conditions, easy operational procedures and environment friendly. The synthesized long-chain QAHs are as strongly alkaline as conventional short-chain QAHs and exhibit good surface activity.



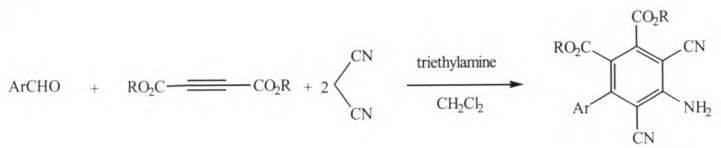
Chinese Chemical Letters 24 (2013) 497

Pseudo four-component and regioselective synthesis of 4-amino-3,5-dicyano-6-arylphthalates using triethylamine catalyst

Bagher Mohammadi[a], Mansoor Shafieey[b], Hamed Kazemi[b], Ali Ramazani[c]

[a]*Department of Chemistry, Payame Noor University, P.O. Box 19395-3697, Tehran, Iran*
[b]*Department of Chemistry, Payame Noor University, P.O. Box 97, Abhar, Iran*
[c]*Departmen of Chemistry, University of Zanjan, P.O. Box 45195-313, Zanjan, Iran*

A one-pot, triethylamine-catalyzed synthesis of 4-amino-3,5-dicyano-6-arylphthalates is described.



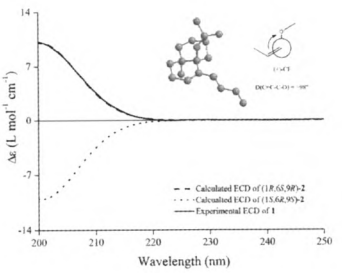
Chinese Chemical Letters 24 (2013) 500

Absolute configuration of Buagafuran: An experimental and theoretical electronic circular dichroism study

Li Li, Chun Li, Yi-Kang Si, Da-Li Yin

Beijing Key Laboratory of Active Substances Discovery and Druggability Evaluation, Institute of Materia Medica, Chinese Academy of Medical Sciences & Peking Union Medical College, Beijing 100050, China

The absolute configuration of Buagafuran has been confirmed as (1*R*,6*S*,9*R*) by a combination of experimental and theoretical electronic circular dichroism studies.



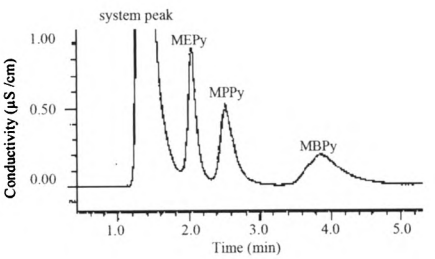
Chinese Chemical Letters 24 (2013) 503

Separation and determination of pyrrolidinium ionic liquid cations by ion chromatography with direct conductivity detection

Ren Qing Zhang, Hong Yu, Xiao Jiao Sun

Key Laboratory of Photonic and Electronic Bandgap Materials, Ministry of Education and College of Chemistry and Chemical Engineering, Harbin Normal University, Harbin 150025, China

A method for rapid and simultaneous determination of multiple pyrrolidinium ionic liquid cations that have no ultraviolet absorption by ion chromatography with direct conductivity detection was developed.



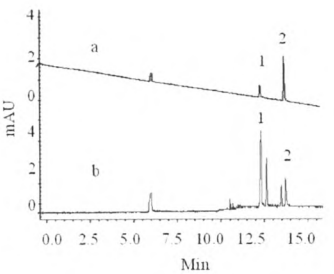
Chinese Chemical Letters 24 (2013) 506

Chelatometric dispersive liquid–liquid microextraction followed by capillary electrophoresis for the analysis of total and water soluble copper in *Rhizoma coptidis*

Fan-Yun Meng[a,c], Ying-Qin Wei[a,b,c], Heng Lu[a,c], Xiao-Teng Zhou[a,c], Jin-Xin Liu[a,c], Geng Li[a,c], Jing-Yi Hou[a,c]

[a]*Beijing Key Laboratory of Protection and Utilization of Chinese Medicine, Beijing Normal University, Beijing 100875, China*
[b]*School of Chemical Engineering, Shandong Institute of Light Industry, Jinan 250353, China*
[c]*Institute of Natural Medicine and Chinese Medicine Resources, Beijing Normal University, Beijing 100875, China*

A new method for the analysis of total and water soluble copper in *Rhizoma coptidis* was proposed using chelatometric dispersive liquid–liquid microextraction (cDLLME) followed by capillary electrophoresis.



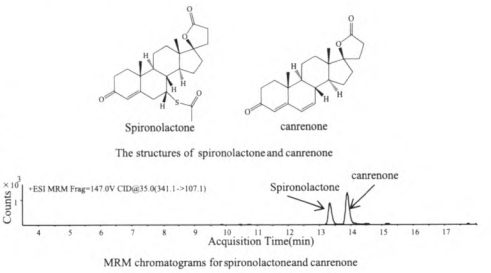
Chinese Chemical Letters 24 (2013) 509

Simultaneous determination of seven prohibited substances in cosmetic products by liquid chromatography–tandem mass spectrometry

Cai-Sheng Wu, Ying Jin, Jin-Lan Zhang, Yan Ren, Zhi-Xin Jia

Institute of Materia Medica, Chinese Academy of Medical Sciences & Peking Union Medical College, Beijing 100050, China

Spironolactone and canrenone have the same precursor ion and product ion, cannot be separated by multiple reaction monitoring (MRM) mode. After different mobile phases were tried, it was found that mobile phase consisting of 0.2% (v/v) formic acid aqueous solution and methanol containing 0.2% (v/v) formic acid could improve the separation resolution.



The structures of spironolactone and canrenone

MRM chromatograms for spironolactoneand canrenone

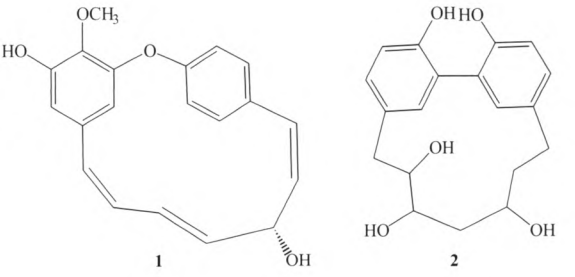
Chinese Chemical Letters 24 (2013) 512

Two new cyclic diarylheptanoids from the stems of *Ostryopsis nobilis*

Yan-Xia Zhang, Bing Xia, Yan Zhou, Li-Sheng Ding, Shu-Lin Peng

Key Laboratory of Mountain Ecological Restoration and Bioresource Utilization, Chengdu Institute of Biology, Chinese Academy of Sciences, Chengdu 610041, China

Two new cyclic diarylheptanoids, ostryopsitrienol (**1**) and ostryopsitriol (**2**), together with six known compounds, were isolated from the stems of endemic medicinal plant of *Ostryopsis nobilis*.

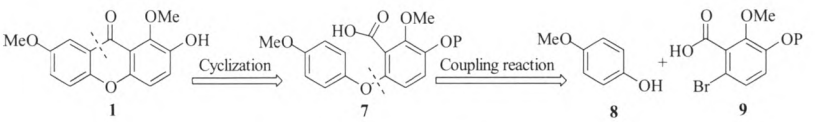


Chinese Chemical Letters 24 (2013) 515

Synthesis of 1,7-dimethoxy-2-hydroxyxanthone, a natural product with potential activity on erectile dysfunction

Wen-Jing Liu[a], De-Sheng Mei[b], Wen-Hu Duan[a,b]

[a]*School of Pharmacy, East China University of Science and Technology, Shanghai 200237, China*
[b]*Department of Medicinal Chemistry, Shanghai Institute of Materia Medica, Chinese Academy of Sciences, Shanghai 201203, China*



In this paper, the first synthesis of 1,7-dimethoxy-2-hydroxyxanthone (**1**) was reported featuring two key reactions: a copper-catalyzed coupling reaction and an intramolecular cyclization.

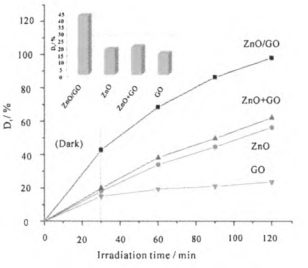
Chinese Chemical Letters 24 (2013) 518

Preparation of ZnO/GO composite material with highly photocatalytic performance *via* an improved two-step method

Ya-Li Chen, Chun-E. Zhang, Chao Deng, Peng Fei, Ming Zhong, Bi-Tao Su

Key Laboratory of Eco-Environment-Related Polymer Materials, Ministry of Education of China, Key Laboratory of Polymer Materials of Gansu Province, College of Chemistry and Chemical Engineering, Northwest Normal University, Lanzhou 730070, China

ZnO/GO composite material was successfully prepared *via* an improved two-step method. The photocatalytic activity of ZnO is greatly enhanced by combining with GO.



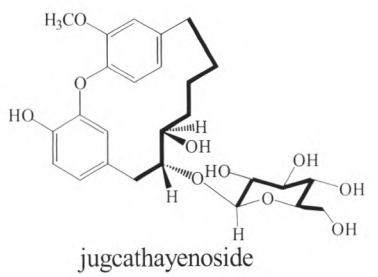
Chinese Chemical Letters 24 (2013) 521

Diarylheptanoids from the root bark of *Juglans cathayensis*

Juan Li[a], Jia-Xiang Sun[b], Heng-Yi Yu[b], Zu-Yu Chen[b], Xiao-Ya Zhao[c], Han-Li Ruan[b]

[a]*Department of Pharmacy, Tongji Hospital Affiliated Tongji Medical College, Huazhong University of Science and Technology, Wuhan 430030, China*
[b]*School of Pharmacy, Tongji Medical College of Huazhong University of Science and Technology, Wuhan 430030, China*
[c]*Hubei Entry-Exit Inspection and Quarantine Bureau, Wuhan 430050, China*

A new diarylheptanoid glucoside, named jugcathayenoside, was isolated from the root bark of *Juglans cathayensis*.



jugcathayenoside

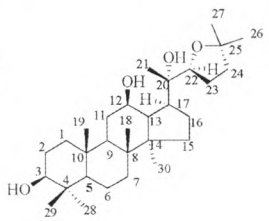
Chinese Chemical Letters 24 (2013) 524

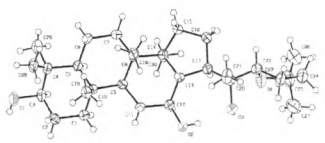
A new ginsengenin containing an oxacyclopentane-ring isolated from the acid hydrolysate of total ginsenosides

Qing-Xiang Guan[a], De-Ya Sun[a], Ji-Hua Liu[a], Wei Li[a,b], Qin Meng[a], Cong Geng[a], Jian-Yuan Yin[a]

[a]*School of Pharmacy, Jilin University, Changchun 130021, China*
[b]*Beijing Laviana Pharmactech Co., Ltd., Beijing 102206, China*

A novel aglycone (**1**) with an oxacyclopentane ring in the C-17 side chain was isolated from the acid hydrolysate of *Panax ginseng*. The new structure was elucidated based on spectroscopy and single-crystal X-ray diffraction analyses.





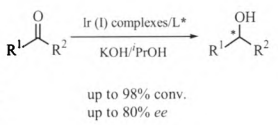
Chinese Chemical Letters 24 (2013) 527

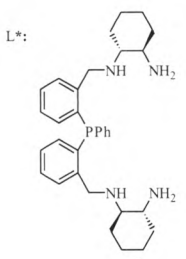
Novel chiral C_2-symmetric multidentate aminophosphine ligands for use in catalytic asymmetric reduction of ketones

Ya-Qing Xu, Shen-Luan Yu, Yan-Yun Li, Zhen-Rong Dong, Jing-Xing Gao

State Key Laboratory of Physical Chemistry of Solid Surfaces, National Engineering Laboratory for Green Chemical Productions of Alcohols-Ethers-Esters and Department of Chemistry, College of Chemistry and Chemical Engineering, Xiamen University, Xiamen 361005, China

A series of novel chiral C_2-symmetric multidentate aminophosphine ligands have been successfully synthesized by Schiff-base condensation of bis(*o*-formylphenyl)phenylphosphane and easily available monoprotected (1*R*,2*R*)-diaminocyclohexane. The catalytic properties of these ligands were investigated in Ir-catalyzed asymmetric transfer hydrogenation of various aromatic ketones, giving the corresponding optical active alcohols with up to 98% conversion and good ee under mild reaction conditions.





5

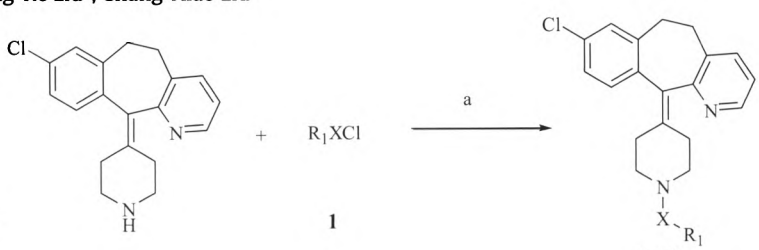
Chinese Chemical Letters 24 (2013) 531

Synthesis and biological evaluation of novel derivatives of desloratadine

Shuai Mu[a,b], Xiao-Shuai Xie[c], Duan Niu[c], Da-Shuai Zhang[c], Deng-Ke Liu[d], Chang-Xiao Liu[b]

[a]*School of Chemical Engineering and Technology, Tianjin University, Tianjin 300072, China*
[b]*State Key Laboratory of Drug Delivery Technology and Pharmacokinetics, Tianjin Institute of Pharmaceutical Research, Tianjin 300193, China*
[c]*Graduate School of Tianjin Medical University, Tianjin 300070, China*
[d]*Tianjin Key Laboratory of Molecular Design and Drug Discovery, Tianjin Institute of Pharmaceutical Research, Tianjin 300193, China*

Twenty-nine derivatives of desloratadine were synthesized and evaluated. Several compounds showed promising diuretic activity.



3-10

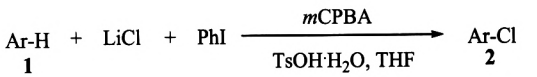
Chinese Chemical Letters 24 (2013) 535

An efficient chlorination of aromatic compounds using a catalytic amount of iodobenzene

Ting-Ting Li[a], Cui Xu[b], Chang-Bin Xiang[a], Jie Yan[a]

[a]*College of Chemical Engineering and Materials Sciences, Zhejiang University of Technology, Hangzhou 310032, China*
[b]*Foreign Language School, Zhejiang Shuren University, Hangzhou 310015, China*

An efficient method was developed for chlorination of aromatic compounds using iodobenzene as catalyst.



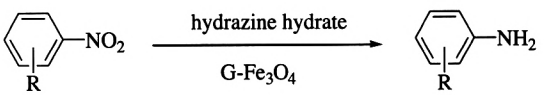
Chinese Chemical Letters 24 (2013) 539

Magnetic graphene nanocomposite as an efficient catalyst for hydrogenation of nitroarenes

Cheng Feng, Hai-Yan Zhang, Ning-Zhao Shang, Shu-Tao Gao, Chun Wang

College of Sciences, Agricultural University of Hebei, Baoding 071001, China

Superparamagnetic graphene-Fe_3O_4 nanocomposite (G-Fe_3O_4) was used as an efficient catalyst for the reduction of nitroarenes with hydrazine hydrate.



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Analysis of volatile compounds in *Herba Asari* by single-drop micro-extraction gas chromatography mass spectrometry

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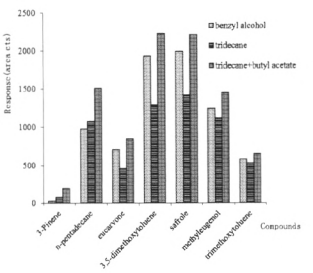
Mixed solvent extraction based on SDME was developed for analysis of volatile components in TCM.



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