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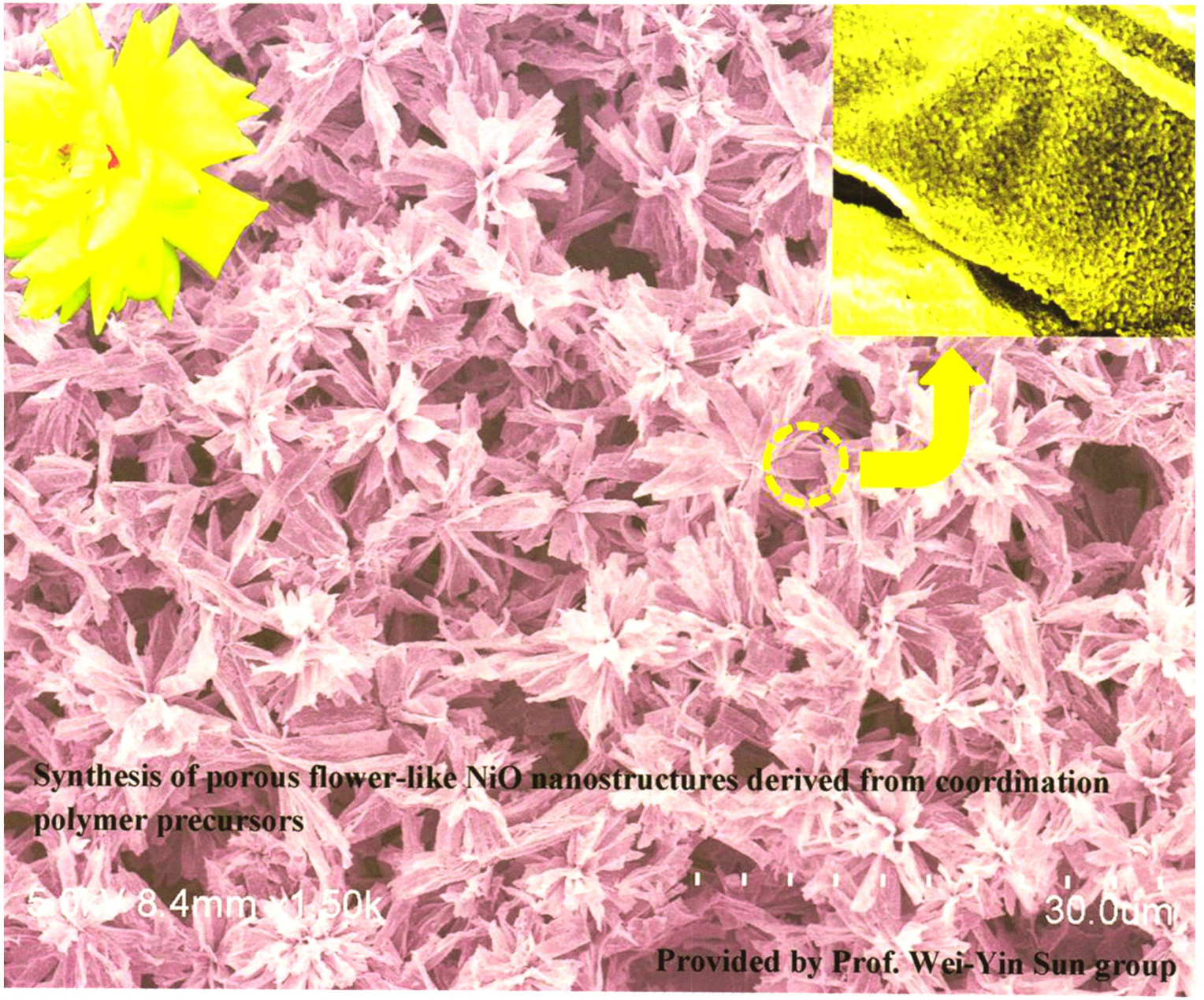

ORIGINAL ARTICLE
Ben-Zhong Tang et al.
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Graphical Abstracts/Chin Chem Lett 24 (2013) iii-x

Original articles

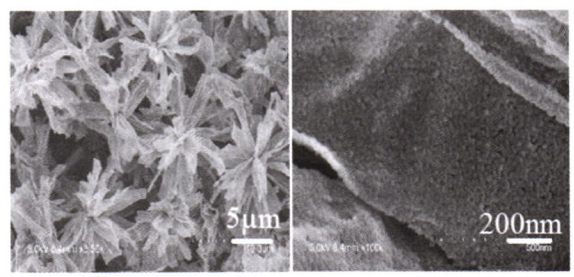
Room temperature solution-phase synthesis of flower-like nanostructures of $[Ni_3(BTC)_2{\cdot}12H_2O]$ and their conversion to porous NiO

Li-Na Jin, Qing Liu, Wei-Yin Sun

Coordination Chemistry Institute, State Key Laboratory of Coordination Chemistry, School of Chemistry and Chemical Engineering, Nanjing National Laboratory of Microstructures, Nanjing University, Nanjing 210093, China

Porous NiO superstructures are obtained by annealing the hierarchical flower-like architectures of $[Ni_3(BTC)_2{\cdot}12H_2O]$ prepared by a simple solution-phase method under mild conditions, and show good catalytic property for the decomposition of ammonium perchlorate.

Chinese Chemical Letters 24 (2013) 663



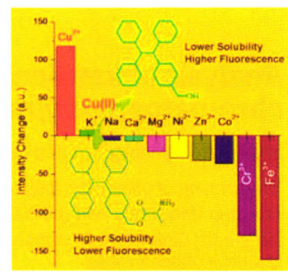
The specific detection of Cu(II) using an AIE-active alanine ester

Shuang Zhang[a], Ji-Ming Yan[a], An-Jun Qin[a], Jing-Zhi Sun[a], Ben-Zhong Tang[a,b]

[a]*MoE Key Laboratory of Macromolecule Synthesis and Functionalization, Department of Polymer Science and Engineering, Zhejiang University, Hangzhou 310027, China*
[b]*Department of Chemistry, Institute of Molecular Functional Materials, the Institute for Advanced Study (IAS), The Hong Kong University of Science & Technology, Hong Kong, China*

Within a series of metal cations, only Cu(II) can catalyze the hydrolyzation of tetraphenylethene-modified alanine ester. The released TPE-methanol exhibits lower solubility and higher fluorescence intensity than the ester, which allows Cu(II) to be detected by fluorescence enhancement.

Chinese Chemical Letters 24 (2013) 668



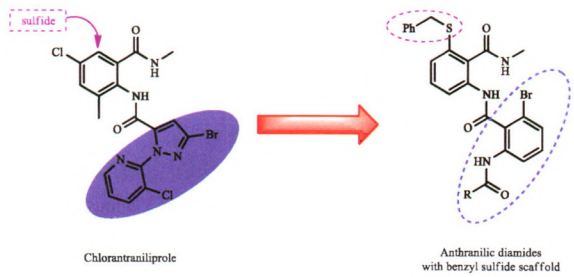
Design, synthesis and insecticidal activity of novel anthranilic diamides with benzyl sulfide scaffold

Yin-Bo Chen, Ji-Ling Li, Xu-Sheng Shao, Xiao-Yong Xu, Zhong Li

Shanghai Key Lab of Chemistry Biology, School of Pharmacy, East China University of Science and Technology, Shanghai 200237, China

A series of novel anthranilic diamides with benzyl sulfide scaffold were synthesized, in which *N*-pyridylpyrazole moiety generally regarded as key pharmacophore was abandoned.

Chinese Chemical Letters 24 (2013) 673



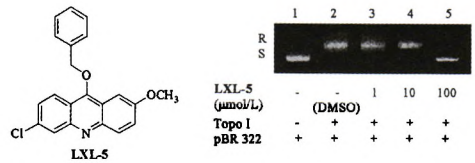
doi:10.1016/S1001-8417(13)00355-0

Chinese Chemical Letters 24 (2013) 677

Novel synthetic 9-benzyloxyacridine analogue as both tyrosine kinase and topoisomerase I inhibitor

Xu-Liang Lang[a,b], Qin-Sheng Sun[b], Yu-Zong Chen[c], Lu-Lu Li[b], Chun-Yan Tan[b,d], Hong-Xia Liu[b], Chun-Mei Gao[b,d], Yu-Yang Jiang[b,d,e]

[a]*Department of Chemistry, Tsinghua University, Beijing 100084, China*
[b]*The Ministry-Province Jointly Constructed Base for State Key Lab-Shenzhen Key Laboratory of Chemical Biology, Shenzhen 518055, China*
[c]*Bioinformatics and Drug Design Group, Department of Pharmacy, Centre for Computational Science and Engineering, 117543 Singapore, Singapore*
[d]*Shenzhen Anti-Tumor Drug Development Engineering Laboratory, The Graduate School at Shenzhen, Tsinghua University, Shenzhen 518055, China*
[e]*School of Medicine, Tsinghua University, Beijing 100084, China*



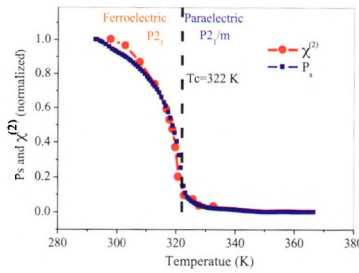
A series of five novel acridine analogues, **LXL 1–5**, were synthesized and their antiproliferative activity against HepG-2 cell lines were evaluated, among which compound **LXL-5** was considered a lead compound for development as a multi-target inhibitor of tyrosine kinase and topoisomerase I.

Chinese Chemical Letters 24 (2013) 681

The temperature-dependent domains, SHG effect and piezoelectric coefficient of TGS

Ren-Geng Xiong

Ordered Matter Science Research Center, Southeast University, Nanjing 211189, China



Temperature-dependent domains, SHG (second-harmonic generation or $\chi^{(2)}$), spontaneous polarization (Ps) and piezoelectric coefficient near Tc (phase transition temperature) can provide a clue for symmetry breaking occurrence, which is a common phenomenon in ferroelectrics.

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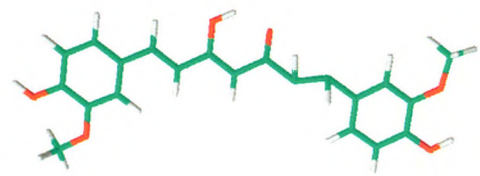
Analysis of keto-enol tautomers of curcumin by liquid chromatography/mass spectrometry

Shin-ichi Kawano[a,b], Yusuke Inohana[c], Yuki Hashi[b], Jin-Ming Lin[a]

[a]*Department of Chemistry, Beijing Key Laboratory of Microanalytical Methods and Instrumentation, Tsinghua University, Beijing 100084, China*
[b]*Shimadzu Global COE for Application & Technical Development, Shimadzu (China) Co., Ltd., Shanghai 200052, China*
[c]*Global Application Development Center, Shimadzu Corporation, Kyoto 604-8511, Japan*



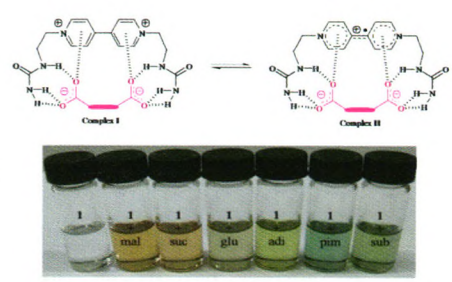
Keto-enol tautomers of curcumin were analyzed using a hybrid quadrupole ion trap/time-of-flight mass spectrometer. The results suggested that enol form is the major form in the solution (water/acetonitrile).

Chinese Chemical Letters 24 (2013) 688

A viologen-urea-based anion receptor: Colorimetric sensing of dicarboxylate anions

Zhi-Yun Dong[a], Da-Wei Zhang[a], Xiao-Zhi Jiang[a], Hui Li[b], Guo-Hua Gao[a]

[a]*Shanghai Key Laboratory of Green Chemistry and Chemical Processes, Department of Chemistry, East China Normal University, Shanghai 200062, China*
[b]*School of Chemistry and Chemical Engineering, Shanghai Jiao Tong University, Shanghai 200240, China*



A viologen-urea-based colorimetric receptor **1** exhibited various color changes upon the addition of dicarboxylates with different chain lengths ($^{-}OOC-(CH_2)_m-COO^{-}$, m = 1–6).

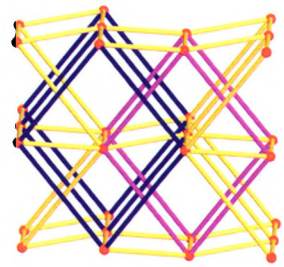
Chinese Chemical Letters 24 (2013) 691

A new 8-connected self-penetrating metal–organic framework based on dinuclear cadmium clusters as secondary building units

Kun-Huan He, Yun-Wu Li, Yong-Qiang Chen, Ze Chang

Department of Chemistry, and Tianjin Key Lab of Metal and Molecule-Based Material Chemistry, Nankai University, Tianjin 300071, China

A new metal–organic framework presents an interesting 8-connected self-penetrating coordination network based on dinuclear cadmium cluster with a $4^{24}\cdot5\cdot6^3$ topology.



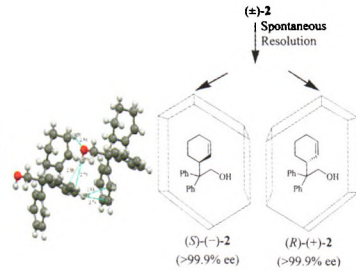
Chinese Chemical Letters 24 (2013) 695

Non-superimposable mirror image crystals of enantiomers by spontaneous resolution and the chiral discrimination mechanism

Muhammad Sohail, Yao-Feng Wang, Shao-Xiang Wu, Wei Zeng, Ji-Yi Guo, Fu-Xue Chen

School of Chemical Engineering and the Environment, Beijing Institute of Technology, Beijing 100081, China

Non-superimposable mirror image crystals of both enantiomers (*S*/*R*) are an outcome of the most astonishingly H-bond and intermolecular $\sigma/\pi-\pi$ interactions which can account for the relatively rare and less predictable spontaneous resolution.



Chinese Chemical Letters 24 (2013) 699

A green synthesis of a simple chemosensor that could instantly detect cyanide with high selectivity in aqueous solution

Qi Lin, Pei Chen, Yong-Peng Fu, You-Ming Zhang, Bing-Bing Shi, Peng Zhang, Tai-Bao Wei

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

A novel and simple cyanide chemosensor **L** was designed and synthesized *via* a green chemistry method. The chemosensor showed an excellent sensitivity and selectivity for CN^- in aqueous solution.

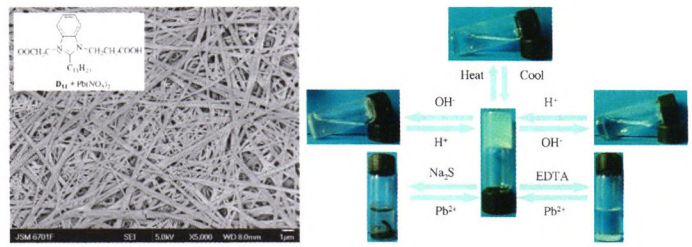
Chinese Chemical Letters 24 (2013) 703

Multi-stimuli responsive metal-organic gel of benzimidazol-based ligands with lead nitrate and their use in removal of dyes from waste-water

Hong Yao, Xing-Mei You, Qin Lin, Jun-Jian Li, Ying Guo, Tai-Bao Wei, You-Ming Zhang

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

A smart lead-induced metal-organic gel (MOG) has been investigated. The MOG exhibits multi-stimuli reversible gel–sol transition.



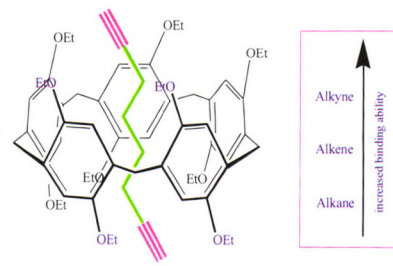
Chinese Chemical Letters 24 (2013) 707

Selective binding of unsaturated aliphatic hydrocarbons by a pillar[5]arene

Xiao-Shi Hu, Hong-Mei Deng, Jian Li, Xue-Shun Jia, Chun-Ju Li

Department of Chemistry, Shanghai University, Shanghai 200444, China

The complexation behavior of unsaturated fatty hydrocarbons, *i.e.*, 1,7-octadiyne and 1,7-octadiene, by a perethylated pillar[5]arene has been investigated, which was compared with that for saturated *n*-octane. It was found that the host–guest binding strength increased in accordance with the electron-negativity of the terminal carbon atom on the guests: alkyne > alkene > alkane.



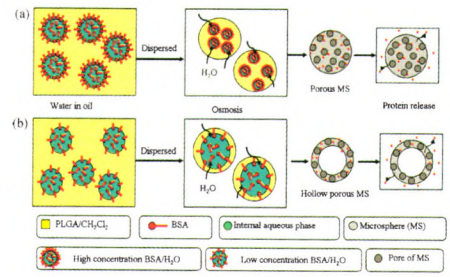
Chinese Chemical Letters 24 (2013) 710

Fabrication of hollow porous PLGA microspheres for controlled protein release and promotion of cell compatibility

Guo-Hua Zhang,[a] Rui-Xia Hou[a], Dan-Xia Zhan[b], Yang Cong[b], Ya-Jun Cheng[a], Jun Fu[a]

[a]*Polymers and Composites Division, Ningbo Institute of Materials Technology and Engineering, Chinese Academy of Sciences, Ningbo 315201, China*
[b]*School of Chemical Engineering, Ningbo University of Technology, Ningbo 315016, China*

Porous and hollow porous microspheres prepared by a modified double emulsion method show potential to control the release of proteins and demonstrate to be efficient in promoting cell compatibility of hydrogels.

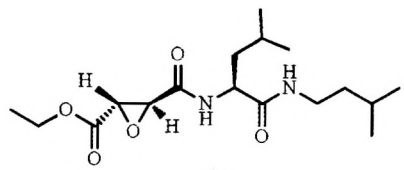


Chinese Chemical Letters 24 (2013) 715

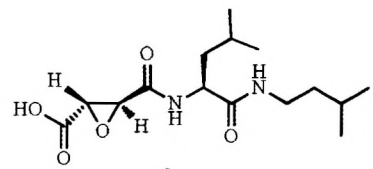
Design, synthesis, and screen of cathepsin K inhibitors

Ying-Ying Yu[a,b], Wei Sun[a,b], Lei Dong[a,c], Hai-Dong Liu[b], Dan Jiang[b], Jun-Hai Xiao[b], Xiao-Hong Yang[a], Song Li[b]

[a]*School of Pharmaceutical Sciences, Jilin University, Changchun 130021, China*
[b]*Laboratory of Computer-Aided Drug Design and Discovery, Beijing Institute of Pharmacology and Toxicology, Beijing 100850, China*
[c]*First Affiliated Hospital of Jilin University, Changchun 130021, China*



9a



9p

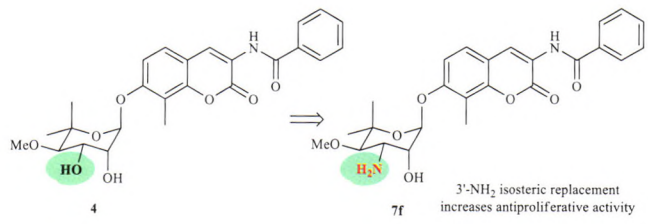
We synthesized a series of epoxysuccinic acid derivatives and evaluated their *in vitro* cathepsin K inhibitory activity. The screening results show that the potency of compounds **9e, 9d, 9p, 9j** and **9k** ($IC_{50} \leq 0.005$ μmol/L) were equal to or greater than that of the lead compound **9a**.

Chinese Chemical Letters 24 (2013) 719

Simplified aminocoumarin analogues as anticancer agents: Amino isosteric replacement in the noviose moiety resulted in substantial enhancement of antiproliferative activity

Ting Zhang, Zheng Yan, Yun-Feng Li, Nan Wang

State Key Laboratory of Bioactive Substance and Function of Natural Medicine, Beijing Key Laboratory of Active Substance Discovery and Drugability Evaluation, Institute of Materia Medica, Peking Union Medical College & Chinese Academy of Medical Sciences, Beijing 100050, China



A novel series of simplified aminocoumarin analogues with the 3′-NH_2 isosteric replacement in the noviose appendage were synthesized and evaluated.

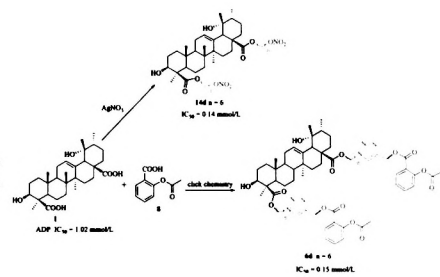
Chinese Chemical Letters 24 (2013) 723

The first examples of ilexgenin A hybrids as a new class of multi-potent, anti-platelet agents

Li-Ping Lin[a,b], Fei-Hua Wu[a], Jing-Yu Liang[a]

[a]*School of Traditional Chinese Pharmacy, China Pharmaceutical University, Nanjing 210009, China*
[b]*Jiangsu Center for Research & Development of Medicinal Plants, Institute of Botany, Jiangsu Province and Chinese Academy of Sciences, Nanjing 210014, China*

Ilexgenin A (IA) hybrids achieved substantial increases in three tested pathways compared with IA (**1**). Encouragingly, the most potent compounds **6d** and **14d** displayed higher potency than aspirin in inhibiting ADP-induced aggregation with IC_{50} values of 0.15 mmol/L and 0.14 mmol/L, respectively.



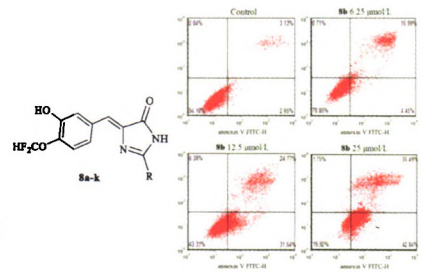
Chinese Chemical Letters 24 (2013) 727

Synthesis and *in vitro* biological evaluation of novel 2-aminoimidazolone derivatives as anti-tumor agents

You-An Xiao[a,b], Zhi-Qiang Wang[b,c], Xue-Min Wang[b], Yi Hui[b], Yong Ling[b], Xin-Yang Wang[b], Li-Qin He[a]

[a]*Anhui University of Traditional Chinese Medicine, Anhui Key Laboratory of Modernized Chinese Material Medical, Hefei 230031, China*
[b]*Medical College, Nantong University, Nantong 226001, China*
[c]*Department of Natural Medicinal Chemistry, China Pharmaceutical University, Nanjing 210009, China*

Novel 2-aminoimidazolones derivatives were synthesized. Compound **8b** exhibited the strongest antitumor activities and induced SMMC-7721 cell apoptosis in a dose-dependent manner.



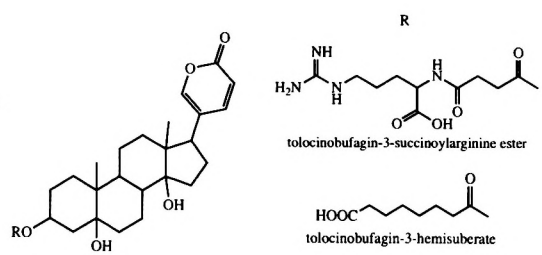
Chinese Chemical Letters 24 (2013) 731

Two new bufotoxins from the skin of *Bufo bufo gargarizans*

Hai-Yan Li[a,b], Lian-Zhu Zhang[a], Shi-Hui Wang[b], Yue Deng[a], Xiang-Qun Jin[b]

[a]*Affiliated Hospital of Changchun University of Chinese Medicine, Changchun 130021, China*
[b]*College of Pharmaceutical Sciences, Jilin University, Changchun 130021, China*

Two new compounds named tolocinobufagin-3-succinoylarginine ester and tolocinobufagin-3-hemisuberate, were isolated from the skin of *Bufo bufo gargarizans* Cantor.



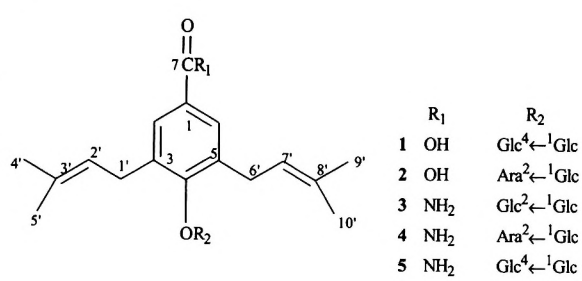
Chinese Chemical Letters 24 (2013) 734

Five new nervogenic acid derivatives from *Liparis nervosa*

Shuai Huang[a,b], Ming-Feng Pan[a], Xian-Li Zhou[a], Zi-Li Zhou[a], Cui-Juan Wang[a], Lian-Hai Shan[a], Jie Weng[b]

[a]*School of Life Science and Engineering, Southwest Jiaotong University, Chengdu 610031, China*
[b]*Key Laboratory of Advanced Technology of Materials, Ministry of Education, Southwest Jiaotong University, Chengdu 610031, China*

Five new nervogenic acid derivatives have been isolated from *Liparis nervosa*. Their structures were elucidated on the basis of extensive spectroscopic analysis.



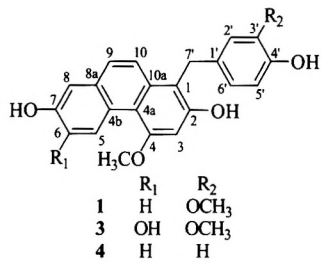
	R_1	R_2
1	OH	$Glc^4 \leftarrow {}^1Glc$
2	OH	$Ara^2 \leftarrow {}^1Glc$
3	NH_2	$Glc^2 \leftarrow {}^1Glc$
4	NH_2	$Ara^2 \leftarrow {}^1Glc$
5	NH_2	$Glc^4 \leftarrow {}^1Glc$

Chinese Chemical Letters 24 (2013) 737

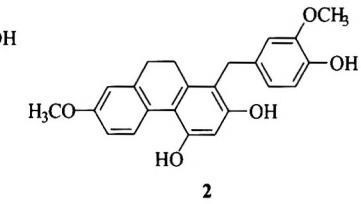
Three new phenanthrenes from *Cremastra appendiculata* (D. Don) Makino

Liang Liu[a,b,c], Jun Li[d], Ke-Wu Zeng[b], Ping Li[a], Peng-Fei Tu[a,b]

[a]*State Key Laboratory of Natural Medicines, China Pharmaceutical University, Nanjing 210009, China*
[b]*State Key Laboratory of Natural and Biomimetic Drugs, School of Pharmaceutical Sciences, Peking University Health Science Center, Beijing 100191, China*
[c]*Medical College, Yangzhou University, Yangzhou 225009, China*
[d]*Modern Research Center for Traditional Chinese Medicine, Beijing University of Chinese Medicine, Beijing 100029, China*



	R_1	R_2
1	H	OCH_3
3	OH	OCH_3
4	H	H



2

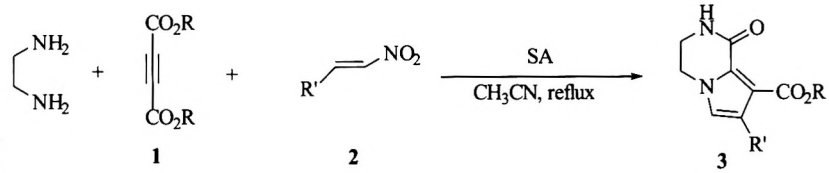
Three new phenanthrenes, along with one known phenanthrene, were isolated from the ethanolic extract of the tubers of *Cremastra appendiculata* (D. Don) Makino. Compounds **1-2** has moderate cytotoxic activities against MDA-MB-231 cell, compound **3** has moderate cytotoxic activity against HCT-116 cell.

Chinese Chemical Letters 24 (2013) 740

One-pot synthesis of pyrrolo[1,2-*a*]pyrazines *via* three component reaction of ethylenediamine, acetylenic esters and nitrostyrene derivatives

Loghman Moradi[a], Mohammad Piltan[b], Hedieh Rostami[a], Golaleh Abasi[a]

[a]*Department of Chemistry, Faculty of Science, University of Kurdistan, P.O. Box 416, Sanandaj, Iran*
[b]*Young Researches Club, Sanandaj Branch, Islamic Azad University, Sanandaj, Iran*



1 **2** **3**

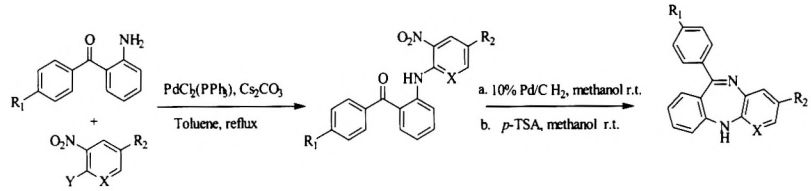
An effective route to pyrrolo[1,2-*a*]pyrazines is described *via* reaction of ethylenediamine, acetylenic esters and nitrostyrene derivatives in the presence of 20 mol% of sulfamic acid.

Chinese Chemical Letters 24 (2013) 743

An efficient synthesis of substituted 1,4-diazepines by a Pd catalyzed amination and sequential hydrogenation condensation

Xiao-Jian Wang, Yu-Lin Tian, Qing-Yang Zhang, Jian-Guo Qi, Da-Li Yin

State Key Laboratory of Bioactive Substance and Function of Natural Medicines, Beijing Key Laboratory of Active Substance Discovery and Druggability Evaluation, Institute of Materia Medica, Peking Union Medical College and Chinese Academy of Medical Sciences, Beijing 100050, China



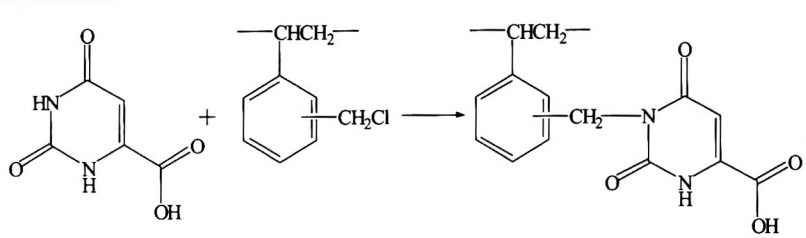
An efficient synthesis of substituted 1,4-diazepines is developed. The mild and general strategy enables the construction of various substituted 1,4-diazepines in high yields.

Chinese Chemical Letters 24 (2013) 747

Preparation and application of a novel orotic acid chelating resin for removal of Cu(II) in aqueous solutions

Yue Sun, Zhi-Chao Li, Yan Xu

School of Civil Engineering, Southeast University, Nanjing 210096, China



Synthesis and characterization of a novel chelating resin.

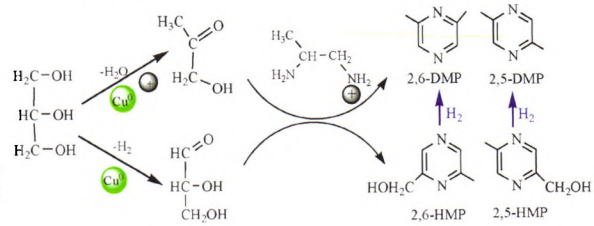
Chinese Chemical Letters 24 (2013) 751

Synthesis of pyrazinyl compounds from glycerol and 1,2-propanediamine over Cu–TiO_2 catalysts supported on γ-Al_2O_3

Xue Li[a], Cheng-Hua Xu[a], Chuan-Qi Liu[a,b], Yu Chen[a], Jian-Ying Liu[a]

[a]*Air Environmental Modeling and Pollution Controlling Key Laboratory of Sichuan Higher Education Institutes, Chengdu University of Information Technology, Chengdu 610225, China*
[b]*College of Optoelectronic Technology, Chengdu University of Information Technology, Chengdu 610225, China*

The Cu–TiO_2/Al_2O_3 can catalyze either dehydrogenation or dehydration of glycerol to yield glyceraldehyde or hydroxylacetone, respectively, both of which subsequently cyclize with activated 1,2-propanediamine to produce the corresponding pyrazinyl compounds.



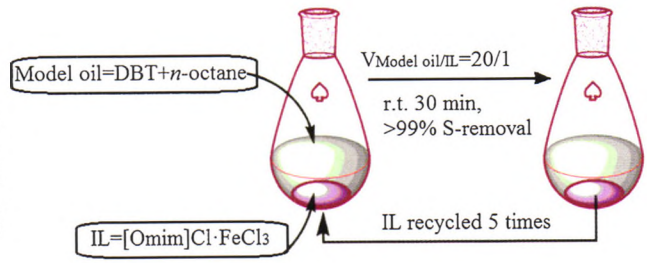
Chinese Chemical Letters 24 (2013) 755

Deep extractive desulfurization of diesel fuels by $FeCl_3$/ionic liquids

Li-Li Ban, Ping Liu, Cun-Hua Ma, Bin Dai

School of Chemistry and Chemical Engineering, Shihezi University, Shihezi 832003, China

Ionic liquids [Omim]Cl/2$FeCl_3$ exhibited high extractive efficiency and the sulfur removal of DBT in model oil (V_{IL}/V_{oil} = 1/20) could reach 99.4% at room temperature for 30 min, which was obviously superior to mere solvent extraction with [Omim]Cl (22.9%). The S-removal of 4,6-DMDBT and BT could also be up to 99.3% and 96.2% under the same conditions, respectively. Moreover, the ionic liquid could be recycled five times without a significant decrease in extractive ability.



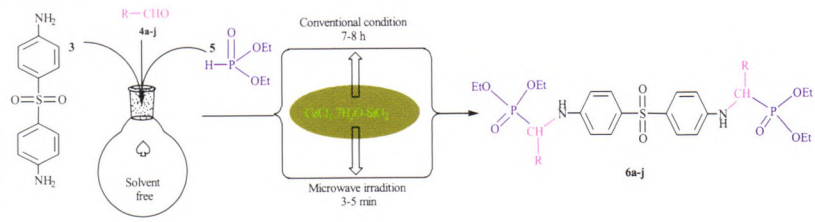
Chinese Chemical Letters 24 (2013) 759

$CeCl_3$·$7H_2O$-SiO_2: Catalyst promoted microwave assisted neat synthesis, antifungal and antioxidant activities of α-diaminophosphonates

Subba Rao Devineni, Srinivasulu Doddaga, Rajasekhar Donka, Naga Raju Chamarthi

Department of Chemistry, Sri Venkateswara University, Tirupati 517 502, Andhra Pradesh, India

$CeCl_3$·$7H_2O$-SiO_2 is an efficient and recyclable catalyst for a three component one-pot reaction of an amine, aldehydes and diethyl phosphite to synthesize α-diaminophosphonate derivatives under microwave irradiation exploiting neat reaction conditions.



Chinese Chemical Letters 24 (2013) 764

Sodium hydride-mediated synthesis of 1,5-diaryl-1,2,3-triazoles from *anti*-3-aryl-2,3-dibromopropanoic acids and organic azides

Xue-Zhi Cheng[a], Wei Liu[a], Zhen-Dong Huang[b], Chun-Xiang Kuang[a,c]

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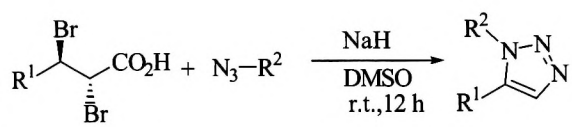
[b]*Zhejiang Citrus Research Institute, Taizhou 318020, China*
[c]*Key Laboratory of Yangtze River Water Environment, Ministry of Education, Shanghai 200092, China*



A series of 1,5-disubstituted 1,2,3-triazoles are synthesized by a one-pot process from *anti*-3-aryl-2,3-dibromopropanoic acids and organic azides mediated by sodium hydride in dimethyl sulfoxide. The reaction is mild and simple, does not require a transition-metal catalyst, and gives products in good to excellent yields.

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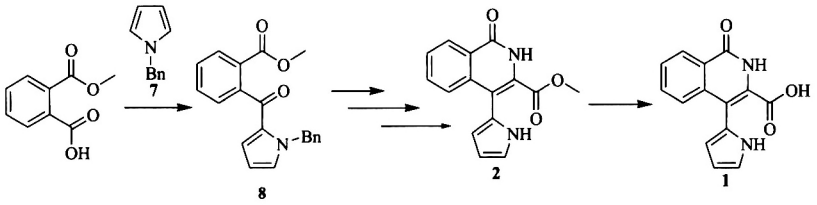
First total synthesis of isoquinolinone alkaloid marinamide and its methyl ester

Cheng-Liang Feng, Shu-Guang Zhang, Jun-Qing Chen, Jin Cai, Min Ji

Institute of Pharmaceutical Engineering, School of Chemistry and Chemical Engineering, Southeast University, Nanjing 210096, China

The first total synthesis of marinamide **1** and its methyl ester **2** was described.



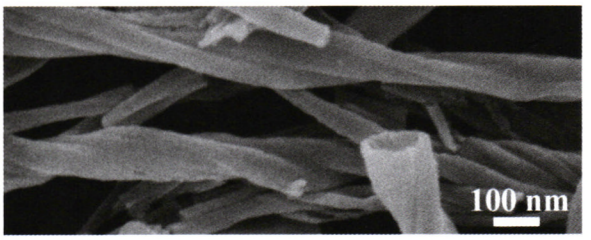
Chinese Chemical Letters 24 (2013) 770

A chirality indicator for the walls and the surfaces of silica nanotubes

Feng-Wen Hou, Li-Min Wu, Yong-Min Guo, Yi Li, Bao-Zong Li

Key Laboratory of Organic Synthesis of Jiangsu Province, College of Chemistry, Chemical Engineering and Materials Science, Soochow University, Suzhou 215123, China

Single-handed helical silica nanotubes were prepared according to the literature procedures, using the self-assemblies of a pair of chiral cationic low-molecular-weight gelators as the templates. A chirality indicator, 4,4′-bis(triethoxysilyl)-1,1′-biphenyl, was developed to determine the chirality of the silica nanotubes. The chirality of the surfaces and the bulky walls of the silica nanotubes were understood from the twist of the biphenylene rings.



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