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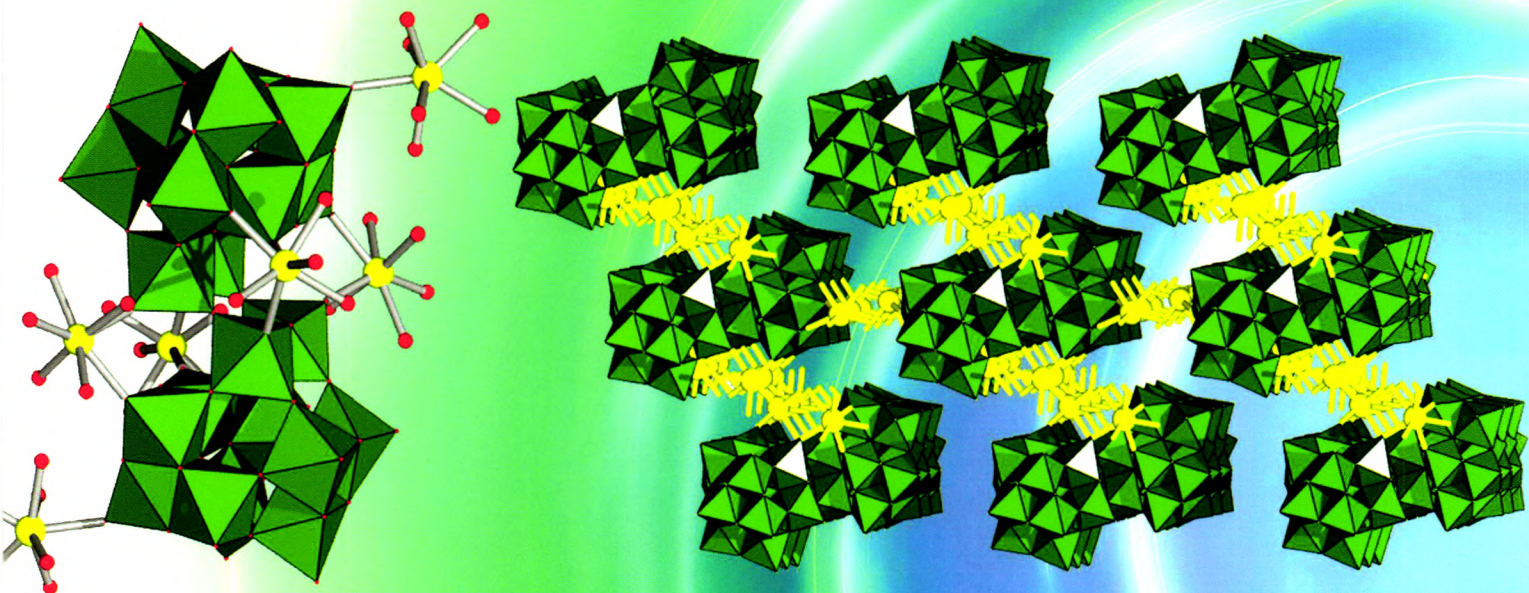
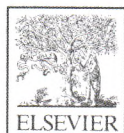


image is provided by Dr. Yao's Group from Changchun University of Science and Technology.

'S"-shaped isopolyoxotungstate decorated by calcium ions was reported, suggesting that lacunary isopolyoxotungstates could be used as
excellent inorganic multidentate O-donor ligands to incorporate with functional ions for constructing POM clusters.



REVIEW

Lei Liu et al.
Design of thiol-containing amino
acids for native chemical ligation
at non-Cys sites

ORIGINAL ARTICLE

Xin-Shan Ye et al.
Neamine-heterocycle conjugates
as potential anti-HIV agents



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Chinese Chemical Society



Graphical Abstracts/Chin Chem Lett 24 (2013) iii–viii

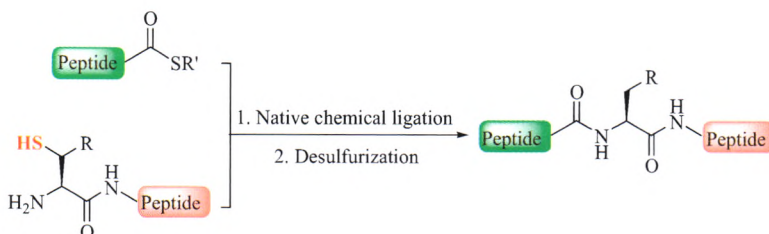
Review

Design of thiol-containing amino acids for native chemical ligation at non-Cys sites

Chinese Chemical Letters 24 (2013) 265

Qiao-Qiao He^a, Ge-Min Fang^b, Lei Liu^a^aTsinghua-Peking Center for Life Sciences, Key Laboratory of Bioorganic Phosphorus Chemistry and Chemical Biology (Ministry of Education), Department of Chemistry, Tsinghua University, Beijing 100084, China^bHigh Magnetic Field Laboratory, Chinese Academy of Sciences, Hefei 230031, China

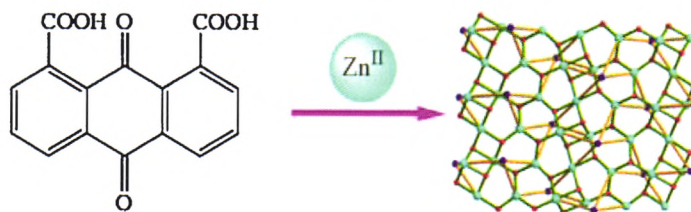
Recent advances in design and synthesis of thiol-containing amino acids in ligation–desulfurization strategy for native chemical ligation at non-Cys sites.



Original articles

A μ_3 -OH⁻ bridged two-dimensional zinc(II) coordination polymer based on an anthryl ligand: Synthesis, characterization and luminescent properties

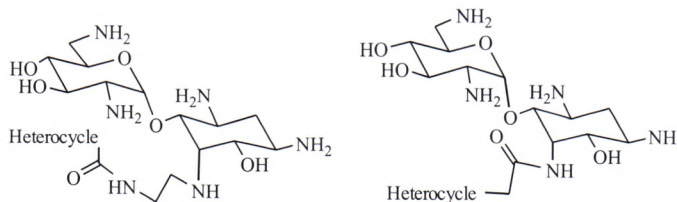
Chinese Chemical Letters 24 (2013) 270

Jun-Jie Wang^a, You-Juan Zhang^a, Ze Chang^b, Ying-Hui Zhang^b^aSchool of Chemistry and Chemical Engineering, Anyang Normal University, Anyang 455002, China^bDepartment of Chemistry, and Tianjin Key Lab of Metal and Molecule-based Material Chemistry, Nankai University, Tianjin 300071, ChinaA two-dimensional (2D) Zn^{II} coordination compound [Zn₅(L)₂(OH)₆]_n (L = 9,10-dioxo-9,10-dihydroanthracene-1,8-dicarboxylate) has been synthesized and characterized, which assumes a 3,3,3,4,5,5,6-connected {4.6²}₄{4².6⁴}₂{4².6⁸}₂{4³.6⁷}₂{4³}₂{4⁴.6⁷.8⁴} topology network.**Neamine-heterocycle conjugates as potential anti-HIV agents**

Chinese Chemical Letters 24 (2013) 273

Ri-Bai Yan, Yan-Fen Wu^a, Jun Liu^b, Xiao-Lian Zhang^b, Xin-Shan Ye^a^aState Key Laboratory of Natural and Biomimetic Drugs, School of Pharmaceutical Sciences, Peking University, Beijing 100191, China^bState Key Laboratory of Virology, Department of Immunology, Hubei Provincial Key Laboratory of Allergy and Immunology, Wuhan University School of Medicine, Wuhan 430071, China

Synthetic neamine-heterocycle conjugates showed potent inhibitory effect on HIV replication.



Neamine-Heterocycle Conjugates

Xylyl derived oxalixcrowns: Synthesis and crystal structure

Chinese Chemical Letters 24 (2013) 279

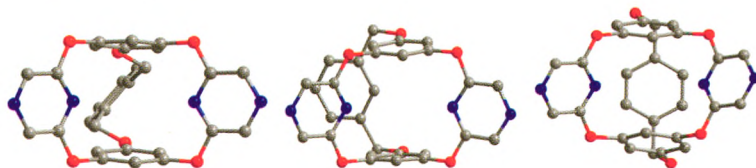
Xiao-Yan Li^a, Chun Hu^a, Ming-Liang Ma^a, Yahu A. Liu^b, Xian-Qiang Mi^c, Biao Jiang^c, Ke Wen^{a,c}

^aShanghai Engineering Research Center of Molecular Therapeutics and New Drug Development, East China Normal University, Shanghai 200062, China

^bMedicinal Chemistry, ChemBridge Research Laboratories Inc., San Diego, CA 92127, USA

^cSustainable Technology Research Center, Shanghai Advanced Research Institute, Chinese Academy of Science, Shanghai 201210, China

The synthesis and crystal structures of three oxalixcrowns are described.



“S”-shaped isopolyoxotungstate cluster decorated by calcium ions

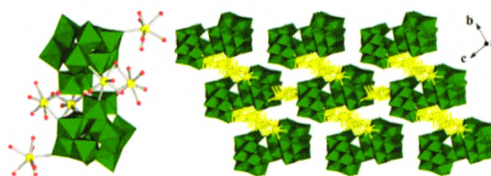
Chinese Chemical Letters 24 (2013) 283

Shuang Yao^a, Hong-Li Wu^a, Zhi-Qi Lei^a, Jing-Hui Yan^a, En-Bo Wang^b

^aCollege of Chemistry and Environmental Engineering, Changchun University of Science and Technology, Changchun 130022, China

^bKey Laboratory of Polyoxometalate Science of Ministry of Education, Department of Chemistry, Northeast Normal University, Changchun 130024, China

An “S”-shaped isopolyoxotungstate decorated by alkaline earth metal ions was reported, which offered a convincing example that lacunary isopolyoxotungstate could be used as excellent inorganic multidentate O-donor ligands to incorporate functional ions for constructing POM clusters.



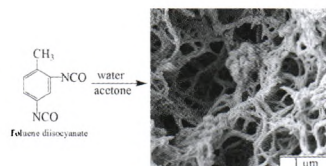
A novel and simple pathway to synthesis of porous polyurea absorbent and its tests on dye adsorption and desorption

Chinese Chemical Letters 24 (2013) 287

Shu-Sheng Li, Xiang-Zheng Kong, Xu-Bao Jiang, Xiao-Li Zhu

College of Chemistry and Chemical Engineering, University of Jinan, Jinan 250022, China

Without need for any porogen and additives, porous polyurea was prepared via a novel one-step protocol through precipitation polymerization of toluene diisocyanate with water in water-acetone. The material was shown to be a good absorbent for anionic dyes. This work provides therefore an attractive candidate for removal of anionic dyes from wastewaters.



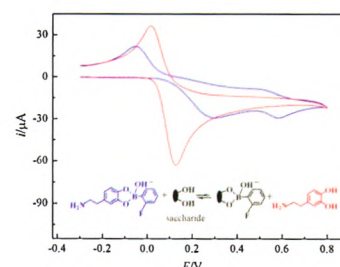
Phenylboronic acid and dopamine as probe set for electrochemical detection of saccharides

Chinese Chemical Letters 24 (2013) 291

Jian Li, Ya-Qin Sun, Yin-Mao Wei, Jian-Bin Zheng

Institute of Analytical Science/Shaanxi Key Laboratory of Electroanalytical Chemistry, Northwest University, Xi'an 710069, China

A novel electrochemical approach applying the ensemble of 2-fluorophenylboronic acid and dopamine as probe set for detection of saccharides was developed. This approach is simple and robust, since the surface modification of the electrode is not involved and the low potential is operated to the working electrode.

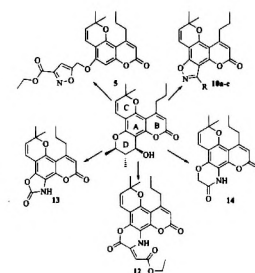


Scaffold-hopping strategy toward calanolides with nitrogen-containing heterocycles

Chinese Chemical Letters 24 (2013) 295

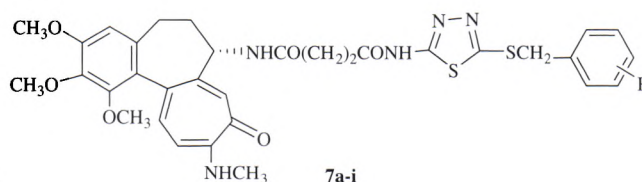
Xiao-Yong Guo^a, Gang Liu^{a,b}^aBeijing Key Laboratory of Active Substance Discovery and Druggability Evaluation, Institute of Materia Medica, Chinese Academy of Medical Sciences and Peking Union Medical College, Beijing 100050, China^bTsinghua-Peking Center for Life Sciences and Department of Pharmacology and Pharmaceutical Sciences, School of Medicine, Tsinghua University, Beijing 100084, China

We explored the chemistry focused on replacing ring D in (+)-calanolide A with five or six membered nitrogen-containing heterocycles which may provide a novel scaffold for anti-HIV and anti-TB agents.



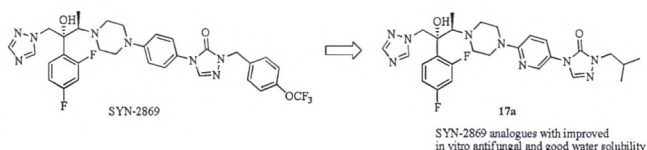
Synthesis and cytotoxic evaluation of new colchicine derivatives bearing 1,3,4-thiadiazole moieties

Chinese Chemical Letters 24 (2013) 299

Li-Hong Shen^a, Hong-Yu Li^a, Hui-Xia Shang^a, Shu-Ting Tian^a, Yi-Sheng Lai^b, Li-Jie Liu^c^aHandan Key Laboratory of Organic Small Molecule Materials, Handan College, Handan 056005, China^bCenter of Drug Discovery, China Pharmaceutical University, Nanjing 210009, China^cHebei Yiling Medicine Corporation Ltd., Shijiazhuang 050035, ChinaA series of novel colchicine derivatives bearing 1,3,4-thiadiazole moieties were synthesized and evaluated for their cytotoxicity against four human tumor cell lines. Compounds **7h** and **7i** showed more potent cytotoxic activities of all screened cancer cells.

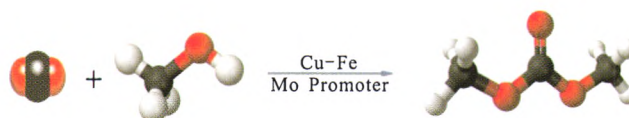
Design and synthesis of novel antifungal triazole derivatives with good activity and water solubility

Chinese Chemical Letters 24 (2013) 303

Xu-Feng Cao^a, Wen-Jing Chu^a, Yong-Bing Cao^b, Yu-She Yang^a^aState Key Laboratory of Drug Research, Shanghai Institute of Materia Medica, Chinese Academy of Sciences, Shanghai 20103, China^bSchool of Pharmacy, Second Military Medical University, Shanghai 200433, ChinaIn order to find novel antifungal agents with good activity and aqueous solubility, a series of SYN-2869 analogues containing a pyridine ring were synthesized and evaluated for their *in vitro* antifungal activity and water solubility. The most potent compound **17a** having an isobutyl substitution on the triazolone exhibited significant broad spectrum antifungal activity. In addition, the water solubility of compound **17a** was sufficiently improved over SYN-2869.

Effects of Mo promoters on the Cu-Fe bimetal catalysts for the DMC formation from CO₂ and methanol

Chinese Chemical Letters 24 (2013) 307

Ying-Jie Zhou^a, Min Xiao^a, Shuan-Jin Wang^a, Dong-Mei Han^a, Yi-Xin Lu^b, Yue-Zhong Meng^a^aThe Key Laboratory of Low-carbon Chemistry & Energy Conservation of Guangdong Province/State Key Laboratory of Optoelectronic Materials and Technologies, Sun Yat-sen University, Guangzhou 510275, China^bDepartment of Chemistry & Medicinal Chemistry Program, Office of Life Sciences, National University of Singapore, Singapore 117543, Republic of SingaporeThe concentration balance of base-acid sites of Cu-Fe bimetal catalysts can be readily adjusted and thus the catalytic activities for the formation of dimethyl carbonate (DMC) from CO₂ and methanol were significantly enhanced by the introduction of Mo. The highest methanol conversion of 6.99% with a DMC selectivity of 87.7% was obtained when 2.5 wt% Mo was loaded.

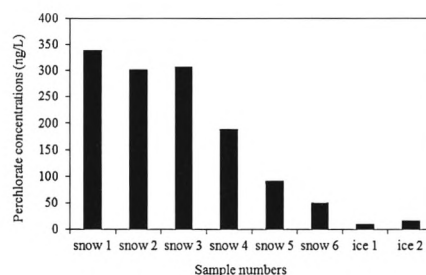
Determination of trace level of perchlorate in Antarctic snow and ice by ion chromatography coupled with tandem mass spectrometry using an automated sample on-line preconcentration method

Su Jiang, Yuan-Sheng Li, Bo Sun

Key Laboratory for Polar Science of State Oceanic Administration, Polar Research Institute of China, Shanghai 200136, China

With the newly developed analytical method, trace level perchlorate in Antarctic snow and ice was analyzed. This is the first time that perchlorate concentration in Antarctic snow and ice samples is reported.

Chinese Chemical Letters 24 (2013) 311

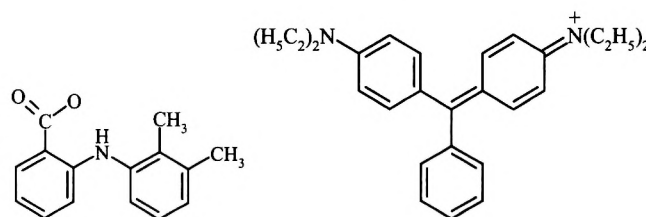


Potentiometric determination of mefenamic acid in pharmaceutical formulation by membrane sensor based on ion-pair with basic dye

Zholt Kormosh, Oksana Matviychuk

Eastern European National University, Voli av. 13, Lutsk 43021, Ukraine

Membrane sensor based on ion-pair Brilliant Green mefenamate; sensor response to mefenamate ion has the sensitivity of (86.0 ± 2.0) mV/pC over the range of 9×10^{-5} – 1×10^{-2} mol/L and the detection limit of 4.5×10^{-5} mol/L at pH 8.5–12.



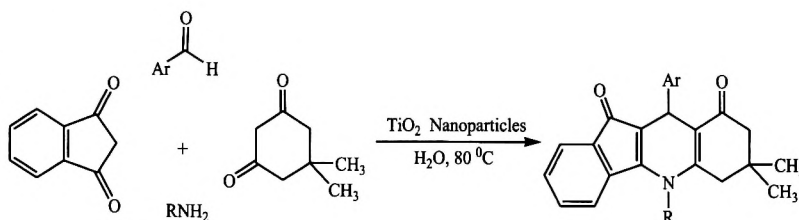
Chinese Chemical Letters 24 (2013) 315

Simple route to indeno[1,2-*b*]quinoline derivatives via a coupling reaction catalyzed by TiO₂ nanoparticles

Shahrzad Abdolmohammadi

Department of Chemistry, Faculty of Science, East Tehran Branch, Islamic Azad University, PO Box 33955-163, Tehran, Iran

Indeno[1,2-*b*]quinolinedione derivatives have been synthesized by a one-pot condensation of 1,3-indanedione, aromatic aldehydes, primary amines and dimedone utilizing TiO₂ nanoparticles (TiO₂-NPs) as catalyst.



Chinese Chemical Letters 24 (2013) 318

Synthesis, pharmacokinetics and *in vivo* antifungal activity of the novel water-soluble prodrugs of itraconazole analogue YL-24

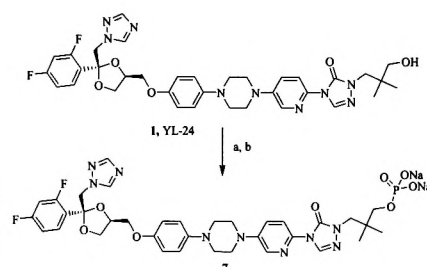
Yu Liu^a, Xu-Feng Cao^a, Xin Liu^a, Yong-Bing Cao^b, Wen-Jing Chu^a, Yu-She Yang^a

^aState Key Laboratory of Drug Research, Shanghai Institute of Materia Medica, Chinese Academy of Sciences, Shanghai 20103, China

^bSchool of Pharmacy, Second Military Medical University, Shanghai 200433, China

To improve the aqueous solubility of an itraconazole analogue, compound **1** (YL-24), a series of novel prodrugs were synthesized. Among these prodrugs, the phosphate disodium salt compound **7** exhibited excellent aqueous solubility (9.8 mg/mL) at near-neutral pH and sufficient stability in buffer solutions, along with favorable pharmacokinetic profiles. In particular, compounds **1** and **7** provided moderate survival efficacy in murine systemic *Candida albicans* SC5314 infection model, but their efficacy was weaker than that of fluconazole.

Chinese Chemical Letters 24 (2013) 321



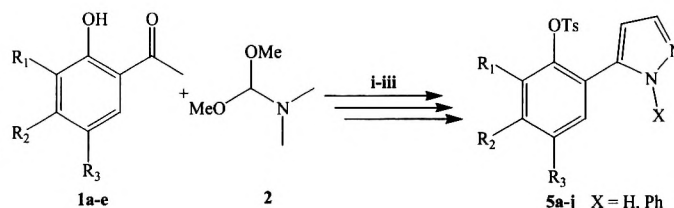
Synthesis and bioactivities of some new 1*H*-pyrazole derivatives containing an aryl sulfonate moiety

Chinese Chemical Letters 24 (2013) 325

Babasaheb V. Kendre, Mahadev G. Landge, Wamanrao N. Jadhav, Sudhakar R. Bhusare

Department of Chemistry, Dnyanopasak College, Parbhani 431401, MS, India

A new series of 1*H*-pyrazole derivatives bearing an aryl sulfonate moiety has been synthesized by a one-pot cyclo-condensation reaction of 2-(3-(dimethylamino) acryloyl)phenyl-4-methylbenzene sulfonates and hydrazine hydrate or phenyl hydrazine in ethanol under reflux conditions. Some of the newly synthesized compounds were screened for anti-inflammatory and antimicrobial activity.



Electrochemical study of sulfadiazine on a novel phthalocyanine-containing chemically modified electrode

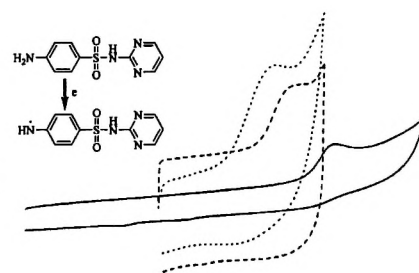
Chinese Chemical Letters 24 (2013) 329

Xiao-Ping Hong^a, Jing-Ying Ma^b

^aDepartment of Chemistry, Zhejiang Sci-Tech University, Hangzhou 310018, China

^bDepartment of Construction, Zhejiang College of Construction, Hangzhou 311231, China

Antibacterial drug residues founded in animal derived food has been a critical problem on food safety. There is an urgent need for the development of sensitive method for monitoring the residues level in food. Here, a metal phthalocyanine and carbon nanotubes composite modified electrode for electrochemical study of sulfadiazine are discussed.



Rapid and sensitive detection of pesticides by surface-enhanced Raman spectroscopy technique based on glycidyl methacrylate-ethylene dimethacrylate (GMA-EDMA) porous material

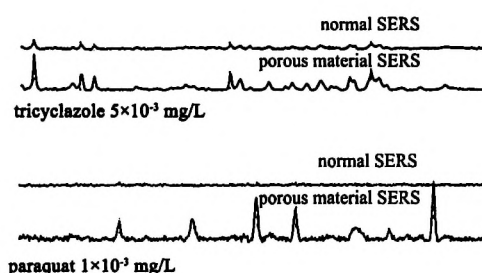
Chinese Chemical Letters 24 (2013) 332

Qing-Qing Li^a, Yi-Ping Du^a, Ying Xu^a, Xuan Wang^a, Shi-Qian Ma^a, Jin-Pei Geng^b, Peng Cao^b, Tao Sui^b

^aShanghai Key Laboratory of Functional Materials Chemistry & Research Centre of Analysis and Test, East China University of Science and Technology, Shanghai 200237, China

^bYantai Entry-Exit Inspection and Quarantine Bureau, Yantai 264000, China

A fast and sensitive SERS detection using GMA-EDMA porous material combined with a miniature device was reported. Two pesticides tricyclazole and paraquat were successfully detected at concentrations of 5×10^{-3} mg/L and 1×10^{-3} mg/L, respectively.



Preparation and characterization of optically functional hollow sphere hybrid materials by surface-initiated RATRP and "click" chemistry

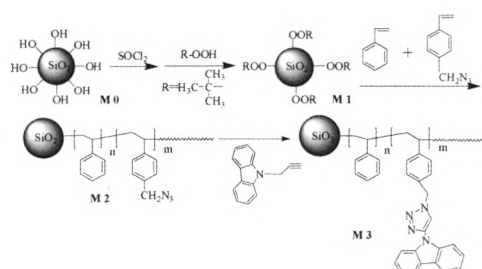
Chinese Chemical Letters 24 (2013) 335

Xin-Hu Lv^a, Li-Ping Wang^a, Guang Li^a, Xue-Xi Gao^b, Pan-Pan Pan^a, Li-Mei Zhang^a

^aCollege of Materials Science and Engineering, Liaocheng University, Liaocheng 252059, China

^bSchool of Physical Science and Information Technology, Liaocheng University, Liaocheng 252059, China

A new optically functional hybrid material has been constructed via surface-initiated reverse atom transfer radical polymerization (SI-RATRP) and "click" reaction.



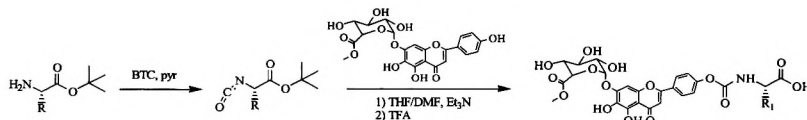
Chinese Chemical Letters 24 (2013) 338

Synthesis and physiochemical property evaluation of carbamate derivatives of scutellarin methyl ester

Feng-Jie Jiang, Xiao-Zhong Fu, Shan-Wu Wang, Yong Huang, Wen Zhou, Ai-Min Wang, Yong-Lin Wang

School of Pharmacy, Guiyang Medical College, Guiyang 550004, China

Design and synthesis of carbamate derivatives of scutellarin methyl ester in the presence of bis(trichloromethyl) carbonate (BTC), with scutellarin methyl esters and L-amino acid *tert*-butyl ester hydrochloride as starting materials. *In vitro* physiochemical studies indicated that two compounds exhibit higher aqueous solubility and *in vitro* stability than scutellarin.



β -Cyclodextrin assisted one-pot synthesis of mesoporous magnetic $\text{Fe}_3\text{O}_4/\text{C}$ and their excellent performance for the removal of Cr(VI) from aqueous solutions

Hui Zhang^{a,b}, De-Lei Liu^b, Li-Li Zeng^c, Meng Li^b

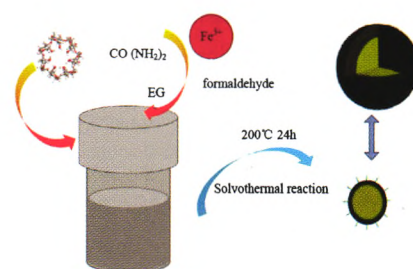
^aState Key Laboratory of Oil and Gas Reservoir Geology and Exploitation, Southwest Petroleum University, Chengdu 610500, China

^bSchool of Chemistry and Chemical Engineering, Southwest Petroleum University, Chengdu 610500, China

^cDushanzi Petrochemical Company, Dushanzi District, Karamay 833600, China

One-pot approach for mesoporous magnetic $\text{Fe}_3\text{O}_4/\text{C}$ nanospheres with β -CD as carbon source is studied in this work.

Chinese Chemical Letters 24 (2013) 341



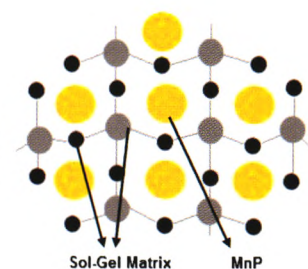
Enhanced catalytic features of sol-gel immobilized MnP isolated from solid state culture of *Pleurotus ostreatus* IBL-02

Muhammad Asgher, Hafiz Muhammad Nasir Iqbal

Industrial Biotechnology Laboratory, Department of Chemistry and Biochemistry, University of Agriculture, Faisalabad 38040, Pakistan

Lignocellulosic waste material i.e. wheat straw was used as fermentation feed stuff for MnP production. A promising and eco-friendly approach was adopted to immobilize the purified MnP into the sol-gel matrix network. To explore the textile industrial applicability, the present immobilized MnP was tested against real dye containing textile effluents. Maximal decolorization (100%) was achieved within a short time period.

Chinese Chemical Letters 24 (2013) 344



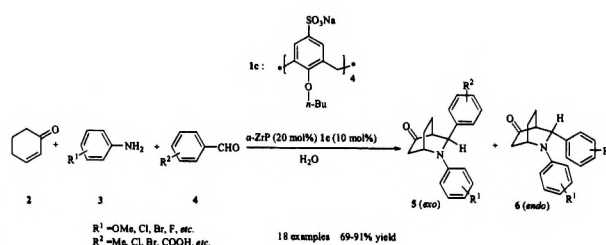
An efficient synthesis of 2,3-diaryl-2-azabicyclo[2.2.2]octan-5-ones and their acetylcholinesterase inhibitory activity

Li Huang, Jun-Pei Chen, Can Jin, Wei-Ke Su

Key Laboratory for Green Pharmaceutical Technologies and Related Equipment of Ministry of Education, College of Pharmaceutical Sciences, Zhejiang University of Technology, Hangzhou 310014, China

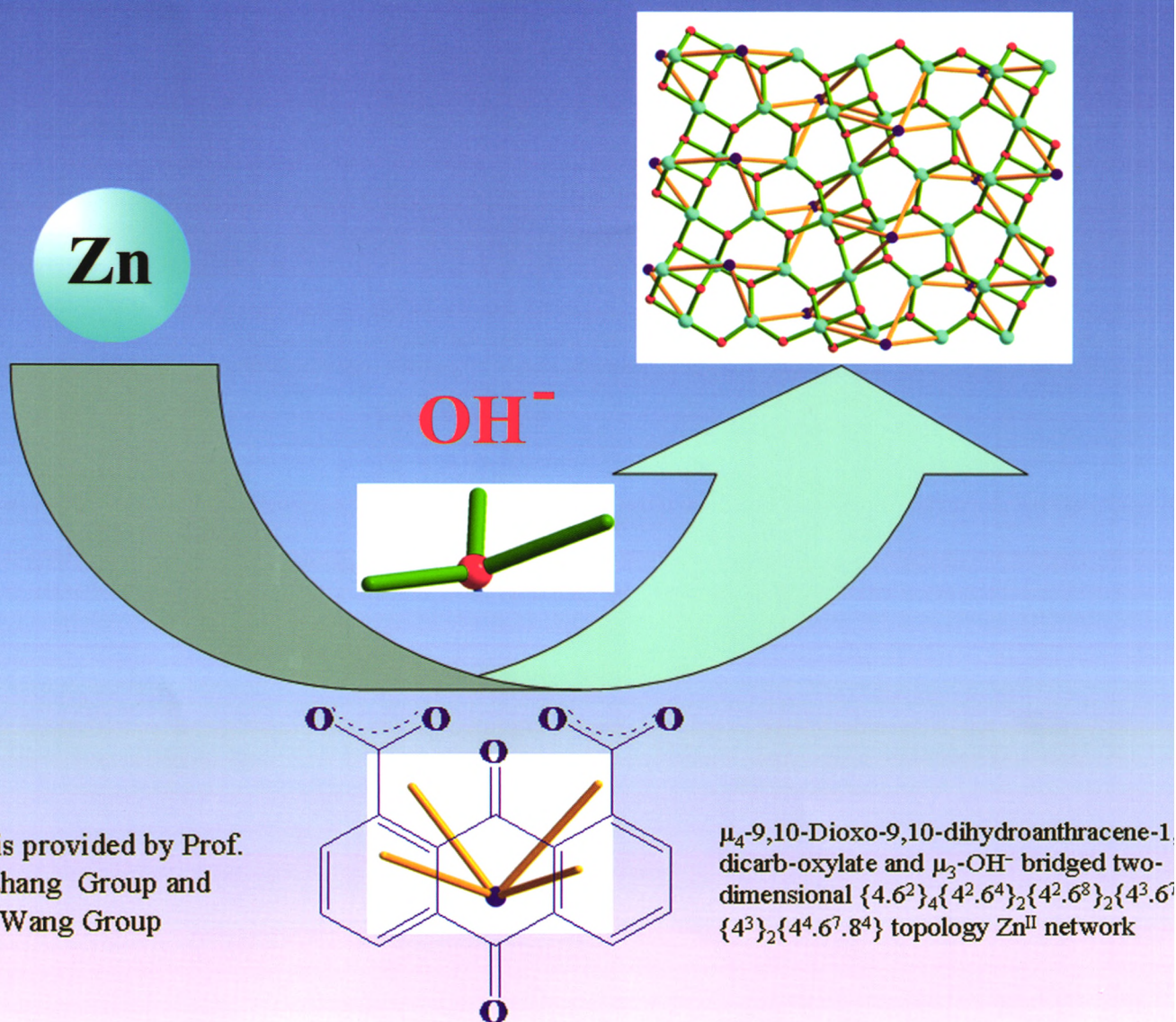
A series of substituted 2,3-diaryl-2-azabicyclo[2.2.2]octan-5-ones have been prepared by an efficient three-component aza-Diels-Alder cycloaddition reaction in water catalyzed by layered α -zirconium hydrogen phosphate (α -ZrP) and sodium calix[4]arene sulfonates bearing pendant short aliphatic chains. The 18 synthesized compounds were assayed for acetylcholinesterase inhibition using mouse acetylcholinesterase.

Chinese Chemical Letters 24 (2013) 347



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