

ISSN 1001-8417

CN 11-2710/O6



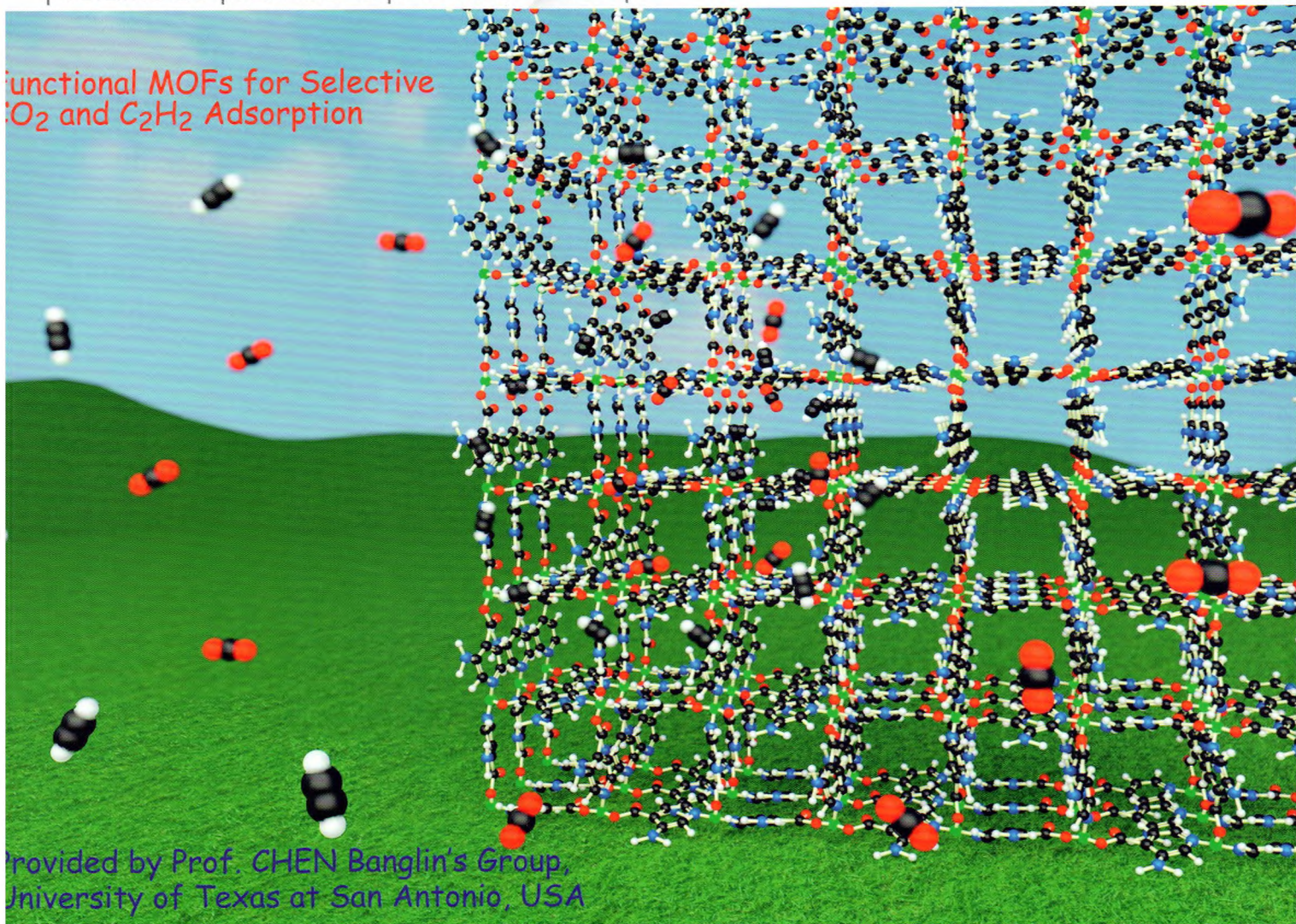
QK1720896

CCL

Chinese Chemical Letters

| Volume 28 | Number 8 | AUGUST 2017 |

Functional MOFs for Selective
 O_2 and C_2H_2 Adsorption



provided by Prof. CHEN Banglin's Group,
University of Texas at San Antonio, USA



REVIEW

Jin-Ming et al.
Multi-channel microfluidic chip-mass
spectrometry platform for cell analysis

ORIGINAL ARTICLE

Zheng Fang, Cheng-Bin Zheng et al.
A system consisted of flame ionization
detector and sulfur chemiluminescence
detector for interference free determination
of total sulfur in natural gas

ISSN 1001-8417



9 771001 841138

Chinese Chemical Society

万方数据 Institute of Materia Medica, Chinese Academy of Medical Sciences



Graphical Abstracts/Chin Chem Lett 28 (2017) iii-x

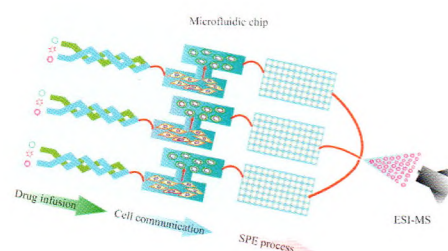
Reviews

Multi-channel microfluidic chip-mass spectrometry platform for cell analysis

Mingsha Jie^{a,b}, Sifeng Mao^b, Haifang Li^b, Jin-Ming Lin^b^aState Key Laboratory of Chemical Resource Engineering, Beijing University of Chemical Technology, Beijing 100029, China^bDepartment of Chemistry, Beijing Key Laboratory of Microanalytical Methods and Instrumentation, The Key Laboratory of Bioorganic Phosphorus Chemistry & Chemical Biology, Tsinghua University, Beijing 100084, China

This review summarizes the latest development of multi-channel microfluidic chip-mass spectrometry in cell analysis.

Chinese Chemical Letters 28 (2017) 1625

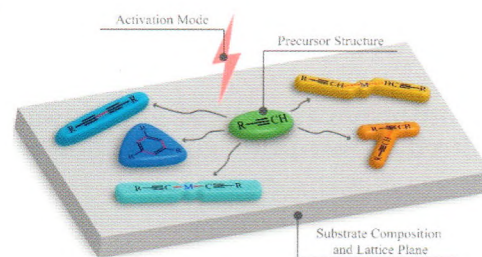


On-surface construction of low-dimensional nanostructures with terminal alkynes: Linking strategies and controlling methodologies

Jing Liu^{a,b}, Qi-Wei Chen^b, Kai Wu^b^aCollege of Chemistry and Chemical Engineering, Liaoning Normal University, Dalian 116029, China^bBNLMS, College of Chemistry and Molecular Engineering, Peking University, Beijing 100871, China

This review summarizes various on-surface linking strategies for terminal alkynes, including non-bonding interactions as well as organometallic and covalent bonds, and presents examples to show effective control of surface assemblies and reactions of terminal alkynes by variations of the precursor structures, substrates and activation modes.

Chinese Chemical Letters 28 (2017) 1631

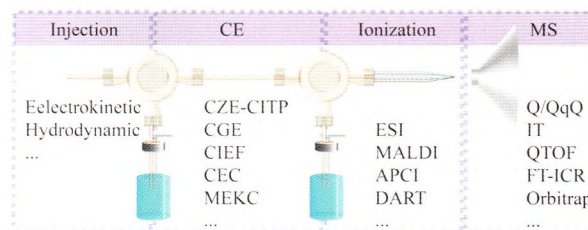


Recent advances of capillary electrophoresis-mass spectrometry instrumentation and methodology

You Jiang^a, Mu-Yi He^b, Wen-Jing Zhang^b, Pan Luo^b, Dan Guo^b, Xiang Fang^b, Wei Xu^b^aNational Institute of Metrology, Beijing 100013, China^bSchool of Life Science, Beijing Institute of Technology, Beijing 100081, China

This review provides an update of instrumentation developments in the methodology of capillary electrophoresis-mass spectrometry (CE-MS) systems. A selection of relevant articles covers the literatures published from Jan. 2013 to Feb. 2017.

Chinese Chemical Letters 28 (2017) 1640



Original Articles

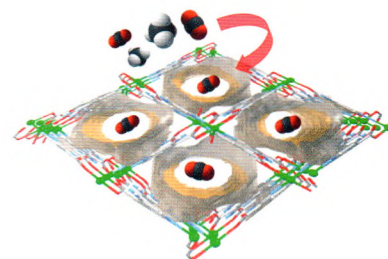
A two-dimensional microporous metal–organic framework for highly selective adsorption of carbon dioxide and acetylene

Osamah Alduhaish, Bin Li, Hadi Arman, Rui-Biao Lin, John Cong-Gui Zhao, Banglin Chen

Department of Chemistry, University of Texas at San Antonio, San Antonio, TX 78249-0698, USA

By virtue of 3-aminoisonicotinic acid, a two-dimensional porous metal–organic framework has been synthesized, showing highly selective adsorption toward carbon dioxide and acetylene.

Chinese Chemical Letters 28 (2017) 1653



Influence of terminal substituents on the halide anion binding of foldamer-based receptors

Ling Yang^{a,c}, Wei Zhao^{a,c}, Yan-Ke Che^a, Ying Wang^b, Hua Jiang^{a,b}

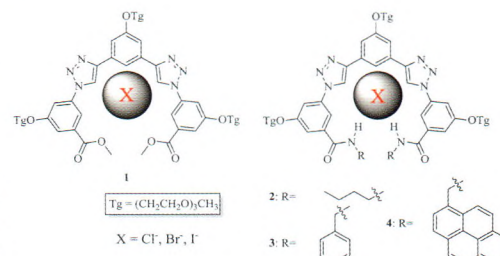
^aBeijing National Laboratory for Molecular Sciences, CAS Key Laboratory of Photochemistry, Institute of Chemistry, Chinese Academy of Sciences, Beijing 100190, China

^bCollege of Chemistry, Beijing Normal University, Beijing 100875, China

^cUniversity of Chinese Academy of Sciences, Beijing 100049, China

Foldamers **1–4** incorporating different terminal substituents have been designed and synthesized for binding halide anion. ¹H NMR titration experiments demonstrated that the short oligo(aryl-triazole)s backbone **1** could not bind halide anions unless that amide H-bond donors were incorporated at the termini of the oligomer. Terminal substituents on oligo(aryl-triazole-amide)s foldamers **2–4** have a considerable influence on the binding affinities of the foldamers for halide anions.

Chinese Chemical Letters 28 (2017) 1659



To improve alignment of isoindigo-based conjugated polymer film by controlling contact line receding velocity

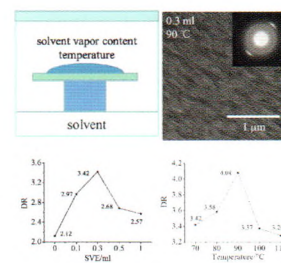
Shuai-Jie Chi^{a,b}, Liang Chen^{a,b}, Hong-Xiang Li^{a,b}, Jian-Gang Liu^a, Xin-Hong Yu^a, Yan-Chun Han^a

^aState Key Laboratory of Polymer Physics and Chemistry, Changchun Institute of Applied Chemistry, Chinese Academy of Sciences, Changchun 130022, China

^bUniversity of the Chinese Academy of Sciences, Beijing 100049, China

Only when solvent vapor content was 0.3 mL and the film-formation temperature was 90 °C, the contact line receding velocity was in accordance with the critical alignment velocity, and the highest degree of alignment was attained in the IIDDT-C3 film, with the dichroic ratio up to 4.08.

Chinese Chemical Letters 28 (2017) 1663



A system consisted of flame ionization detector and sulfur chemiluminescence detector for interference free determination of total sulfur in natural gas

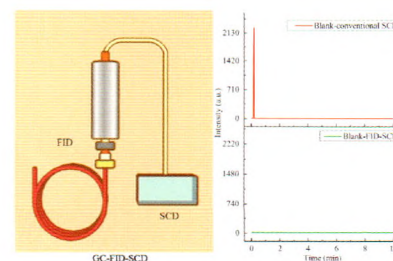
Yi Pan^{a,b}, Zhi-Ang Li^a, Xin Zhou^a, Wei-Kang Wang^a, Xing Wang^a, Zheng Fang^a, Cheng-Bin Zheng^b

^aInstitute of Chemistry, National Institute of Measurement and Testing Technology, Chengdu 610021, China

^bCollege of Chemistry, Sichuan University, Chengdu 610064, China

A new detection system consisted of a flame ionization detector (FID) and a sulfur chemiluminescence detector (SCD) was developed for sensitive and interference free determination of total sulfur in natural gas by non-separation gas chromatography.

Chinese Chemical Letters 28 (2017) 1670



A new fluorescence probing strategy for the detection of parathion-methyl based on *N*-doped carbon dots and methyl parathion hydrolase

Wei Song^{a,b}, Hai-Juan Zhang^c, Ying-Hua Liu^{a,b}, Cui-Ling Ren^{a,b}, Hong-Li Chen^{a,b}

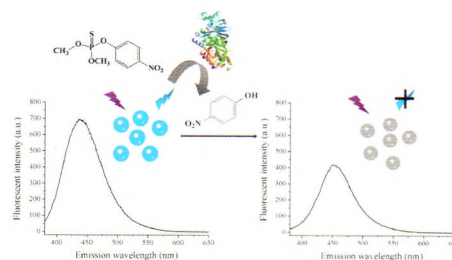
^aCollege of Chemistry and Chemical Engineering, Lanzhou University, Lanzhou 730000, China

^bKey Laboratory of Nonferrous Metal Chemistry and Resources Utilization of Gansu Province, Lanzhou 730000, China

^cLanzhou Institute of Chemical Physics, Chinese Academy of Sciences, Lanzhou 730000, China

A novel system made up of nitrogen doped carbon dots (NCDs) and methyl parathion hydrolase (MPH) was developed for the detection of parathion-methyl (PM). This method is based on inner filter effect (IFE) and molecular interactions between NCDs and *p*-nitrophenol, which is the hydrolysis product of PM catalyzed by MPH.

Chinese Chemical Letters 28 (2017) 1675



Two near-infrared highly sensitive cyanine fluorescent probes for pH monitoring

Jing-Ru Hou^{a,b}, Di Jin^{a,b}, Bo Chen^{a,b}, Lei-Lei Si^{a,b}, Yue-Hua Jin^c, Li-Gong Chen^{a,b,d}, Xi-Long Yan^{a,b,d}, Bo-Wei Wang^{a,b}, Yang Li^{a,b,d}

^aSchool of Chemical Engineering and Technology, Tianjin University, Tianjin 300350, China

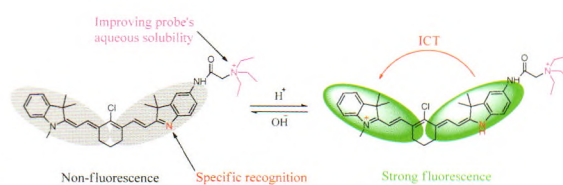
^bCollaborative Innovation Center of Chemical Science and Engineering, Tianjin 300350, China

^cTianjin Bohai Fine Chemical Co., Ltd., Tianjin 300300, China

^dTianjin Engineering Research Center of Functional Fine Chemicals, Tianjin 300350, China

Two novel NIR cyanine fluorescent probes bearing quaternary ammonium unit were designed for pH monitoring. These two probes can achieve real-time imaging of pH in living HeLa cells due to their excellent properties, including great reversibility, desirable photostability, high selectivity, low cytotoxicity and remarkable membrane permeability.

Chinese Chemical Letters 28 (2017) 1681



Concise synthesis of 1-*epi*-castanospermine

Bin Cheng^{a,b}, Yi-Xian Li^{a,b}, Yue-Mei Jia^{a,b}, Chu-Yi Yu^{a,b,c}

^aBeijing National Laboratory for Molecular Science (BNLMS), CAS Key Laboratory of Molecular Recognition and Function, CAS Research/Education Center for Excellence in Molecular Sciences, Institute of Chemistry, Chinese Academy of Sciences, Beijing 100190, China

^bUniversity of Chinese Academy of Sciences, Beijing 100049, China

^cNational Engineering Research Center for Carbohydrate Synthesis, Jiangxi Normal University, Nanchang 330022, China

1-*epi*-Castanospermine (**5**) was synthesized from readily available 2,3,4,6-tetra-*O*-benzyl-1-deoxynojirimycin (**11**) in 9 steps and 21% overall yield, with selective debenzylation, Barbier reaction and reductive amination as the main reaction steps.

Chinese Chemical Letters 28 (2017) 1688



Recyclable benzyl-type fluoros tags: Preparation and application in oligosaccharide synthesis

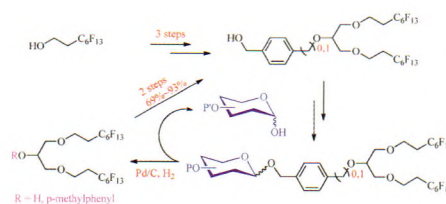
Yong-Hai Chai^{a,b}, Ying-Le Feng^{a,b}, Jing-Jing Wu^{a,b}, Chu-Qiao Deng^{a,b}, Ai-Yun Liu^{a,b}, Qi Zhang^b

^aKey Laboratory of Applied Surface and Colloid Chemistry, Ministry of Education, Shaanxi Normal University, Xi'an 710119, China

^bSchool of Chemistry and Chemical Engineering, Shaanxi Normal University, Xi'an 710119, China

Two recyclable benzyl-type fluoros tags with double fluoros chains were designed, synthesized and applied to the synthesis of oligosaccharide Gb3.

Chinese Chemical Letters 28 (2017) 1693



Synthesis and glycosidase inhibition of C-7 modified casuarine derivatives

Chinese Chemical Letters 28 (2017) 1701

Bin Cheng^{a,b}, Yuki Hirokami^c, Yi-Xian Li^{a,b}, Atsushi Kato^c, Yue-Mei Jia^{a,b}, Chu-Yi Yu^{a,b,d}

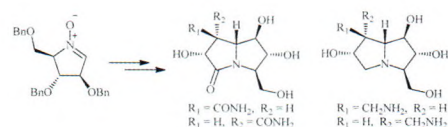
^aBeijing National Laboratory for Molecular Science (BNLMS), CAS Key Laboratory of Molecular Recognition and Function, CAS Research/Education Center for Excellence in Molecular Sciences, Institute of Chemistry, Chinese Academy of Sciences, Beijing 100190, China

^bUniversity of Chinese Academy of Sciences, Beijing 100049 China

^cDepartment of Hospital Pharmacy, University of Toyama, Toyama 930-0194, Japan

^dNational Engineering Research Center for Carbohydrate Synthesis, Jiangxi Normal University, Nanchang 330022, China

A series of C-7 modified analogues of casuarine have been synthesized from sugar-derived nitron and assayed against various glycosidases. Introduction of C-7 aminomethyl or amide group led to sharp decrease of the inhibitory activities.



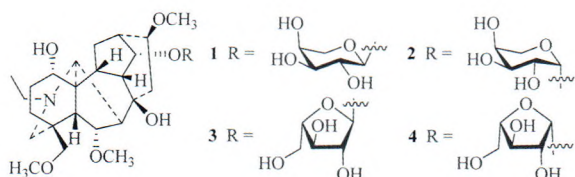
Unprecedented C₁₉-diterpenoid alkaloid glycosides from an aqueous extract of "fu zi": Neoline 14-O-L-arabinosides with four isomeric L-anabinosyls

Chinese Chemical Letters 28 (2017) 1705

Xian-Hua Meng, Qing-Lan Guo, Cheng-Gen Zhu, Jian-Gong Shi

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

Four structurally unprecedented aconitane-type C₁₉-diterpenoid alkaloid glycosides with isomeric arabinosyls, named aconicarmichosides A–D (**1–4**), were isolated from an aqueous extract of "fu zi", the lateral roots of *Aconitum carmichaelii*. Their structures were elucidated by spectroscopic and chemical methods, including 2D NMR experiments and acid hydrolysis. Compounds **1–4** represent the first examples of glycosidic aconitane diterpenoid alkaloids.



Cytotoxic cassane diterpenoids from the seeds of *Caesalpinia sappan*

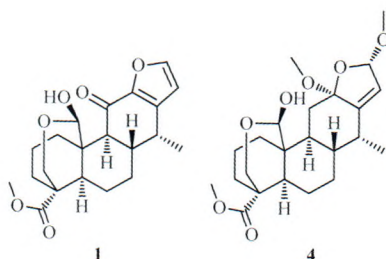
Chinese Chemical Letters 28 (2017) 1711

Zheng-Feng Wu^a, Han Bao^a, Fa-Yang Zhou^a, Jing-Xin Liu^a, Fan-Cheng Meng^a, Lu Feng^b, Jin-Jian Lu^a, Qing-Wen Zhang^a, Yang Ye^b, Li-Gen Lin^a

^aState Key Laboratory of Quality Research in Chinese Medicine, Institute of Chinese Medical Sciences, University of Macau, Macao 999078, China

^bState Key Laboratory of Drug Research, and Natural Products Chemistry Department, Shanghai Institute of Materia Medica, Chinese Academy of Sciences, Zhangjiang Hi-Tech Park, Shanghai 201203, China

Five new cassane-type diterpenoids, named 11-oxophanginin A (**1**), caesalsappanins O–Q (**2–4**) and phanginin U (**5**), were isolated from the seeds of *Caesalpinia sappan*. Compound **4** is the first example of cassane-type diterpenoid with a 19,20-epoxide linkage and a methoxy group at C-16.



New C₂₁ steroidal glycosides from the roots of *Cynanchum stauntonii* and their protective effects on hypoxia/reoxygenation induced cardiomyocyte injury

Chinese Chemical Letters 28 (2017) 1716

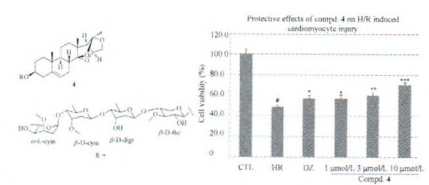
Qiao-Shi Lei^{a,b}, Yi-Han Zuo^c, Chang-Zhi Lai^a, Jin-Fang Luo^d, Shu-Wen Pang^{a,b}, Hua Zhou^{c,d}, Xin-Sheng Yao^{a,b}, Jin-Shan Tang^{a,b}

^aInstitute of Traditional Chinese Medicine and Natural Products, College of Pharmacy, Jinan University, Guangzhou 510632, China

^bKey Laboratory of Standard Material in Natural Medicine of Guangdong Province, Guangzhou Xiangxue Pharmaceutical Ltd. Co., Guangzhou 510663, China

^cFaculty of Chinese Medicine, Macau University of Science and Technology, Macao, China

^dState Key Laboratory of Quality Research in Chinese Medicine, Macau University of Science and Technology, Macao, China
Four new C₂₁ steroidal glycosides (**1–4**) were obtained from the roots of *Cynanchum stauntonii* and their chemical structures were characterized by sophisticated analyses of IR, HRESI-TOF-MS, 1D, and 2D-NMR data, together with chemical methods. They were interesting 13,14:14,15-disecopregnane-type skeleton or 14, 15-secopregnane-type skeleton C₂₁ steroidal glycosides.

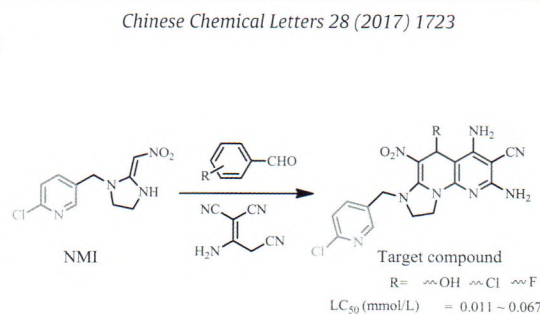


Synthesis and insecticidal activities of 1,8-naphthyridine derivatives

Qing-Qing Hou, Yi-Fei Jing, Xu-Sheng Shao

Shanghai Key Laboratory of Chemical Biology, School of Pharmacy, East China University of Science and Technology, Shanghai 200237, China

1,8-Naphthyridines (NAP) are biological important scaffolds in bioactive molecules design. By hybrid of NAP with neonicotinoid core structure, nine novel NAP derivatives were synthesized and subjected to insecticidal activities evaluation. Some of the compounds showed excellent insecticidal activity against cowpea aphids (*Aphis craccivora*) with LC_{50} values ranging from 0.011 mmol/L to 0.067 mmol/L. The results indicated that NAP can be used as insecticidal structure for further modification.



Design, synthesis and insecticidal activities of novel anthranilic diamides containing polyfluoroalkyl pyrazole moiety

Jian-Jun Shia^{a,b}, Gui-Hua Ren^a, Ning-Jie Wu^c, Jian-Quan Weng^a, Tian-Ming Xu^c, Xing-Hai Liu^a, Cheng-Xia Tan^a

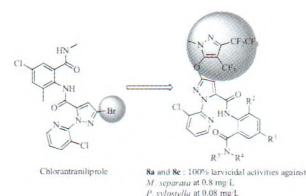
^aCollege of Chemical Engineering, Zhejiang University of Technology, Hangzhou 310014, China

^bSchool of Chemistry and Chemical Engineering, Huangshan University, Huangshan 245041, China

^cZhejiang Base of National Southern Pesticide Research Centre, Zhejiang Research Institute of Chemical Industry, Hangzhou 310023, China

A novel series of anthranilic diamides with polyfluoroalkyl pyrazole motif was designed and synthesized. They possessed good insecticidal activity.

Chinese Chemical Letters 28 (2017) 1727



Synthesis and biological evaluation of novel pyrazole carboxamide with diarylamine-modified scaffold as potent antifungal agents

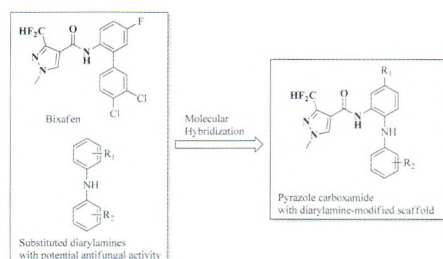
Xiao-Xiao Zhang^a, Hong Jin^a, Yuan-Jie Deng^a, Xu-Heng Gao^a, Yong Li^b, Yong-Tian Zhao^a, Ke Tao^a, Tai-Ping Hou^a

^aKey Laboratory of Bio-Resource and Eco-environment of Ministry of Education, College of Life Sciences, Sichuan University, Chengdu 610064, China

^bCollege of Chemistry, Sichuan University, Chengdu 610064, China

Twenty-seven novel pyrazole carboxamide with diarylamine-modified scaffold were designed, synthesized and characterized in detail via ¹H NMR, ¹³C NMR, IR and ESI-HRMS. Preliminary bioassays showed that some of the target compounds exhibited good antifungal activity against *Rhizoctonia solani*, *Rhizoctonia cerealis* and *Sclerotinia sclerotiorum*.

Chinese Chemical Letters 28 (2017) 1731



Synthesis and biological evaluation of dihydrotriazine derivatives as potential antibacterial agents

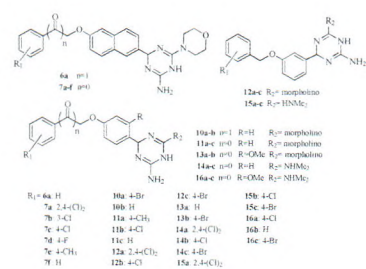
Tian-Yi Zhang^{a,b}, Chao Li^a, Yu-Shun Tian^a, Jia-Jun Li^a, Liang-Peng Sun^a, Chang-Ji Zheng^a, Hu-Ri Piao^a

^aKey Laboratory of Natural Resources of Changbai Mountain & Functional Molecules, Ministry of Education, Yanbian University College of Pharmacy, Yanji 133000, China

^bDepartment of Pharmacy, Jilin Medical University, Jilin 132013, China

A series of dihydrotriazine derivatives were designed, synthesized and evaluated for their antibacterial and antifungal activities.

Chinese Chemical Letters 28 (2017) 1737



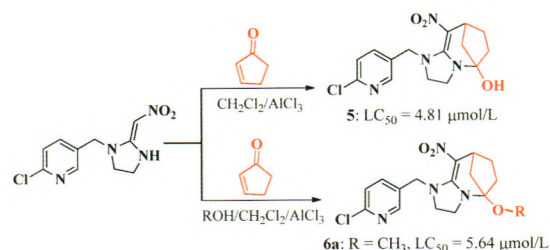
Synthesis and insecticidal activities of novel bridged-neonicotinoids

Dong-Dong Zhang^a, Shu-Xia Cui^a, Zhi-Ping Xu^b, Dong-Mei Li^a, Zhong-Zhen Tian^a

^aShandong Provincial Key Laboratory of Fluorine Chemistry and Chemical Materials, School of Chemistry and Chemical Engineering, University of Jinan, Jinan 250022, China

^bShanghai Key Laboratory of Chemical Biology, School of Pharmacy, East China University of Science and Technology, Shanghai 200237, China

A series of novel bridged-neonicotinoid analogues were synthesized from 6-Cl-PMNI with cyclopentenone or cyclohexenone, and bioassay tests showed that the bioactivities of compounds **5** and **6a** were higher than imidacloprid against *Aphis craccivora*.



Highly active iridium catalyst for hydrogen production from formic acid

Ying Du^{a,b}, Yang-Bin Shen^{b,c}, Yu-Lu Zhan^{a,b}, Fan-Di Ning^{b,d}, Liu-Ming Yan^a, Xiao-Chun Zhou^b

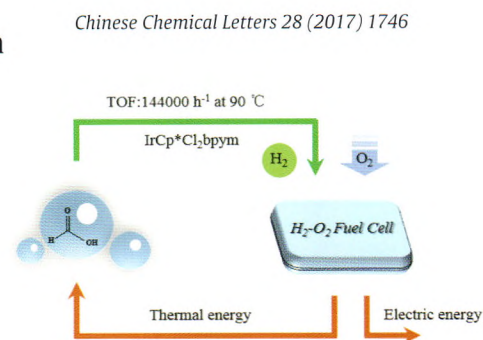
^aDepartment of Chemistry, Shanghai University, Shanghai 200444, China

^bDivision of Advanced Nanomaterials, Suzhou Institute of Nano-tech and Nano-bionics, Chinese Academy of Sciences, Suzhou 215125, China

^cUniversity of Chinese Academy of Sciences, Beijing 100049, China

^dUniversity of Science and Technology of China, Hefei 230026, China

We synthesized a highly active and selective catalyst IrCp*Cl₂bpy_m for HCOOH dehydrogenation. The catalyst can effectively work at the temperature below that of the fuel cell stack (80 °C) for a long time



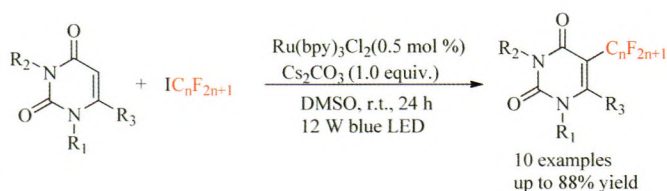
Benign perfluoroalkylation of uracils and uracil nucleosides via visible light-induced photoredox catalysis

Ben-Hou Zhang^{a,b}, Jing-Jing Kong^a, Yang Huang^a, Yue-Guang Lou^a, Xiao-Fei Li^a, Chun-Yang He^a

^aSchool of Pharmacy, Zunyi Medical University, Zunyi 563003, China

^bDafeng Marine Industrial Institute of Nanjing Tech University, Yancheng 224145, China

An efficient and facile method for the preparation of 5-perfluoroalkylation uracils and uracil nucleosides through visible-light-mediated reaction has been developed, which demonstrate high reaction efficiency and show broad substrate scope.



Inverted polymer solar cells with Zn₂SnO₄ nanoparticles as the electron extraction layer

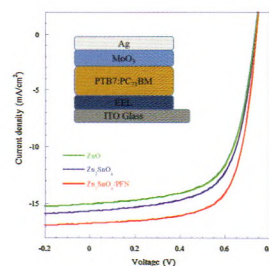
Xiao-Juan Huang^a, Xiang Yao^a, Wen-Zhan Xu^a, Kai Wang^b, Fei Huang^a, Xiong Gong^{a,b}, Yong Cao^a

^aInstitute of Polymer Optoelectronic Materials and Devices, State Key Laboratory of Luminescent Materials and Devices, South China University of Technology, Guangzhou 510640, China

^bDepartment of Polymer Engineering, College of Polymer Science and Polymer Engineering, The University of Akron, Akron, OH 44325, USA

Zn₂SnO₄ nanoparticles used as the electron extraction layer in the inverted polymer solar cells can get a decent power conversion efficiency which can be further enhanced through modification by poly[(9,9-bis(3'-(N,N-dimethylamino)propyl)-2,7-fluorene)-alt-2,7-(9,9-dioctylfluorene)] (PFN).

Chinese Chemical Letters 28 (2017) 1755



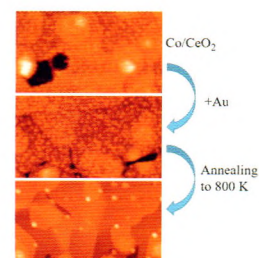
Interaction of cobalt with ceria thin films and its influence on supported Au nanoparticles

Wei-Jia Wang, Yan Wang, Qian Xu, Huan-Xin Ju, Tao Wang, Zhi-Jie Tao, Shan-Wei Hu, Jun-Fa Zhu

National Synchrotron Radiation Laboratory and Collaborative Innovation Center of Suzhou Nano Science and Technology, University of Science and Technology of China, Hefei 230029, China

The interaction of Co with ceria thin films and its influence on the sintering behavior of Au were investigated by STM, SRPES and XPS. Deposition of Co and CeO₂(111) at 300 K leads to oxidation of Co to Co²⁺, followed by the appearance of metallic Co at high coverages. The addition of Co to the Au/CeO₂ surface suppresses the sintering of Au particles at high temperatures in comparison with that of pure Au particles.

Chinese Chemical Letters 28 (2017) 1760



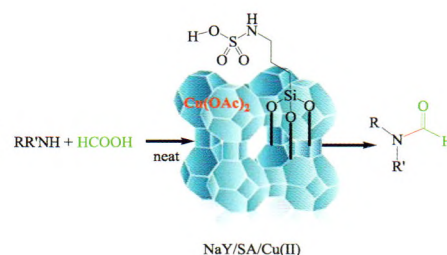
NaY zeolite functionalized by sulfamic acid/Cu(OAc)₂ as a new and reusable heterogeneous hybrid catalyst for efficient solvent-free formylation of amines

Samira Kazemi, Akbar Mobinikhaledi, Mojgan Zندهdel

Faculty of Science, Department of Chemistry, Arak University, Arak 38156-8-8349, Iran

Chemoselective *N*-formylation of amines with formic acid was achieved using NaY/SA/Cu(II) as a new, recyclable and efficient hybrid catalyst. Excellent yields, very short reaction times, solvent-free and mild reaction conditions are prominent advantages of this new protocol.

Chinese Chemical Letters 28 (2017) 1767



Synthesis, structural study, thermal, optical properties and characterization of the new compound [C₆H₇N₂O₂]₃TeCl₅·2Cl

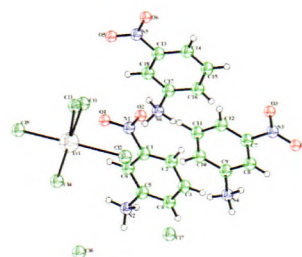
Dhaou Maraii^a, Jordi Farjas^b, Xavier Fontrodona^b, Mohamed Dammak^a

^aLaboratoire de Chimie Inorganique, Faculté des Sciences de Sfax, University of Sfax, BP 1171, 3000 Sfax, Tunisia

^bUniversity of Girona, Campus Montilivi, Edif. PII, E17071 Girona, Catalonia, Spain

The new organic-inorganic compound, [C₆H₇N₂O₂]₃TeCl₅·2Cl was synthesized and the characterization has been done using thermal analysis, kinetic analysis, evolved gas analysis.

Chinese Chemical Letters 28 (2017) 1773



Synthesis of trifluoromethyl-/cyclopropyl-substituted 2-isoxazolines by DBU-promoted domino reaction

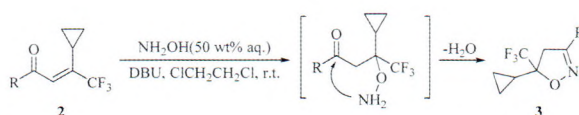
Xiao-Dong Liu^a, Hai-Yan Ma^a, Chun-Hui Xing^b, Long Lu^b

^aSchool of Chemistry and Molecular Engineering, East China University of Science and Technology, Shanghai 200237, China

^bKey Laboratory of Organofluorine Chemistry, Shanghai Institute of Organic Chemistry, Chinese Academy of Sciences, Shanghai 200032, China

Trifluoromethyl and cyclopropyl substituted 2-isoxazolines were synthesized via a DBU-promoted domino reaction of β -trifluoromethyl-/ β -cyclopropyl-substituted enones with hydroxylamine. A wide range of 3-substituted 5-cyclopropyl-5-trifluoromethyl-2-isoxazolines were obtained in good to excellent yields under mild reaction conditions.

Chinese Chemical Letters 28 (2017) 1780



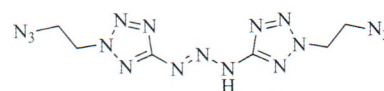
Synthesis and characterization of functionalized 1,3-bis(2-alkyltetrazol-5-yl)triazenes

Qi Wang, Chen-Bin Wang, Fu-Qing Pang, Tian Lu, Hong-Quan Yin, Fu-Xue Chen

School of Chemistry & Chemical Engineering, Beijing Institute of Technology, Beijing 100081, China

A series of 1,3-bis(2-alkyltetrazol-5-yl)triazenes with low melting points and good detonation performance have been synthesized.

Chinese Chemical Letters 28 (2017) 1784



Melting point: 106 °C
Detonation velocity: 7087 m/s
Detonation pressure: 17.6 GPa

Rapid construction of the unique BCD ring system of tricyclo[6.2.1.0]undecane in the C₁₉-diterpenoid alkaloid aconitine

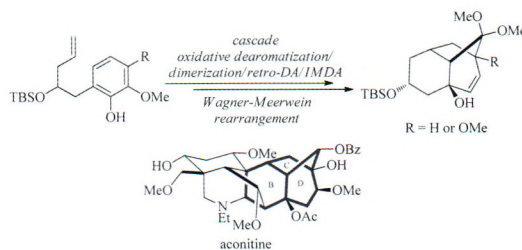
Xue Yang^a, Bin Cheng^a, Hang Cheng^a, Liang Xu^a, Jian-Li Wang^b

^aKey Laboratory of Drug Targeting, Ministry of Education, Department of Chemistry of Medicinal Natural Products, West China College of Pharmacy, Sichuan University, Chengdu 610041, China

^bState Key Laboratory of Oral Disease, West China School of Stomatology, Sichuan University, Chengdu 610041, China

A model study leading to the preparation of the unique tricyclo[6.2.1.0]undecane BCD ring systems of aconitine is described. The synthesis features an unprecedented diastereoselective oxidative dearomatization/dimerization/retro-DA/IMDA cascade reaction and a highly efficient Wagner-Meerwein rearrangement.

Chinese Chemical Letters 28 (2017) 1788



Asymmetric catalyzed intramolecular aza-Michael reaction mediated by quinine-derived primary amines

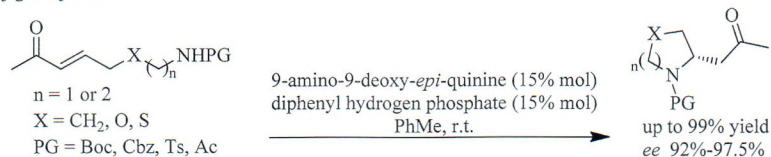
Xian-Dong Zhai^a, Zhong-Duo Yang^a, Zhi Luo^b, Hong-Tao Xu^b

^aSchool of Life Science and Engineering, Lanzhou University of Technology, Lanzhou 730050, China

^bShanghai Institute of Materia Medica, Chinese Academy of Sciences, Shanghai 201203, China

An intramolecular organocatalytic enantioselective aza-Michael reaction of carbamates, sulfonamides and acetamides to α,β -unsaturated ketones has been developed with excellent enantioselectivity and very good yield.

Chinese Chemical Letters 28 (2017) 1793

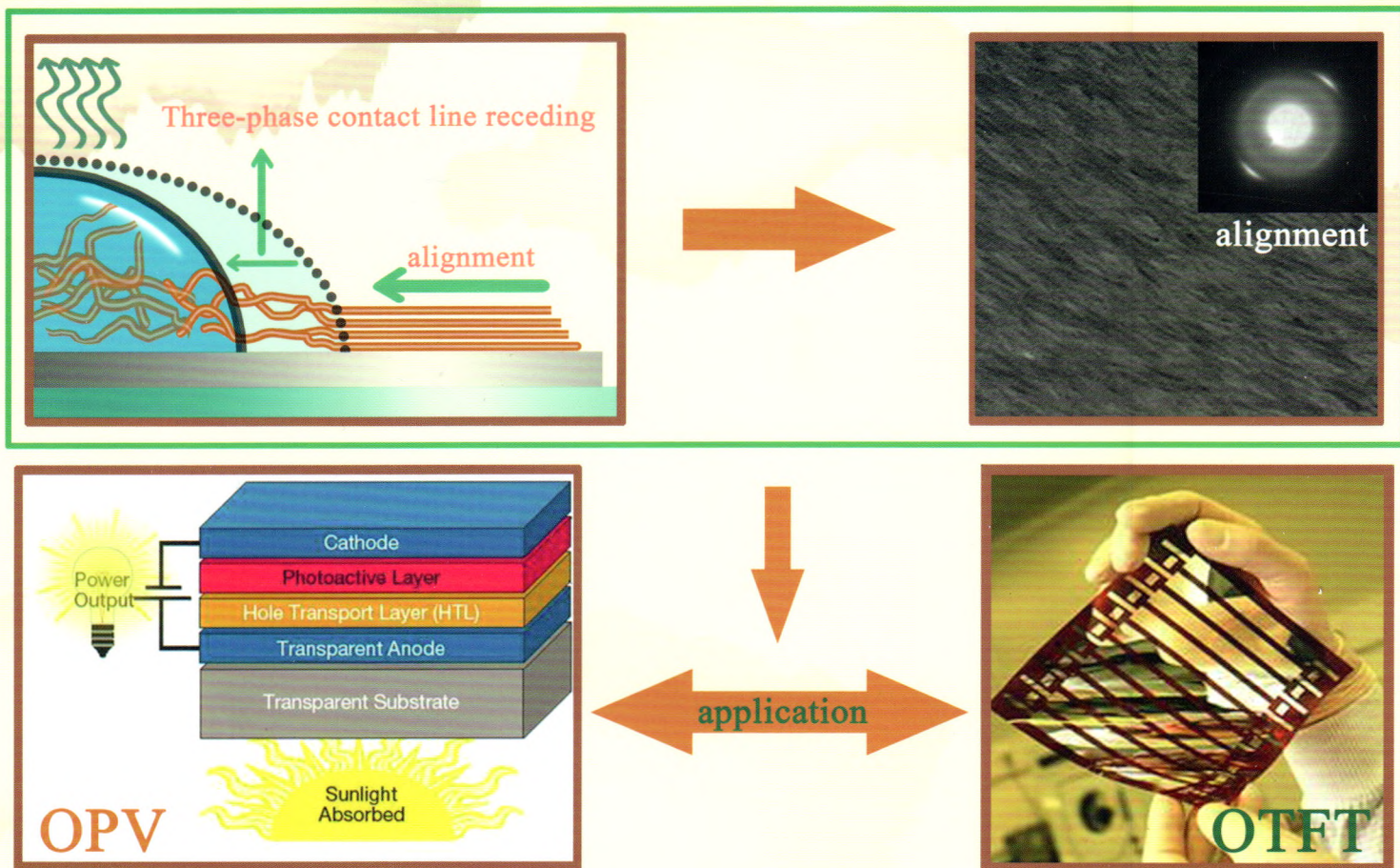


Responsible Institution: China Association for Science and Technology
 Sponsor: Chinese Chemical Society
 Institute of Materia Medica, Chinese Academy of Medical Sciences
 Xuhong Qian
 Editor-in-Chief:
 Editor: Editorial Board of Chinese Chemical Letters
 Address: Institute of Materia Medica, Chinese Academy of Medical Sciences
 1 Xian Nong Tan Street, Beijing 100050, China
 Tel: 86-10-63165638
 E-mail: cclbj@imm.ac.cn
 Website: www.chinchemlett.com.cn
 Online Submission: www.ees.elsevier.com/ccllet
 Publisher: Editorial Office of Chinese Chemical Letters
 ELSEVIER B.V.

国内发行: 全国各地邮局

邮发代号: 2-915

定价: 50元/本; 600元/年



High degree alignment I/DDT-C3 film Provided by Prof. Yanchun Han's group

Available online at www.sciencedirect.com

ScienceDirect