



Graphical Abstracts/Chin Chem Lett 27 (2016) iii-viii

Original Articles

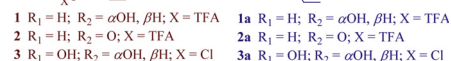
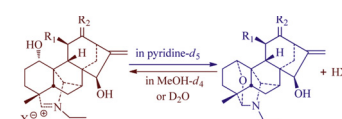
Napelline-type C₂₀-diterpenoid alkaloid iminiums from an aqueous extract of “fu zi”: Solvent-/base-/acid-dependent transformation and equilibration between alcohol iminium and aza acetal forms

Xian-Hua Meng, Zhi-Bo Jiang, Cheng-Gen Zhu, Qing-Lan Guo, Cheng-Bo Xu, Jian-Gong Shi

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Three napelline-type C₂₀-diterpenoid alkaloid alcohol iminiums, named aconicarmichinium A and B trifluoroacetates (**1** and **2**) and aconicarmichinium C chloride (**3**), were isolated from an aqueous extract of “fu zi”, the lateral roots of *Aconitum carmichaelii*. Their structures were elucidated by extensive spectroscopic analysis. Solvent-, base-, and acid-dependent transformation and equilibration between the alcohol iminiums (**1–3**) and corresponding aza acetals **1a–3a** were found. The absolute configurations of **1–3** were confirmed by X-ray crystallographic analysis of **2a**.

Chinese Chemical Letters 27 (2016) 993



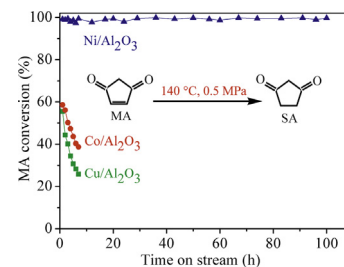
Low-temperature hydrogenation of maleic anhydride to succinic anhydride and γ-butyrolactone over pseudo-boehmite derived alumina supported metal (metal = Cu, Co and Ni) catalysts

Jie Li, Lin-Ping Qian, Li-Ya Hu, Bin Yue, He-Yong He

Department of Chemistry and Shanghai Key Laboratory of Molecular Catalysis and Innovative Materials, Collaborative Innovation Center of Chemistry for Energy Materials, Fudan University, Shanghai 200433, China

Al₂O₃ supported Cu, Co and Ni catalysts with high dispersion were obtained by the impregnation method. Ni/Al₂O₃ showed the highest catalytic performance with ~ 100% MA conversion at 140 °C and 0.5 MPa of H₂.

Chinese Chemical Letters 27 (2016) 1004

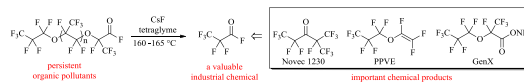


One stone two birds: Degradation of persistent organic pollutants to a valuable industrial chemical production of pentafluoropropionyl fluoride from HFPO oligomers catalyzed by cesium fluoride in tetraglyme

Qian Geng^{a,c}, Xin Xiao^c, Guang-Rui He^c, Su-Mei Yao^c, Guang-Xin Liang^{a,b}^aState Key Laboratory of Elemento-organic Chemistry, Nankai University, Tianjin 300071, China^bCollaborative Innovation Center of Chemical Science and Engineering (Tianjin), Nankai University, Tianjin 300071, China^cChanglu Engineering Research Center of New Chemical Materials, Tianjin 300160, China

Degradation of HFPO oligomers, persistent organic pollutants harmful to human and natural environment, to pentafluoropropionyl fluoride (PPF), a valuable industrial chemical widely used for manufacture of important chemical products, such as Novec 1230, PPVE, GenX etc. is reported using CsF/tetraglyme as catalytic system under both flask and autoclave conditions.

Chinese Chemical Letters 27 (2016) 1009



Chemical constituents from *Cicuta virosa* Linnaeus and their reversal effects on doxorubicin-resistant human myelogenous leukemia (K562/A02) cells

Shu-Qi Wang^a, Qing-Wei Zhang^b, Xiao-Ling Wang^c, Xia-Xia Di^d, Xiao-Ning Wang^a, Hong-Xiang Lou^a

^aSchool of Pharmaceutical Science, Shandong University, Jinan 250012, China

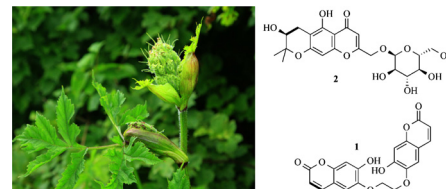
^bXintai Institute of Skin Diseases, Xintai 271200, China

^cThe Second Hospital of Shandong University, Jinan 250033, China

^dFaculty of Pharmaceutical Sciences, School of Health Sciences, University of Iceland, Iceland

Two new compounds, 11,11'-dimer of scopoletin (**1**) and 11-O- β -glucopyranosylhamaudol (**2**), were isolated and identified from the whole grass of *Cicuta virosa*. Compounds **1**, **8**, and **9** were endowed with remarkable MDR reversing effects.

Chinese Chemical Letters 27 (2016) 1013



Enhanced head-to-head photodimers in the photocyclodimerization of anthracenecarboxylic acid with a cationic pillar[6]arene

Jian-Chang Gui^a, Zhi-Qiang Yan^a, Yuan Peng^b, Ji-Gao Yi^a, Da-Yang Zhou^c, Dan Su^a, Zhi-Hui Zhong^a, Guo-Wei Gao^a, Wan-Hua Wu^a, Cheng Yang^a

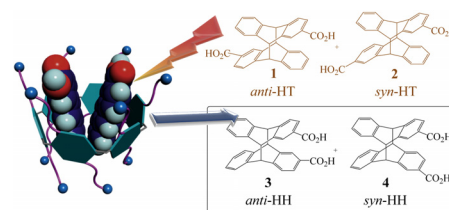
^aKey Laboratory of Green Chemistry & Technology, College of Chemistry, State Key Laboratory of Biotherapy, West China Medical Center and State Key Laboratory of Polymer Materials Engineering, Sichuan University, Chengdu 610064, China

^bChengdu Environmental Monitoring Center, Chengdu 610042, China

^cComprehensive Analysis Center, ISIR, Osaka University, 8-1 Mihogaoka, Ibaraki, Osaka 5670047, Japan

Photocyclodimerization of anthracenecarboxylic acid within a cationic pillar[6]arene improved the yield of the head-to-head photodimers.

Chinese Chemical Letters 27 (2016) 1017



Fine-tuning the molecular energy levels by incorporating thiophene units onto the π -backbone of core-expanded naphthalene diimides

Dong Lu^{a,b}, Xiao-Chun Yang^b, Bing Leng^b, Xiao-Di Yang^c, Cong-Wu Ge^b, Xue-Shun Jia^a, Xi-Ke Gao^b

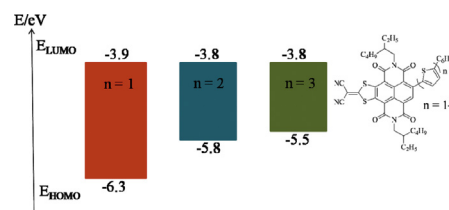
^aDepartment of Chemistry, College of Science, Shanghai University, Shanghai, 200444, China

^bKey Laboratory of Synthetic and Self-Assembly Chemistry for Organic Functional Molecules, Shanghai Institute of Organic Chemistry, Chinese Academy of Sciences, Shanghai, 200032, China

^cLaboratory of Advanced Materials, Fudan University, Shanghai, 200433, China

A series of organic semiconductors based on NDI-DTYM and thiophene were designed to investigate the relationship between molecular structure and the molecular frontier orbital energy levels. The results demonstrated that increasing the number of thiophene units leads to the gradually elevated HOMO energy levels but the almost unchanged LUMO levels.

Chinese Chemical Letters 27 (2016) 1022



Highly efficient detection of insulinotropic action of glucagon via GLP-1 receptor in mice pancreatic beta-cell with a novel perfusion microchip

Li-Dan Hu^a, Yu-Lin Zhang^b, Hong Wang^c, Xing-Yue Peng^a, Yi Wang^c

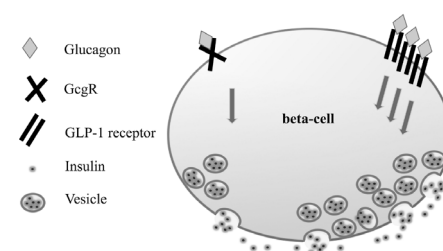
^aSchool of Life Sciences, Xiamen University, Xiamen 361005, China

^bLaboratory of Cardiometabolic Molecular Medicine, Institute of Molecular Medicine, Peking University, Beijing 100871, China

^cCollege of Life Sciences and Technology, Huazhong University of Science and Technology, Wuhan 430074, China

Endogenous and exogenous glucagon utilized different receptors to promote insulin secretion.

Chinese Chemical Letters 27 (2016) 1027



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