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Graphical Abstracts/Chin Chem Lett 25 (2014) iii-viii

Original articles

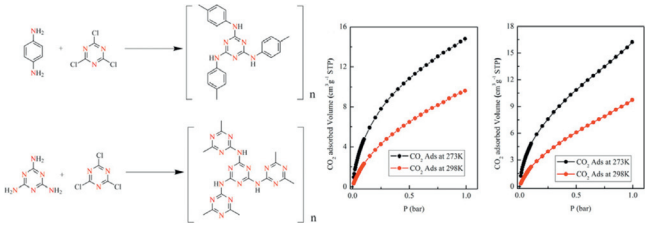
Targeted synthesis of novel porous aromatic frameworks with selective separation of CO_2/CH_4 and CO_2/N_2

Wei Wang, Ye Yuan, Fu-Xing Sun, Guang-Shan Zhu

State Key Laboratory of Inorganic Synthesis and Preparative Chemistry, College of Chemistry, Jilin University, Changchun 130012, China

Chinese Chemical Letters 25 (2014) 1407

Two novel porous aromatic frameworks (PAF-53 and PAF-54) have been obtained by the polymerization of amino compounds (*p*-phenylenediamine and melamine) and cyanuric chloride. They display high selective separation of CO_2/CH_4 and CO_2/N_2 and make a promise as ideal candidates to capture CO_2.



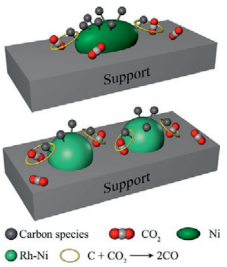
Rh doping effect on coking resistance of Ni/SBA-15 catalysts in dry reforming of methane

Wen-Jia Cai, Lin-Ping Qian, 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

Chinese Chemical Letters 25 (2014) 1411

In comparison with bare Ni-based catalyst, the Rh–Ni catalyst with smaller Ni particle size exhibited high efficiency in the removal of coke and showed high activity and stability in the dry reforming of methane.



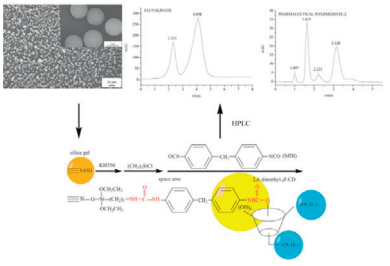
Preparation and chromatographic characteristics of a novel 2,6-dimethyl-β-CD bonded HPLC chiral stationary phase

Qiu-Jin Peng, Jun-Jiao Yang

Beijing Key Laboratory of Environmentally Harmful Chemical Analysis, Beijing University of Chemical Technology, Beijing 100029, China

Chinese Chemical Letters 25 (2014) 1416

A novel 2,6-dimethyl-β-CD bonded and silica based HPLC chiral stationary phase was prepared and MDI was used for the first time in the immobilization process. This kind of CSP has shown good chiral separation ability for a variety of chiral compounds under reversed-phase conditions.



doi:10.1016/S1001-8417(14)00430-6

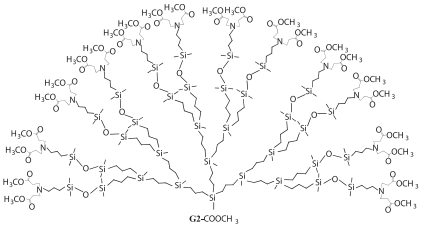
Chinese Chemical Letters 25 (2014) 1419

Synthesis of ester-capped carbosilane dendrimers *via* a hybrid divergent–convergent method

Yu-Zhong Niu[a,b], Lin Zhang[b], Shu-Jie Liang[a], Deng-Xu Wang[b], Sheng-Yu Feng[b]

[a]*School of Chemistry and Materials Science, Ludong University, Yantai 264025, China*
[b]*Key Laboratory of Special Functional Aggregated Materials, Ministry of Education, School of Chemistry and Chemical Engineering, Shandong University, Ji'nan 250100, China*

A series of novel ester-capped carbosilane dendrimers were designed and successfully synthesized. The structures of these dendrimers were fully confirmed by FTIR, ^{1}H NMR, and HRMS analyses.



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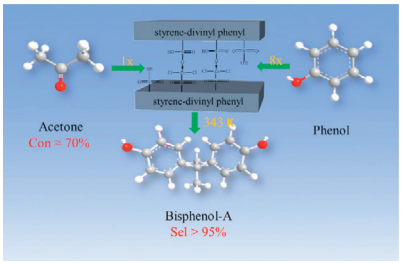
$ZnCl_2$-modified ion exchange resin as an efficient catalyst for the bisphenol-A production

Bao-He Wang, Jin-Shi Dong, Shuang Chen, Li-Li Wang, Jing Zhu

Key Laboratory for Green Chemical Technology of Ministry of Education, Research and Development Center of Petrochemical Technology, Tianjin University, Tianjin 300072, China

Zn^{2+} coordinated with the sulfonic acid groups to form a stable active site, making $ZnCl_2$ modified ion exchange resin an efficient catalyst for the bisphenol-A production from acetone and phenol.



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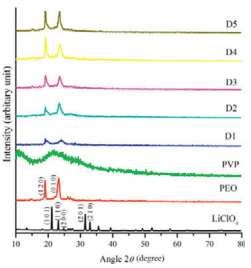
Lithium ion conduction and ion-polymer interaction in poly(vinyl pyrrolidone) based electrolytes blended with different plasticizers

K. Kesavan, Chithra M. Mathew, S. Rajendran

School of Physics, Alagappa University, Karaikudi, Tamilnadu 630003, India

This paper reports on the gel polymer electrolytes based on the PEO/PVP/$LiClO_4$ complex by the addition of different plasticizers using a well known solvent casting technique.



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Preparation and characterization of mPEG grafted chitosan micelles as 5-fluorouracil carriers for effective anti-tumor activity

Dong-Jun Fu[a], Yu Jin[a], Mu-Qing Xie[a], Ya-Jing Ye[a], Dong-Dong Qin[a], Kai-Yan Lou[a,b,c], Yan-Zuo Chen[a], Feng Gao[a,b,c]

[a]*Department of Pharmaceutics, School of Pharmacy, East China University of Science and Technology, Shanghai 200237, China*
[b]*Shanghai Key Laboratory of Functional Materials Chemistry, East China University of Science and Technology, Shanghai 200237, China*
[c]*Shanghai Key Laboratory of New Drug Design, East China University of Science and Technology, Shanghai 200237, China*

Methoxy polyethylene glycol (mPEG) grafted chitosan (mPEG-g-CS) self-assembled micelles were successfully prepared with controlled size and spherical morphology. This carrier would have a potential application in controlled release of 5-fluorouracil for effective anti-tumor activity.