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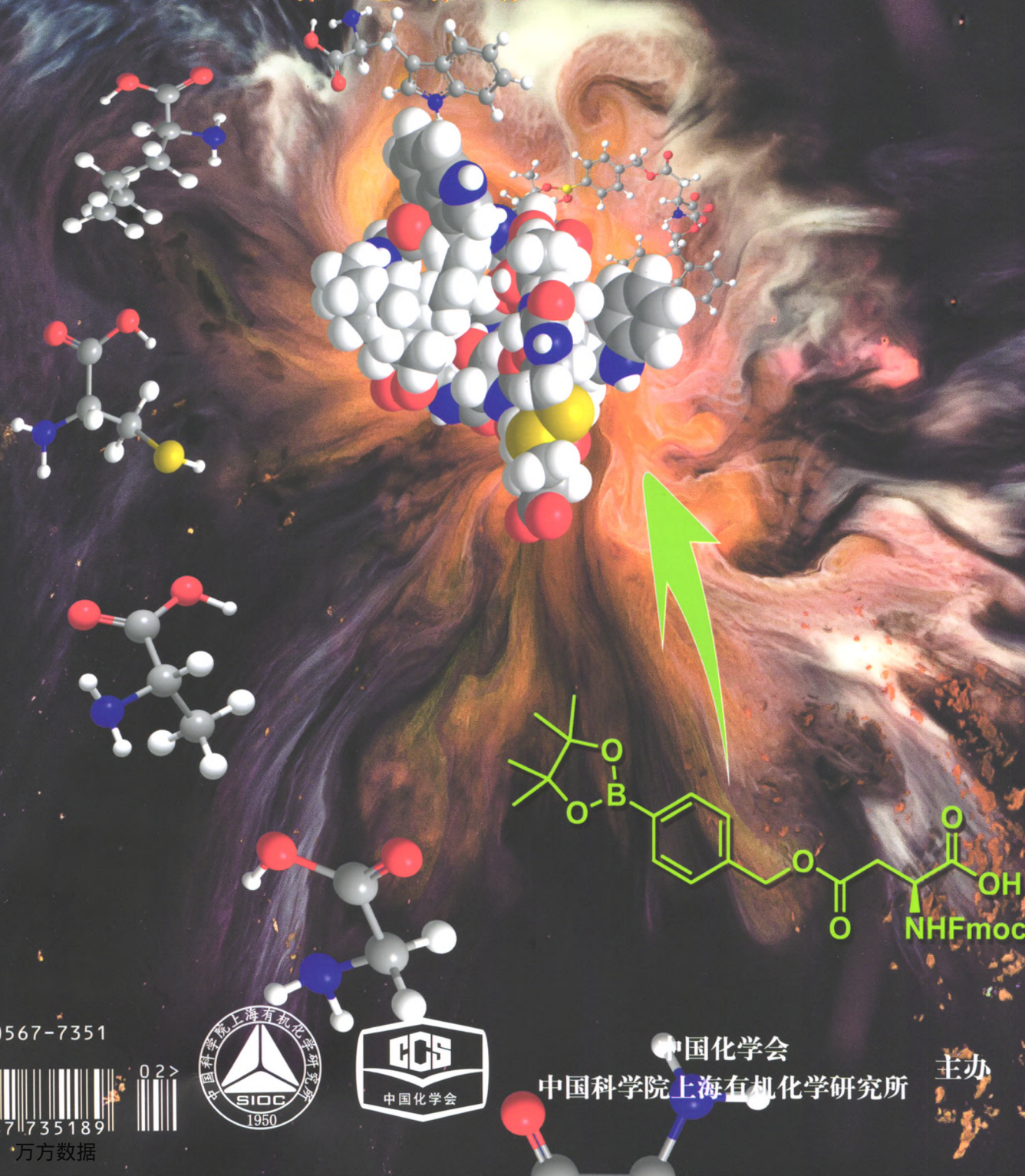


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主办

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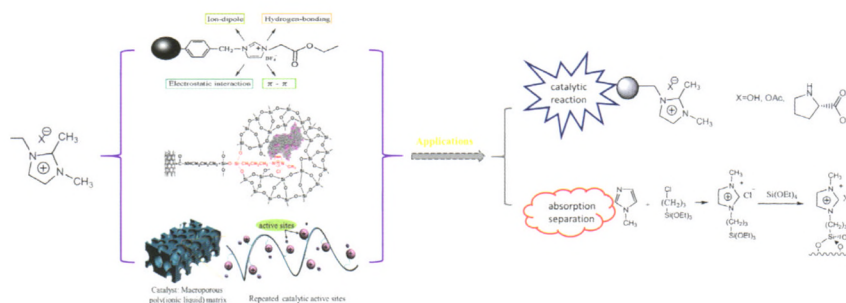
* 通信联系人.



On the cover: The human glucagon receptor peptide inhibitor BI-32169, with a unique bicyclic structure, was successfully synthesized utilizing an aryl boronate ester protecting group via an on-resin cyclization strategy, which provides a convenient and efficient synthetic method for the chemical synthesis of other analogues. [Hu, Honggang *et al.* on page 95-98.]

Review

Research Advances on the Applications of Immobilized Ionic Liquids Functional Materials



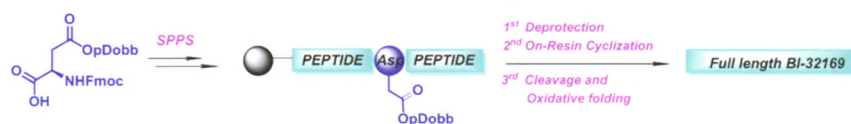
Wang, Yinhang; Li, Wei; Luo, Sha; Liu, Shouxin; Ma, Chunhui*; Li, Jian

Acta Chim. Sinica **2018**, 76(2), 85-94

ILs were immobilized on inorganic porous materials or organic polymer materials by physical adsorption or chemical grafting. And the current applications of immobilized ionic liquid were illustrated with a multi-angle. The immobilized ionic liquid as catalysts were used in chemical catalytic field depending on the chemical structure of ionic liquid. While the immobilized ionic liquid as a functional materials were used in adsorption separation field depending on the surface characteristic of solid carrier.

Communication

Efficient Synthesis of Bicyclic Peptide BI-32169 Utilizing a Novel Aryl Boronate Ester Protecting Group



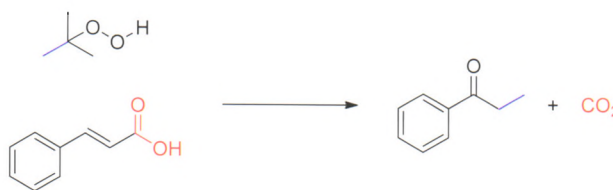
Song, Hui; Liu, Chao; Wu, Yijun; Hu, Honggang*; Yan, Fang*

Acta Chim. Sinica **2018**, 76(2), 95-98

A New Decarboxylation/Methylation Process of Cinnamic Acids

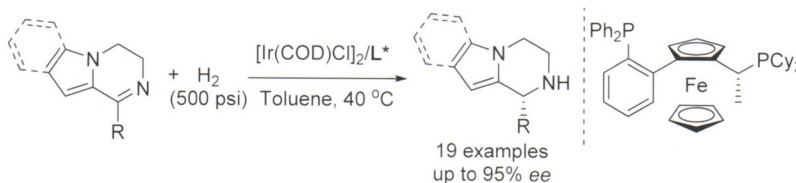
Ye, Wenbo; Yan, Zicong; Wan, Chang-feng*; Hou, Haoqing; Wang, Zhiyong

Acta Chim. Sinica 2018, 76(2), 99-102



tert-Butyl hydroperoxide (TBHP) as a methylation reagent was applied in the synthesis of propiophenone derivatives.

Synthesis of Tetrahydropyrrolo/indolo[1,2-*a*]pyrazines by Enantioselective Hydrogenation of Heterocyclic Imines



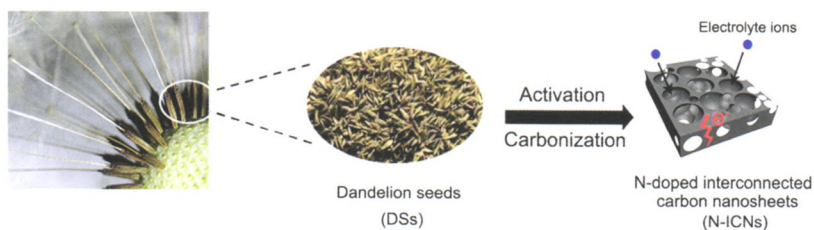
Hu, Shu-Bo; Chen, Mu-Wang; Zhai,
Xiao-Yong; Zhou, Yong-Gui*

Acta Chim. Sinica 2018, 76(2), 103-106

A novel iridium-catalyzed asymmetric hydrogenation of nitrogen-containing heterocyclic imines 3,4-dihydropyrrolo/indolo[1,2-*a*]pyrazines has been successfully developed, providing a facile access to 1,2,3,4-tetrahydropyrrolo/indolo[1,2-*a*]pyrazines with up to 99% yield and 95% *ee*. The reaction features mild condition, high enantioselectivity and high atom-economy.

Article

Self N-Doped Porous Interconnected Carbon Nanosheets Material for Supercapacitors

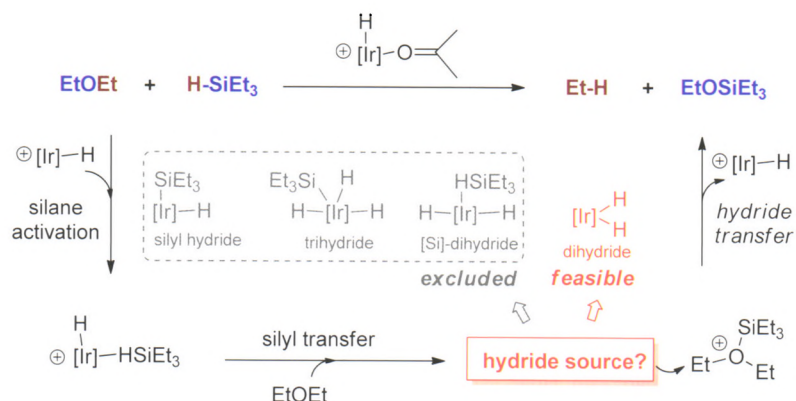


The N-ICNs were prepared by the one-step activation and carbonization process with large specific surface area and high specific capacitance.

Zhao, Jing; Gong, Junwei; Li, Yiju; Cheng, Kui; Ye, Ke; Zhu, Kai; Yan, Jun; Cao, Dianxue; Wang, Guiling*

Acta Chim. Sinica **2018**, 76(2), 107-112

Hydride Source in Ethers Hydrosilylation Reaction Catalyzed by Brookhart's Ir(III) Pincer Complex



Zhang, Qi; Liu, Ao; Yu, Hai-Zhu*; Fu, Yao*

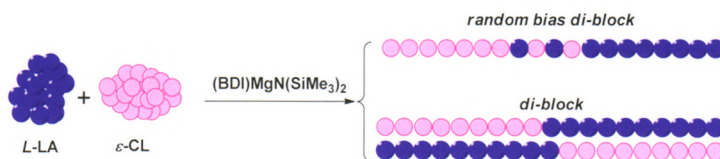
Acta Chim. Sinica 2018, 76(2), 113-120

Hydride Source in Ethers Hydrosilylation Reaction Catalyzed by Brookhart's Ir(III) Pincer Complex has been clarified by DFT calculations.

Non-symmetric β -Diketiminato Magnesium Complexes as Initiators for Ring-Opening Polymerization/Copolymerization of Lactide, ϵ -Caprolactone

Maryam Keram; Ma, Haiyan*

Acta Chim. Sinica **2018**, 76(2), 121-132

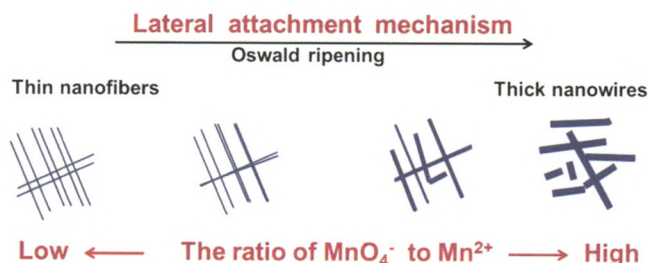


A series of magnesium complexes bearing a non-symmetric β -diketiminato ligand were synthesized and explored as active initiators for the polymerization of *rac*-lactide, ϵ -caprolactone and the copolymerization of *L*-lactide/ ϵ -caprolactone. PCL-*block*-PLLA diblock copolymers could be obtained via three different feeding strategies, as verified by NMR spectroscopy and DSC methods.

Controllable Synthesis of One-dimensional Cryptomelane-type Manganese Dioxide and Its Electrochemical Performance

Zhang, Chengming*; Pang, Xin; Wang, Yongzhao

Acta Chim. Sinica **2018**, 76(2), 133-137

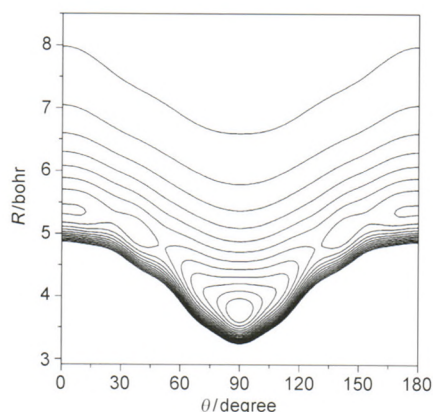


Cryptomelane-type manganese dioxide is a very important nanomaterial in electrochemistry. Its intrinsic properties can be tailored by controlling shape or size. The diameter of one-dimensional OMS-2 nanomaterial is an important parameter in controllable synthesis and electrochemistry applications. Control of diameter of one-dimensional OMS-2 could be realized by adjusting the ratio of MnO₄⁻ to Mn²⁺ in the aqueous solution. The samples synthesized at low ratio of MnO₄⁻ to Mn²⁺ showed thinner and longer nanofibers or nanowires. The samples synthesized at high ratio of MnO₄⁻ to Mn²⁺ exhibited higher diameter. Therefore, it can be concluded that MnO₄⁻ can promote the lateral growth of one-dimensional OMS-2 nanomaterial and Mn²⁺ tends to promote the longitudinal growth.

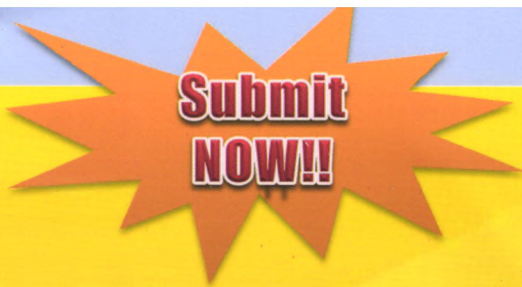
A New Four-Dimensional Potential Energy Surface and Predicted Infrared Spectra for the Kr-CS₂ Complex

Hong, Qi; Qin, Miao; Zhu, Hua*

Acta Chim. Sinica **2018**, 76(2), 138-142



A four-dimensional (4D) *ab initio* potential energy surface (PES) for the Kr-CS₂ complex involving the Q_1 and Q_3 normal modes for the ν_1 symmetric stretching vibration and ν_3 antisymmetric stretching vibration of CS₂ was presented. The rovibrational energy levels and bound states are calculated. In addition, the spectroscopic parameters for the ground and the $\nu_1 + \nu_3$ excited states of Kr-CS₂ are predicted.



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