大连化物所科技论文奖励申报表

（百次引用论文奖）

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **论文题目** | **Reduced graphene oxide as a catalyst for hydrogenation of nitrobenzene at room temperature** | | | | |
| **作者（英文）** | **Gao, Yongjun; Ma, Ding; Wang, Chunlei; Guan, Jing; Bao, Xinhe** | | | | |
| **作者（中文）** | **高勇军；马丁；王春雷；关静；包信和** | | | | |
| **期刊名称** | **CHEMICAL COMMUNICATIONS** | | | | |
| **发表日期** | **2010.12.20** | **卷** | **47** | **起止页码** | **2432 - 2434** |
| **总引用次数** | **138** | | | **他引次数** | **127** |
| **填表人** | 我保证填写内容的真实性，若填报失实和违反管理办法，本人将承担相关责任。  **签字年月日** | | | | |
| **通讯作者** | 我保证申报内容的真实性，若填报失实和违反管理办法，本人将承担相关责任。  **签字年月日** | | | | |
| **研究组长** | 我已按管理办法和申报说明对申报内容进行了审核，保证申报内容的真实性，若填报失实和违反管理办法，本人将承担全部责任。  **签字年月日** | | | | |

说明：1、申请本年度百次引用论文奖的论文发表时间为2005-2014年；2、引用检索数库为Web of Science数据库核心合集的SCI-E，他引次数须超过100次；3、引用数据检索截止时间为2014年12月31日；4、他引：是指剔除了申报奖励论文（即被引用论文）所有作者的全部引用文献。例：某篇申报奖励论文有作者a、b、c、d、e，他引是指引用此篇论文的所有文献作者中，不能有a、b、c、d、e的任何一位。

百次引用论文奖引用论文清单

（他引）

**一、引用论文第一产权单位为国外机构**

第 1 条，共48条

标题: Doped graphenes in catalysis

作者: Albero, Josep; Garcia, Hermenegildo

来源出版物: JOURNAL OF MOLECULAR CATALYSIS A-CHEMICAL 卷: 408 页: 296-309 出版年: NOV 2015

第2条，共48条

标题: Insight on the effect of surface modification by carbon materials on the Ionic Liquid Electric Double Layer Charge Storage properties

作者: Costa, Renata; Pereira, Carlos M.; Silva, A. Fernando

来源出版物: ELECTROCHIMICA ACTA 卷: 176 页: 880-886 出版年: SEP 10 2015

第3条，共48条

标题: Carbocatalysis: The State of "Metal-Free" Catalysis

作者: Chua, Chun Kiang; Pumera, Martin

来源出版物: CHEMISTRY-A EUROPEAN JOURNAL 卷: 21 页: 12550-12562 出版年: SEP 1 2015

第4条，共48条

标题: A green chemical route for synthesis of graphene supported palladium nanoparticles: A highly active and recyclable catalyst for reduction of nitrobenzene

作者: El-Hout, S. I.; El-Sheikh, S. M.; Hassan, Hassan M. A.; Harraz, Farid A.; Ibrahim, I. A.; El-Sharkawy, E. A.

来源出版物: APPLIED CATALYSIS A-GENERAL 卷: 503 页: 176-185 出版年: AUG 25 2015

第5条，共48条

标题: Synthesis of Reduced Graphene Oxide-Carbon Nanotubes (rGO-CNT) Composite and Its Use As a Novel Catalyst Support for Hydro-Purification of Crude Terephthalic Acid

作者: Tourani, S.; Rashidi, A. M.; Safekordi, A. A.; Aghabozorg, H. R.; Khorasheh, F.

来源出版物: INDUSTRIAL & ENGINEERING CHEMISTRY RESEARCH 卷: 54 页: 7591-7603 出版年: AUG 12 2015

第6条，共48条

标题: Graphene Oxide-Promoted Reshaping and Coarsening of Gold Nanorods and Nanoparticles

作者: Pan, Hanqing; Low, Serena; Weerasuriya, Nisala; Shon, Young-Seok

来源出版物:ACS APPLIED MATERIALS & INTERFACES 卷:7 页:3406-3413 出版年:FEB 11 2015

第7条，共48条

标题: Fabrication of hierarchically organized nanocomposites of Ba/alginate/carboxymethylcellulose/graphene oxide/Au nanoparticles and their catalytic efficiency in o-nitroaniline reduction

作者: Thomas, Molly; Naikoo, Gowhar Ahmad; Sheikh, Mehraj Ud Din; Bano, Mustri; Khan, Farid

来源出版物:NEW JOURNAL OF CHEMISTRY 卷:39 页:9761-9771 出版年:2015

第8条，共48条

标题: Facile electrochemical assisted synthesis of ZnO/graphene nanosheets with enhanced photocatalytic activity

作者: Sawant, Sandesh Y.; Cho, Moo Hwan

来源出版物:RSC ADVANCES 卷:5 页:97788-97797 出版年:2015

第9条，共48条

标题: An inorganic capping strategy for the seeded growth of versatile bimetallic nanostructures

作者: Pei, Yuchen; Maligal-Ganesh, Raghu V.; Xiao, Chaoxian; Goh, Tian-Wei; Brashler, Kyle; Gustafson, Jeffrey A.; Huang, Wenyu

来源出版物:NANOSCALE 卷:7 页:16721-16728 出版年:2015

第10条，共48条

标题: Advancement in methodologies for reduction of nitroarenes

作者: Kadam, Hari K.; Tilve, Santosh G.

来源出版物:RSC ADVANCES 卷:5 页:83391-83407 出版年:2015

第11条，共48条

标题: An Overview: Recent Development of Titanium Dioxide Loaded Graphene Nanocomposite Film for Solar Application

作者: Lai, Chin W.; Low, Foo W.; Chong, Soon W.; Wong, Christelle P. P.; Siddick, Siti Z. Binti Mohamed; Juan, Joon C.; Hamid, Sharifah B. Abdul

来源出版物:CURRENT ORGANIC CHEMISTRY 卷:19 页:1882-1895 出版年:2015

第12条，共48条

标题: Synthesis and characterization of RGO/zeolite composites for the removal of arsenic from contaminated water

作者: Khatamian, M.; Khodakarampoor, N.; Oskoui, M. Saket; Kazemian, N.

来源出版物:RSC ADVANCES 卷:5 页:35352-35360 出版年:2015

第13条，共48条

标题: GRAPHENE OXIDE AS RECYCLABLE CATALYST FOR ONE-POT SYNTHESIS OF alpha-AMINOPHOSPHONATES

作者: Dhopte, Kiran B.; Raut, Dnyaneshwar S.; Patwardhan, Anand V.; Nemade, Parag R.

来源出版物:SYNTHETIC COMMUNICATIONS 卷:45 页:788-798 出版年:2015

第14条，共48条

标题: RGO/ZnO Nanocomposite: An Efficient, Sustainable, Heterogeneous, Amphiphilic Catalyst for Synthesis of 3-Substituted Indoles in Water

作者: Rajesh, U. Chinna; Wang, Jinfeng; Prescoott, Stuart; Tsuzuki, Takuya; Rawatt, Diwan S.

来源出版物:ACS SUSTAINABLE CHEMISTRY & ENGINEERING 卷:3 页:9-18 出版年:JAN 2015

第15条，共48条

标题: Metal-Free Transfer Hydrogenation of Nitroarenes in Water with Vasicine: Revelation of Organocatalytic Facet of an Abundant Alkaloid

作者: Sharma, Sushila; Kumar, Manoranjan; Kumar, Vishal; Kumar, Neeraj

来源出版物:JOURNAL OF ORGANIC CHEMISTRY 卷:79 页:9433-9439 出版年:OCT 3 2014

第16条，共48条

标题: Graphene based material as a base catalyst for solvent free Aldol condensation and Knoevenagel reaction at room temperature

作者: Islam, Sk Manirul; Roy, Anupam, Singha; Dey, Ram Chandra; Paul Sumantra

来源出版物: JOURNAL OF MOLECULAR CATALYSIS A-CHEMICAL 卷:394 页:66-73 出版年:NOV 15 2014

第17条，共48条

标题: Fabrification of electroreduced graphene oxide-bentonite sodium composite modified electrode and its sensing application for linezolid

作者: Prashanth, S. N.; Teradal, Nagappa L.; Seetharamappa, J.; Satpati, Ashis K.; Reddy, A. V. R.

来源出版物:ELECTROCHIMICA ACTA 卷:133 页:49-56 出版年:JUL 1 2014

第18条，共48条

标题: Carbocatalysis by Graphene-Based Materials

作者: Navalon, Sergio; Dhakshinamoorthy, Amarajothi; Alvaro, Mercedes; Garcia, Hermenegildo

来源出版物:CHEMICAL REVIEWS 卷:114 页:6179-6212 出版年:JUN 25 2014

第19条，共48条

标题: Catalyst Enhancement and Recyclability by Immobilization of Metal Complexes onto Graphene Surface by Noncovalent Interactions

作者: Sabater, Sara; Mata, Jose A.; Peris, Eduardo

来源出版物:ACS CATALYSIS 卷:4 页:2038-2047 出版年:JUN 2014

第20条，共48条

标题: Highly exposed {001} facets of titanium dioxide modified with reduced graphene oxide for dopamine sensing

作者: How, Gregory Thien Soon; Pandikumar, Alagarsamy; Ming, Huang Nay; Ngee, Lim Hong

来源出版物:SCIENTIFIC REPORTS 卷:4 页:5044 出版年:MAY 23 2014

第21条，共48条

标题: Role of thickness and intercalated water in the facile reduction of graphene oxide employing camera flash

作者: Bose, Saswata; Drzal, Lawrence T.

来源出版物:NANOTECHNOLOGY 卷:25 页:075702 出版年:FEB 21 2014

第22条，共48条

标题: Comparison of the Catalytic Oxidation Reaction on Graphene Oxide and Reduced Graphene Oxide

作者: Lee, Myungjin; Yang, Sena; Kim, Ki-jeong; Kim Sehun; Lee, Hangil

来源出版物:JOUNAL OF PHSYCAL CHEMISTRY C 卷:118 页:1142-1147 出版年:JAN 16 2014

第23条，共48条

标题: Graphene oxide supported MnO2 nanorods: an efficient heterogeneous catalyst for oxidation of aromatic amines to azo-compounds

作者: Kumari, Shweta; Shekhar, Amiya; Pathak, Devendra D.

来源出版物:RSC ADVANCES 卷:4 页:61187-61192 出版年:2014

第24条，共48条

标题: Direct vs. indirect pathway for nitrobenzene reduction reaction on a Ni catalyst surface: a density functional study

作者: Mahata, Arup; Rai, Rohit K.; Choudhuri, Indrani; Singh, Sanjay K.; Pathak, Biswarup

来源出版物:PHYSICAL CHEMISTRY CHEMICAL PHYSICS 卷:16 页:26365-26374 出版年:2014

第25条，共48条

标题: Dimensionally integrated nanoarchitectonics for a novel composite from 0D, 1D, and 2D nanomaterials: RGO/CNT/CeO2 ternary nanocomposites with electrochemical performance

作者: Rajendran, Raja; Shrestha, Lok Kumar; Minami, Kosuke; Subramanian, Munisamy; Jayavel, Ramasamy; Ariga, Katsuhiko

来源出版物:JOURNAL OF MATERIALS CHEMISTRY A 卷:2 页:18480-18487 出版年:2014

第26条，共48条

标题: Bandgap engineering through nanocrystalline magnetic alloy grafting on reduced graphene oxide

作者: De, D.; Chakraborty, M.; Majumdar, S.; Giri, S

来源出版物:PHYSICAL CHEMISTRY CHEMICAL PHYSICS 卷:16 页:19661-19667 出版年:2014

第27条，共48条

标题: Reduced graphene oxide supported Ni nanoparticles: a high performance reusable heterogeneous catalyst for Kumada-Corriu cross-coupling reactions

作者: Bhowmik, Koushik; Sengupta, Debasish; Basu, Basudeb; De, Goutam

来源出版物:RSC ADVANCES 卷: 页:35442-35448 出版年:2014

第28条，共48条

标题: RhNPs/SBA-NH2: a high-performance catalyst for aqueous phase reduction of nitroarenes to aminoarenes at room temperature

作者: Ganji, Saidulu; Enumula, Siva Sankar; Marella, Ravi Kumar; Rao, Kamaraju Seetha Rama; Burri, David Raju

来源出版物:CATALYSIS SCIENCE & TECHNOLOGY 卷:4 页:1813-1819 出版年:2014

第29条，共48条

标题: Facile preparation of an n-type reduced graphene oxide field effect transistor at room temperature

作者: Wang, Luyang; Park, Younghun; Cui, Peng; Bak, Sora; Lee, Hanleem; Lee, Sae Mi; Lee, Hyoyoung

来源出版物:CHEMICAL COMMUNICATIONS 卷:50 页:1224-1226 出版年:2014

第30条，共48条

标题: Carbocatalysts: Graphene Oxide and Its Derivatives

作者: Su, Chenliang; Loh, Kian Ping

来源出版物: ACCOUNTS OF CHEMICAL RESEARCH 卷:46 页:2275-2285 出版年:OCT 15 2013

第31条，共48条

标题: Properties of Strained Structures and Topological Defects in Graphene

作者: Lu, Jiong; Bao, Yang; Su, Chen Liang; Loh, Kian Ping

来源出版物:ACS NANO 卷:7 页:OCT 2013 出版年:OCT 2013

第32条，共48条

标题: Doped Graphene as a Metal-Free Carbocatalyst for the Selective Aerobic Oxidation of Benzylic Hydrocarbons, Cyclooctane and Styrene

作者: Dhakshinamoorthy, Amarajothi; Primo, Ana; Concepcion, Patricia; Alvaro, Mercedes; Garcia, Hermenegildo

来源出版物: CHEMISTRY-A EUROPEAN JOURNAL 卷:19 页:7547-7554 出版年:JUN 2013

第33条，共48条

标题: Functionalization of Graphene Oxide for the Production of Novel Graphene-Based Polymeric and Colloidal Materials

作者: Thickett, Stuart C.; Zetterlund, Per B.

来源出版物: CURRENT ORGANIC CHEMISTRY 卷:17 页: 956-974 出版年:MAY 2013

第34条，共48条

标题: Benzyne-functionalized graphene and graphite characterized by Raman spectroscopy and energy dispersive X-ray analysis

作者: Magedov, Igor V.; Frolova, Lila V.; Ovezmyradov, Mekan; Bethke, Donald; Shaner, Eric A.; Kalugin, Nikolai G.

来源出版物:CARBON 卷:54 页:192-200 出版年:APR 2013

第35条，共48条

标题: Memory Devices Using a Mixture of MoS2 and Graphene Oxide as the Active Layer

作者: Yin, Zongyou; Zeng, Zhiyuan; Liu, Juqing; He, Qiyuan; Chen, Peng; Zhang, Hua

来源出版物:SMALL 卷:9 页:727-731 出版年:MAR 11 2013

第36条，共48条

标题: The Impact of Functionalization on the Stability, Work Function, and Photoluminescence of Reduced Graphene Oxide

作者: Kumar, Priyank V.; Bernardi, Marco; Grossman, Jeffrey C.

来源出版物:ACS NANO 卷:7 页:1638-1645 出版年:FEB 2013

第37条，共48条

标题: Reduced graphene oxide: firm support for catalytically active palladium nanoparticles and game changer in selective hydrogenation reactions

作者: Cano, Manuela; Benito, Ana M.; Urriolabeitia, Esteban P.; Arenal, Raul; Maser Wolfgang K.

来源出版物:NANOSCALE 卷:5 页:10189-10193 出版年:2013

第38条，共48条

标题: Synthesis of noble metal/graphene nanocomposites without surfactants by one-step reduction of metal salt and graphene oxide

作者: Kim, Seung-Hyun; Jeong, Gyoung Hwa; Choi, Donghyeuk; Yoon, Sunyoung; Jeon, Heung Bae; Lee, Sang-Min; Kim, Sang-Wook

来源出版物:JOURNAL OF COLLOID AND INTERFACE SCIENCE 卷:389 页:85-90 出版年:JAN 1 2013

第39条，共48条

标题: Graphene Oxide as Catalyst for the Acetalization of Aldehydes at Room Temperature

作者: Dhakshinamoorthy, Amarajothi; Alvaro, Mercedes; Puche, Marta; Fornes, Vicente; Garcia, Hermenegildo

来源出版物:CHEMCATCHEM 卷:4 页:2026-2030 出版年:DEC 2012

第40条，共48条

标题: A Computational Investigation of the Catalytic Properties of Graphene Oxide: Exploring Mechanisms by using DFT Methods

作者: Boukhvalov, Danil W.; Dreyer, Daniel R.; Bielawski, Christopher W.; Son, Young-Woo

来源出版物:CHEMCATCHEM 卷:4 页:1844-1849 出版年:NOV 2012

第41条，共48条

标题: Reduced Graphene Oxide for Catalytic Oxidation of Aqueous Organic Pollutants

作者: Sun, Hongqi; Liu, Shizhen; Zhou, Guanliang; Ang, Ha Ming; Tade, Moses O.; Wang, Shaobin

来源出版物: ACS APPLIED MATERIALS & INTERFACES 卷:4 页:5466-5471 出版年:OCT 2012

第42条，共48条

标题: The Direct Formation of Noble Metal (Pd, Pt, Au, and Ag) and Graphene Nanocomposites from Graphite

作者: Jeong, Gyoung Hwa; Kim, Seung Hyun; Kim, Sang-Wook

来源出版物: 2012 12TH IEEE CONFERENCE ON NANOTECHNOLOGY (IEEE-NANO) 卷:2012 页:- 出版年:AUG 20-23 2012

第43条，共48条

标题: Copper(II) bromide as a procatalyst for in situ preparation of active Cu nanoparticles for reduction of nitroarenes

作者: Kadam, Hari K.; Tilve, Santosh G.

来源出版物:RSC ADVANCES 卷:2 页:6057-6060 出版年:2012

第44条，共48条

标题: Graphene oxide as an acid catalyst for the room temperature ring opening of epoxides

作者: Dhakshinamoorthy, Amarajothi; Alvaro, Mercedes; Concepcion, Patricia; Fornes, Vicente; Garcia, Hermenegildo

来源出版物: CHEMICAL COMMUNICATIONS 卷:48 页:5443-5445 出版年:2012

第45条，共48条

标题: Wrinkled Graphenes: A Study on the Effects of Synthesis Parameters on Exfoliation-Reduction of Graphite Oxide

作者: Kaniyoor, Adarsh; Baby, Tessy Theres; Arockiadoss, Thevasahayam; Rajalakshmi, Natarajan

来源出版物:JOURNAL OF PHYSICAL CHEMISTRY C 卷:115 页:17660-17669 出版年:SEP 15 2011

第46条，共48条

标题: Hybrid gold nanoparticle-reduced graphene oxide nanosheets as active catalysts for highly efficient reduction of nitroarenes

作者: Choi, Yuri; Bae, Hee Son; Seo, Eunyong; Jang, Seonwan; Park, Kang Hyun; Kim, Byeong-Su

来源出版物: JOURNAL OF MATERIALS CHEMISTRY 卷:21 页:15431-15436 出版年:2011

第47条，共48条

标题: Efficient and highly selective iron-catalyzed reduction of nitroarenes

作者: Jagadeesh, Rajenahally V.; Wienhoefer, Gerrit; Westerhaus, Felix A.; Surkus, Annette-Enrica; Pohl, Marga-Martina; Junge, Henrik; Junge, Kathrin; Beller, Matthias

来源出版物:CHEMICAL COMMUNICATIONS 卷:47 页:10972-10974 出版年:2011

第48条，共48条

标题: Graphene oxide and Rose Bengal: oxidative C-H functionalisation of tertiary amines using visible light

作者: Pan, Yuanhang; Wang, Shuai; Kee, Choon Wee; Dubuisson, Emilie; Yang, Yuanyong; Loh, Kian Ping; Tan, Choon-Hong

来源出版物:GREEN CHEMISTRY 卷:13 页:3341-3344 出版年:2011

**二、引用论文第一产权单位为国内机构**

第 1 条，共79条

标题: Selective hydrogenation of C=C bond over N-doped reduced graphene oxides supported Pd catalyst

作者: Nie, Renfeng; Miao, Meng; Du, Weichen; Shi, Juanjuan; Liu, Yingchun; Hou, Zhaoyin

来源出版物: APPLIED CATALYSIS B-ENVIRONMENTAL 卷: 180 页: 607-613 出版年: JAN 2016

第2条，共79条

标题: Graphene-supported Pd catalyst for highly selective hydrogenation of resorcinol to 1, 3-cyclohexanedione through giant pi-conjugate interactions

作者: Wei, Zuojun; Pan, Ruofei; Hou, Yaxin; Yang, Yao; Liu, Yingxin

来源出版物: SCIENTIFIC REPORTS 卷: 5 页: 15564 出版年: OCT 23 2015

第3条，共79条

标题: Efficient and selective electro-reduction of nitrobenzene by the nano-structured Cu catalyst prepared by an electrodeposited method via tuning applied voltage

作者: Chen, Yali; Xiong, Lu; Wang, Weikang; Zhang, Xing; Yu, Hanqing

来源出版物: FRONTIERS OF ENVIRONMENTAL SCIENCE & ENGINEERING 卷: 9 页: 897-904 出版年: OCT 2015

第4条，共79条

标题: In Situ-Generated Co-0-Co3O4/N-Doped Carbon Nanotubes Hybrids as Efficient and Chemoselective Catalysts for Hydrogenation of Nitroarenes

作者: Wei, Zhongzhe; Wang, Jing; Mao, Shanjun; Su, Diefeng; Jin, Haiyan; Wang, Yihe; Xu, Fan; Li, Haoran; Wang, Yong

来源出版物: ACS CATALYSIS 卷: 5 页: 4783-4789 出版年: AUG 2015

第5条，共79条

标题: Efficient tuning of microstructure and surface chemistry of nanocarbon catalysts for ethylbenzene direct dehydrogenation

作者: Zhao, Zhongkui; Dai, Yitao; Ge, Guifang; Wang, Guiru

来源出版物: AICHE JOURNAL 卷: 61 页: 2543-2561 出版年: AUG 2015

第6条，共79条

标题: Nonenzymatic amperometric sensing of glucose using a glassy carbon electrode modified with a nanocomposite consisting of reduced graphene oxide decorated with Cu2O nanoclusters

作者: Mei, Li-Ping; Song, Pei; Feng, Jiu-Ju; Shen, Jia-Hui; Wang, Wei; Wang, Ai-Jun; Weng, Xuexiang

来源出版物: MICROCHIMICA ACTA 卷: 182 页: 1701-1708 出版年: JUL 2015

第7条，共79条

标题: Acid Properties of Nanocarbons and Their Application in Oxidative Dehydrogenation

作者: Wen, Guodong; Diao, Jiangong; Wu, Shuchang; Yang, Weimin; Schoegl, Robert; Su, Dang Sheng

来源出版物: ACS CATALYSIS 卷: 5 页: 3600-3608 出版年: JUN 2015

第8条，共79条

标题: Explosive Decomposition of a Melamine-Cyanuric Acid Supramolecular Assembly for Fabricating Defect-Rich Nitrogen-Doped Carbon Nanotubes with Significantly Promoted Catalysis

作者: Zhao, Zhongkui; Dai, Yitao; Ge, Guifang; Wang, Guiru

来源出版物:CHEMISTRY-A EUROPEAN JOURNAL 卷:21 页:8004-+ 出版年: MAY 26 2015

第9条，共79条

标题: Macroscopic and Spectroscopic Investigations of the Adsorption of Nitroaromatic Compounds on Graphene Oxide, Reduced Graphene Oxide, and Graphene Nanosheets

作者: Chen, Xiaoxiao; Chen, Baoliang

来源出版物:ENVIRONMENTAL SCIENCE & TECHNOLOGY 卷:49 页: 6181-6189 出版年:MAY 19 2015

第10条，共79条

标题: The Changes of Adsorption and Catalytic Capacity on Reduced Graphene Oxide After Electron Beam Irradiation

作者: Liu, Peng; Qi, Wei; An, Wenzhen; Tian, Longlong; Li, Zhan; Chen, Xiaolei; Wu, Wangsuo

来源出版物:NANO 卷:10 页:1550041 出版年:APR 2015

第11条，共79条

标题: Carbon-catalysed reductive hydrogen atom transfer reactions

作者: Yang, Huimin; Cui, Xinjiang; Dai, Xingchao; Deng, Youquan; Shi, Feng

来源出版物:NATURE COMMUNICATIONS 卷:6 页:6478 出版年:APR

第12条，共79条

标题: Guanidine Nitrate Enhanced Catalysis of Nitrogen-Doped Carbon Nanotubes for Metal-Free Styrene Production through Direct Dehydrogenation

作者: Zhao, Zhongkui; Dai, Yitao; Ge, Guifang; Wang, Guiru

来源出版物:CHEMCATCHEM 卷:7 页:1135-1144 出版年:APR 2015

第13条，共79条

标题: Metal-free graphene-based catalyst-Insight into the catalytic activity: A short review

作者: Hu, Huawen; Xin, John H.; Hu, Hong; Wang, Xiaowen; Kong, Yeeyee

来源出版物:APPLIED CATALYSIS A-GENERAL 卷:492 页:1-9 出版年:FEB 25 2015

第14条，共79条

标题: Catalyst-Free Chemoselective Reduction of Nitroarenes Using Thiourea as a Hydrogen Source

作者: Lv, Mei-fang; Lu, Guo-ping; Cai, Chun

来源出版物:A SIAN JOURNAL OF ORGANIC CHEMISTRY 卷:4 页:141-144 出版年:FEB 2015

第15条，共79条

标题: Supercritical CO2-assisted preparation of 3D graphene-pyrrole/carbon nanotubes/polyaniline Nanoarchitectures for efficient supercapacitor electrodes

作者: Yang, Hongxia; Wang, Nan; Ren, Yumei; Cai, Lu; Chen, Zhimin; Xu, Qun

来源出版物:MATERIALS LETTERS 卷:139 页:471-474 出版年:JAN 15 2015

第16条，共79条

标题: Highly dispersed cobalt oxide nanoparticles on CMK-3 for selective oxidation of benzyl alcohol

作者: Yang, Xiaoyuan; Wu, Shujie; Peng, Ling; Hu, Jing; Wang, Xiufang; Fu, Xiaoran; Huo, Qisheng; Guan, Jingqi

来源出版物:RSC ADVANCES 卷:5 页:102508-102515 出版年:2015

第17条，共79条

标题: An introduction to the chemistry of graphene

作者: Wang, Xiluan; Shi, Gaoquan

来源出版物:PHYSICAL CHEMISTRY CHEMICAL PHYSICS 卷:17 页:28484-28504 出版年:2015

第18条，共79条

标题: Chitosan assisted synthesis of 3D graphene@Au nanosheet composites: catalytic reduction of 4-nitrophenol

作者: Ma, Zhuo; Qiu, Yunfeng; Huang, Yanmin; Gao, Feng; Hu, PingAn

来源出版物:RSC AVANCES 卷:5 页: 79456-79462 出版年:2015

第19条，共79条

标题: Aerobic oxidation of alpha-pinene catalyzed by carbon nanotubes

作者: Cao, Yonghai; Li, Yuhang; Yu, Hao; Peng, Feng; Wang, Hongjuan

来源出版物:CATALYSIS SCIENCE & TECHNOLOGY 卷: 5 页: 3935-3944 出版年:2015

第20条，共79条

标题: Nitrogen-doped carbon nanotubes via a facile two-step approach as an efficient catalyst for the direct dehydrogenation of ethylbenzene

作者: Zhao, Zhongkui; Dai, Yitao; Ge, Guifang; Guo, Xinwen; Wang, Guiru

来源出版物:PHYSICAL CHEMISTRY CHEMICAL PHYSICS 卷:17 页:18895-18899 出版年:2015

第21条，共79条

标题: Facile simultaneous defect production and O,N-doping of carbon nanotubes with unexpected catalytic performance for clean and energy-saving production of styrene

作者: Zhao, Zhongkui; Dai, Yitao; Ge, Guifang; Guo, Xinwen; Wang, Guiru

来源出版物:GREEN CHEMSTRY 卷:17 页:3723-3727 出版年:2015

第22条，共79条

标题: A conjugated ketone as a catalyst in alcohol amination reactions under transition-metal and hetero-atom free conditions

作者: Dai, Xingchao; Cui, Xinjiang; Deng, Youquan; Shi, Feng

来源出版物:RSC ADVANCES 卷:5 页:43589-43593 出版年:2015

第23条，共79条

标题: Multiple roles of graphene in heterogeneous catalysis

作者: Fan, Xiaobin; Zhang, Guoliang; Zhang, Fengbao

来源出版物:CHEMICAL SOCIETY REVIEWS 卷:44 页:3023-3035 出版年:2015

第24条，共79条

标题: One-step fabrication of RGO/HNBR composites via selective hydrogenation of NBR with graphene-based catalyst

作者: Cao, Peng; Huang, Changyue; Zhang, Liqun; Yue, Dongmei

来源出版物:RSC ADVANCES 卷:5 页:41098-41102 出版年:2015

第25条，共79条

标题: A hybrid of holey graphene and Mn3O4 and its oxygen reduction reaction performance

作者: Lv, Xiaohui; Lv, Wei; Wei, Wei; Zheng, Xiaoyu; Zhang, Chen; Zhi, Linjie; Yang, Quan-Hong

来源出版物:CHEMICAL COMMUNICATIONS 卷:51 页:3911-3914 出版年:2015

第26条，共79条

标题: Sonoelectrochemical intercalation and exfoliation for the preparation of defective graphene sheets and their application as nonenzymatic H2O2 sensors and oxygen reduction catalysts

作者: Chen, Chin-Wei; Liu, Zhe-Tin; Zhang, Yu-Zhen; Ye, Jyun-Sian; Lee, Chien-Liang

来源出版物:RSC ADVANCES 卷:5 页:21988-21998 出版年:2015

第27条，共79条

标题: Graphene/carbon composite nanofibers for NO oxidation at room temperature

作者: Guo, Zeyu; Huang, Zheng-Hong; Wang, Mingxi; Kang, Feiyu

来源出版物:CATALYSIS SCIENCE & TECHNOLOGY 卷:5 页:827-829 出版年:2015

第28条，共79条

标题: TiO2 nanotube arrays loaded with reduced graphene oxide films: facile hybridization and promising photocatalytic application

作者: Ge, Ming-Zheng; Li, Shu-Hui; Huang, Jian-Ying; Zhang, Ke-Qin; AI-Deyab, Salem S.; Lai, Yue-Kun

来源出版物:JOURNAL OF MATERIALS CHEMISTRY A 卷:3 页:3491-3499 出版年:2015

第29条，共79条

标题: Carbon nanotubes oxidized by a green method as efficient metal-free catalysts for nitroarene reduction

作者: Wu, Shuchang; Wen, Guodong; Schloegl, Robert; Su, Dang Sheng

来源出版物:PHYSICAL CHEMISTRY CHEMICAL PHYSICS 卷:17 页:1567-1571 出版年:2015

第30条，共79条

标题: Deposition of Pd/graphene aerogel on nickel foam as a binder-free electrode for direct electro-oxidation of methanol and ethanol

作者: Tsang, Chi-Him A.; Hui, K. N.; Hui, K. S.; Ren, Li

来源出版物:JOURNAL OF MATERIALS CHEMISTRY A 卷:2 页:17986-17993 出版年:NOV 14 2014

第31条，共79条

标题: Graphene oxide as an effective catalyst for wet air oxidation of phenol

作者: Yang, Shaoxia; Cui, Yuhong; Sun, Yu; Yang, Hongwei

来源出版物:JOUNAL OF HAZARDOUS MATERIALS 卷:280 页:55-62 出版年:SEP 15 2014

第32条，共79条

标题: Insights into the electrocatalysis of nitrobenzene using chemically-modified carbon nanotube electrodes

作者: Sang, Yutao; Wang, Baoyan; Wang, Qinchao; Zhao, George; Guo, Peizhi

来源出版物:SCIENTIFIC REPORTS 卷:4 页:6321 出版年:SEP 10 2014

第33条，共79条

标题: Research Progress of Graphene and Its Composites in Organic Synthesis

作者: Zhang, Li; Gao, Shutao; Liu, Weihua; Shang, Ningzhao; Wang, Chun; Wang, Zhi

来源出版物:CHINESE JOURNAL OF ORGANIC CHEMISTRY 卷:34 页:1542-1548 出版年:AUG 2014

第34条，共79条

标题: Metal-Free and Pt-Decorated Graphene-Based Catalysts for Hydrogen Production in a Sulfur-Iodine Thermochemical Cycle

作者: Bo, Zheng; Zhang, Xiuyan; Yu, Kehan; Wang, Zhihua; Lin,Xiangdong; Yan, Jianhua; Cen, Kefa

来源出版物: INDUSTRIAL & ENGINEERING CHEMISTRY RESEARCH 卷:53 页:11920-11928 出版年:JUL 30 2014

第35条，共79条

标题: Reduced Graphene Oxide as a Metal-Free Carbocatalyst for Polymerization of 1-Naphthylamine

作者: Tan, Lin; Zhang, Yong-Chen; Wang, Bin; Luo, He-Ming; Feng, Hui-Xia

来源出版物:CHEMPLUSCHEM 卷:79 页:929-935 出版年:JUL 2014

第36条，共79条

标题: Reduced Graphene Oxide as Recyclable Catalyst for Synthesis of Bis(aminothiocarbonyl)disulfides from Secondary Amines and Carbon Disulfide

作者: Wang, Meishuang; Song, Xianghai; Ma, Ning

来源出版物:CATALYSIS LETTERS 卷:144 页:1233-1239 出版年:JUL 2014

第37条，共79条

标题: Single step electrochemical fabrication of highly loaded palladium nanoparticles decorated chemically reduced graphene oxide and its electrocatalytic applications

作者: Rajkumar, Muniyandi; Devadas, Balamurugan; Chen, Shen-Ming; Yeh, Pin-Chun

来源出版物: COLLOIDS AND SURFACES A-PHYSICOCHEMICAL AND ENGINEERING ASPECTS 卷:452 页:39-45 出版年:JUN 20 2014

第38条，共79条

标题: Model Molecules with Oxygenated Groups Catalyze the Reduction of Nitrobenzene: Insight into Carbocatalysis

作者: Wu, Shuchang; Wen, Guodong; Liu, Xiumei; Zhong, Bingwei; Su, Dang Sheng

来源出版物:CHEMCATCHEM 卷:6 页:1558-1561 出版年:JUN 2014

第39条，共79条

标题: Reduction of nitrobenzene catalyzed by carbon Materials

作者: Wu, Shuchang; Wen, Guodong; Zhong, Bingwei; Zhang, Bingsen; Gu, Xianmo; Wang, Ning; Su, Dangsheng

来源出版物:CHINESE JOURNAL OF CATALYSIS 卷:35 页:914-921 出版年:JUN 2014

第40条，共79条

标题: Reductive dechlorination of hexachloroethane by sulfide in aqueous solutions mediated by graphene oxide and carbon nanotubes

作者: Fu, Heyun; Guo, Yong; Chen, Wei; Gu, Cheng; Zhu, Dongqiang

来源出版物:CARBON 卷:72 页:74-81 出版年:JUN 2014

第41条，共79条

标题: Palladium Nanoparticles Supported on Nitrogen-Functionalized Active Carbon: A Stable and Highly Efficient Catalyst for the Selective Hydrogenation of Nitroarenes

作者: Li, Zelong; Li, Jinlei; Liu, Jianhua; Zhao, Zelun; Xia, Chungu; Li, Fuwei

来源出版物:CHEMCATCHEM 卷:6 页:1333-1339 出版年:MAY 2014

第42条，共79条

标题: Pt Nanocatalysts Supported on Reduced Graphene Oxide for Selective Conversion of Cellulose or Cellobiose to Sorbitol

作者: Wang, Ding; Niu, Wengqi; Tan, Minghui; Wu, Mingbo; Zheng, Xuejun; Li, Yanpeng; Tsubaki, Noritatsu

来源出版物:CHEMSUSCHEM 卷:7 页:1398-1406 出版年:MAY 2014

第43条，共79条

标题: Selective Allylic Oxidation of Cyclohexene Catalyzed by Nitrogen-Doped Carbon Nanotubes

作者: Cao, Yonghai; Yu, Hao; Peng, Feng; Wang, Hongjuan

来源出版物:ACS CATALYSIS 卷:4 页:1617-1625 出版年:MAY 2014

第44条，共79条

标题: The synthesis of graphene oxide nanostructures for supercapacitors: a simple route

作者: Li, Nanting; Tang, Shaochun; Dai, Yumin; Meng, Xiangkang

来源出版物:JOURNAL OF MATERIALS SCIENCE 卷:49 页:2802-2809 出版年:APR 2014

第45条，共79条

标题: Highly efficient and clean synthesis of 1-amino-2-acetylanthraquinone by copper-catalyzed reductive cleavage of isoxazole motif

作者: Zhao, Zhongkui; Li, Renzhi; Li, Yu;

来源出版物:CHINESE JOURNAL OF CATALYSIS 卷:35 页:319-323 出版年:MAR 2014

第46条，共79条

标题: Aqueous phase catalytic hydrodechlorination of 4-chlorophenol over palladium deposited on reduced graphene oxide

作者: Deng, Hongying; Fan, Guangyin; Wang, Chenyu; Zhang, Lei

来源出版物:CATALYSIS COMMUNICATIONS 卷:46 页:219-223 出版年:FEB 10 2014

第47条，共79条

标题: The Influence of N-doped Carbon Materials on Supported Pd: Enhanced Hydrogen Storage and Oxygen Reduction Performance

作者: Kong, Xiang-Kai; Chen, Qian-Wang; Lun, Zheng-Yan

来源出版物:CHEMPHYSCHEM 卷:15 页:344-350 出版年:FEB 3 2014

第48条，共79条

标题: Nitrobenzene reduction catalyzed by carbon: does the reaction really belong to carbocatalysis?

作者: Wu, Shuchang; Wen, Guodong; Wang, Jia; Rong, Junfeng; Zong, Baoning; Schloegl, Robert; Su, Dang Sheng

来源出版物:CATALYSIS SCIENCE & TECHNOLOGY 卷:4 页:4183-4187 出版年:2014

第49条，共79条

标题: A general approach towards efficient catalysis in Pickering emulsions stabilized by amphiphilic RGO-Silica hybrid materials

作者: Wei, Xu-Rui; Liu, Jun; Yang, Yong; Deng, Li

来源出版物:RSC ADVANCES 卷:4 页:35744-35749 出版年:2014

第50条，共79条

标题: Noncovalent functionalization of multi-walled carbon nanotubes as metal-free catalysts for the reduction of nitrobenzene

作者: Gu, Xiammo; Qi, Wei; Wu, Shuchang; Sun, Zhenhua; Xu, Xianzhu; Su, Dangsheng

来源出版物: CATALYSIS SCIENCE & TECHNOLOGY 卷:4 页:1730-1733 出版年:2014

第51条，共79条

标题: Graphene oxide for cellulose hydrolysis: how it works as a highly active catalyst?

作者: Zhao, Xiaochen; Wang, Jia; Chen, Chengmeng; Huang, Yanqiang; Wang, Aiqin; Zhang, Tao

来源出版物:CHEMICAL COMMUNICATIONS 卷:50 页:3439-3442 出版年:2014

第52条，共79条

标题: Facile synthesis of monodisperse porous Cu2O nanospheres on reduced graphene oxide for non-enzymatic amperometric glucose sensing

作者: Zhou, Dan-Ling; Feng, Jiu-Ju; Cai, Lin-Yi; Fang, Qin-Xue; Chen, Jian-Rong; Wang, Ai-Jun

来源出版物:ELECTROCHIMICA ACTA 卷:115 页:103-108 出版年:JAN 1 2014

第53条，共79条

标题: Probing the influence of different oxygenated groups on graphene oxide's catalytic performance

作者: Kong, Xiang-kai; Chen, Qian-wang; Lun, Zheng-yan

来源出版物: JOURNAL OF MATERIALS CHEMISTRY A 卷:2 页:610-613 出版年:2014

第54条，共79条

标题: Metal-free catalytic reduction of 4-nitrophenol to 4-aminophenol by N-doped graphene

作者: Kong, Xiang-kai; Sun, Zhi-yuan; Chen, Min; Chen, Chang-le; Chen, Qian-wang

来源出版物: ENERGY & ENVIRONMENTAL SCIENCE 卷:6 页:3260-3266 出版年:NOV 2013

第55条，共79条

标题: Suzuki-Miyaura reaction catalyzed by graphene oxide supported palladium nanoparticles

作者: Shang, Ningzhao; Feng, Cheng; Zhang, Haiyan; Gao, Shutao; Tang, Ranxiao; Wang, Chun; Wang, Zhi

来源出版物:CATALYSIS COMMUNICATIONS 卷:40 页:111-115 出版年:OCT 5 2013

第56条，共79条

标题: The graphene nanopowder for electro-catalytic oxidation of dopamine and uric acid in the presence of ascorbic acid

作者: Bu, Yuan; Dai, Wenle; Li, Nan; Zhao, Xinran; Zuo, Xia

来源出版物:JOURNAL OF ENERGY CHEMISTRY 卷:22 页:685-689 出版年:SEP 2013

第57条，共79条

标题: Nanocarbons for the Development of Advanced Catalysts

作者: Su, Dang Sheng; Perathoner, Siglinda; Centi, Gabriele

来源出版物: CHEMICAL REVIEWS 卷:113 页:5782-5816 出版年:AUG 2013

第58条，共79条

标题: The influence of wrinkling in reduced graphene oxide on their adsorption and catalytic properties

作者: Bai, Song; Shen, Xiaoping; Zhu, Guoxing; Yuan, Aihua; Zhang, Jun; Ji, Zhenyuan; Qiu, Dezhou

来源出版物: CARBON 卷:60 页:157-168 出版年:AUG 2013

第59条，共79条

标题: Magnetic graphene nanocomposite as an efficient catalyst for hydrogenation of nitroarenes

作者: Feng, Cheng; Zhang, Hai-Yan; Shang, Ning-Zhao; Gao, Shu-Tao; Wang, Chun

来源出版物:CHINESE CHEMICAL LETTERS 卷:24 页:539-541 出版年:JUN 2013

第60条，共79条

标题: Graphene Oxide-Facilitated Reduction of Nitrobenzene in Sulfide-Containing Aqueous Solutions

作者: Fu, Heyun; Zhu, Dongqiang

来源出版物:ENVIRONMENTAL SCIENCE & TECHNOLOGY 卷:47 页:4204-4210 出版年:MAY 7 2013

第61条，共79条

标题: Fe3O4@graphene oxide composite: A magnetically separable and efficient catalyst for the reduction of nitroarenes

作者: He, Guangyu; Liu, Weifeng; Sun, Xiaoqiang; Chen, Qun; Wang, Xin; Chen, Haiqun

来源出版物:MATERIALS RESEARCH BULLETIN 卷:48 页:1885-1890 出版年:MAY 2013

第62条，共79条

标题: Carbon clusters near the step of Rh surface: implication for the initial stage of graphene nucleation

作者: Gao, Junfeng; Zhao, Jijun

来源出版物:EUROPEAN PHYSICAL JOURNAL D 卷:67 页:50 出版年:MAR 2013

第63条，共79条

标题: Research progress in metal-free carbon-based catalysts

作者: Sun, Xiaoyan; Wang, Rui; Su, Dangsheng

来源出版物:CHINESE JOURNAL OF CATALYSIS 卷:34 页:508-523 出版年:MAR

第64条，共79条

标题: One-step synthesis of Pt nanoparticles/reduced graphene oxide composite with enhanced electrochemical catalytic activity

作者: Chen, Chen; Long, MingCe; Wu, HaoDong; Cai, WeiMin

来源出版物:SCIENCE CHINA-CHEMISTRY 卷:56 页:354-361 出版年:MAR 2013

第65条，共79条

标题: Highly dispersed nanocrystallines WC supported on microwave exfoliated RGO by ionic liquid and its catalytic performance in electroreduction of nitrobenzene

作者: Liu, Weiming; Shi, Meiqin; Lang, Xiaoling; Zhao, Di; Chu, Youqun; Ma, Chun’an

来源出版物:CATALYSIS TODAY 卷:200 页:87-93 出版年:FEB 1 2013

第66条，共79条

标题: sp(2)- and sp(3) -hybridized carbon materials as catalysts for aerobic oxidation of cyclohexane

作者: Cao, Yonghai; Luo, Xianyu; Yu, Hao; Peng, Feng; Wang, Hongjuan; Ning, Guoqing

来源出版物: CATALYSIS SCIENCE & TECHNOLOGY 卷:3 页: 2654-2660 出版年:2013

第67条，共79条

标题: Efficient Reduction of Nitroarenes Catalyzed by Graphene-Based Magnetic Nanocomposite

作者: Zhang, Hai-Yan; Feng, Cheng; Shang, Ning-Zhao; Gao, Shu-Tao; Wang, Chun; Wang, Zhi

来源出版物:LETTERS IN ORGANIC CHEMISTRY 卷:10 页:17-21 出版年:JAN 2013

第68条，共79条

标题: Comparative studies of graphene oxide and reduced graphene oxide as carbocatalysts for polymerization of 3-aminophenylboronic acid

作者: Tan, Lin; Wang, Bin; Feng, Huixia

来源出版物:RSC ADVANCES 卷:3 页:2561-2565 出版年:2013

第69条，共79条

标题: Graphene Oxide: Preparation, Functionalization, and Electrochemical Applications

作者: Chen, Da; Feng, Hongbin; Li, Jinghong

来源出版物:CHEMICAL REVIEWS 卷:112 页:6027-6053 出版年:NOV 2012

第70条，共79条

标题: Low-cost preparation of a conductive and catalytic graphene film from chemical reduction with AlI3

作者: Zhao, Xiaochong; Lin, Hong; Li, Junfeng; Xin, Li; Liu, Chenyang; Li, Jianbao

来源出版物:CARBON 卷:50 页:3497-3502 出版年:AUG 2012

第71条，共79条

标题: Metal nanoparticles supported graphene oxide 3D porous monoliths and their excellent catalytic activity

作者: He, Yongqiang; Zhang, Nana; Gong, Qiaojuan; Li, Zhiliang; Gao, Jianping; Qiu, Haixia

来源出版物:MATERIALS CHEMISTRY AND PHYSICS 卷:134 页:585-589 出版年:JUN 15 2012

第72条，共79条

标题: In situ Growth of NixCo100-x Nanoparticles on Reduced Graphene Oxide Nanosheets and Their Magnetic and Catalytic Properties

作者: Bai, Song; Shen, Xiaoping; Zhu, Guoxing; Li, Minzhi; Xi, Haitao; Chen, Kangmin

来源出版物:ACS APPLIED MATERIALS & INTERFACES 卷:4 页:2378-2386 出版年:MAY 2012

第73条，共79条

标题: Platinum supported on reduced graphene oxide as a catalyst for hydrogenation of nitroarenes

作者: Nie, Renfeng; Wang, Junhua; Wang, Lina; Qin, Yu; Chen, Ping; Hou, Zhaoyin

来源出版物:CARBON 卷:50 页:586-596 出版年:FEB 2012

第74条，共79条

标题: MnO2/graphene oxide: a highly active catalyst for amide synthesis from alcohols and ammonia in aqueous media

作者: Nie, Renfeng; Shi, Juanjuan; Xia, Shuixin; Shen, Lian; Chen, Ping; Hou, Zhaoyin; Xiao, Feng-Shou

来源出版物:JOURNAL OF MATERIALS CHEMISTRY 卷:22 页:18115-18118 出版年:2012

第75条，共79条

标题: Excellent catalytic performance of graphite oxide in the selective oxidation of glutaraldehyde by aqueous hydrogen peroxide

作者: Chu, Xiaofeng; Zhu, Quanjing; Dai, Wei-Lin; Fan, Kangnian

来源出版物:RSC ADVANCES 卷:2 页:7135-7139 出版年:2012

第76条，共79条

标题: Low-temperature plasma-assisted preparation of graphene supported palladium nanoparticles with high hydrodesulfurization activity

作者: Xu, Wenya; Wang, Xuzhen; Zhou, Quan; Meng, Bo; Zhao, Jiantao; Qiu, Jieshan; Gogotsi, Yury

来源出版物:JOURNAL OF MATERIALS CHEMISTRY 卷:22 页:14363-14368 出版年:2012

第77条，共79条

标题: Highly-dispersed ultrafine Pt nanoparticles on graphene as effective hydrogenation catalysts

作者: Sheng, Baoqiang; Hu, Lei; Yu, Tingting; Cao, Xueqin; Gu, Hongwei

来源出版物:RSC ADVANCES 卷:2 页:5520-5523 出版年:2012

第78条，共79条

标题: Low temperature plasma-mediated synthesis of graphene nanosheets for supercapacitor electrodes

作者: Zhou, Quan; Zhao, Zongbin; Chen, Yongsheng; Hu, Han; Qiu, Jieshan

来源出版物: JOURNAL OF MATERIALS CHEMISTRY 卷:22 页: 6061-6066 出版年:2012

第79条，共79条

标题: Alkali-treated graphene oxide as a solid base catalyst: synthesis and electrochemical capacitance of graphene/carbon composite aerogels

作者: Meng, Fanchang; Zhang, Xuetong; Xu, Bin; Yue, Shufang; Guo, Hui; Luo, Yunjun

来源出版物:JOURNAL OF MATERIALS CHEMISTRY 卷:21 页:18537-18539 出版年:2011