大连化物所科技论文奖励申报表

（百次引用论文奖）

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| --- | --- | --- | --- | --- | --- |
| **论文题目** | **Oxygen reduction reaction mechanism on nitrogen-doped graphene: A density functional theory study** | | | | |
| **作者（英文）** | **Yu, Liang; Pan, Xiulian; Cao, Xiaoming; Hu, P; Bao, Xinhe** | | | | |
| **作者（中文）** | **于良；** **潘秀莲；曹宵鸣；胡培军；包信和** | | | | |
| **期刊名称** | **JOURNAL OF CATALYSIS** | | | | |
| **发表日期** | **2011.8.15** | **卷** | **282** | **起止页码** | **183-190** |
| **总引用次数** | **114** | | | **他引次数** | **106** |
| **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55条

标题: Heteroatom-Doped Graphitic Carbon Catalysts for Efficient Electrocatalysis of Oxygen Reduction Reaction

作者: Zhang, Jintao; Dai, Liming

来源出版物: ACS CATALYSIS卷: 5页: 7244-7253出版年: DEC 2015

第2 条，共55条

标题: Nanostructured Electrocatalysts for PEM Fuel Cells and Redox Flow Batteries: A Selected Review

作者: Shao, Yuyan ; Cheng, Yingwen; Duan, Wentao ; Wang, Wei ; Lin, Yuehe; Wang, Yong; Liu, Jun

来源出版物: ACS CATALYSIS卷: 5页: 7288-7298出版年: DEC 2015

第 3 条，共55条

标题: Carbon-Doped Boron Nitride Nanosheet: An Efficient Metal-Free Electrocatalyst for the Oxygen Reduction Reaction

作者: Zhao, Jingxiang; Chen, Zhongfang

来源出版物: JOURNAL OF PHYSICAL CHEMISTRY C卷: 119页: 26348-26354出版年: NOV 26 2015

第 4 条，共55条

标题: Generalized Reaction Mechanism for the Selective Aerobic Oxidation of Aryl and Alkyl Alcohols over Nitrogen-Doped Graphene

作者: Jeyaraj, Vijaya Sundar; Kamaraj, M.; Subramanian, V

来源出版物: JOURNAL OF PHYSICAL CHEMISTRY C卷: 119页: 26438-26450出版年: NOV 26 2015

第 5 条，共55条

标题: A Discussion on the Activity Origin in Metal-Free Nitrogen-Doped Carbons For Oxygen Reduction Reaction and their Mechanisms

作者: Wu, Kuang-Hsu; Wang, Da-Wei ; Su, Dang-Sheng; Gentle, IR

来源出版物: CHEMSUSCHEM卷: 8页: 2772-2788出版年: SEP 2015

第 6 条，共55条

标题: Metal-Free Catalysts for Oxygen Reduction Reaction

作者: Dai, Liming ; Xue, Yuhua ; Qu, Liangti ; Choi, Hyun-Jung ; Baek, Jong-Beom

来源出版物: CHEMICAL REVIEWS卷: 115页: 4823-4892出版年: JUN 10 2015

第 7 条，共55条

标题: Activation of Graphenic Carbon Due to Substitutional Doping by Nitrogen: Mechanistic Understanding from First Principles

作者: Bhattacharjee, Joydeep

来源出版物: JOURNAL OF PHYSICAL CHEMISTRY LETTERS卷: 6页: 1653-1660出版年: MAY 7 2015

第 8 条，共55条

标题: An overview of the electrochemical performance of modified graphene used as an electrocatalyst and as a catalyst support in fuel cells

作者: Soo, Li Ting ; Loh, Kee Shyuan ; Mohamad, Abu Bakar; Daud, Wan Ramli Wan; Wong, Wai Yin

来源出版物: APPLIED CATALYSIS A-GENERAL卷:497页: 198-210出版年: MAY 2015

第 9 条，共55条

标题: A metal-free bifunctional electrocatalyst for oxygen reduction and oxygen evolution reactions

作者: Zhang, Jintao; Zhao, Zhenghang; Xia, Zhenhai ; Dai, Liming

来源出版物: NATURE NANOTECHNOLOGY卷: 10页: 444-452出版年: MAY 2015

第 10 条，共55条

标题: A DFT study of oxygen reduction reaction mechanism over O-doped graphene-supported Pt-4, Pt3Fe and Pt3V alloy catalysts

作者: Jin, Nian; Han, Jinyu; Wang, Hua ; Zhu, Xinli ; Ge, Qingfeng

来源出版物: INTERNATIONAL JOURNAL OF HYDROGEN ENERGY卷:40页: 5126-5134出版年: APR 27 2015

第 11 条，共55条

标题: Investigation of properties of Co porphyrine pyrolysis products and identification of nature of molecular oxygen reduction active centers in basic electrolyte

作者: Davydova, E. S. ; Tarasevich, M. R

来源出版物: PROTECTION OF METALS AND PHYSICAL CHEMISTRY OF SURFACES卷: 51页: 240-247出版年: MAR 2015

第 12 条，共55条

标题: Comparative Study of Oxygen Reduction Reaction Mechanism on Nitrogen-, Phosphorus-, and Boron-Doped Graphene Surfaces for Fuel Cell Applications

作者: del Cueto, M ; Ocon, P; Poyato, J. M. L

来源出版物: JOURNAL OF PHYSICAL CHEMISTRY C卷: 119页: 2004-2009出版年:  JAN 29 2015

第 13 条，共55条

标题: Influence of enolate/epoxy configuration, doping and vacancy on the catalytic activity of graphene

作者: Sinthika, S; Thapa, Ranjit

来源出版物: RSC ADVANCES卷: 5页:  93215-93225出版年: 2015

第 14 条，共55条

标题: Role of lattice defects in catalytic activities of graphene clusters for fuel cells

作者: Zhang, Lipeng; Xu, Quan ; Niu, Jianbing ; Xia, Zhenhai

来源出版物: PHYSICAL CHEMISTRY CHEMICAL PHYSICS卷: 17页: 16733-16743出版年: 2015

第 15 条，共55条

标题: Nitrogen-doped graphene-supported copper complex: a novel photocatalyst for CO2 reduction under visible light irradiation

作者: Kumar, Pawan ; Mungse, Harshal P; Khatri, Om P; Jain, Suman L

来源出版物: RSC ADVANCES卷: 5页: 54929-54935出版年: 2015

第 16 条，共55条

标题: Charge transfer, bonding conditioning and solvation effect in the activation of the oxygen reduction reaction on unclustered graphitic-nitrogen-doped graphene

作者: Ferre-Vilaplana, Adolfo ; Herrero, Enrique

来源出版物: PHYSICAL CHEMISTRY CHEMICAL PHYSICS卷: 17页: 16238-16242出版年: 2015

第 17 条，共55条

标题: Potential of metal-free "graphene alloy" as electrocatalysts for oxygen reduction reaction

作者: Geng, Dongsheng; Ding, Ning; Hor, T. S. Andy ; Liu, Zhaolin; Sun, Xueliang; Zong, Yun

来源出版物: JOURNAL OF MATERIALS CHEMISTRY A卷: 3页: 1795-1810出版年: 2015

第 18 条，共55条

标题: Nitrogen-doped metal-free carbon catalysts for aerobic oxidation of xanthene

作者: Fujita, Shin-Ichiro; Yamada, Katsuaki ; Katagiri, Ayaka; Watanabe, Hiroyuki;Yoshida, Hiroshi; Arai, Masahiko

来源出版物: APPLIED CATALYSIS A-GENERAL卷: 488页: 171-175出版年: NOV 2014

第 19 条，共55条

标题: Nitrogen-doped and simultaneously reduced graphene oxide with superior dispersion as electrocatalysts for oxygen reduction reaction

作者: Lee, Cheol-Ho; Yun, Jin-Mun; Lee, Sungho; Jo, Seong Mu; Yoo, Sung Jong; Cho, Eun Ae ; Khil, Myung-Seob; Joh, Han-Ik

来源出版物: MATERIALS RESEARCH BULLETIN卷:59 页:145-149出版年: NOV 2014

第 20 条，共55条

标题: Boron-doped graphene as active electrocatalyst for oxygen reduction reaction at a fuel-cell cathode

作者: Fazio, Gianluca ; Ferrighi, Lara ; Di Valentin, Cristiana

来源出版物: JOURNAL OF CATALYSIS卷:318 页:203-210出版年: OCT 2014

第 21 条，共55条

标题: Active Sites and Mechanisms for Oxygen Reduction Reaction on Nitrogen-Doped Carbon Alloy Catalysts: Stone-Wales Defect and Curvature Effect

作者: Chai, Guo-Liang; Hou, Zhufeng; Shu, Da-Jun; Ikeda, Takashi ; Terakura, Kiyoyuki

来源出版物: JOURNAL OF THE AMERICAN CHEMICAL SOCIETY卷:136 页: 13629-13640出版年: OCT 1 2014

第 22 条，共55条

标题: First principles study of oxygen reduction reaction mechanisms on N-doped graphene with a transition metal support

作者: Noh, Seung Hyo ; Kwak, Do Hyun ; Seo, Min Ho; Ohsaka, Takeo; Han, Byungchan

来源出版物: ELECTROCHIMICA ACTA卷: 140页:225-231出版年: SEP 10 2014

第 23 条，共55条

标题: Liquid Crystal Size Selection of Large-Size Graphene Oxide for Size-Dependent N-Doping and Oxygen Reduction Catalysis

作者: Lee, Kyung Eun; Kim, Ji Eun; Maiti, Uday Narayan; Lim, Joonwon; Hwang, Jin Ok; Shim, Jongwon; Oh, Jung Jae; Yun, Taeyeong; Kim, Sang Ouk

来源出版物: ACS NANO卷: 8页: 9073-9080出版年: SEP 2014

第 24 条，共55条

标题: Synthesis of nitrogen-doped multilayer graphene from milk powder with melamine and their application to fuel cells

作者: Zhao, Hong ; Hui, K. S ; Hui, K. N.

来源出版物: CARBON卷:76 页:1-9出版年: SEP 2014

第 25 条，共55条

标题: Density functional theory study of the oxygen reduction reaction mechanism in a BN co-doped graphene electrocatalyst

作者: Kattel, Shyam ; Atanassov, Plamen; Kiefer, Boris

来源出版物: JOURNAL OF MATERIALS CHEMISTRY A卷: 2页: 10273-10279出版年: JUL 14 2014

第 26 条，共55条

标题: Observation of Active Sites for Oxygen Reduction Reaction on Nitrogen-Doped Multilayer Graphene

作者: Xing, Tan ; Zheng, Yao; Li, Lu Hua; Cowie, Bruce C. C; Gunzelmann, Daniel; Qiao, Shi Zhang; Huang, Shaoming; Chen, Ying

来源出版物: ACS NANO卷:8 页: 6856-6862出版年: JUL 2014

第 27 条，共55条

标题: Long-Range Electron Transfer over Graphene-Based Catalyst for High-Performing Oxygen Reduction Reactions: Importance of Size, N-doping, and Metallic Impurities

作者: Choi, Chang Hyuck; Lim, Hyung-Kyu; Chung, Min Wook; Park, Jong Cheol; Shin, Hyeyoung ; Kim, Hyungjun; Woo, Seong Ihl

来源出版物: JOURNAL OF THE AMERICAN CHEMICAL SOCIETY卷:136 页:9070-9077出版年: JUN 25 2014

第 28 条，共55条

标题: Oxidation of Ethylbenzene to Acetophenone with N-Doped Graphene: Insight from Theory

作者: Ricca, Chiara; Labat, Frederic; Russo, Nino; Adamo, Carlo; Sicilia, Emilia

来源出版物: JOURNAL OF PHYSICAL CHEMISTRY C卷:118 页:12275-12284出版年: JUN 12 2014

第 29 条，共55条

标题: Chemically Functionalized Carbon Nanotubes with Pyridine Groups as Easily Tunable N-Decorated Nanomaterials for the Oxygen Reduction Reaction in Alkaline Medium

作者: Tuci, Giulia ; Zafferoni, Claudio ; Rossin, Andrea; Milella, Antonella ; Luconi, Lapo; Innocenti, Massimo; Lai Truong Phuoc; Cuong Duong-Viet; Cuong Pham-Huu; Giambastian, Giuliano

来源出版物: CHEMISTRY OF MATERIALS卷:26 页: 3460-3470出版年: JUN 10 2014

第 30 条，共55条

标题: Recent progress on nitrogen/carbon structures designed for use in energy and sustainability applications

作者: Wood, Kevin N ; O'Hayre, Ryan ; Pylypenko, Svitlana

来源出版物: ENERGY & ENVIRONMENTAL SCIENCE卷: 7页: 1212-1249出版年: APR 2014

第 31 条，共55条

标题: Edge Oxidation Effect of Chemical-Vapor-Deposition-Grown Graphene Nanoconstriction

作者: Iqbal, Muhammad Waqas; Iqbal, Muhammad Zahir ; Jin, Xiaozhan ; Hwang, Chanyong ; Eom, Jonghwa

来源出版物: ACS APPLIED MATERIALS & INTERFACES卷: 6页:4207-4213出版年: MAR 26 2014

第 32 条，共55条

标题: Origin of the Electrocatalytic Oxygen Reduction Activity of Graphene-Based Catalysts: A Roadnnap to Achieve the Best Performance

作者: Jiao, Yan; Zheng, Yao; Jaroniec, Mietek; Qiao, Shi Zhang

来源出版物: JOURNAL OF THE AMERICAN CHEMICAL SOCIETY卷:136 页:4394-4403出版年: MAR 19 2014

第 33 条，共55条

标题: First-principles study of Pt-film stability on doped graphene sheets

作者: Park, Tae-uk; Tomita, Yoko ; Nakayama, Takashi

来源出版物: SURFACE SCIENCE卷: 621页:7-15出版年: MAR 2014

第 34 条，共55条

标题: Catalytic Mechanisms of Sulfur-Doped Graphene as Efficient Oxygen Reduction Reaction Catalysts for Fuel Cells

作者: Zhang, Lipeng; Niu, Jianbing ; Li, Mingtao; Xia, Zhenhai

来源出版物: JOURNAL OF PHYSICAL CHEMISTRY C卷:118 页: 3545-3553出版年: FEB 20 2014

第 35 条，共55条

标题: Heterogeneous nanocarbon materials for oxygen reduction reaction

作者: Wang, Da-Wei; Su, Dangsheng

来源出版物: ENERGY & ENVIRONMENTAL SCIENCE卷:7 页:576-591出版年: FEB 2014

第 36 条，共55条

标题: Boosting Graphene Reactivity with Oxygen by Boron Doping: Density Functional Theory Modeling of the Reaction Path.

作者: Ferrighi, Lara ; Datteo, Martina; Di Valentin, Cristiana

来源出版物: JOURNAL OF PHYSICAL CHEMISTRY C卷:118 页:223-230出版年: JAN 9 2014

第 37 条，共55条

标题: Oxygen Reduction Electrocatalysis Using N-Doped Graphene Quantum-Dots

作者: Saidi, Wissam A

来源出版物: JOURNAL OF PHYSICAL CHEMISTRY LETTERS卷:4 页:4160-4165出版年: DEC 5 2013

第 38 条，共55条

标题: A First-Principles Study of the Role of Quaternary-N Doping on the Oxygen Reduction Reaction Activity and Selectivity of Graphene Edge Sites

作者: Bao, Xiaoguang; Nie, Xiaowa; von Deak, Dieter ; Biddinger, Elizabeth J ; Luo, Wenjia; Asthagiri, Aravind; Ozkan, Umit S; Hadad, Christopher M

来源出版物: TOPICS IN CATALYSIS卷:56 页:1623-1633出版年: DEC 2013

第 39 条，共55条

标题: Density functional theory calculations for the oxygen dissociation on nitrogen and transition metal doped graphenes

作者: Zheng, Yongping; Xiao, Wei; Cho, Maenghyo ; Cho, Kyeongjae

来源出版物: CHEMICAL PHYSICS LETTERS卷:586 页:104-107出版年: OCT 24 2013

第 40 条，共55条

标题: Functionalization of Monolayer h-BN by a Metal Support for the Oxygen Reduction Reaction

作者: Lyalin, Andrey; Nakayama, Akira; Uosaki, Kohei; Taketsugu, Tetsuya

来源出版物: JOURNAL OF PHYSICAL CHEMISTRY C卷: 117页: 21359-21370出版年: OCT 17 2013

第 41 条，共55条

标题: Recent progress in nitrogen-doped carbon and its composites as electrocatalysts for fuel cell applications

作者: Wong, W. Y ; Daud, W. R. W ; Mohamad, A. B ; Kadhum, A. A. H ; Loh, K. S ; Majlan, E. H

来源出版物: INTERNATIONAL JOURNAL OF HYDROGEN ENERGY卷:38 页: 9370-9386出版年: JUL 26 2013

第 42 条，共55条

标题: Global and local reactivity indexes applied to understand the chemistry of graphene oxide and doped graphene

作者: Cortes Arriagada, Diego

来源出版物: JOURNAL OF MOLECULAR MODELING卷: 19页:919-930出版年: FEB 2013

第 43 条，共55条

标题: Magnetic properties of 3d transition metals and nitrogen functionalized armchair graphene nanoribbon

作者: Kattel, Shyam

来源出版物: RSC ADVANCES卷:3 页: 21110-21117出版年: 2013

第 44 条，共55条

标题: Enhanced electrochemical catalytic activity by copper oxide grown on nitrogen-doped reduced graphene oxide

作者: Zhou, Ruifeng; Zheng, Yao; Hulicova-Jurcakova, Denisa ; Qiao, Shi Zhang

来源出版物: JOURNAL OF MATERIALS CHEMISTRY A卷:1 页: 13179-13185出版年: 2013

第 45 条，共55条

标题: A density functional theory study of oxygen reduction reaction on Me-N-4 (Me = Fe, Co, or Ni) clusters between graphitic pores

作者: Kattel, Shyam ; Wang, Guofeng

来源出版物: JOURNAL OF MATERIALS CHEMISTRY A卷: 1页: 10790-10797出版年: 2013

第 46 条，共55条

标题: Theoretical predictions for hexagonal BN based nanomaterials as electrocatalysts for the oxygen reduction reaction

作者: Lyalin, Andrey ; Nakayama, Akira; Uosaki, Kohei; Taketsugu, Tetsuya

来源出版物: PHYSICAL CHEMISTRY CHEMICAL PHYSICS卷:15 页: 2809-2820出版年: 2013

第 47 条，共55条

标题: Catalytic activity of Co-N-x/C electrocatalysts for oxygen reduction reaction: a density functional theory study

作者: Kattel, Shyam ; Atanassov, Plamen; Kiefer, Boris

来源出版物: PHYSICAL CHEMISTRY CHEMICAL PHYSICS卷:15 页: 148-153出版年:2013

第 48 条，共55条

标题: Nanostructured Metal-Free Electrochemical Catalysts for Highly Efficient Oxygen Reduction

作者: Zheng, Yao; Jiao, Yan; Jaroniec, Mietek ; (Jin, Yonggang; Qiao, Shi Zhang

来源出版物: SMALL卷:8 页3550-3566:出版年: DEC 7 2012

第 49 条，共55条

标题: Defects and doping and their role in functionalizing graphene

作者: Pantelides, Sokrates T. n ; Puzyrev, Yevgeniy; Tsetseris, Leonidas; Wang, Bin

来源出版物: MRS BULLETIN卷:37 页: 1187-1194出版年: DEC 2012

第 50 条，共55条

标题: Graphene enriched with pyrrolic coordination of the doped nitrogen as an efficient metal-free electrocatalyst for oxygen reduction

作者: Unni, Sreekuttan M ; Devulapally, Saikrishna; Karjule, Neeta ; Kurungot, Sreekumar

来源出版物: JOURNAL OF MATERIALS CHEMISTRY卷:22 页: 23506-23513出版年: NOV 28 2012

第 51 条，共55条

标题: Density Functional Theory Study of Ni-N-x/C Electrocatalyst for Oxygen Reduction in Alkaline and Acidic Media

作者: Kattel, Shyam ; Atanassov, Plamen ; Kiefer, Bons

来源出版物: JOURNAL OF PHYSICAL CHEMISTRY C卷: 116页: 17378-17383出版年: AUG 23 2012

第 52 条，共55条

标题: Effect of Microstructure of Nitrogen-Doped Graphene on Oxygen Reduction Activity in Fuel Cells

作者: Zhang, Lipeng ; Niu, Jianbing; Dai, Liming; Xia, Zhenhai

来源出版物: LANGMUIR卷:28 页: 7542-7550出版年: MAY 15 2012

第 53 条，共55条

标题: Review on Recent Progress in Nitrogen-Doped Graphene: Synthesis, Characterization, and Its Potential Applications

作者: Wang, Haibo; Maiyalagan, Thandavarayan; Wang, Xin

来源出版物: ACS CATALYSIS卷:2 页: 781-794出版年: MAY 2012

第 54 条，共55条

标题: Activity, Selectivity, and Anion-Exchange Membrane Fuel Cell Performance of Virtually Metal-Free Nitrogen-Doped Carbon Nanotube Electrodes for Oxygen Reduction Reaction

作者: Rao, Chitturi Venkateswara; Ishikawa, Yasuyuki

来源出版物: JOURNAL OF PHYSICAL CHEMISTRY C卷:116 页: 4340-4346出版年: FEB 16 2012

第 55 条，共55条

标题: Oxygen Reduction on Metal-Free Nitrogen-Doped Carbon Nanowall Electrodes

作者: McClure, Joshua P ; Thornton, Jackson D ; Jiang, Rongzhong ; Chu, Deryn; Cuomo, Jerome J ; Fedkiw, Peter S

来源出版物: JOURNAL OF THE ELECTROCHEMICAL SOCIETY卷:159 页: F733-F742出版年: 2012

**二、引用论文第一产权单位为国内机构**

第 1 条，共51条

标题: Two-Dimensional pi-Conjugated Metal Bis(dithiolene) Complex Nanosheets as Selective Catalysts for Oxygen Reduction Reaction

作者: Zhang, Peng; Hou, Xiuli ; Liu, Lei; Mi, Jianli; Dong, Mingdong

来源出版物: JOURNAL OF PHYSICAL CHEMISTRY C卷: 119页: 28028-28037出版年: DEC 17 2015

第 2 条，共51条

标题: Oxygen reduction reaction on M-S4 embedded graphene: A density functional theory study

作者: Zhang, Peng; Hou, Xiuli; Mi, Jianli; Liu, Lei ; Dong, Mingdong

来源出版物: CHEMICAL PHYSICS LETTERS卷: 641页: 112-116出版年: NOV 16 2015

第 3 条，共51条

标题: In situ synthesis of mesoporous manganese oxide/sulfur-doped graphitized carbon as a bifunctional catalyst for oxygen evolution/reduction reactions

作者: Gao, Yang; Zhao, Hong ; Chen, Dengjie; Chen, Chi ; Ciucci, Francesco

来源出版物: CARBON卷: 94页: 1028-1036出版年: NOV 2015

第 4 条，共51条

标题: N-, P- and S-tridoped graphene as metal-free electrocatalyst for oxygen reduction reaction

作者: Dou, Shuo; Shen, Anli; Ma, Zhaoling ; Wu, Jianghong; Tao, Li ; Wang, Shuangyin

来源出版物: JOURNAL OF ELECTROANALYTICAL CHEMISTRY卷: 753页: 21-27出版年: SEP 15 2015

第 5 条，共51条

标题: Nitrogen-Doped Carbon Nanotube and Graphene Materials for Oxygen Reduction Reactions

作者: Wei, Qiliang; Tong, Xin ; Zhang, Gaixia ; Qiao, Jinli ; Gong, Qiaojuan; Sun, Shuhui

来源出版物: CATALYSTS卷: 5页:1574-1602出版年: SEP 2015

第 6 条，共51条

标题: A new C=C embedded porphyrin sheet with superior oxygen reduction performance

作者: Li, Yawei ; Zhang, Shunhong; Yu, Jiabing; Wang, Qian; Sun, Qiang; Jena, Puru

来源出版物: NANO RESEARCH卷: 8页: 2901-2912出版年: SEP 2015

第 7 条，共51条

标题: Iron-embedded boron nitride nanosheet as a promising electrocatalyst for the oxygen reduction reaction (ORR): A density functional theory (DFT) study

作者: Feng, Li-yan; Liu, Yue-jie; Zhao, Jing-xiang

来源出版物: JOURNAL OF POWER SOURCES卷: 287页: 431-438出版年: AUG 1 2015

第 8 条，共51条

标题: Interfacial Effects of CeO2-Supported Pd Nanorod in Catalytic CO Oxidation: A Theoretical Study

作者: Liu, Bing; Liu, Jian; Li, Teng; Zhao, Zhen; Gong, Xue-Qing; Chen, Yu; Duan, Aijun; Jiang, Guiyuan; Wei, Yuechang

来源出版物: JOURNAL OF PHYSICAL CHEMISTRY C卷: 119页: 12923-12934出版年: JUN 11 2015

第 9 条，共51条

标题: Exploration of the catalytically active site structures of animal biomass-modified on cheap carbon nanospheres for oxygen reduction reaction with high activity, stability and methanol-tolerant performance in alkaline medium

作者: Guo, Chaozhong; Liao, Wenli ; Li, Zhongbin ; Chen, Changguo

来源出版物: CARBON卷: 85页: 279-288出版年: APR 2015

第 10 条，共51条

标题: The mechanisms of oxygen reduction reaction on phosphorus doped graphene: A first-principles study

作者: Zhang, Xilin ; Lu, Zhansheng ; Fu, Zhaoming; Tang, Yanan; Ma, Dongwei ; Yang, Zongxian

来源出版物: JOURNAL OF POWER SOURCES卷: 276页: 222-229出版年: FEB 15 2015

第 11 条，共51条

标题: Effect of preparation routes on activity of Ag-MnOx/C as electrocatalysts for oxygen reduction reaction in alkaline media

作者: Wu, Qiu-mei ; Ruan, Jian-ming; Zhou, Zhong-cheng ; Sang, Shang-bin

来源出版物: TRANSACTIONS OF NONFERROUS METALS SOCIETY OF CHINA卷: 25页: 510-519出版年: FEB 2015

第 12 条，共51条

标题: Electrocatalytic activity of a nitrogen-enriched mesoporous carbon framework and its hybrids with metal nanoparticles fabricated through the pyrolysis of block copolymers

作者: Lu, Yen-Hsing ; Liou, Jiun-You ; Lin, Chien-Fu; Sun, Ya-Sen

来源出版物: RSC ADVANCES卷: 5页: 105760-105773出版年: 2015

第 13 条，共51条

标题: Catalytic dehydrochlorination of 1,2-dichloroethane to produce vinyl chloride over N-doped coconut activated carbon

作者: Zhao, Wei; Sun, Mengxia ; Zhang, Haiyang ; Dong, Yanzhao; Li, Xiaoyan; Li, Wei ; Zhang, Jinli

来源出版物: RSC ADVANCES卷: 5页: 104071-104078出版年: 2015

第 14 条，共51条

标题: Synergistic effect of S, N-co-doped mesoporous carbon materials with high performance for oxygen-reduction reaction and Li-ion batteries

作者: Zhuang, Gui-lin; Bai, Jia-qi; Tao, Xin-yong ; Luo, Jian-min ; Wang, Xin-de ; Gao, Yi-fen ; Zhong, Xing ; Lia, Xiao-nian ; Wang, Jian-guo

来源出版物: JOURNAL OF MATERIALS CHEMISTRY A卷: 3页: 20244-20253出版年: 2015

第 15 条，共51条

标题: A Density Functional Theory Study on Mechanism of Electrochemical Oxygen Reduction on FeN3-Graphene

作者: Zhang, Jing ; Wang, Zhen ; Zhu, Zhenping

来源出版物: JOURNAL OF THE ELECTROCHEMICAL SOCIETY卷: 162页: F1262-F1267出版年: 2015

第 16 条，共51条

标题: The oxygen reduction reaction on Pt(111) and Pt(100) surfaces substituted by subsurface Cu: a theoretical perspective

作者: Li, Kai ; Li, Yang; Wang, Ying ; He, Feng; Jiao, Menggai; Tang, Hao; Wu, Zhijian

来源出版物: JOURNAL OF MATERIALS CHEMISTRY A卷: 3页: 11444-11452出版年: 2015

第 17 条，共51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 18 条，共51条

标题: Urea-treated carbon nanofibers as efficient catalytic materials for oxygen reduction reaction

作者: Liu, Dong; Zhang, Xueping ; You, Tianyan

来源出版物: JOURNAL OF POWER SOURCES卷: 273页: 810-815出版年: JAN 1 2015

第 19 条，共51条

标题: Design of a non-precious metal electrocatalyst for alkaline electrolyte oxygen reduction by using soybean biomass as the nitrogen source of electrocatalytically active center structures

作者: Guo, Chao-Zhong ; Liao, WL ; Chen, Chang-Guo

来源出版物: JOURNAL OF POWER SOURCES卷: 269页: 841-847出版年: DEC 10 2014

第 20 条，共51条

标题: Urea-treated carbon nanofibers as efficient catalytic materials for oxygen reduction reaction

作者: Liu, Dong; Zhang, Xueping ; You, Tianyan

来源出版物: JOURNAL OF POWER SOURCES卷: 273页: 810-815出版年: JAN 1 2015

第 21 条，共51条

标题: Urea-treated carbon nanofibers as efficient catalytic materials for oxygen reduction reaction

作者: Liu, Dong; Zhang, Xueping ; You, Tianyan

来源出版物: JOURNAL OF POWER SOURCES卷: 273页: 810-815出版年: JAN 1 2015

第 22 条，共51条

标题: Density-Functional-Theory Calculation Analysis of Active Sites for Four-Electron Reduction of O-2 on Fe/N-Doped Graphene

作者: Liang, Wei ; Chen, Junxiang ; Liu, Yuwen; Chen, Shengli

来源出版物: ACS CATALYSIS卷: 4页: 4170-4177出版年: NOV 2014

第 23 条，共51条

标题: Ice crystals growth driving assembly of porous nitrogen-doped graphene for catalyzing oxygen reduction probed by in situ fluorescence electrochemistry

作者: Wang, Jiong ; Wang, Huai-Song; Wang, Kang; Wang, Feng-Bin; Xia, Xing-Hua

来源出版物: SCIENTIFIC REPORTS卷: 4页:6723出版年: OCT 22 2014

第 24 条，共51条

标题: Effect of Transition Metals on the Structure and Performance of the Doped Carbon Catalysts Derived From Polyaniline and Melamine for ORR Application

作者: Peng, Hongliang; Liu, Fangfang; Liu, Xiaojun; Liao, Shijun; You, Chenghang; Tian, Xinlong; Nan, Haoxiong; Luo, Fan; Song, Huiyu; Fu, Zhiyong

来源出版物: ACS CATALYSIS卷: 4页: 3797-3805出版年: OCT 2014

第 25 条，共51条

标题: Pt@Au Nanorods Uniformly Decorated on Pyridyne Cycloaddition Graphene as a Highly Effective Electrocatalyst for Oxygen Reduction

作者: Zhong, Xing; Yu, Huiyou; Wang, Xinde; Liu, Lin ; Jiang, Yu; Wang, Lei ; Zhuang, Guilin; Chu, Youqun ; Li, Xiaonian; Wang, Jian-guo

来源出版物: ACS APPLIED MATERIALS & INTERFACES卷:6 页: 13448-13454出版年: AUG 27 2014

第 26 条，共51条

标题: Combination of Carbon Nitride and Carbon Nanotubes: Synergistic Catalysts for Energy Conversion

作者: Gong, Yutong; Wang, Jing ; Wei, Zhongzhe ; Zhang, Pengfei ; Li, Haoran; Wang, Yong

来源出版物: CHEMSUSCHEM卷:7 页:2303-2309出版年: AUG 2014

第 27 条，共51条

标题: The inherent kinetic electrochemical reduction of oxygen into H2O on FeN4-carbon: A density functional theory study

作者: Zhang, Jing; Wang, Zhijian; Zhu, Zhenping

来源出版物: JOURNAL OF POWER SOURCES卷:255 页:65-69出版年: JUN 1 2014

第 28 条，共51条

标题: Electrocatalytic performance of Ni modified MnOX/C composites toward oxygen reduction reaction and their application in Zn-air battery

作者: Wu, Qiumei; Jiang, Luhua; Qi, Luting; Wang, Erdong; Sun, Gongquan

来源出版物: INTERNATIONAL JOURNAL OF HYDROGEN ENERGY卷:39 页:3423-3432出版年: FEB 25 2014

第 29 条，共51条

标题: Layered SiC Sheets: A Potential Catalyst for Oxygen Reduction Reaction

作者: Zhang, P ; Xiao, B. B ; Hou, X. L ; Zhu, Y. F ; Jiang, Q

来源出版物: SCIENTIFIC REPORTS卷:4 页:1-8出版年: JAN 22 2014

第 30 条，共51条

标题: Two-step synthesis of boron and nitrogen codoped graphene as a synergistically enhanced catalyst for the oxygen reduction reaction

作者: Tai, Jiapo; Hu, Jiantong; Chen, Zhongxin ; Lu, Hongbin

来源出版物: RSC ADVANCES卷: 4页: 61437-61443出版年:2014

第 31 条，共51条

标题: Curvature effect of SiC nanotubes and sheets for CO2 capture and reduction

作者: Zhang, Peng; Hou, Xiuli; Mi, Jianli; Jiang, Q ; Aslan, H ; Dong, Mingdong

来源出版物: RSC ADVANCES卷: 4页: 48994-48999出版年:2014

第 32 条，共51条

标题: Recent advances of doped carbon as non-precious catalysts for oxygen reduction reaction

作者: Shi, Hao; Shen, Yanfei; He, Fei; Li, Ying; Liu, Anran; Liu, Songqin; Zhang, Yuanjian

来源出版物: JOURNAL OF MATERIALS CHEMISTRY A卷:2 页: 15704-15716出版年:2014

第 33 条，共51条

标题: Molecular doping of graphene as metal-free electrocatalyst for oxygen reduction reaction

作者: Dou, Shuo ; Shen, Anli; Tao, Li; Wang, Shuangyin

来源出版物: CHEMICAL COMMUNICATIONS卷:50 页: 10672-10675出版年:2014

第 34 条，共51条

标题: Doped graphene for metal-free catalysis

作者: Kong, Xiang-Kai; Chen, Chang-Le ; Chen, Qian-Wang

来源出版物: CHEMICAL SOCIETY REVIEWS卷: 43页: 2841-2857出版年:2014

第 35 条，共51条

标题: Advances in Carbon-Incorporated Non-Noble Transition Metal Catalysts for Oxygen Reduction Reaction in Polymer Electrolyte Fuel Cells

作者: Hung, Tai-Feng; Chen, Syuan-Hong; Tu, Meng-Hsiu ; Lu, Zhi-Hsiang; Chen, Chih Kai ; Liu, Ru-Shi; Greer, Heather F ; Zhou, Wuzong; Lo, Man-Yin

来源出版物: JOURNAL OF THE CHINESE CHEMICAL SOCIETY卷:61 页:93-100出版年: JAN 2014

第 36 条，共51条

标题: Pyridyne cycloaddition of graphene: "external" active sites for oxygen reduction reaction

作者: Zhong, Xing; Yu, Huiyou ; Zhuang, Guilin ; Li, Qiang ; Wang, Xinde; Zhu, Yuanshuai; Liu, Lin ; Li, Xiaonian; Dong, Mingdong ; Wang, Jian-guo

来源出版物: JOURNAL OF MATERIALS CHEMISTRY A卷:2 页: 897-901出版年:2014

第 37 条，共51条

标题: A novel nitrogen-containing electrocatalyst for oxygen reduction reaction from blood protein pyrolysis

作者: Guo, Chao-Zhong; Chen, Chang-Guo ; Luo, Zhong-Li

来源出版物: JOURNAL OF POWER SOURCES卷: 245页:841-845出版年: JAN 1 2014

第 38 条，共51条

标题: A density functional theory study on oxygen reduction reaction on nitrogen-doped graphene

作者: Zhang, Jing; Wang, Zhijian ; Zhu, Zhenping

来源出版物: JOURNAL OF MOLECULAR MODELING卷:19 页:5515-5521出版年: DEC 2013

第 39 条，共51条

标题: Density functional theory calculations of hydrogen adsorption on Ti-, Zn-, Zr-, Al-, and N-doped and intrinsic graphene sheets

作者: Zhang, Hong-ping; Luo, Xue-gang; Lin, Xiao-yang; Lu, Xiong ; Leng, Yang

来源出版物: INTERNATIONAL JOURNAL OF HYDROGEN ENERGY卷:38 页: 14269-14275出版年: NOV 4 2013

第 40 条，共51条

标题: Effects of N-doping concentration on graphene structures and properties

作者: Yin, Wei; Jia, Tian-Tian; Guo, Xin; Huang, Xin ; Zhang, Yong-Fan ; Chen, Wen-Kai

来源出版物: CHEMICAL PHYSICS LETTERS卷:581 页:74-79出版年: AUG 21 2013

第 41 条，共51条

标题: Phosphorus-doped graphene and (8,0) carbon nanotube: Structural, electronic, magnetic properties, and chemical reactivity

作者: Wang, Hong-mei; Wang, Hong-xia ; Chen, Ying; Liu, Yue-jie; Zhao, Jing-xiang; Cai, Qing-hai; Wang, Xuan-zhang

来源出版物: APPLIED SURFACE SCIENCE卷: 273页:302-309出版年: MAY 15 2013

第 42 条，共51条

标题: Onion-like graphitic nanoshell structured Fe-N/C nanofibers derived from electrospinning for oxygen reduction reaction in acid media

作者: Yin, Jing ; Qiu, Yejun ; Yu, Jie

来源出版物: ELECTROCHEMISTRY COMMUNICATIONS卷: 30页:1-4出版年: MAY 2013

第 43 条，共51条

标题: The Interactions of Oxygen with Small Gold Clusters on Nitrogen-Doped Graphene

作者: Chen, Xin ; Sun, Shaorui; Li, Fan ; Wang, Xiayan; Xia, Dingguo

来源出版物: MOLECULES卷:18 页:3279-3291出版年: MAR 2013

第 44 条，共51条

标题: Can Si-doped graphene activate or dissociate O-2 molecule?

作者: Chen, Ying; Yang, Xiao-chun ; Liu, Yue-jie; Zhao, Jing-xiang; Cai, Qing-hai; Wang, Xuan-zhang

来源出版物: JOURNAL OF MOLECULAR GRAPHICS & MODELLING卷:39 页:126-132出版年: FEB 2013

第 45 条，共51条

标题: Can Boron and Nitrogen Co-doping Improve Oxygen Reduction Reaction Activity of Carbon Nanotubes?

作者: Zhao, Yu; Yang, Lijun ; Chen, Sheng ; Wang, Xizhang; Ma, Yanwen ; Wu, Qiang ; Jiang, Yufei; Qian, Weijin ; Hu, Zheng

来源出版物: JOURNAL OF THE AMERICAN CHEMICAL SOCIETY卷:135 页:1201-1204出版年: JAN 30 2013

第 46 条，共51条

标题: Hydrothermal synthesis of amino-doped graphene and its electrochemical behavior on ascorbic acid

作者: Kang Hui; Luo Min; Liang Bin; Dou Yuanyun; Liang Sen; Ding Xiaoyi

来源出版物: Journal of Functional Materials卷: 44页: 2607-2611出版年: 2013

第 47 条，共51条

标题: Free-standing nitrogen-doped carbon nanofiber films as highly efficient electrocatalysts for oxygen reduction

作者: Liu, Dong; Zhang, Xueping ; Sun, Zaicheng; You, Tianyan

来源出版物: NANOSCALE卷: 5页: 9528-9531出版年: 2013

第 48 条，共51条

标题: Oxygen reduction reaction on active sites of heteroatom-doped graphene

作者: Fan, Xiaofeng; Zheng, W. T ; Kuo, Jer-Lai

来源出版物: RSC ADVANCES卷: 3页: 5498-5505出版年: 2013

第 49 条，共51条

标题: Graphene based catalysts

作者: Huang, Cancan; Li, Chun ; Shi, Gaoquan

来源出版物: ENERGY & ENVIRONMENTAL SCIENCE卷:5 页: 8848-8868出版年: OCT 2012

第 50 条，共51条

标题: Potential dependent and structural selectivity of the oxygen reduction reaction on nitrogen-doped carbon nanotubes: a density functional theory study

作者: Zhang, P; Lian, J. S ; Jiang, Q

来源出版物: PHYSICAL CHEMISTRY CHEMICAL PHYSICS卷:14 页: 11715-11723出版年: 2012

第 51 条，共51条

标题: Oxygen molecule dissociation on carbon nanostructures with different types of nitrogen doping

作者: Ni, Shuang; Li, Zhenyu ; Yang, Jinlong

来源出版物: NANOSCALE卷:4 页: 1184-1189出版年: 2012