

Si/C 复合材料的制备及作为锂离子电池负极的性能研究 .....	苏利伟,任慢慢,袁树明,等( 1 )
碳浴焙烧工艺合成 $\text{LiFePO}_4/\text{C}$ 正极材料 .....	刘全兵,罗传喜,宋慧宇,等( 3 )
模板-电沉积法制备孔状结构锡钴负极材料 .....	孙 玺,于维平( 5 )
共沉淀-固相法合成 $\text{LiNi}_{0.5}\text{Mn}_{0.5}\text{O}_2$ 正极材料 .....	张现发,王佳伟,于子佳,等( 8 )
$(1-x)\text{Li}_2\text{MnO}_3 \cdot x\text{LiNi}_{1/2}\text{Mn}_{1/2}\text{O}_2$ 的低温固相制备及电化学性能研究 .....	任 岩,连 芳,李 栋,等( 10 )
掺杂金属离子对磷酸铁锂结构及性能的影响 .....	谢 辉( 13 )
<hr/>	
三元氧化物基的染料敏化太阳能电池 .....	黄礼华,魏明灯( 15 )
在 PI 衬底上制备 CdS 薄膜及其性能表征 .....	李 巍,方小红( 17 )
铜铟镓硒薄膜太阳电池的应力问题 .....	李 微,孙 云,刘兴江( 20 )
<hr/>	
微型平面 6-cell 组合再生式燃料电池电源的制作与性能 .....	苏华能,廖世军( 22 )
聚苯并咪唑/磺化聚醚砜复合膜的制备 .....	王迎姿,尚玉明,冯少广,等( 24 )
两种新型电源的应用需求分析 .....	高英倩,廉志彪,王向伟,等( 26 )
直接甲醇燃料电池运行参数的研究 .....	刘桂成,王同涛,马傲冬,等( 29 )
P(AMPS-SR)质子交换膜的制备与性能表达 .....	马志刚,邓正华,索继栓( 32 )
DMFC 阳极催化层结构优化研究 .....	王同涛,叶 锋,方 勇,等( 34 )
水电解池电极性能研究 .....	徐志彬,任丽彬,李勇辉,等( 36 )
PTFE-Nafion 复合质子交换膜研究 .....	李勇辉,张 军,徐志彬( 38 )
纳米 $\text{SiO}_2$ 对离子液体/P(VdF-HFP)复合膜的电导率影响初探 .....	唐 玲,苗睿琪,方 勇,等( 42 )
直接甲醇燃料电池用离子液体复合膜的制备及性能研究 .....	苗睿琪,方 勇,唐 玲,等( 44 )
一体式可再生燃料电池用新型膜电极三合一 .....	马海鹏,张华民,刘 波,等( 46 )
$\text{Pt}/\text{Si}_3\text{Ti}_2\text{O}_7/\text{C}$ 复合电催化剂的制备及其对氧还原反应的催化作用研究 .....	杨莉君,廖世军( 48 )
以钉作为核的 $\text{Ru}@ \text{Pt}/\text{C}$ 低铂核壳结构催化剂的制备以及电催化活性研究 .....	高海丽,廖世军( 50 )
$\text{CN}_x$ 纳米纤维负载 Pd 电催化剂对甲酸的电催化氧化 .....	杨苏东,梁彦瑜,温祝亮,等( 52 )
亲水 PTFE 增强 SPEEK 复合膜制备及其在 PEMFC 中应用 .....	毕 成,张华民,张 宇,等( 54 )
燃料电池氢源——二段固定床优化乙醇重整制氢 .....	朱跃辉,吴 锋,吴 川( 56 )
钨添加量对 $\text{Pt}-\text{WO}_3/\text{C}$ 催化剂活性的影响 .....	吴 锋,刘延红,吴 川( 58 )
空气电池阳极材料及制备工艺对性能的影响研究 .....	吴 瞳,鞠克江,刘长瑞( 60 )

一种金属复合氧化物为催化剂的空气电极的研究 .....	李振亚, 王育华( 64 )
钴掺杂含氮碳气凝胶的制备及性能研究 .....	陈胜洲, 杨伟, 郭娟, 等( 66 )
炭气凝胶前处理对其负载 PtRu 催化性能影响 .....	杨伟, 陈胜洲, 叶飞, 等( 68 )
<hr/>	
Fe - B 在碱性电池中的电化学性能研究 .....	逯晋英, 吴川, 吴锋, 等( 71 )
MnO <sub>2</sub> 对铝代 $\alpha$ - Ni(OH) <sub>2</sub> 电极材料电化学性能的影响 .....	庄玉贵, 林东风, 陈秀宇, 等( 73 )
锡镍合金纳米阵列的制备与充放电性能研究 .....	姜冬冬, 付延鲍, 马晓华, 等( 75 )
正极钴添加方式对 MH/Ni 电池性能影响的研究 .....	姜豫皖, 周时国, 阎永恒, 等( 77 )
宽温区镍氢电池的研究 .....	邱钟明, 吴爱深( 79 )
一种新型高功率碱锰电池 .....	金成昌, 孟波, 任鉴民( 82 )
Y <sub>2</sub> O <sub>3</sub> 对 LaMg <sub>12</sub> 型储氢合金电化学性能的影响 .....	王敬, 马兴泰, 张莉, 等( 85 )
醋酸镍促进硼氢化钠水解制氢的研究 .....	庞美丽, 吴川, 吴锋, 等( 88 )
CNTs 对镍氢电池正极电化学性能的影响 .....	陈其猛, 易双萍, 赵渺( 90 )
<hr/>	
阀控密封铅酸电池建模及试验研究 .....	胡博, 张彦琴( 93 )
铅酸蓄电池正极板添加剂的研究进展 .....	张静, 徐坤( 95 )
铅酸蓄电池生产中铅酸废水的处理工艺 .....	常玉, 陈朋, 熊正林, 等( 97 )
铅锡二元合金应用于管式 VRLA 蓄电池的研究 .....	闫新华, 贾化琦, 南俊民( 99 )
<hr/>	
超级电容器电极材料的最新研究进展 .....	张易宁, 何腾云(102)
过渡金属聚合物 Poly[ Ni( Salen) ] 恒电位法制备及性能研究 .....	刘景胜, 高飞, 李建玲, 等(104)
复合活化制备高体积比电容多孔炭 .....	叶江海, 梁远, 崔翠微, 等(106)
电化学合成 $\gamma$ - MnO <sub>2</sub> /PANI 复合材料及性能研究 .....	韩桂梅, 高飞, 李建玲, 等(108)
<hr/>	
液流储能电池研究进展 .....	张华民(110)
全钒液流电池荷电状态检测方法研究 .....	范永生, 陈晓, 徐冬清, 等(112)
全钒液流电池的质子传导膜研究 .....	刘平, 青格乐图, 范永生, 等(115)
全钒液流电池导电双极板材料研究 .....	徐冬清, 范永生, 刘平, 等(117)
<hr/>	
热电池正极材料二硫化钴含量测定 .....	常芳(119)
镁及镁合金在有机溶液中电化学行为研究 .....	张晶, 郑伟伟, 丁飞, 等(122)

**JOURNAL OF SOUTH CHINA NORMAL UNIVERSITY**  
(Natural Science Edition)

Suppl 1, 2009

**CONTENTS**

- Preparation of Si/C Composite and Its Performances as an Anode of Lithium – Ion Batteries  
..... *SU Liwei, REN Manman, YUAN Shuming, et al*( 1 )
- Synthesis of Cathode Material  $\text{LiFePO}_4/\text{C}$  with a Carbon Bath Calcining Process  
..... *LIU Quanbing, LUO Chuanxi, SONG Huiyu, et al*( 3 )
- Macroporous Structure Sn – Co Alloy Negative Electrode Material for Lithium – Ion  
Battery Prepared by Template – Electro – Deposition ..... *SUN Xi, YU Weiping*( 5 )
- Synthesis  $\text{LiNi}_{0.5}\text{Mn}_{0.5}\text{O}_2$  Cathode Material by Combining Coprecipitation and Solid State Method  
..... *ZHANG Xianfa, WANG Jiawei, YU Zijia, et al*( 8 )
- Electrochemical Performance of  $(1 - x)\text{Li}_2\text{MnO}_3 \cdot x\text{LiNi}_{1/2}\text{Mn}_{1/2}\text{O}_2$  Prepared via Low – Heating  
Solid – State Reaction Method ..... *REN Yan, LIAN Fang, LI Dong, et al*( 10 )
- The Influences of Metal Ion Doping on the Structure and Performances for Lithium Iron Phosphate  
..... *XIE Hui*( 13 )
- Dye – Sensitized Solar Cells Composed of Ternary Oxide ..... *HUANG Lihua, WEI Mingdeng*( 15 )
- Synthesis and Property of CdS Thin Film on PI Substrates ..... *LI Wei, FANG Xiaohong*( 17 )
- Stress in Cigs Thin Film Solar Cell ..... *LI Wei, SUN Yun, LIU Xingjiang*( 20 )
- Fabrication and Performance of a Mini Power Source with a Planar Six – Cell Pem  
Unitized Regenerative Fuel Cell Stack ..... *SU Huaneng, LIAO Shijun*( 22 )
- Preparation of Acid – Base Blend Membranes from Sulfonated Poly( Arylene Ether Sulfone) and  
Sulfonated Polybenzimidazole ..... *WANG Yingzi, SHANG Yuming, FENG Shaoguang, et al*( 24 )
- The Requirement of Two New Type Power Supply System Analysis  
..... *GAO Yingqian, LIAN Zhibiao, WANG Xiangwei, et al*( 26 )
- Study on the Operating Parameters of Direct Methanol Fuel Cells  
..... *LIU Guicheng, WANG Tongtao, MA Aodong, et al*( 29 )
- Preparation and Characterizations of P(AMPS – SR) Proton Exchange Membrane  
..... *MA Zhigang, DENG Zhenghua, SUO Jishuan*( 32 )
- Optimization of the Anode Catalyst Layer in MEA Direct Methanol Fuel Cell  
..... *WANG Tongtao, YE Feng, FANG Yong, et al*( 34 )
- Study on Electrode Performance of Water Electrolyzer ..... *XU Zhibin, REN Libin, LI Yonghui, et al*( 36 )
- Research of PTFE – Nafion Composite Membrane ..... *LI Yonghui, ZHANG Jun, XU Zhibin*( 38 )
- Preliminary Study on Nano –  $\text{SiO}_2$  for the Conductivity of Ionic Liquid/P( VdF – HFP)  
Composite Membrane ..... *TANG Ling, MIAO Ruiying, FANG Yong, et al*( 42 )
- Preparation and Characterization of Ionic Liquid Based Composite Membranes for DMFC  
..... *MIAO Ruiying, FANG Yong, TANG Ling, et al*( 44 )
- Novel Membrane Electrode Assembly for URFC ..... *MA Haipeng, ZHANG Huamin, LIU Bo, et al*( 46 )
- Preparation of a Composite Electrocatalyst  $\text{Pt}/\text{Si}_x\text{Ti}_y\text{O}_z/\text{C}$  and Its Catalysis towards  
the Reduction of Oxygen ..... *YANG Lijun, LIAO Shijun*( 48 )
- Preparation and Electro – Catalytic Activity of a Core – Shell Ru@Pt/C Catalyst with  
Ru as Core ..... *GAO Haili, LIAO Shijun*( 50 )
- $\text{CN}_x$  Nanofibers as Palladium Support for Formic Acid Oxidation  
..... *YANG Sudong, LIANG Yanyu, WEN Zhuliang, et al*( 52 )
- Preparation and Application of Hydrophilic Treatment PTFE Reinforced SPEEK Composite  
Membrane for PEMFC ..... *BI Cheng, ZHANG Huamin, ZHANG Yu, et al*( 54 )
- Hydrogen Source for Fuel Cell – Optimization of Ethanol Reforming for Hydrogen Production through  
Double – Sector Fixed Bed ..... *ZHU Yuehui, WU Feng, WU Chuan*( 56 )
- Effect of Tungsten on Activities of Pt –  $\text{WO}_3/\text{C}$  Catalysts ..... *WU Feng, LIU Yanhong, WU Chuan*( 58 )

Study on Performance of Air – Battery Anode Materials .....	WU Tong, JU Kejiang, LIU Changrui( 60 )
Study on Air Electrode Made of a Kind of Complex Compound Metal Oxide as Catalyst .....	LI Zhenya, WANG Yuhua( 64 )
Cobalt Containing N – Doped Carbon Aerogels Electrocatalysts for Oxygen Reduction .....	CHEN Shengzhou, YANG Wei, GUO Juan, et al( 66 )
Study Pretreatment of Carbon Aerogels on Electrocatalytic Performance of PtRu Catalysts for Methanol Oxidation .....	YANG Wei, CHEN Shengzhou, YE Fei, et al( 68 )
Study on the Electrochemical Properties of Fe – B in Alkaline Batteries .....	LU Jinying, WU Chuan, WU Feng, et al( 71 )
Effect of MnO <sub>2</sub> on Electrochemical Performance of Al Doped $\alpha$ – Ni(OH) <sub>2</sub> Electrode Material .....	ZHUANG Yugui, LIN Dongfeng, CHEN Xiuyu, et al( 73 )
Fabrication of Sn – Ni Alloy Nano – Array and Its Charge/Discharge Performance .....	JIANG Dongdong, FU Yanbao, MA Xiaohua, et al( 75 )
Study on D – Type MH/Ni Battery with Different Cobalt Additives Added .....	LOU Yuwan, ZHOU Shiguo, YAN Yongheng, et al( 77 )
Study on Wide Temperature Characteristics of Ni – Mh Battery .....	QIU Zhongming, WU Aishen( 79 )
A New Generation of High Performance Alkaline Manganese Dioxide Battery .....	JIN Chengchang, MEN Bo, REN Jianmin( 82 )
Effect of Y <sub>2</sub> O <sub>3</sub> on Electrochemical Performance of LaMg <sub>12</sub> – Type Hydrogen Storage Alloy .....	WANG Jing, MA Xingtai, ZHANG Li, et al( 85 )
Study on Promotive Hydrolysis of Sodium Borohydride by Nickel Acetate .....	PANG Meili, WU Chuan, WU Feng, et al( 88 )
Influence of CNTs on the Electrochemical Performance of the MH/Ni Battery Positive Electrode .....	CHEN Qimeng, YI Shuangping, ZHAO Miao( 90 )
Modeling and Test on Valve Regulated Lead Acid Batteries .....	HU Bo, ZHANG Yanqin( 93 )
Evolution of Positive Additives of Lead – Acid Batteries .....	ZHANG Jing, XU Kun( 95 )
The Treatment for Lead – Acid Wastewater from the Lead – Acid Battery Plant .....	CHANG Yu, CHEN Peng, XIONG Zhenlin, et al( 97 )
Application of Lead – Tin Alloy in Tubular Valve – Regulated Lead Acid Batteries .....	YAN Xinhua, JIA Huaqi, NAN Junmin( 99 )
Research Progress in Supercapacitor Electrode Materials .....	ZHANG Yining, HE Tengyun(102)
The Potentiostatic Synthesize and Performance Study of Poly[ Ni( Salen) ] .....	LIU Jingsheng, Gao Fei, LI Jianling, et al(104)
Preparation of Porous Carbons with High Volumetric Capacitance by Composite Activator .....	YE Jianghai, LIANG Kui, CUI Cuiwei, et al(106)
Electrochemical Synthesis of Composite Materials and Performance Study .....	HAN Guimei, GAO Fei, LI Jianling, et al(108)
Progress of Redox Flow Battery .....	ZHANG Huamin(110)
Study on Methods for Detecting State of Charge of Vanadium Redox Flow Battery .....	FAN Yongsheng, CHEN Xiao, XU Dongqing, et al(112)
Proton Conductive Membrane for Vanadium Redox Flow Battery .....	LIU Ping, QING Geletu, FAN Yongsheng, et al(115)
Development of Conductive Bipolar Plate for All – Vanadium Redox Flow Battery .....	XU Dongqing, FAN Yongsheng, LIU Ping, et al(117)
Determination of Cobalt Bisulfide Content of Cathode Material of the Thermal Battery .....	CHANG Fang(119)
Study on the Electrochemical Behavior of Magnesium and Magnesium Alloy in Organic Solvents .....	ZHANG Jing, ZHENG Weiwei, DING Fei, et al(122)