

ISSN 0454-5648

CN 11-2310/TQ

CODEN KSYHA5

# 硅酸盐学报

JOURNAL OF THE CHINESE CERAMIC SOCIETY

中国硅酸盐学会  
THE CHINESE CERAMIC SOCIETY

高电压正极材料 $\text{LiNi}_{0.5}\text{Mn}_{1.5}\text{O}_4$ 的制备及电化学性能

杨则恒, 姚宏旭, 夏剑锋, 张卫新, 裴波, 梅周盛

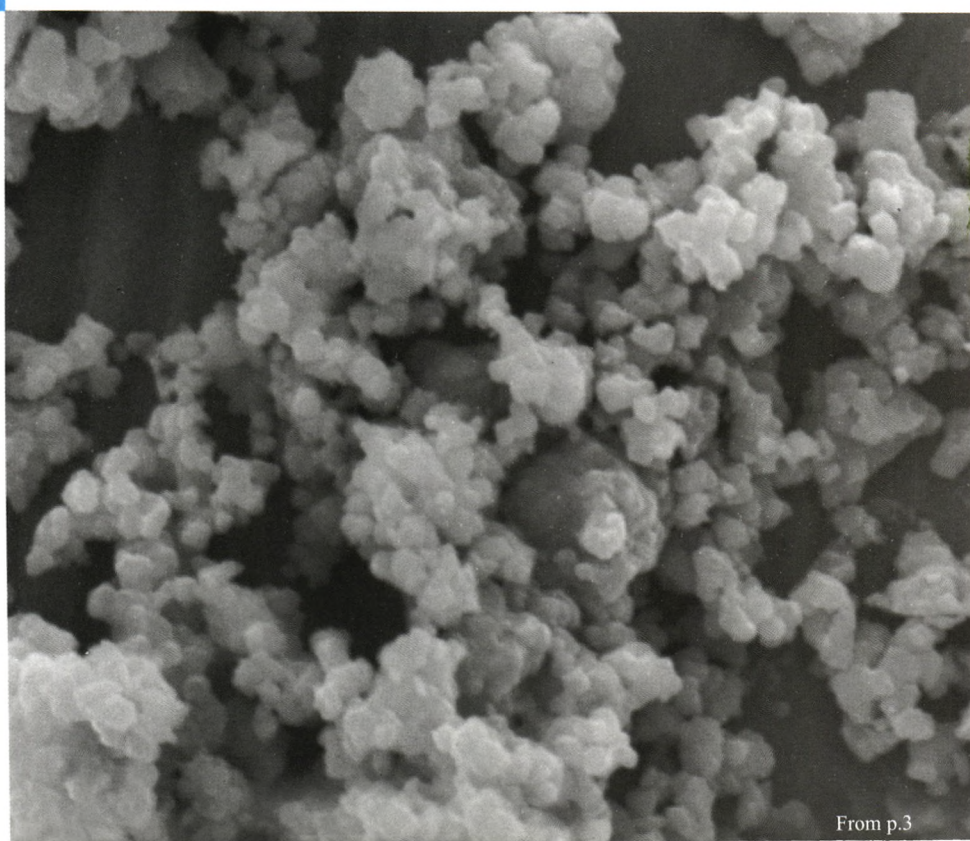
Synthesis of High Voltage  $\text{LiNi}_{0.5}\text{Mn}_{1.5}\text{O}_4$  as Cathode of Lithium Ion  
Batteries and Its Electrochemical Performances

YANG Zeheng, YAO Hongxu, XIA Jianfeng, ZHANG Weixin, PEI Bo,  
MEI Zhousheng



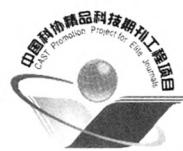
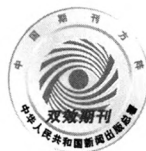
Vol.41 No.1

2013  
万方数据



From p.3

Ei 核心期刊, CA, SA, PAK 收录期刊



1957 年创刊

# 硅 酸 盐 学 报

总 286 期

Guisuanyan Xuebao

(无机非金属材料)

第 41 卷 第 1 期 2013 年 1 月, 月刊

## 目 次

### 无机新能源材料专题

- 高电压正极材料  $\text{LiNi}_{0.5}\text{Mn}_{1.5}\text{O}_4$  的制备及电化学性能 ..... 杨则恒, 姚宏旭, 夏剑锋, 张卫新, 裴波, 梅周盛 (1)
- 离子热法制备  $\text{Li}_4\text{Ti}_5\text{O}_{12}$  负极材料及其电化学性能 ..... 李学良, 张杨, 尤亚华, 张波, 肖正辉 (7)
- ZnO 的水热合成及其在  $\text{TiO}_2/\text{ZnO}$  染料敏化太阳能电池中的应用(英文) ..... 雷芳, 陈昊鸿, 施鹰, 谢建军 (12)
- 吡咯量对原位聚合控制结晶法制备  $\text{LiFePO}_4/\text{C}$  正极材料的影响 ..... 罗国恩, 刘伟健, 禹筱元 (19)
- 正极材料  $\text{LiFe}_{1-x}\text{Ni}_x\text{PO}_4/\text{C}$  的合成及性能 ..... 张沿江, 吴振军, 李文生 (24)
- 硅纳米线阵列的制备及光伏性能 ..... 蒋玉荣, 秦瑞平, 蔡方敏, 杨海刚, 马恒, 常方高 (29)
- $\text{TiO}_2/\text{Nd}_2\text{Zr}_2\text{O}_7$  复合物的合成及催化性能(英文) ..... 仝玉萍, 钱晓军, 赵文轩, 陆路德 (34)
- 石墨烯/二氧化锰复合材料的电化学性能 ..... 徐晓, 田艳红, 张学军 (38)

### 陶瓷

- 铍掺杂钡铝硅透明玻璃陶瓷的制备和表征 ..... 邹翔宇, 张洪波, 吕挺, 苏春辉 (44)
- $\text{MgSn}_{0.05}\text{Ti}_{0.95}\text{O}_3\text{-SrTiO}_3$  复相陶瓷的显微结构与微波介电性能 ..... 龚志杰, 王哲飞, 王丽熙, 韩巍, 付振晓, 张其土 (50)

### 人工晶体

- 大口径 YCOB 晶体的提拉法生长(快报) ..... 潘忠奔, 张怀金, 于浩海, 王继杨 (55)

### 发光材料

- 热压烧结透明  $\beta\text{-Si}_3\text{N}_4$  陶瓷(快报) ..... 梁振华, 张海龙, 李军, 彭桂花, 王红强 (58)
- 红色荧光粉  $\text{LiGd}(\text{MoO}_4)_2\text{:Sm}^{3+}$  的制备与性能 ..... 关丽, 魏伟, 刘超, 郭树青, 李旭, 杨志平 (62)
- 亚超细  $\text{Y}_2\text{O}_3\text{:Er}^{3+}, \text{Yb}^{3+}$  荧光粉的制备及其上转换发光特性  
..... 吴玄顺, 曾惠丹, 蒋奇, 戴艳, 马创业, 王以博, 袁双龙 (66)

### 矿物材料

- 协同改性凹凸棒石对补强三元乙丙橡胶性能的影响 ..... 杜玉龙, 汤庆国, 王菲, 杨洋, 梁金生, 丁燕 (71)
- 应用于橡胶补强的活性纳米高岭土制备 ..... 杜艳艳, 王燕民, 潘志东 (76)
- 锐钛矿纳米管的微波水热制备及其吸附-光催化性能 ..... 钮金芬, 姚秉华, 彭超, 张凡宏 (83)
- 富镁与贫镁坡缕石的红外光谱 ..... 颜文昌, 袁鹏, 谭道永, 吴大清, 刘冬 (89)

电炉渣醋酸溶液浸出过程动力学模型	张慧宁, 贺东风, 徐安军, 单多, 李建立 (96)
温度、铁含量和价态对电气石多面体扭曲的影响	赵长春, 廖立兵, 原江燕, 程瑶 (103)
Si/Al 比对水热法合成皂石结构的影响	李甜, 陶奇, 何宏平, 朱建喜, 袁鹏, 苏琳娜 (110)

#### 玻璃及无机非晶态固体

Y <sub>2</sub> O <sub>3</sub> 掺杂对硅酸盐玻璃结构及其熔体黏度的影响	王觅堂, 程金树, 李梅, 何峰 (115)
晶化温度对 CaO-Al <sub>2</sub> O <sub>3</sub> -SiO <sub>2</sub> -Fe <sub>2</sub> O <sub>3</sub> 系粉煤灰微晶玻璃析晶及性能的影响	曹超, 彭同江, 丁文金 (122)

#### 消息

《硅酸盐学报》投稿指南	(封二)
第五届无机材料专题研讨会——先进功能陶瓷材料第一轮通知	(封四)
2012 年《硅酸盐学报》获奖及资助	(6)
2012 年美国材料科学与技术大会简介	郁琦 (28)



# JOURNAL OF THE CHINESE CERAMIC SOCIETY

Guisuanyan Xuebao

(Inorganic and Non-metallic Materials)

Total No. 286

January, 2012

Vol. 41, No. 1, Monthly

## CONTENTS

### Sustainable Inorganic Energy Material

- Synthesis of High Voltage  $\text{LiNi}_{0.5}\text{Mn}_{1.5}\text{O}_4$  as Cathode of Lithium Ion Batteries and Its Electrochemical Performances  
..... YANG Zeheng, YAO Hongxu, XIA Jianfeng, ZHANG Weixin, PEI Bo, MEI Zhousheng (1)
- Isothermal Synthesis and Electrochemical Properties of  $\text{Li}_4\text{Ti}_5\text{O}_{12}$  Anode Material  
..... LI Xueliang, ZHANG Yang, YOU Yahua, ZHANG Bo, XIAO Zhenghui (7)
- Hydrothermal Synthesis and Photovoltaic Properties of ZnO Particles and Their Application in  $\text{TiO}_2/\text{ZnO}$ -Based Dye-sensitized Solar Cells (English)  
..... LEI Fang, CHEN Haohong, SHI Ying, XIE Jianjun (12)
- Effect of Pyrrole Additive on Structure and Properties of  $\text{LiFePO}_4/\text{C}$  Cathode Materials Prepared by *in situ* Polymerization Restriction Method  
..... LUO Guoen, LIU Weijian, YU Xiaoyuan (19)
- Synthesis and Performance of  $\text{LiFe}_{1-x}\text{Ni}_x\text{PO}_4/\text{C}$  Cathode  
..... ZHANG Yanjiang, WU Zhenjun, LI Wensheng (24)
- Preparation and Photovoltaic Properties of Silicon Nanowire Arrays  
..... JIANG Yurong, QING Ruiping, CAI Fangmin, YANG Haigang, MA Heng, CHANG Fanggao (29)
- Synthesis and Catalytic Properties of  $\text{TiO}_2/\text{Nd}_2\text{Zr}_2\text{O}_7$  Nanocomposites (English)  
..... TONG Yuping, QIAN Xiaojun, ZHAO Wenxuan, LU Lude (34)
- Electrochemical Properties of Graphene/ $\text{MnO}_2$  Composite  
..... XU Xiao, TIAN Yanhong, ZHANG Xuejun (38)

### Ceramic

- Preparation and Characterization of  $\text{Nd}^{3+}:\text{BaO}-\text{Al}_2\text{O}_3-\text{SiO}_2$  Transparent Glass-Ceramics  
..... ZOU Xiangyu, ZHANG Hongbo, LÜ Ting, SU Chunhui (44)
- Microwave Dielectric Properties of  $\text{MgSn}_{0.05}\text{Ti}_{0.95}\text{O}_3-\text{SrTiO}_3$  Multiphase Ceramics  
..... GONG Zhijie, WANG Zhefei, WANG Lixi, HAN Wei, FU Zhenxiao, ZHANG Qitu (50)

### Artificial Crystal

- Czochralski Growth of Large Aperture YCOB Crystal  
..... PAN Zhongben, ZHANG Huaijin, YU Haohai, WANG Jiyang (55)

### Luminescence Material

- Hot-pressed Transparent  $\beta\text{-Si}_3\text{N}_4$  Ceramic  
..... LIANG Zhenhua, ZHANG Hailong, LI Jun, PENG Guihua, WANG Hongqiang (58)
- Preparation and Luminescent Properties of  $\text{LiGd}(\text{MoO}_4)_2:\text{Sm}^{3+}$  Red Phosphor  
..... GUAN Li, WEI Wei, LIU Chao, GUO Shuqing, LI Xu, YANG Zhiping (62)
- Preparation and Up-conversion Photoluminescence of Sub-fine  $\text{Y}_2\text{O}_3:\text{Er}^{3+}, \text{Yb}^{3+}$  Phosphors  
..... WU Xuanshun, ZENG Huidan, JIANG Qi, DAI Yan, MA Chuangye, WANG Yibo, YUAN Suanglong (66)

### Mineral Material

- Effect of Synergistic Modified Attapulgite on the Performance of Ethylene Propylene Dien Monomer  
..... DU Yulong, TANG Qingguo, WANG Fei, YANG Yang, LIANG Jinsheng, DING Yan (71)
- Preparation of Activated Nano-sized Kaolin Clay as Styrene Butadiene Rubber Filler

- ..... *DU Yanyan, WANG Yanmin, PAN Zhidong* (76)  
 Microwave Hydrothermal Synthesis of Anatase Nanotubes and Their Photocatalytic Performance
- ..... *NIU Jinfen, YAO Binghua, PENG Chao, ZHANG Fanhong* (83)  
 Infrared Spectroscopic of Mg-rich and Mg-poor Palygorskite
- ..... *YAN Wenchang, YUAN Peng, TAN Daoyong, WU Daqing, LIU Dong* (89)  
 Kinetic Model for Electric Furnace Slag Leaching in CH<sub>3</sub>COOH Solution
- ..... *ZHANG Huining, HE Dongfeng, XU An'jun, SHAN Duo, LI Jianli* (96)  
 Influence of Temperature, The Content and Valence of Fe in Tourmaline on Their Polyhedron Distortion
- ..... *ZHAO Changchun, LIAO Libing, YUAN Jiangyan, CHENG Yao* (103)  
 Structural Characteristics of Hydrothermally Synthesized Saponites with Different Si/Al Ratios
- ..... *LI Tian, TAO Qi, HE Hongping, ZHU Jianxi, YUAN Peng, SU Linna* (110)

### **Glass and Non-Crystalline Solid**

- Effect of Y<sub>2</sub>O<sub>3</sub> Dopant on Structure and Viscosity of Silicate Glass and Melt  
 ..... *WANG Mitang, CHENG Jinshu, LI Mei, HE Feng* (115)
- Effect of Crystallization Temperature on Crystallization and Properties of CaO–Al<sub>2</sub>O<sub>3</sub>–SiO<sub>2</sub>–Fe<sub>2</sub>O<sub>3</sub> Glass Ceramics from Coal  
 Fly Ash ..... *CAO Chao, PENG Tongjiang, DING Wenjin* (122)