

1956年创刊

EI 收录期刊

中文核心期刊

ISSN 1001-4381

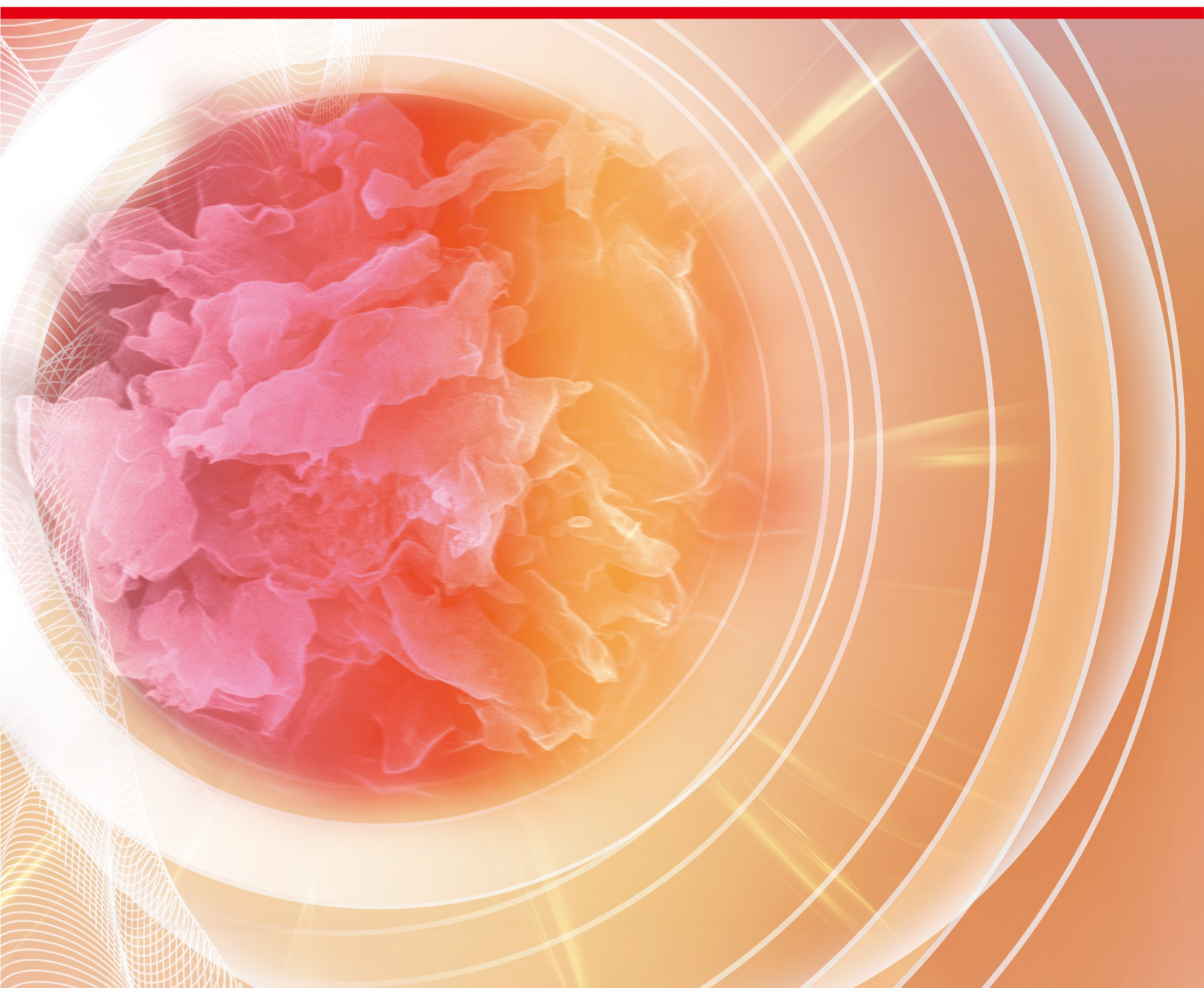
CODEN CAGOEW

材料工程

9 2022

JOURNAL OF MATERIALS ENGINEERING

第50卷 | Vol.50



ISSN 1001-4381



中国航发北京航空材料研究院 主办

目 次

综 述

高镍三元锂离子电池低温放电性能研究进展 韩富娟, 常增花, 赵金玲, 王仁念, 丁海洋, 卢世刚 (1)

氮掺杂导电碳化硅陶瓷研究进展 杨建国, 沈伟健, 李华鑫, 贺艳明, 闫川阳, 郑文健, 马英鹤, 魏连峰 (18)

Fe-Ni 基合金设计中前过渡族元素对结构与性能的影响
..... 陈小龙, 李文生, 娄 明, 徐 凯, 陈雷雷, 常可可 (32)

研究论文

石墨烯-羧甲基纤维素复合气凝胶的制备及吸油性能评价 张林琳, 顾学林, 向笑笑, 刘会娥, 陈 爽 (43)

碳载体预处理对燃料电池 Co-N/C 非铂催化剂氧还原性能的影响
..... 孙小卉, 刘淑红, 卢 璐, 史继诚, 徐洪峰 (52)

核-双壳 BT@TiO₂@PDA 纳米粒子的制备及其复合薄膜的介电性能
..... 唐婧缘, 龙依婷, 黄 旭, 蒲琳钰 (59)

碳氮共掺杂介孔 g-C₃N₄ 的气泡模板法制备及光催化性能 刘 源, 赵 华, 李会鹏, 蔡天凤, 王禹程 (70)

有机磷阻燃剂插层钙基蒙脱土纳米复合物的制备和表征 秦建雨, 赵翰鹏, 姚金雨, 张文超, 杨荣杰 (78)

二维 Ce-MOFs 纳米片的合成及可见光介导脱羧氧化性能 李思骏, 邵兰兴, 冯 丽, 程 琥, 庄金亮 (89)

过渡金属氟化物改善 2NaBH₄+MgH₂ 储氢体系的放氢热力学性能
..... 郝森良, 王晓军, 张同环, 韩宗盈, 高 猛, 周仕学, 于 昊 (97)

粉末冶金制备工艺对 TiC 增强高铬铸铁基复合材料性能的影响 许家豪, 汪选国, 姚振华 (105)

碳纤维丝束结构对碳纤维/酚醛复合材料烧蚀性能的影响
..... 孔国强, 安振河, 魏化震, 李 莹, 邵 蒙, 于秋兵, 纪校君, 李居影, 王 康 (113)

羰基铁室温硫化硅橡胶复合材料的吸波性能 米玉洁, 宋明明, 张存瑞, 张贵恩, 王月祥, 常志敏 (120)

Ru 对第四代镍基单晶高温合金 DD22 长期时效组织演化的影响
..... 赵云松, 杨 昭, 陈瑞志, 张 剑, 骆宇时, 刘丽荣 (127)

310S 耐热钢的高温氧化行为 孟 倩, 李东阳, 杨江仁, 刘天增 (137)

高温熔融玻璃介质中耐热不锈钢腐蚀行为 刘海定, 陈登华, 何曲波, 郭 非, 王东哲, 麻彦龙 (150)

Gd 对 Mg-xGd-1Er-1Zn-0.6Zr 合金显微组织和腐蚀行为的影响
..... 刘雄飞, 杜文博, 付军健, 王云峰, 李淑波, 朱训明, 王朝辉 (159)

全 Cu₃Sn 焊点在高温时效下的组织及力学性能 朱阳阳, 李晓延, 张伟栋, 张 虎, 何 溪 (169)

封面照片：碳氮共掺杂介孔 g-C₃N₄ 的气泡模板法制备及光催化性能 (见刘源等论文, 第 72 页图 3)

责任编辑 寇凤梅

CONTENTS

REVIEW

- Research progress in low-temperature discharge performance of Ni-rich ternary lithium-ion batteries
..... HAN Fujuan, CHANG Zenghua, ZHAO Jinling, WANG Rennian, DING Haiyang, LU Shigang(1)
- Research progress in nitrogen-doped electrically conductive silicon carbide ceramics
..... YANG Jianguo, SHEN Weijian, LI Huaxin, HE Yanming, LYU Chuanyang,
ZHENG Wenjian, MA Yinghe, WEI Lianfeng(18)
- Influence of pre-transition elements on structures and properties in Fe-Ni based alloy design
..... CHEN Xiaolong, LI Wensheng, LOU Ming, XU Kai, CHEN Leilei, CHANG Keke(32)

RESEARCH ARTICLE

- Preparation of graphene-carboxymethyl cellulose composite aerogel and evaluation of oil absorption performance ZHANG Linlin, GU Xuelin, XIANG Xiaoxiao, LIU Huie, CHEN Shuang(43)
- Effect of carbon carrier pretreatment on oxygen reduction performance of Co-N/C non-platinum catalyst for fuel cell SUN Xiaohui, LIU Shuhong, LU Lu, SHI Jicheng, XU Hongfeng(52)
- Preparation of core@shell BT@TiO₂@PDA nanoparticles and dielectric properties of BT@TiO₂@PDA/PI composite films TANG Jingyuan, LONG Yiting, HUANG Xu, PU Linyu(59)
- Preparation of carbon-chlorine co-doped mesoporous g-C₃N₄ by bubble template method and photocatalytic performance LIU Yuan, ZHAO Hua, LI Huipeng, CAI Tianfeng, WANG Yucheng(70)
- Preparation and characterization of intercalated calcium-based montmorillonite nanocompounds with organophosphorus flame retardants QIN Jianyu, ZHAO Hanpeng, YAO Jinyu, ZHANG Wenchao, YANG Rongjie(78)
- Synthesis of 2D Ce-MOFs nanosheets and visiblelight-mediated decarboxylation performance LI Sijun, SHAO Lanxing, FENG Li, CHENG Hu, ZHUANG Jinliang(89)
- Thermodynamic performance of 2NaBH₄ + MgH₂ hydrogen storage system improved by transition metal fluoride XI Senliang, WANG Xiaojun, ZHANG Tonghuan, HAN Zongying, GAO Meng, ZHOU Shixue, YU Hao(97)
- Effect of powder metallurgy preparation process on properties of TiC reinforced high chromium cast iron matrix composites XU Jiahao, WANG Xuanguo, YAO Zhenhua(105)
- Effect of carbon fiber tow structure on ablative properties of carbon fiber/phenolic composites KONG Guoqiang, AN Zhenhe, WEI Huazhen, LI Ying, SHAO Meng, YU Qiubing, JI Xiaojun, LI Juying, WANG Kang(113)
- Microwave absorbing properties of carbonyl iron room temperature vulcanized silicone rubber composites MI Yujie, SONG Mingming, ZHANG Cunrui, ZHANG Guien, WANG Yuexiang, CHANG Zhimin(120)
- Effect of Ru on microstructure evolution of the fourth generation nickel-based single crystal superalloy DD22 during long-term aging ZHAO Yunsong, YANG Zhao, CHEN Ruizhi, ZHANG Jian, LUO Yushi, LIU Lirong(127)
- High temperature oxidation behavior of 310S heat-resistant steel MENG Qian, LI Dongyang, YANG Jiangren, LIU Tianzeng(137)
- Corrosion behavior of heat-resistant stainless steel in high temperature molten glass LIU Haiding, CHEN Denghua, HE Qubo, GUO Fei, WANG Dongzhe, MA Yanlong(150)
- Effect of Gd on microstructure and corrosion behavior of Mg-xGd-1Er-1Zn-0.6Zr alloys LIU Xiongfei, DU Wenbo, FU Junjian, WANG Yunfeng, LI Shubo, ZHU Xunming, WANG Zhaohui(159)
- Microstructure and mechanical property of full Cu₃Sn solder joints during high-temperature aging ZHU Yangyang, LI Xiaoyan, ZHANG Weidong, ZHANG Hu, HE Xi(169)