

2023 年第 51 卷第 12 期 (总第 487 期)

目 次

综 述

- 富勒烯制备及其应用研究进展 刘 振, 王 博, 魏世丞, 王玉江, 梁 义, 郭 蕾, 徐滨士 (1)
- 稀土硅酸盐环境障涂层研究进展 周邦阳, 崔永静, 王长亮, 岳 震, 焦 健, 宇 波 (12)
- AlN 增强铝基复合材料力学性能研究进展 赵永峰, 田泽源, 陈宗民, 赵而团, 马 霞 (24)
- 二硫化钨在电催化产氢中的应用研究进展 郑雍智, 巩鑫宇, 周文元, 胡 鹏, 王金淑 (35)
- 非金属掺杂的 g-C₃N₄ 光催化材料制备及应用研究进展 ... 张子琪, 孙彦东, 张 雪, 靳凤先, 马晓佳, 郭盛祺 (47)

研究论文

- 扭转冷作硬化对 6061-T651 铝合金动静态力学性能的影响 程文修, 程军超, 钟政焯, 范 端 (59)
- β 锻 TC17 钛合金大块 α 相研究 邓雨亭, 李四清, 王 旭 (68)
- 2A12/AZ31B 异质合金超声振动辅助搅拌摩擦焊核区晶粒组织 井 瑞, 谭茂举, 武传松, 石 磊 (75)
- Al_{2.5}Cu_{0.5}Ti 中间合金对 Al-7Si 合金微观组织和力学性能的影响
..... 王平波, 孙赫阳, 张 岩, 张 杰, 李庆林 (84)
- 固相拉伸对 CNTs/PP 复合材料力学及电磁屏蔽性能的影响
..... 闫宗莹, 贾仕奎, 朱 艳, 赵武学, 张 军, 梁文俊, 赵中国 (93)
- 高温退火对铸轧 Ti/Al 复合板界面组织与性能的影响 张 焘, 许久健, 李 勇, 曹富荣, 许光明 (103)
- 基于 DSCCR 生产工艺的终轧温度对轧制过程中低碳钢组织与性能影响分析
..... 李朝阳, 赵志鹏, 田 鹏, 梁晓慧, 王书桓, 康永林 (113)
- 高强度 Al-Zn-Mg 合金 MIG 与 CMT+P 焊接接头组织及性能研究
..... 刘洪旭, 侯旭儒, 刘 峰, 赵 琳, 彭 云, 田志凌 (123)
- CNTs@T321 纳米微囊填充 PTFE 的自润滑性能 关集俱, 高 超, 杨兰玉, 栾志强, 许雪峰 (134)
- MXene@聚苯胺基聚氨酯复合涂层的制备及防腐性能 郭静静, 王奇观, 王飞飞, 王素敏 (143)
- 热膨胀硅橡胶性能对比及热物改性研究 马腾飞, 李桂洋, 郭子民, 郑国栋, 李伟明 (151)
- 氯化胆碱-乙二醇深共熔体系电沉积 Ni-Mo 合金镀层动力学及其电催化析氢性能
..... 盛施展, 李 林, 李文畅, 王慧华 (159)
- 离子刻蚀多晶铜机理及其对表面形貌的影响 易晨曦, 田野菲, 张浩天, 胡 跃, 鲍明东 (169)
- HF 改性对浒苔基活性炭电化学性能的影响 谭霄鹏, 李诗杰, 刘学来, 高 岩 (177)
- 应变幅对 SDHC 钢热机械疲劳行为及微观组织演变的影响 董晨辉, 吴博雅, 曾 艳, 吴晓春 (184)

封面照片: 离子刻蚀多晶铜机理及其对表面形貌的影响(见易晨曦等论文, 第 171 页图 2)

责任编辑 王 晶

CONTENTS

REVIEW

- Research progress in preparation and application of fullerene
.....LIU Zhen, WANG Bo, WEI Shicheng, WANG Yujiang, LIANG Yi, GUO Lei, XU Binshi (1)
- Research progress in rare earth silicate environmental barrier coatings
.....ZHOU Bangyang, CUI Yongjing, WANG Changliang, YUE Zhen, JIAO Jian, YU Bo (12)
- Research progress in mechanical properties of AlN reinforced aluminum matrix composites
.....ZHAO Yongfeng, TIAN Zeyuan, CHEN Zongmin, ZHAO Ertuan, MA Xia (24)
- Research progress of molybdenum disulfide in electrocatalytic hydrogen evolution
.....ZHENG Yongzhi, GONG Xinyu, ZHOU Wenyuan, HU Peng, WANG Jinshu (35)
- Research progress in preparation and application of non-metal-doped g-C₃N₄ photocatalytic materials
.....ZHANG Ziqi, SUN Yandong, ZHANG Xue, JIN Fengxian, MA Xiaojia, GUO Shengqi (47)

RESEARCH ARTICLE

- Effects of torsional cold work hardening on dynamic and static mechanical properties of 6061-T651 aluminum alloyCHENG Wenxiu, CHENG Junchao, ZHONG Zhengye, FAN Duan (59)
- Blocky α phase in β forging TC17 titanium alloyDENG Yuting, LI Siqing, WANG Xu (68)
- Grain structure in ultrasonic vibration assisted friction stir weld nugget zones of 2A12/AZ31B dissimilar alloys
.....JING Rui, TAN Maoju, WU Chuansong, SHI Lei (75)
- Influences of Al_{2.5}Cu_{0.5}Ti master alloy on microstructure and mechanical properties of Al-7Si alloy
.....WANG Pingbo, SUN Heyang, ZHANG Yan, ZHANG Jie, LI Qinglin (84)
- Effects of solid-phase drawing on mechanical and electromagnetic shielding properties of CNTs/PP composites
.....YAN Zongying, JIA Shikui, ZHU Yan, ZHAO Wuxue, ZHANG Jun, LIANG Wenjun, ZHAO Zhongguo (93)
- Effect of high temperature on interfacial microstructure and properties of Ti/Al composite plate
.....ZHANG Tao, XU Jiujian, LI Yong, CAO Furong, XU Guangming (103)
- Effect of finish rolling temperature on microstructure and properties of low carbon steel based on DSCCR production process
.....LI Chaoyang, ZHAO Zhipeng, TIAN Peng, LIANG Xiaohui, WANG Shuhuan, KANG Yonglin (113)
- Microstructure and properties of MIG and CMT+P welded joint of high strength Al-Zn-Mg alloy
.....LIU Hongxu, HOU Xuru, LIU Feng, ZHAO Lin, PENG Yun, TIAN Zhiling (123)
- Self-lubricating properties of CNTs@T321 nano-capsules filled PTFE
.....GUAN Jiju, GAO Chao, YANG Lanyu, LUAN Zhiqiang, XU Xuefeng (134)
- Preparation and anticorrosion property of MXene@PANI based PU composite coating
.....GUO Jingjing, WANG Qiguan, WANG Feifei, WANG Sumin (143)
- Comparison of properties and thermal modification of thermal expansion silicone rubber
.....MA Tengfei, LI Guiyang, GUO Zimin, ZHENG Guodong, LI Weiming (151)
- Electrodeposition kinetics of Ni-Mo alloy coating in choline-ethylene glycol deep eutectic system and its catalytic performance toward hydrogen evolution reaction
.....SHENG Shizhan, LI Lin, LI Wenchang, WANG Huihua (159)
- Mechanism of ion etching polycrystalline copper and influence on surface morphology
.....YI Chenxi, TIAN Yefei, ZHANG Haotian, HU Yue, BAO Mingdong (169)
- Effect of hydrofluoric acid modification on electrochemical properties of prolifera-based activated carbon
.....TAN Xiaopeng, LI Shijie, LIU Xuelai, GAO Yan (177)
- Effect of strain amplitude on thermo-mechanical fatigue behavior and microstructure evolution of SDHC steel
.....DONG Chenhui, WU Boya, ZENG Yan, WU Xiaochun (184)