

2023 年第 51 卷第 11 期 (总第 486 期)

目次

综述

- 气凝胶/纤维复合材料的热学和力学性能以及界面相容性的研究进展 付宇, 王洋, 蔡明 (1)
- 高色纯度荧光碳点的制备和应用研究进展 李亚楠, 刘云, 刘春艳, 肖军平 (14)
- 纳米模拟酶在活性氧检测中的应用研究进展 丁亚新, 吴鹏, 赵雪伶, 陈诚, 林东海 (23)
- 镁合金增材制造技术研究进展 李青壮, 张汉铮, 王烁, 王鹏, 冯梦楠 (34)
- 连铸结晶器表面防护涂层失效行为的研究进展
..... 黄东保, 董振启, 李申申, 徐震霖, 张晖, 陈相君, 徐采云, 何宜柱 (52)

研究论文

- 金属材料在超临界水中动态腐蚀特性 刘云帆, 雷贤良, 苟灵通, 李德标 (61)
- 固溶温度对 2050 铝锂合金挤压棒材组织和性能的影响 朱庆丰, 王浩, 高扬, 林逸飞, 左玉波 (71)
- 碳纤维与扩散层厚度对 Al-Mg-Ti 微叠层复合材料组织性能的影响
..... 孙兆霞, 郭倩, 孟令刚, 景栋, 耿立国, 张维平, 张兴国 (79)
- (Nd_{1-x}Ca_x)(Al_{1-x}Fe_x)O_{3-x/2}(x=0~0.3)陶瓷铁弹性和红外发射率研究
..... 张玥, 王衍飞, 杜金平, 万帆, 李俊生, 李端, 刘荣军 (87)
- 高氯酸铵/叠氮聚醚界面润湿黏附特性研究 于海洋, 邓蕾, 陈晨, 周星 (94)
- 宽幅 7B50-T7751 铝合金厚板不均匀性与疲劳性能研究 雷越, 郝敏, 陈高红, 伊琳娜, 臧金鑫 (103)
- 催化剂含量对球磨退火法制备氮化硼纳米管形貌及产率的影响
..... 李艳娇, 秦忠宝, 杜海霞, 王力群, 刘顾, 王龙 (111)
- 基于悬垂识别的激光扫描路径分区域规划方法 李军, 韩晓辉, 刘婷婷, 廖文和, 张长东, 张昌春 (120)
- 7A36 铝合金挤压板材的 TTT 曲线与淬火析出行为 刘佳, 马志民, 刘胜胆, 邓运来, 张新明 (134)
- 乙二醇壳聚糖自愈合水凝胶的制备及性能
..... 徐文静, 梁建荣, 曲萌菲, 王艺璇, 侯冰娜, 赵琳琳, 张杭, 李征征 (144)
- GF 织物增强 PTFE 复合材料全寿命磨损机理 刘建, 彭帅豪, 贺甜甜, 逢显娟, 上官宝, 张永振 (151)
- 热轧工艺对含 Sn 铁素体不锈钢力学性能和耐腐蚀性能的影响
..... 白杨, 刘沿东, 贺彤, 邵方园, 刘方策 (161)
- 层间 CNT 协同电纺取向 BNNS 增强的绝缘高导热聚偏氟乙烯多层复合薄膜
..... 迟洪涛, 马传国, 宋沐原, 李晓磊, 张平, 戴培邦 (171)
- 柠檬酸对(3-巯基丙基)三甲氧基硅烷改性木聚糖/聚乙烯醇复合膜性能的影响
..... 李金徽, 王一宁, 杨思侠, 王海松, 吕艳娜 (182)
- 冷变形 La_{0.6}Pr_{0.4}Fe_{10.7}Co_{0.8}Si_{1.5} 合金的微观组织演变与磁热效应 杨旭, 傅斌, 韩洁, 张联齐 (189)
- 粉末激光熔覆熔池行为的视觉监测与特征提取 董方煜, 陈永雄, 孔令超, 梁秀兵, 王开心 (197)
- 基于 PI 的 3D 叉指电极对称微型电容器的制备及性能 纪伟伟, 高鹏, 刘宝成, 孟占昆, 王赫, 刘兴江 (205)

封面照片: 高氯酸铵/叠氮聚醚界面润湿黏附特性研究(见于海洋等论文, 第 96 页图 1)

责任编辑 解宏

CONTENTS

REVIEW

- Progress in thermal and mechanical properties and interfacial compatibility of aerogel/fiber composites
.....FU Yu, WANG Yang, CAI Ming (1)
- Research progress in preparation and application of high-color-purity fluorescent carbon dots
.....LI Yanan, LIU Yun, LIU Chunyan, XIAO Junping (14)
- Progress in application of nano-mimetic enzymes in reactive oxygen species detection
.....DING Yaxin, WU Peng, ZHAO Xueling, CHEN Cheng, LIN Donghai (23)
- Research progress in additive manufacturing technology of magnesium alloys
.....LI Qingzhuang, ZHANG Hanzheng, WANG Shuo, WANG Peng, FENG Mengnan (34)
- Research progress in failure behavior of protective coatings on surface of continuous casting mould
.....HUANG Dongbao, DONG Zhenqi, LI Shenshen, XU Zhenlin,
ZHANG Hui, CHEN Xiangjun, XU Caiyun, HE Yizhu (52)

RESEARCH ARTICLE

- Dynamic corrosion characteristics of metal materials in supercritical water
.....LIU Yunfan, LEI Xianliang, GOU Lingtong, LI Debiao (61)
- Effect of solid solution temperature on microstructure and properties of 2050 Al-Li alloy extruded bars
.....ZHU Qingfeng, WANG Hao, GAO Yang, LIN Yifei, ZUO Yubo (71)
- Effect of carbon fiber and diffusion layer thickness on tissue properties of Al-Mg-Ti laminated composites
.....SUN Zhaoxia, GUO Qian, MENG Linggang, JING Dong, GENG Ligu, ZHANG Weiping, ZHANG Xingguo (79)
- Ferroelasticity and infrared emissivity of $(\text{Nd}_{1-x}\text{Ca}_x)(\text{Al}_{1-x}\text{Fe}_x)\text{O}_{3-x/2}$ ($x=0-0.3$)
.....ZHANG Yue, WANG Yanfei, DU Jinping, WAN Fan, LI Junsheng, LI Duan, LIU Rongjun (87)
- Characteristics of interfacial wettability and adhesiveness between ammonium perchlorate and azide-polyether
.....YU Haiyang, DENG Lei, CHEN Chen, ZHOU Xing (94)
- Inhomogeneity and fatigue properties of ultra-wide 7B50-T7751 aluminum alloy thick plate
.....LEI Yue, HAO Min, CHEN Gaohong, YI Linna, ZANG Jinxin (103)
- Effect of catalyst content on morphology and productivity of boron nitride nanotubes synthesized by ball
milling and annealing method
.....LI Yanjiao, QIN Zhongbao, DU Haixia, WANG Liqun, LIU Gu, WANG Long (111)
- Regional planning of laser scanning path based on overhang structure recognition
.....LI Jun, HAN Xiaohui, LIU Tingting, LIAO Wenhe, ZHANG Changdong, ZHANG Changchun (120)
- TTT diagrams and quenching precipitation behavior of 7A36 aluminum alloy extruded plate
.....LIU Jia, MA Zhimin, LIU Shengdan, DENG Yunlai, ZHANG Xinming (134)
- Preparation and properties of glycol chitosan based self-healing hydrogel
.....XU Wenjing, LIANG Jianrong, QU Mengfei, WANG Yixuan, HOU Bingna,
ZHAO Linlin, ZHANG Hang, LI Zhengzheng (144)
- Life cycle wear mechanism of GF/PTFE self-lubricating composite
.....LIU Jian, PENG Shuaihao, HE Tiantian, PANG Xianjuan, SHANGGUAN Bao, ZHANG Yongzhen (151)
- Effects of hot rolling process on mechanical properties and corrosion resistance of Sn-containing ferritic
stainless steelBAI Yang, LIU Yandong, HE Tong, SHAO Fangyuan, LIU Fangce (161)
- Insulating and highly thermally conductive polyvinylidene fluoride multilayer composite film enhanced *via*
CNT interleaf and electrospinning oriented BNNS
.....CHI Hongtao, MA Chuanguo, SONG Muyuan, LI Xiaolei, ZHANG Ping, DAI Peibang (171)
- Effect of citric acid on properties of (3-mercaptopropyl)trimethoxysilane modified xylan/polyvinyl
alcohol composite filmLI Jinhui, WANG Yining, YANG Sixia, WANG Haisong, LYU Yanna (182)
- Microstructural evolution and magnetocaloric properties of cold plastically deformed
 $\text{La}_{0.6}\text{Pr}_{0.4}\text{Fe}_{10.7}\text{Co}_{0.8}\text{Si}_{1.5}$ alloyYANG Xu, FU Bin, HAN Jie, ZHANG Lianqi (189)
- Vision detection and feature extraction of molten pool behavior in powder laser cladding
.....DONG Fangyu, CHEN Yongxiong, KONG Lingchao, LIANG Xiubing, WANG Kaixin (197)
- Preparation and properties of 3D cross-finger electrode symmetrical micro capacitor based on PI
.....JI Weiwei, GAO Peng, LIU Baocheng, MENG Zhankun, WANG He, LIU Xingjiang (205)