

目 次

材料与工艺

新型复合挤压工艺中温度对 AZ61 组织和性能的影响	张丁非, 耿青梅, 杨绪盛, 余大亮, 潘复生 (1)
奥氏体化条件对 675 装甲钢中马氏体相变的影响	乔志霞, 李连进, 宁保群 (5)
AEO 改性二氧化铅电极在降解甲基橙过程中的电化学行为	范莹莹, 陈 阵, 李佳莹, 付国兵, 林 强 (10)
生物医用 TC20 钛合金高温变形行为及本构关系	刘延辉, 姚泽坤, 宁永权, 郭鸿镇 (16)
紫铜在海洋微生物作用下的电化学腐蚀行为	陈海燕, 林振龙, 陈丕茂, 秦传新, 唐振朝, 余 景 (22)
石墨对无渣自保护药芯焊丝性能的影响	刘大双, 刘仁培, 魏艳红 (28)
C/C 多孔体对 C/C-SiC 复合材料制备及性能的影响	王玲玲, 马文闵, 嵇阿琳, 崔 红, 闫联生, 黄 剑 (34)

测试与表征

基于高能微波真空辐射快速制备石墨烯	薛伟江, 于 娟, 丁 滔, 张寿春, 王继刚 (39)
变形 Mg-1.5Zn-0.2Gd 合金退火过程中组织与织构演变过程	蔡正旭, 唐 荻, 江海涛, 马 昭 (44)
P91 钢焊缝蠕变非线性超声检测中的衰减修正方法研究	原可义, 韩赞东, 陈以方, 钟约先 (50)
喷射成形 GH738 合金的疲劳裂纹扩展行为	杨冬野, 曹福洋, 许文勇, 左 欣, 李 周, 张国庆, 孙剑飞 (55)
循环加速腐蚀中紫外照射对环氧涂层老化行为的影响	李松梅, 李湘澄, 辛长胜, 刘建华, 于 美 (60)
等离子热障涂层构件高温热疲劳寿命预测研究	齐红宇, 马立强, 李少林, 杨晓光, 王亚梅, 魏洪亮 (67)
先进复合材料 T300/5405 综合环境实验谱的研究	曹 东, 张晓云, 陆 峰, 刘建华 (73)
7022 铝合金 FSJ 拼连板材残余应力和变形分析	汪洪峰, 左敦稳, 戴 晟, 潘 玲 (79)
疲劳可靠性实验中的“截尾寿命”处理方法	王 晶, 张亦良, 李晓慧, 胡 伟, 李晋伟 (85)
基于声发射技术的三维编织复合材料低速冲击损伤分析	严 实, 赵金阳, 陆夏美, 曾 涛 (92)

综 述

铁氧体基核壳结构复合吸波材料研究进展	刘 渊, 刘祥萱, 王煊军 (98)
混杂纤维复合材料最优纤维混杂比例及其应用研究进展	张博明, 李 嘉, 李 煦 (107)

封面照片: 变形 Mg-1.5Zn-0.2Gd 合金退火过程中组织与织构演变过程 (见蔡正旭等论文, 第 46 页图 2)

封 二: 材料专家系列人物之一——曹春晓

责任编辑 解 宏

CONTENTS

MATERIALS & TECHNOLOGY

- Effects of Temperature in the New Compound Extrusion on Microstructures and Properties of AZ61
..... ZHANG Ding-fei, GENG Qing-mei, YANG Xu-sheng, YU Da-liang, PAN Fu-sheng(1)
- Effect of Austenitization Condition on the Martensitic Transformation in 675 Armor Steel
..... QIAO Zhi-xia, LI Lian-jin, NING Bao-qun(5)
- Electrochemical Behavior of PbO₂ Electrode Modified by AEO for the Degradation of Methyl Orange
..... FAN Ying-ying, CHEN Zhen, LI Jia-ying, FU Guo-bing, LIN Qiang(10)
- Hot Deformation Behavior and Constitutive Relationship of Biomedical TC20 Alloy
..... LIU Yan-hui, YAO Ze-kun, NING Yong-quan, GUO Hong-zhen(16)
- Electrochemical Corrosion Behavior of Copper in Marine Microbial Medium
..... CHEN Hai-yan, LIN Zhen-long, CHEN Pi-mao, QIN Chuan-xin, TANG Zhen-zhao, YU Jing(22)
- Effect of Graphite on the Properties of Slag-free Self-shielded Flux Cored Wires
..... LIU Da-shuang, LIU Ren-pei, WEI Yan-hong (28)
- Effect of C/C Porous Preform on the Preparation and Properties of C/C-SiC Composites
..... WANG Ling-ling, MA Wen-min, JI A-lin, CUI Hong, YAN Lian-sheng, HUANG Jian(34)

TESTING & CHARACTERIZING

- Fast Preparation of Graphene Using High-energy Microwave Vacuum Radiation
..... XUE Wei-jiang, YU Juan, DING Tao, ZHANG Shou-chun, WANG Ji-gang(39)
- Evolutions of Microstructure and Texture of Rolled Mg-1. 5Zn-0. 2Gd Alloy During Hot Rolled and Subsequently Annealed CAI Zheng-xu, TANG Di, JIANG Hai-tao, MA Zhao(44)
- Research on Attenuation Correction in Nonlinear Ultrasonic Testing for Creep Status Evaluation of P91 Weldment YUAN Ke-yi, HAN Zan-dong, CHEN Yi-fang, ZHONG Yue-xian(50)
- Fatigue Crack Growth Behavior of Spray Formed GH738 Alloy
..... YANG Dong-ye, CAO Fu-yang, XU Wen-yong, ZUO Xin, LI Zhou, ZHANG Guo-qing, SUN Jian-fei(55)
- Synergistic Accelerated Corrosion of Ultraviolet Irradiation on Epoxy Coating Aging Behavior
..... LI Song-mei, LI Xiang-cheng, XIN Chang-sheng, LIU Jian-hua, YU Mei(60)
- High Temperature Thermal Fatigue Life Prediction of Plasma Sprayed Thermal Barrier Coatings Structure
..... QI Hong-yu, MA Li-qiang, LI Shao-lin, YANG Xiao-guang, WANG Ya-mei, WEI Hong-liang(67)
- Synthetical Environmental Spectrum Aging of T300/5405 Advanced Composite Material
..... CAO Dong, ZHANG Xiao-yun, LU Feng, LIU Jian-hua(73)
- Residual Stress and Deformation of Jointed 7022 Aluminum Alloy by FSJ
..... WANG Hong-feng, ZUO Dun-wen, DAI Sheng, PAN Ling(79)
- Censored Data Approximation Methods in Fatigue Reliability
..... WANG Jing, ZHANG Yi-liang, LI Xiao-hui, HU Wei, LI Jin-wei(85)
- Low-velocity Impact Response of 3D Braided Composites by Acoustic Emission
..... YAN Shi, ZHAO Jin-yang, LU Xia-mei, ZENG Tao(92)

REVIEW

- Research Progress in Ferrite Based Core-shell Structured Microwave Absorb Materials
..... LIU Yuan, LIU Xiang-xuan, WANG Xuan-jun(98)
- Optimum Mix Ratio of Hybrid Fiber Reinforced Polymer Composites and Their Researching Progress
..... ZHANG Bo-ming, LI Jia, LI Xu(107)