

目 次

□ 综述

- 基于气凝胶的防隔热一体化材料研究进展 敬林江 冯军宗 姜勇刚 李良军 王 鑫 冯 坚(1)
碳纤维前驱体的研究进展 董瑞豪 曹维宇(12)
连续纤维热塑性复合材料热成型仿真研究 毛晋轩 刘 东 史鹏程 颜 春 祝颖丹(21)
硅烷偶联剂在防热涂料中的应用前景分析 党文伟 李晓升 周玉龙(27)
太赫兹馈源喇叭制造工艺综述 李 源 刘兰波 柴艳红 仇 志 钱志鹏(31)

□ 计算材料学

- 不同孔径金属腹板稳定性及补强措施分析 孙 阔(39)
新型耐烧蚀防热涂层在飞行器局部防热中的应用 徐 莹 刘峻瑜 樊 虎 贺 晨 王晓雪(44)

□ 新材料新工艺

- SiC基体结构及其对C/SiC复合材料性能的影响研究 房金铭 李钰梅 龚晓冬 张家华 李军平(49)
基于银焊膏电流烧结的航天功率分立器件气密封装 章永飞 李 欣 梅云辉(54)
短碳纤维增强聚醚醚酮注塑成型进气道的性能 刘 妍 杜 潮 侯树涛(58)
一种大尺寸复合材料筒状支架成型技术 田桂芝 徐伟丽 张玉生 徐昀鑫 王 征(62)
进给速度对MI工艺制备SiC/SiC复合材料加工损伤的影响 姜卓钰 赵春玲 束小文 刘志强 焦 健(66)

- 非圆等距型面轮廓X-C轴联动高速磨削试验 刘 伟 石新宇 袁厚才 何新维 刘 涛(71)
低密度镍合金与镍铪合金电子束焊接性能分析 许 璐 刘 政 张艳桥 宋国新(77)
聚酰亚胺泡沫夹层结构胶接工艺 房 怡 孔 静 陈雪婷 马 立 赵 琪(83)

□ 测试分析

- 空客320货舱衬板复合材料的热解和燃烧特性 贾旭宏 杨晓光 徐松涛 马俊豪 薛杨武(88)

□ 工程实践

- 复合材料气瓶铝合金内衬泄漏失效分析 杨洪波 田 桂 盛薇华(93)
国产元器件高可靠装联常见问题及其启示 高伟娜 张明华 隋淑印 王宁宁 李 莹(98)

AEROSPACE MATERIALS & TECHNOLOGY

YUHANG CAILIAO GONGYI

(Bimonthly)

(Starting Publication in 1971)

ISSN 1007-2330

CN 11-1824/V

Vol.52 No.4 August 2022 (Series No.302)

CONTENTS

Research Progress on Aerogel-based Integrated Thermal Protection Materials	JING Linjiang FENG Junzong JIANG Yonggang LI Liangjun WANG Xin FENG Jian(1)
Research Progress of Precursors for Carbon Fiber.....	DONG Ruihao CAO Weiyu(12)
Progress on Continuous Fiber-reinforced Thermoplastic Composites Thermoforming Simulation	MAO Jinxuan LIU Dong SHI Pengcheng YAN Chun ZHU Yingdan(21)
Application Prospect of Silane Coupling Agent in Heat Resistant Coatings	DANG Wenwei LI Xiaosheng ZHOU Yulong(27)
Review on the Progress of Terahertz Feed Horn Manufacturing Process	LI Yuan LIU Lanbo CHAI Yanhong QIU Zhi QIAN Zhipeng(31)
Analysis on Stability and Reinforcement Measures of Metal Web With Different Diameters	SUN Kuo(39)
Application of New Ablative and Heat Resistant Coating in Local Heat Protection of Aircraft	XU Ying LIU Junyu FAN Hu HE Chen WANG Xiaoxue(44)
Study on the Structure of SiC Matrix and Its Effect on the Properties of C/SiC Composites	FANG Jinming LI Yumei GONG Xiaodong ZHANG Jiahua LI Junping(49)
A Hermetic Packaging Method for the Aerospace Power Discrete Device Based on Current Assisted Sintering of Silver Paste	ZHANG Yongfei LI Xin MEI Yunhui(54)
Properties of Short Carbon Fiber Reinforced Injection-moulded PEEK Air Inlet	LIU Yan DU Chao HOU Shutao(58)
Molding Technology of Large Size Composite Tubular Support	TIAN Guizhi XU Weili ZHANG Yusheng XU Yunxin WANG Zheng(62)
Effect of Feed Rate on Machining Damage of SiC/SiC Composites by MI Process	JIANG Zhuoyu ZHAO Chunlin SHU Xiaowen LIU Zhiqiang JIAO Jian(66)
High-speed Grinding of X-C linkage for non-circular isometric profile	LIU Wei SHI Xinyu YUAN Houcai HE Xinwei LIU Tao(71)
Analysis on Welding Properties of Low Density Niobium Alloy and Niobium-hafnium Alloy by Electron Beam Welding	XU Fan LIU Zheng ZHANG Yanqiao SONG Guoxin(77)
Bonding Process of Polyimide Foam Laminate Structure	FANG Yi KONG Jing CHEN Xuetong MA Li ZHAO Qi(83)
Characteristics of Pyrolysis and Combustion of Airbus 320 Cargo Hold Lining Composite	JIA Xuhong YANG Xiaoguang XU Songtao MA Junhao XUE Yangwu(88)
Failure Analysis on Leakage of Composite Cylinder During Autofrettage	YANG Hongbo TIAN Gui SHENG Weihua(93)
Common Problems and Enlightenment of High Reliability Assembly of Domestic Components	GAO Weina ZHANG Minghua SUI Songyin WANG Ningning LI Ying(98)