

# 航空制造技术

11



封面文章

轻合金T型结构双激光束  
双侧同步焊接技术研究进展

专稿

PCD刀具车削不同颗粒含量  
 $\text{SiC}_p/\text{Al}$ 材料试验研究

论坛

特种焊接

走进科研

现代材料表面工程技术  
国家工程实验室

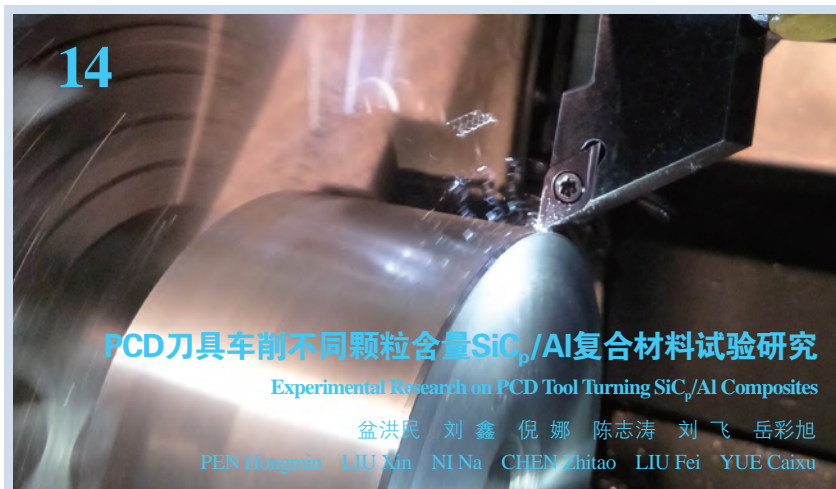
ISSN 1671-833X



万方数据



专稿 Feature



封面文章 Cover Story

论坛 Forum

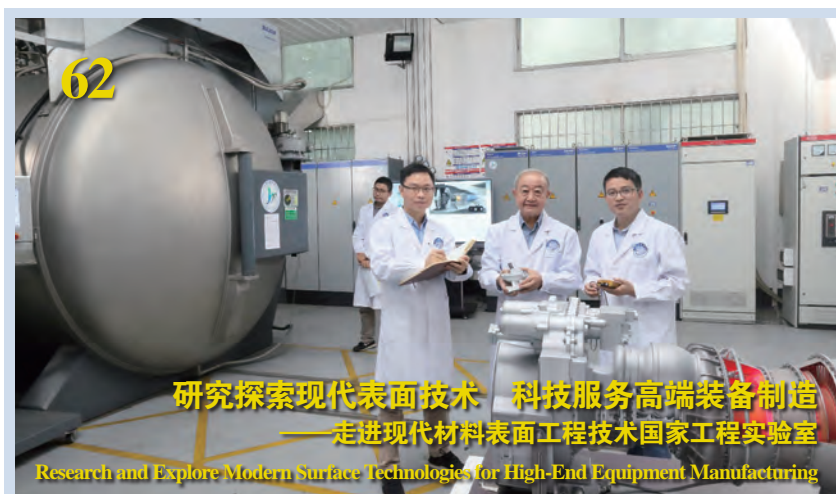
特种焊接

Special Welding

- 20 轻合金T型结构双激光束双侧同步焊接技术研究进展  
—— 占小红 赵艳秋 陈帅 康悦  
Research Progress on Double Laser-Beam Bilateral Synchronous Welding of T-Joints for Light Alloy  
ZHAN Xiaohong ZHAO Yanqiu CHEN Shuai KANG Yue
- 34 回填式搅拌摩擦点焊过程温度场的数值模拟  
—— 柴鹏 左莹莹 陈克鹏 齐铂金 姬书得  
Numerical Simulation of Temperature Field During Refill Friction Stir Spot Welding  
CHAI Peng ZUO Yingying CHEN Kepeng QI Bojin JI Shude
- 41 厚板铝合金静止轴肩搅拌摩擦焊热过程及受力状态数值分析  
—— 唐文坤 杨新岐 赵慧慧 郭立杰  
Numerical Analysis of Stationary Shoulder Friction Stir Welding Process for Aluminum Alloy Thick-Plate  
TANG Wenshen YANG Xinqi ZHAO Huihui GUO Lijie
- 50 过渡液相扩散焊连接工艺参数对DD407母材液化的影响  
—— 谭飞 仵艳影 牛文涛 张成聪 陈玉华 黄永德  
Effect of TLP Process Parameters on Liquefaction of DD407 Base Metal  
TAN Fei WU Yanying NIU Wentao ZHANG Chengcong  
CHEN Yuhua HUANG Yongde
- 56 激光点焊工艺参数对止推箔片轴承接头组织与性能的影响  
—— 汪芦婷 罗欣洋 王善林 陈玉华 黄永德  
Effects of Process Parameters on Microstructure and Performance of Joints for Laser Spot Welding of Thrust Foil Bearings  
WANG Luting LUO Xinyang WANG Shanlin  
CHEN Yuhua HUANG Yongde

## 走进科研

Approaching Science



## 研究论文

Research

- 64 基于形心轴的多轴增材制造工艺规划方法  
 \_\_\_\_\_ 王炳杰 郝小忠 许可 江森  
 Multi-Axis Additive Manufacturing Process Planning Method Based on Centroid Axis  
 WANG Bingjie HAO Xiaozhong XU Ke JIANG Sen
- 69 钛合金钣金件脉冲电流辅助热压成形精度控制  
 \_\_\_\_\_ 薛杰 李保永 秦中环 刘玉平 王占奇 范江玲  
 Accuracy Control of Pulse Current Assisted Hot Pressing Forming for Titanium Alloy Sheet Metal Parts  
 XUE Jie LI Baoyong QIN Zhonghuan LIU Yuping  
 WANG Zhanqi FAN Jiangling
- 76 便携式精加工铣床设计与应用  
 \_\_\_\_\_ 赵安安 张程 巴晓甫  
 Design and Application of Portable Precision Finishing Milling Machine  
 ZHAO Anan ZHANG Cheng BA Xiaofu
- 83 基于自然进化策略的多工艺融合结构件加工变形控制方法  
 \_\_\_\_\_ 刘醒彦 刘长青  
 Machining Deformation Control Method of Structural Parts by Multi-Process Fusion Based on Natural Evolution Strategy  
 LIU Xingyan LIU Changqing
- 88 基于LabVIEW的超精密磨床嵌入式监控系统  
 \_\_\_\_\_ 苏史博 毕果 彭云峰 曾鑫龙 高凯  
 Ultra-Precision Grinder Embedded Monitoring System Based on LabVIEW  
 SU Shibo BI Guo PENG Yunfeng ZENG Xinlong GAO Kai
- 94 纤维增强树脂基复合材料连接结构强度与失效分析  
 \_\_\_\_\_ 高佳佳 楚珑晟 马天阳 高朋  
 Research on Strength and Failure Analysis of Fiber Reinforced Resin Matrix Composites  
 GAO Jiajia CHU Longsheng MA Tianyang GAO Peng