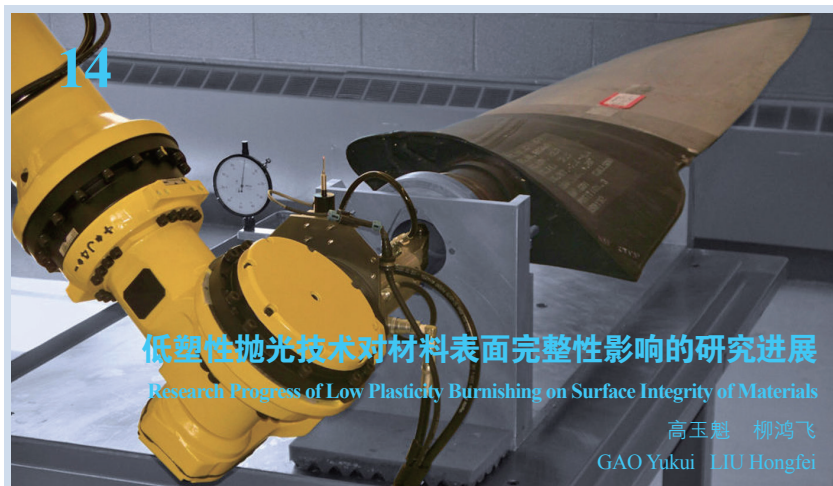


专稿 Feature



封面文章 Cover Story

论坛 Forum

高能束加工

High Energy Beam Machining

24 人机时空共享协作装配技术研究综述

肖明珠 朱文敏 范秀敏  
A Review on Human-Robot Time-Space Sharing Collaborative Assembly Technology  
XIAO Mingzhu ZHU Wenmin FAN Xiumin

36 钛/铜电子束偏置焊接模拟及力学性能研究

朱军 郭顺 彭勇 周琦 王克鸿  
Study on Simulation and Mechanical Properties of Titanium/Copper Electron Beam Welding With Offset  
ZHU Jun GUO Shun PENG Yong ZHOU Qi WANG Kehong

43 基于Comsol的磁场辅助磨料水射流流场分布数值模拟

侯荣国 王涛 吕哲 田业冰  
Numerical Simulation of Flow Field Distribution of Abrasive Water Jet Based on Comsol Software  
HOU Rongguo WANG Tao LÜ Zhe TIAN Yebing

50 碳纤维复合材料激光切割制孔工艺研究

叶逸云 贾少辉 徐子法 欧阳文泰 焦俊科 王飞亚 葛恩德  
Research on Hole Drilling in Carbon Fiber Reinforced Composite by Using Laser Cutting Method  
YE Yiyun JIA Shaohui XU Zifa OUYANG Wentai JIAO Junke WANG Feiya GE Ende

56 等离子异质增材过渡区的组织性能研究

徐俊强 周琦 彭勇 王克鸿 孔见  
Interface of Dissimilar Steels Fabricated by Plasma Arc Additive Manufacturing  
XU Junqiang ZHOU Qi PENG Yong WANG Kehong KONG Jian

63 钛合金先进焊接技术研究现状

孙文君 王善林 陈玉华 黄永德 柯黎明  
Development of Advanced Welding Technologies for Titanium Alloys  
SUN Wenjun WANG Shanlin CHEN Yuhua HUANG Yongde KE Liming

## 走进科研

Approaching Science



## 研究论文

Research

- 76 孔挤压强化对FGH95合金室温及高温疲劳性能的影响  
——于洋 罗学昆 刘勇军 许欣 孙瑞嘉  
王欣 钟滨涛 汤智慧  
Effect of Hole Cold Expansion on Fatigue Property of FGH95 Superalloy Under Room and High Temperature  
YU Yang LUO Xuekun LIU Yongjun XU Xin SUN Ruijia  
WANG Xin ZHONG Bintao TANG Zhihui
- 83 飞机结构件生产线加工关键技术研究与应用  
——俞鸿均 汪裕杰 熊航 马南峰 何辉  
Research and Application of Key Technologies in Aircraft Structural Parts Production Line Processing  
YU Hongjun WANG Yujie XIONG Hang MA Nanfeng HE Hui
- 90 YSZ-Ti<sub>3</sub>SiC<sub>2</sub>热障涂层及其高温自愈合机制  
——陈宏飞 张弛 杨光 刘斌 高彦峰 钱凌翼 高栋  
YSZ-Ti<sub>3</sub>SiC<sub>2</sub> Thermal Barrier Coating and Its Self-Healing Mechanism Under High Temperatures  
CHEN Hongfei ZHANG Chi YANG Guang LIU Bin  
GAO Yanfeng QIAN Lingyi GAO Dong
- 97 闭式整体构件电解加工装置设计及有限元分析  
——康保印 唐霖  
Design and Finite Element Analysis of Electrolytic Machining Devices for Closed Integral Structure  
KANG Baoyin TANG Lin