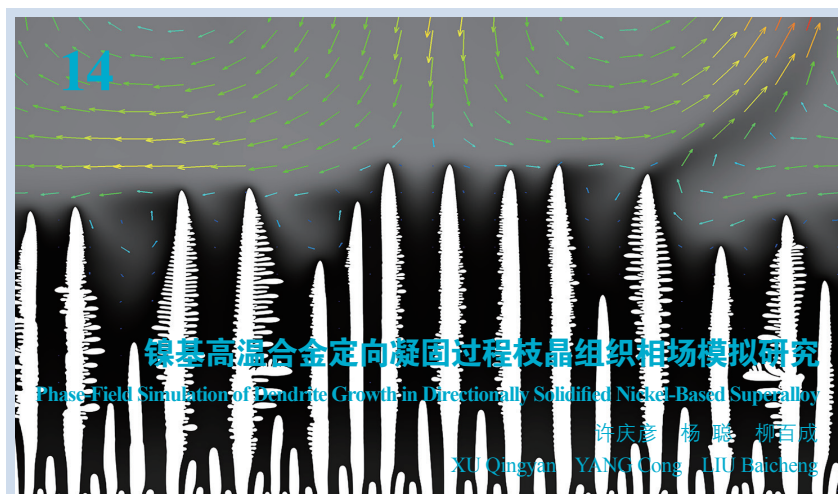


专稿 Feature



镍基高温合金定向凝固过程枝晶组织相场模拟研究

Phase-Field Simulation of Dendrite Growth in Directionally Solidified Nickel-Based Superalloy

许庆彦 杨聪 柳百成

XU Qingyan YANG Cong LIU Baicheng

封面文章 Cover Story

论坛 Forum

高温/超高温结构材料

High/Ultrahigh Temperature Materials

22 航空发动机用耐650℃高温钛合金研究现状与进展

陈子勇 刘莹莹 靳艳芳 马小昭 柴丽华 崔亚鹏
Research on 650°C High Temperature Titanium Alloy Technology for Aero-Engine

CHEN Ziyong LIU Yingying JIN Yanfang MA Xiaozhao
CHAI Lihua CUI Yapeng

34 先进航空发动机用高温钛合金双性能整体叶盘的制造

蔡建明 李娟 田丰 叶俊青
Manufacturing of High Temperature Titanium Alloy Dual-Property Blisk Used for Advanced Aero-Engine

CAI Jianming LI Juan TIAN Feng YE Junqing

41 碳化钛弥散强化钾钨合金的制备、力学性能及其抗瞬态热冲击能力研究

王一甲 燕青芝
Preparation of KW-TiC Alloy, and Its Mechanical Properties, Resistance to Transient Thermal Shock

WANG Yijia YAN Qingzhi

47 固溶温度对IMI834钛合金锻件组织和性能的影响

李四清 王旭 邓雨亭 黄旭
Effect of Solid Solution Temperature on Microstructure and Properties of IMI834 Titanium Alloy Forging

LI Siqing WANG Xu DENG Yuting HUANG Xu

53 碳化物超高温陶瓷材料研究进展

于多 殷杰 张步豪 刘学建 黄政仁
Recent Research Progresses on Ultrahigh Temperature Carbide Ceramic Materials

YU Duo YIN Jie ZHANG Buhao LIU Xuejian HUANG Zhengren

65 TC21合金基于不同失稳判据的热加工图研究

符君 于雪梅 刘超 周舸
Study on Processing Map Under Different Instability Criterion for TC21 Alloy

FU Jun YU Xuemei LIU Chao ZHOU Ge

走进科研

Approaching Science



研究论文

Research

- 78 热处理对激光选区熔化GH4169高温合金的组织与拉伸性能的影响
——张雪峰 李怀学 胡全栋 巩水利
Effect of Heat Treatment on the Microstructure and Tensile Properties of GH4169 Superalloy Fabricated by Selective Laser Melting
ZHANG Xuefeng LI Huaixue HU Quandong GONG Shuili
- 86 大飞机活动翼面机器人自动制孔应用研究
——薛宏 罗群 刘博锋 刘义明 郑炜 肖潇
Research on Application of Robot Automatic Drilling in Large Aircraft Moveable Airfoil
XUE Hong LUO Qun LIU Bofeng LIU Yiming ZHENG Wei XIAO Xiao
- 92 高密集金属微通道散热器成形及封装工艺研究
——赵雯 吕辉 翟科 宋满仓 魏壮壮 姬学超 杜立群
Research on Forming Process and Packaging Technology of High Density Metal Microchannel Heat-Sink
ZHAO Wen LÜ Hui ZHAI Ke SONG Mancang
WEI Zhuangzhuang JI Xuechao DU Liqun
- 99 基于接触式传感器的制孔质量自动检测装置及研究
——曾超 孟华林 王强 孙海龙
Research on Automatic Detection Device for Hole Quality Based on Contact Sensor
ZENG Chao MENG Hualin WANG Qiang SUN Hailong