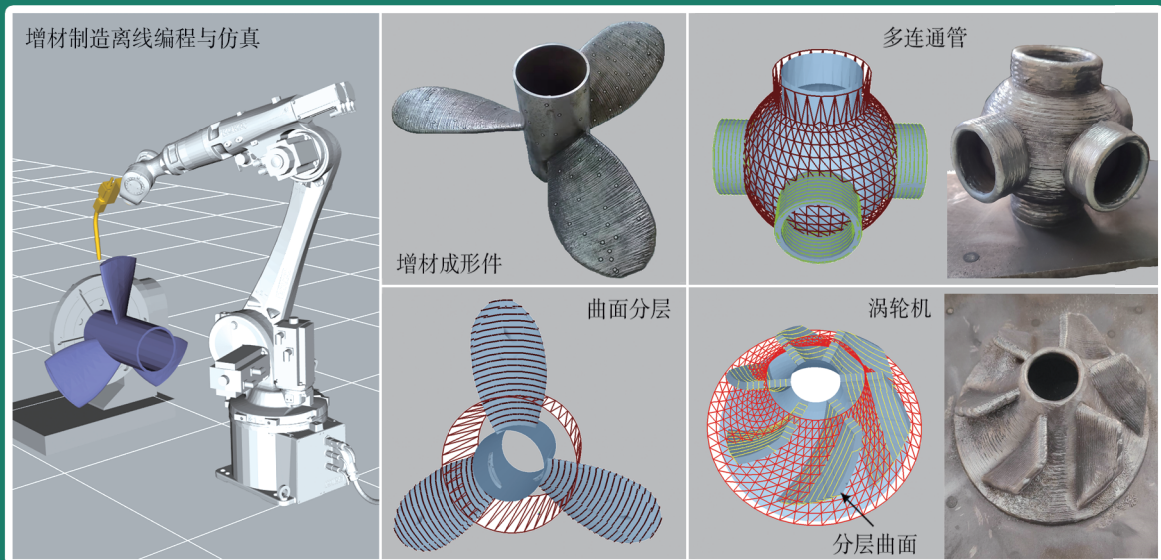


ISSN 0253-360X
CODEN HHPAD2

焊接学报

TRANSACTIONS OF THE CHINA WELDING INSTITUTION

特邀专栏：先进材料增材制造工艺与性能评价



第43卷 第 9 期

基于曲面分层的大型螺旋桨GMA增材制造
李鑫磊, 韩庆璘, 张广军

Vol. 43 No. 9

2022

焊接学报

第 43 卷 第 9 期

2022 年 9 月 25 日出版

目 次

先进材料增材制造工艺与性能评价

激光增材制造 AlSi10Mg 合金的力学性能研究进展

..... 奥妮, 何子昂, 吴圣川, 彭鑫, 吴正凯, 张振先, 祝弘滨 1

基于曲面分层的大型螺旋桨 GMA 增材制造

..... 李鑫磊, 韩庆麟, 张广军 20

旁路耦合三丝间接电弧增材制造成形特性

..... 张天奕, 张兆栋, 王泽力, 徐国敏, 刘黎明 25

送丝方式对步进填丝双脉冲 TIG 电弧增材成形精度的影响

..... 李璐鹏, 张刚, 朱珍文, 任自友, 石玟, 樊丁 31

层间高速摩擦复合 WAAM 铝合金构件组织与力学性能

..... 陈超, 孙国瑞, 冯天亭, 范成磊, 张慧婧 38

增材制造 RAFM 钢激光焊接头显微组织分析

..... 刘鑫泉, 方超, 刘劲, 宋奎晶, 季雨凯, 韦勇, 罗俊睿 44

增材制造记忆合金的元素烧损行为及其补损分析

..... 朱建, 王宏宇, 史东辉, 黄金雷, 毛计洲 50

研究论文

激光电弧热源复合模式对 301L 不锈钢焊接接头性能的弱化机制

..... 杨涛, 汪远, 庄园, 杨瑞欣, 曾俊谚, 李桓玉 56

电弧熔炼 Ti6Al4V/B ₄ C 复合材料微观组织与力学性能	郭顺,王朋坤,顾介仁,彭勇,徐俊强,周琦	62
热处理对 TC21 钛合金线性摩擦焊接头组织与性能的影响	金俊龙,李菊,张传臣,常川川	69
1300 MPa 级低合金高强钢 SH-CCT 曲线及冷裂敏感性分析	安同邦,郑庆,张永林,梁亮,朱彦洁,彭云	75
核用 ODS 钢电阻点焊性能	魏世同,刘琛,贾昕,陆善平,李依依	82
填充泡沫 Ti/AlSiMg 的 SiC 陶瓷钎焊接头的组织与性能	李娟,李立新,秦庆东,涂泉,何鹏	86
CuCrZr/Inconel 625 电子束焊接接头组织与性能	王徐建,王廷,何平,范成磊,郭迪舟,董海义	92
基于管道插接的相贯线焊缝提取算法及数值模拟	李湘文,黄宏亮,洪波,李然,马秀萍,王英俊	98
喷雾辅助 FSW 焊接 RAFM 钢数值模拟与性能	周进鹏,马杰,陆晓峰,朱晓磊,王健	104
英文摘要		(I)

TRANSACTIONS OF THE CHINA WELDING INSTITUTION

Vol. 43 No. 9 September 2022

CONTENTS

Additive manufacturing and service performance evaluation of advanced materials

Recent progress on the mechanical properties of laser additive manufacturing AlSi10Mg alloy

..... *AO Ni, HE Ziang, WU Shengchuan, PENG Xin, WU Zhengkai, ZHANG Zhenxian, ZHU Hongbin* 1

GMA additive manufacturing of large propeller based on curved layer

..... *LI Xinlei, HAN Qinglin, ZHANG Guangjun* 20

Forming characteristics of bypass coupling triple-wire gas indirect arc additive manufacturing

..... *ZHANG Tianyi, ZHANG Zhaodong, WANG Zeli, XU Guomin, LIU Liming* 25

Effect of wire feeding mode on additive forming precision of double-pulsed TIG process with stepped filling wire

..... *LI Lupeng, ZHANG Gang, ZHU Zhenwen, REN Ziyou, SHI Yu, FAN Ding* 31

Microstructure and mechanical properties of aluminium alloy thin-wall parts in wire arc additive manufacturing hybrid

interlayer high-speed friction *CHEN Chao, SUN Guorui, FENG Tianting, FAN Chenglei, ZHANG Huijing* 38

Microstructure analysis of additive manufacturing produced RAFM steel laser welding joint

..... *LIU Xinquan, FANG Chao, LIU Jin, SONG Kuijing, JI Yukai, WEI Yong, LUO Junrui* 44

Element loss behavior and compensation of additive manufacturing memory alloy

..... *ZHU Jian, WANG Hongyu, SHI Donghui, HUANG Jinlei, MAO Jizhou* 50

Research paper

Weakening mechanism of 301L stainless steel welded joints by the laser arc hybrid heat source mode

..... *YANG Tao, WANG Yuan, ZHUANG Yuan, YANG Ruixin, ZENG Junyan, LI Huanyu* 56

Microstructure and mechanical properties of Ti6Al4V/B ₄ C composite prepared by arc melting	<i>GUO Shun, WANG Pengkun, GU Jieren, PENG Yong, XU Junqiang, ZHOU Qi</i>	62
Effect of heat treatment on microstructure and properties of linear friction welded joint of TC21 titanium alloy	<i>JIN Junlong, LI Ju, ZHANG Chuanchen, CHANG Chuanchuan</i>	69
SH-CCT diagram and cold cracking sensitivity of a 1300 MPa grade high strength low alloy steel	<i>AN Tongbang, ZHENG Qing, ZHANG Yonglin, LIANG Liang, ZHU Yanjie, PENG Yun</i>	75
Resistance spot weldability of nuclear ODS steel	<i>WEI Shitong, LIU Chen, JIA Xin, LU Shanping, Li Yiyi</i>	82
Microstructure and property of SiC ceramic brazed joint filled with Ti foam/AlSiMg filler metal	<i>LI Juan, LI Lixin, QIN Qingdong, TU Quan, HE Peng</i>	86
Microstructure and mechanical properties of CuCrZr/Inconel 625 joints by electron beam welding	<i>WANG Xujian, WANG Ting, HE Ping, FAN Chenglei, GUO Dizhou, DONG Haiyi</i>	92
Algorithm and numerical simulation of intersecting line weld extraction based on pipeline plugging	<i>LI Xiangwen, HUANG Hongliang, HONG Bo, LI Ran, MA Xiuping, WANG Yingjun</i>	98
Numerical simulation and mechanical properties of spray-assisted friction stir welding RAFM steel	<i>ZHOU Jinpeng, MA Jie, LU Xiaofeng, ZHU Xiaolei, WANG Jian</i>	104