

目录

穿孔等离子弧焊接工艺综述

罗非, 贾传宝, 薛良昌, 程双球, 张琳琳, 王芳

山东省海洋环境监测技术重点实验室, 山东省科学院海洋仪器仪表研究所, 山东 青岛 266001

摘要:

综述了穿孔等离子弧焊接工艺的特点、种类及工艺参数匹配与焊缝质量之间的关系等方面的问题。指出穿孔等离子弧焊具有特殊的“小孔效应”，与钨极氩弧焊相比焊接速度、工件厚度和焊接效率都有了很大的提高。等离子弧焊接衍生出众多类型，包括直流等离子弧焊接、脉冲等离子弧焊接、变极性等离子弧焊接和特殊等离子弧焊接等，能够满足不同行业的特殊需求。本文对于指导实际焊接生产，进一步提高生产效率和焊缝质量具有重要的意义。

关键词: 等离子弧焊 高能量密度焊接 小孔

A survey of keyhole plasma arc welding

LUO Fei, JIA Chuan-Bao, XUE Liang-Chang, CHENG Shuang-Qiu, ZHANG Lin-Lin, WANG Fang

Shandong Provincial Key Laboratory of Ocean Environment Monitoring Technology, Institute of Oceanographic Instrumentation, Shandong Academy of Sciences, Qingdao 266001, China

Abstract:

This paper surveys the characteristics, classification and the parameters matching for the technology of keyhole plasma arc welding. Keyhole plasma arc welding can cause a special keyhole, with which welding speed, workpiece thickness and welding efficiency will be all increased significantly. It can be generalized to constant, pulsed, variable polarity and special plasma arc welding, so it can satisfy special requirements of many different industries. This paper is quite significant to guide welding practice and increase productivity and the quality of welding joints.

Keywords: plasma arc welding high energy density welding keyhole

收稿日期 修回日期 网络版发布日期

DOI:

基金项目:

国家高科技发展计划(863)重点项目(2008AA092901);山东省科学院科技发展基金项目

通讯作者:

作者简介:

作者Email: jiachuanbao@gmail.com

参考文献:

扩展功能

本文信息

- ▶ Supporting info
- ▶ PDF(963KB)
- ▶ [HTML全文]
- ▶ 参考文献[PDF]
- ▶ 参考文献

服务与反馈

- ▶ 把本文推荐给朋友
- ▶ 加入我的书架
- ▶ 加入引用管理器
- ▶ 引用本文
- ▶ Email Alert
- ▶ 文章反馈
- ▶ 浏览反馈信息

本文关键词相关文章

- ▶ 等离子弧焊
- ▶ 高能量密度焊接
- ▶ 小孔

本文作者相关文章

- ▶ 罗非
- ▶ 贾传宝
- ▶ 薛良昌
- ▶ 程双球
- ▶ 张琳琳
- ▶ 王芳

PubMed

- ▶ Article by Luo, F.
- ▶ Article by Jia, C. B.
- ▶ Article by Xue, L. C.
- ▶ Article by Cheng, S. Q.
- ▶ Article by Zhang, L. L.
- ▶ Article by Wang, F.

