中国有色金属学报
中国有色金属学报(英文版)
中国科学技术协会 主管
中国有色金属学会 主办

论文摘要

中国有色金属学报
ZHONGGUO YOUSEJINSHUXUEBAO XUEBAO
第7卷 第1期 (总第22期) 1997年3月

[PDF全文下载] [全文在线阅读]

文章编号：(1997)01-134-4

脉动磁场对Al-Cu合金热裂的影响

宁志良[1] 徐志辉[1] 梁维中[1] 崔天真[1] 杨万胜[2]

(*1.哈尔滨理工大学 807信箱， 哈尔滨 150080;*
2.哈尔滨燃气化工总公司，哈尔滨 150076)

摘 要： 用对比的方法，研究了脉动磁场对Al-Cu合金热裂倾向性的影响。实验结果表明：脉动磁场具有缩小Al-Cu合金有效结晶区间、减小有效结晶区间线收缩之功能，有效地降低了Al-Cu合金热裂倾向性；磁场频率的影响为： f =19.5 Hz 时热裂纹最小，f >37.5 Hz 时影响不大。

关键字： 脉动磁场 Al-Cu合金 热裂

EFFECT OF PULSATING ELECTROMAGNETIC FIELD ON HOT CRACKING OF Al-Cu ALLOYS

Ning Zhiliang[1], Xu Zhihui[1], Liang Weizhong[1], Cui Tianzhen[1] ,Yang Wansheng

(1.*Harbin University of Science and Technology, Harbin 150080*
2.*Harbin Company of Gas, Harbin 150076*)

Abstract: Under laboratory conditions, the effects of pulsating electromagnetic field on the tendency of the hot cracking of Al-Cu alloys were studied by comparative method. It was shown that pulsating electromagnetic field can contract the valid crystallization region and lessen the shrinkage of Al-Cu alloys. The tendency of hot cracking of Al-Cu alloys decreases markedly under pulsating electromagnetic field. When f is equal to 19.5Hz, the effect of pulsating electromagnetic field on the tendency of hot cracking is less than any other frequency conditions and when f is larger than 37.5Hz the pulsating electromagnetic field gives little effectson the hot cracking.

Key words: pulsating electromagnetic field Al-Cu alloy hot crack

地 址：湖南省长沙市岳麓山中南大学内 邮编： 410083

电 话： 0731-88876765，88877197，88830410 传真： 0731-88877197

电子邮箱： f-ysxb@mail.csu.edu.cn