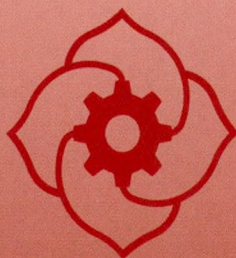


QK2049962 1009-6264
CN11-4545/TG
CODEN:CRXAAK

材料热处理学报

CAILIAO RECHULI XUEBAO

TRANSACTIONS OF MATERIALS AND HEAT TREATMENT



CMES

中国机械工程学会主办

第41卷 第**10**期

Vol.41 No.10

2020

ISSN 1009-6264



目 次

综述

金属基复合材料微观损伤行为的研究进展 范映伟(1)

有色金属合金材料

次生 α 相含量对 TC18 钛合金动态压缩性能和绝热剪切敏感性的影响

..... 郭小汝,张俊喜,易湘斌,陈百明,李宝栋,徐创文(24)

Ag 含量对竖引连铸 Cu-Ag 合金组织和性能影响

..... 杨 冉,王要利,宋克兴,周延军,曹 军,吕长春,丁雨田,胡 勇(31)

冷轧变形量对核电用 GH4169 合金组织和拉伸性能的影响

..... 李红宇,刘 杨,薛晶晶,邢 健,韩吉庆(38)

黑色金属合金材料

奥氏体化温度对高锰含碳化物等温淬火球墨铸铁组织和性能的影响

..... 孙宇凡,杨鹏辉,符寒光,林 健,郭星晔(44)

Ce 对汽车气门弹簧钢 65Si2CrV 组织性能的影响 孙 深,李 阳,孙 萌,张 磊,姜周华(51)

45CrNiSiMnMoVA 超高强度钢的强韧化热处理工艺 毕红霞,唐明华,周 勇,任芝兰(60)

服役态 HR3C 耐热钢管的缺口敏感性 ... 王若民,段谟刚,张 健,陈国宏,陈学进,缪春辉,汤文明(66)

卷取温度对 1.5%Si 无取向硅钢氧化皮的影响 李 慧,陆佳栋,岳重祥,李化龙(73)

不同工艺下取向硅钢超薄带中 Goss 织构取向分析

..... 张 静,李 莉,贾志伟,庞树芳,张海利,游清雷,杨 平,蒋奇武(80)

氧化温度对 X80 钢氧化膜结构及阻氢性能的影响 李贝贝,赵卫民,李守英,孙浩梅,李文昊(86)

超高强度钻杆钢的温度敏感系数 许天早,丁一明,林 宏,蔡炎桥,雷志胜(95)

材料表面改性

- 激光功率对 $\text{Cr}_7\text{C}_3\text{-Fe}_2\text{C/MS}_2$ 镍基多元涂层组织与性能的影响
..... 孟祥军,屠小斌,许宏良,王 勉,刘秀波,刘海青(103)
- Si_3N_4 晶须对原位形成 Mo_2NiB_2 金属陶瓷组织与性能的影响
..... 潘颖慧,潘应君,柯德庆,甘章华,徐 鑫(111)
- 保温时间对镀锌 B1500HS 钢镀层组织和成分的影响
..... 倪 雷,刘丽艳,郭亚洲,凌 华,毕文珍,韦习成(117)

材料模拟计算

- DZ2 高速列车车轴钢的热变形行为及热加工图
..... 张锦文,王文先,高建兵,成生伟,王育田,王之香,赵志刚(123)
- C17200 合金热变形行为及热加工图
..... 康军伟,周延军,刘海涛,宋克兴,张 勇,孔令宝,吕官丽,岳丽娟(130)
- Ti-15Mo 合金的再结晶行为及动力学 向 柳,辛社伟,毛小南,杜 宇,周 伟,李 倩,蔡建华(137)
- 摩擦热对靴轨凿削临界条件的影响 干 聪,田晓耕,汪振兴,郭 钊(143)
- 铜基 CPU 水冷散热器的散热数值模拟与结构优化 王金龙,苑成东,刘昭良,崔大伟(155)
- InconelX-750 合金大型电渣锭重熔过程的模拟 陈 琨,王立民(162)
- 合金钢强韧化热处理组织结构高通量高分辨率三维重建
..... 周祝兵,闫扶摇,张雁祥,赵 军,徐跃明,闫牧夫(170)

CONTENTS

- Research progress on micro-damage behavior of metal matrix composites FAN Ying-wei(1)
- Influence of volume fraction of secondary α phase on dynamic compression properties and adiabatic shear sensitivity of TC18 titanium alloy GUO Xiao-ru, ZHANG Jun-xi, YI Xiang-bin, CHEN Bai-ming, LI Bao-dong, XU Chuang-wen(24)
- Effect of Ag content on microstructure and properties of Cu-Ag alloy prepared by vertical continuous casting
YANG Ran, WANG Yao-li, SONG Ke-xing, ZHOU Yan-jun, CAO Jun, LÜ Chang-chun, DING Yu-tian, HU Yong(31)
- Effect of cold-rolling deformation on microstructure and tensile properties of GH4169 alloy for nuclear power plant
..... LI Hong-yu, LIU Yang, XUE Jing-jing, XING Jian, HAN Ji-qing(38)
- Effect of austenitizing temperature on microstructure and properties of high manganese carbide austempered ductile iron
..... SUN Yu-fan, YANG Peng-hui, FU Han-guang, LIN Jian, GUO Xing-ye(44)
- Effect of Ce on microstructure and properties of automotive valve spring steel 65Si2CrV
..... SUN Shen, LI Yang, SUN Meng, ZHANG Lei, JIANG Zhou-hua(51)
- Strengthening and toughening heat treatment process of ultra high strength 45CrNiSiMnMoVA steel
..... BI HONG-xia, TANG Ming-hua, ZHOU Yong, REN Zhi-lan(60)
- Notch sensitivity of in-service HR3C heat resistant steel tube WANG Ruo-min,
DUAN Mo-gang, ZHANG Jian, CHEN Guo-hong, CHEN Xue-jin, MIAO Chun-hui, TANG Wen-ming(66)
- Influence of coiling temperature on oxide scale of 1.5%Si non-oriented electrical steel
..... LI Hui, LU Jia-dong, YUE Chong-xiang, LI Hua-long(73)
- Goss orientation analysis of ultra-thin silicon steel sheets prepared by different processes
ZHANG Jing, LI Li, JIA Zhi-wei, PANG Shu-fang, ZHANG Hai-li, YOU Qing-lei, YANG Ping, JIANG Qi-wu(80)
- Effect of oxidation temperature on structure and hydrogen-penetration resistance of X80 steel oxide film
..... LI Bei-bei, ZHAO Wei-min, LI Shou-ying, SUN Hao-mei, LI Wen-hao(86)
- Temperature sensitive coefficient of ultra-high strength drill pipe steels
..... XU Tian-han, DING Yi-ming, LIN Hong, CAI Yan-qiao, LEI Zhi-sheng(95)

Effect of laser power on microstructure and properties of $\text{Cr}_7\text{C}_3\text{-Fe}_2\text{C/MS}_2$ Ni-based composite coatings	
..... MENG Xiang-jun, TU Xiao-bin, XU Hong-liang, WANG mian, LIU Xiu-bo, LIU Hai-qing(103)	
Effect of Si_3N_4 whiskers on microstructure and properties of in situ prepared Mo_2NiB_2 cermet	
..... PAN Ying-hui, PAN Ying-jun, KE De-qing, GAN Zhang-hua, XU Xin(111)	
Effect of holding time on microstructure and composition of galvanized coating of B1500HS steel	
..... NI Lei, LIU Li-yan, GUO Ya-zhou, LING Hua, BI Wen-zhen, WEI Xi-cheng(117)	
Hot deformation behavior and hot processing map of high speed axle steel DZ2	
..... ZHANG Jin-wen, WANG Wen-xian,	
GAO Jian-bing, CHENG Sheng-wei, WANG Yu-tian, WANG Zhi-xiang, ZHAO Zhi-gang(123)	
Hot deformation behavior and processing map of C17200 alloy	KANG Jun-wei,
ZHOU Yan-jun, LIU Hai-tao, SONG Ke-xing, ZHANG Yong, KONG Ling-bao, LÜ Guan-li, YUE Li-juan(130)	
Recrystallization behavior and kinetics of Ti-15Mo alloy	
..... XIANG Liu, XIN She-wei, MAO Xiao-nan, DU Yu, ZHOU Wei, LI Qian, CAI Jian-hua(137)	
Effect of friction heat on critical condition of slipper and rail surface gouging	
..... GAN Cong, TIAN Xiao-geng, WANG Zhen-xing, GUO Zhao(143)	
Numerical simulation and structural optimization of copper-based CPU water cooling radiator	
..... WANG Jin-long, YUAN Cheng-dong, LIU Zhao-liang, CUI Da-wei(155)	
Simulation of remelting process of InconelX-750 alloy large electroslag ingot	CHEN Kun, WANG Li-min(162)
High-throughput, high-resolution 3D reconstruction of alloy steel microstructure after strengthening-toughening heat treatment	
..... ZHOU Zhu-bing, YAN Fu-yao, ZHANG Yan-xiang, ZHAO Jun, XU Yue-ming, YAN Mu-fu(170)	

材料热处理学报

TRANSACTIONS OF MATERIALS AND HEAT TREATMENT

第 41 卷第 10 期 总第 244 期 2020 年 10 月 25 日(月刊,1980 年创刊)

Vol. 41 No. 10 October 25, 2020 (Monthly, Started in 1980)

主管单位:中国科学技术协会

主办单位:中国机械工程学会

主 编:周 玉

副 主 编:闫牧夫 顾剑锋 李 俏
石 伟

编辑部主任:李 俏

编辑部副主任:付海峰

编辑出版:《材料热处理学报》编辑部

地 址:北京市海淀区学清路 18 号
北京机电研究所院内(100083)

电 话:010-62914115,82415080

传 真:010-62914115

网 址:www.mhtcn.org

电子信箱:clrc1@vip.163.com

印 刷:北京科信印刷有限公司

刊 号:ISSN 1009-6264

CN 11-4545/TG

CODEN:CRXAAK

国内发行:北京报刊发行局

邮发代号:82-591

国内定价:50 元/册,全年:600 元

Responsible Department:

China Association for Science and Technology

Sponsor: Chinese Mechanical Engineering Society

Chief Editor: ZHOU Yu

Vice Chief Editor: YAN Mu-fu, GU Jian-feng, LI Qiao, SHI Wei

Managing Editor: LI Qiao

Vice Managing Editor: FU Hai-feng

Edited and Published: Editorial Office of TRANSACTIONS OF
MATERIALS AND HEAT TREATMENT

Address:No. 18, Xueqing Road, Beijing 100083, China

Tel: 86-10-62914115, 82415080

Fax: 86-10-62914115

http: //www.mhtcn.org

E-mail: clrc1@vip.163.com

Code No.: ISSN 1009-6264

CN 11-4545/TG

CODEN:CRXAAK

Annual Rate: 600 USD(including postage by air)

全国中文核心期刊

中国科技核心期刊

中国科技论文统计与分析用刊

中国科技期刊 ChinaInfo 系统用刊

中国期刊方阵双效期刊

RCCSE 中国权威学术期刊(A⁺)

中国科学引文数据库(CSCD)来源期刊

中国期刊全文数据库(CJFD)用刊

中国期刊网、中国学术期刊全文收录期刊

荷兰 SCOPUS 数据收录期刊

美国《化学文摘》CA 文献源期刊

美国《剑桥科学文摘》CSA 文献源期刊

金属文摘 METADEX 文献源期刊

日本科技情报中心 JICST 文献源期刊

AJ、EMA 等收录期刊



敬请关注本刊微信公众号,可通过公众号查询稿件处理进度及过刊等。