

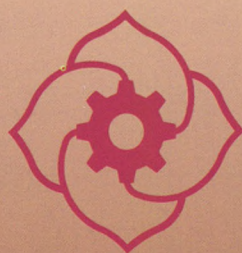


ISSN 1009-6264
CN11-4545/TG
CODEN:CRXAAK

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38卷 第3期

Vol.38 No.3

2017

ISSN 1009-6264



目 次

综述

激光喷丸改善零件疲劳性能的研究现状及展望 刘珂璟,邢志国,王海斗,等(1)

材料研究

Ti₂AlC/TiAl 基复合材料的制备及其力学性能 王维,艾桃桃,冯小明,等(10)

合金系掺杂对 FeCoCrMoCBY 非晶合金热导率的影响 王诚杰,陈庆军,夏怀效(16)

煅烧温度对溶胶-凝胶法制备钼酸铋光催化性能的影响 孙明志,郭鹏瑶,丁航行,等(21)

钇稳定二氧化锆(YSZ)纳米晶体的红外光谱分析 苗保记,张猛,夏熠(29)

组织性能

放电等离子烧结温度对 ZK61 镁合金组织及力学性能的影响 郝峰晨,崔泽琴,王文先(34)

Mg₃Sb₂ 金属间化合物的机械化学合成工艺 韩婷婷,龙威,周小平(41)

时效对挤压态喷射成形 7055 铝合金组织与性能的影响 温家飞,唐紫薇,张楨,等(49)

均匀化工艺对 3104 铝合金中弥散相分布的影响 鲁法云,张军利,于宏,等(54)

GH4738 合金均匀化过程组织演变及热变形行为 李浩宇,董建新,李林翰(61)

δ 相对 GH4169 合金热变形后热处理中晶粒长大的影响 张海燕,张士宏,程明,等(70)

热处理对铸态 60NiTi 合金第二相析出与硬度的影响 张瑞谦,覃秋慧,文玉华(76)

热处理温度对 Zr₄₈Co₅₂ 合金微观组织和力学性能的影响 李培友,童婷,王永善(83)

P 对含 V 高强 ULC-BH 钢再结晶 {111} 面织构的影响 张喜亮,刘涛,张红娜,等(89)

复合热处理对 ZG20CrSiMn 耐磨铸钢组织和性能影响 蔡永乐,苏琳飞,阴明,等(97)

低温高磁感取向硅钢初次再结晶特征对二次再结晶完成的影响 杨佳欣,杨平,许光,等(103)

δ-铁素体对 P91 耐热钢接头冲击性能的影响 张建斌,刘帆,樊丁,等(108)

高强度螺栓用钢 40CrNiMoA 和 12CrNi9MoV 的氢脆敏感性 孙永伟,刘军,范芳雄(114)

煤层气井用抽油杆腐蚀疲劳寿命的影响因素 李德君,王伟,庞斌,等(121)

YG8 硬质合金与 45 钢非晶钎焊行为 王微,王春香,王刚(128)

淬火温度对 30CrMo 减震簧钢精细组织的影响 谭起兵,林磊,张秀芳,等(133)

高碳铬轴承钢加热过程中氧化与脱碳特性分析 史学星,鞠新华,蔡宁,等(139)

表面改性

AZ31B 镁合金 Al-AlB₁₂-Al₂O₃ 涂层的耐蚀和耐磨性能 王丹,龙威,周小平(148)

NiCrB 电弧喷涂层的微观组织与高温氧化行为 王国红,姚海华,周正,等(154)

钽铁硼表面真空蒸镀 Al 膜的制备及其性能 刘家琴,曹玉杰,张鹏杰,等(159)

退火温度对真空热蒸发 CdTe 薄膜特性的影响 刘焯,张雷,马蕾,等(167)

5083 铝合金表面镀钛/渗氮复合层组织结构与摩擦学性能 章凡勇,闫牧夫,何继宁(172)

渗碳工艺参数对常见渗碳钢晶粒粗化行为的影响 王昊杰,郝浩腾,王昭东,等(177)

深层渗碳对 H13 钢显微组织和硬度的影响 邓德伟,刘海英,张林,等(186)

模拟计算

45 钢激光束扫描数值模拟与组织性能 刘政,沈俊波,张伟,等(193)

CONTENTS

- Review and expect of laser peening for improving fatigue performance of parts LIU Ke-ying, XING Zhi-guo, WANG Hai-dou, et al (1)
- Preparation and mechanical properties of $Ti_2AlC/TiAl$ composites WANG Wei, AI Tao-tao, FENG Xiao-ming, et al (10)
- Effect of doping alloy system on thermal conductivity of FeCoCrMoCBy amorphous alloy WANG Cheng-jie, CHEN Qing-jun, XIA Huai-xiao (16)
- Effects of calcination temperature on photocatalytic property of Bi_2MoO_6 prepared by sol-gel method
..... SUN Ming-zhi, GUO Peng-yao, DING Hang-xing, et al (21)
- Infrared spectrum analysis of nanosized crystals of yttria stabilized zirconia (YSZ) MIAO Bao-ji, ZHANG Meng, XIA Yi (29)
- Effects of spark plasma sintering temperature on microstructure and mechanical properties of ZK61 magnesium alloy
..... HAO Feng-chen, CUI Ze-qin, WANG Wen-xian (34)
- Mechanical and chemical synthesis process of Mg_3Sb_2 intermetallic compound HAN Ting-ting, LONG Wei, ZHOU Xiao-ping (41)
- Effects of aging on microstructure and mechanical properties of spray forming and extruded 7055 aluminum alloys
..... WEN Jia-fei, TANG Zi-wei, ZHANG Zhen, et al (49)
- Influence of homogenization process on dispersoids distribution in 3104 aluminum alloy LU Fa-yun, ZHANG Jun-li, YU Hong, et al (54)
- Evolution of microstructure and hot deformation behavior of GH4738 alloy during homogenization LI Hao-yu, DONG Jian-xin, LI Lin-han (61)
- Effect of δ phase on grain growth of GH4169 alloy during heat treatment after hot deformation
..... ZHANG Hai-yan, ZHANG Shi-hong, CHENG Ming, et al (70)
- Effects of heat treatment on precipitation of second phases and hardness of as-cast 60NiTi alloy
..... ZHANG Rui-qian, QIN Qiu-hui, WEN Yu-hua (76)
- Effect of heat treatment temperature on microstructure and mechanical properties of $Zr_{48}Co_{52}$ alloy ... LI Pei-you, TONG Ting, WANG Yong-shan (83)
- Effects of P on $\{111\}$ plane texture in high strength V-bearing ULC-BH steels ZHANG Xi-liang, LIU Tao, ZHANG Hong-na, et al (89)
- Effect of subcritical quenching and cryogenic treatment on property and microstructure of ZG20CrSiMn abrasion-resistant casting steel
..... CAI Yong-le, SU Lin-fei, YIN Ming, et al (97)
- Effect of primary recrystallization characteristics on secondary recrystallization of high permeability grain-oriented silicon steel with slab reheating
at low temperature YANG Jia-xin, YANG Ping, XU Guang, et al (103)
- Influence of delta-ferrite content on impact toughness of P91 heat-resistant steel joint ZHANG Jian-bin, LIU Fan, FAN Ding, et al (108)
- Hydrogen embrittlement susceptibility of high strength bolt 40CrNiMoA and 12CrNi9MoV steel SUN Yong-wei, LIU Jun, FAN Fang-xiong (114)
- Influence factors on corrosion fatigue life of sucker rods used in coalbed methane well LI De-jun, WANG Wei, PANG Bin, et al (121)
- Amorphous brazing behavior of YG8 cemented carbide and steel 45 WANG Wei, WANG Chun-xiang, WANG Gang (128)
- Effect of quenching temperature on fine structure of 30CrMo damping spring steel TAN Qi-bing, LIN Lei, ZHANG Xiu-fang, et al (133)
- Analysis on oxidation and decarburization of high-carbon chromium bearing steel in heating process
..... SHI Xue-xing, JU Xin-hua, CAI Ning, et al (139)
- Corrosion and wear resistance of Al-AlB₁₂-Al₂O₃ coating on AZ31B magnesium alloy WANG Dan, LONG Wei, ZHOU Xiao-ping (148)
- Microstructure and high-temperature oxidation behavior of NiCrB coating by arc spraying WANG Guo-hong, YAO Hai-hua, ZHOU Zheng, et al (154)
- Preparation and properties of Al coating on sintered NdFeB magnet surface via vacuum evaporations
..... LIU Jia-qin, CAO Yu-jie, ZHANG Peng-jie, et al (159)
- Influence of annealing temperature on properties of vacuum thermal evaporation CdTe thin films LIU Chuo, ZHANG Lei, MA Lei, et al (167)
- Microstructure and wear properties of duplex coatings fabricated by plasma nitriding of Ti-coated 5083 aluminum alloy
..... ZHANG Fan-yong, YAN Mu-fu, HE Ji-ning (172)
- Effect of carburizing process parameters on austenitic grain coarsening behavior of common carburizing steel
..... WANG Hao-jie, HAO Hao-teng, WANG Zhao-dong, et al (177)
- Effect of deep carburization on microstructure and hardness of H13 steel DENG De-wei, LIU Hai-ying, ZHANG Lin, et al (186)
- Numerical stimulation and microstructure properties of 45 steel during laser beam scanning
..... LIU Zheng, SHEN Jun-bo, ZHANG Wei, et al (193)

材料热处理学报

TRANSACTIONS OF MATERIALS AND HEAT TREATMENT

第 38 卷第 3 期 总第 201 期 2017 年 3 月 25 日(月刊,1980 年创刊)

Vol. 38 No. 3 March 25, 2017 (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.mhten.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:30 元/册,全年:360 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.mhten.org

E-mail: clrc1@vip.163.com

Code No.: ISSN 1009-6264

CN 11-4545/TG

CODEN:CRXAAK

Annual Rate: 360 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。