



ISSN 1004-0609
CODEN ZYJXFK

中国有色金属学报

The Chinese Journal of Nonferrous Metals

April 2020

Volume 30 Number 4

中国有色金属学会 主办
科学出版社出版

目 次

材料科学与工程

- 中国铝产业的发展现状及展望.....余欣未,蒋显全,谭小东,郭胜锋,唐彬彬,潘复生(709)
富Ce混合稀土加入量对铝合金组织与导电性能的影响.....李红英,赵菲,阳慎兰(719)
A356浇覆温度对铝/钢复合板界面组织及力学性能的影响.....苗鹏,李元东,王慧,周宏伟,毕广利(728)
焊后热处理对钛/铝FSB接头组织及性能的影响.....张忠科,武靖伟,赵华夏(739)
停放时间对6061铝合金性能及微观组织的影响.....寇琳媛,王冠,马超,卞东伟(750)
高强铝板韧性断裂准则参数求解及其成形极限.....陈志伟,赵长财,董国疆,杨卓云(763)
熔体结构变化对Al₈₅Ni₅Y₈Co₂非晶合金晶化行为的影响
.....王知懿,章星宇,王东,刘麟,江鹏,吴王平(775)
稀土铈掺杂石墨烯对7050铝合金微弧氧化膜层结构与性能的影响.....宗玙,宋仁国,花天顺,蔡思伟(782)
钆对Mg-8Li-4Zn-xGd合金铸态组织与力学性能的影响
.....徐春杰,徐信锋,马涛,孟令楠,张忠明, SHECHTMAN Dan(793)
Al₂O₃弥散强化铜-锡含油轴承的制备和性能.....闫志巧,陈峰,许荣君,汪涛,吴湘涛,周仲(801)
密度泛函理论计算研究不同晶相Ti-Ta合金的结构与性质.....邵晓梅,王璐瑶,张俊敏,闻明,赵宗彦(809)
TC4钛合金不同气源激光渗氮行为
.....李文生,张文斌,武彦荣,梁刚,高凤琴,石玕,俞伟元,姚小春(817)
通孔式钛合金层强韧化Ti₂AlC/TiAl基叠层复合板材
.....牛群飞,艾桃桃,刘洁,邓志峰,冯小明,李文虎,袁新强,包维维,董洪峰(829)
闸片材料参数与制动盘温度关系.....高飞,吴波文,杨俊英(837)

冶金工程 • 矿业工程 • 化学化工

- 基于地球化学的水热还原矿化稳定砷的技术思路.....胡斌,杨天足,刘伟锋,张杜超,陈霖(847)
机械活化强化钒渣钙化提钒工艺.....黄青云,向俊一,裴贵尚,王鑫,吕学伟(858)

阳极导电材料对铁钨锡合金粉电解铁的影响.....	范科彪,郑雅杰,何汉兵(866)
鼓泡油膜萃取法处理氰化提金废水的新工艺.....	刘 杰,吴晓红,黄 煄,徐忠敏,郁丰善,刘会洲(875)
添加剂氧化钙对镍渣强化还原的影响.....	李小明,张馨艺,李 怡,邢相栋(887)
As(V)-Fe(II)体系常压臭葱石合成过程过饱和度对形貌和稳定性的影响	
.....	王长印,李曼廷,魏 越,李兴彬,邓志敢,刘慧杨,雷佛光(896)
CO 气基还原 MoO ₃ 制备 MoC.....	宋成民,张国华,周国治(906)
V(V)-Fe(III)-S(VI)-H ₂ O 系热力学研究与钒铁分离方法理论.....	刘景文,阳征斐,周 鹏,李 飞(912)
铝灰渣中 AlN 水解行为及其多元非线性回归分析.....	吕帅帅,倪 威,倪红军,朱杨杨(920)
金属离子配位调控分子组装浮选理论及其研究进展	
.....	孙文娟,韩海生,胡岳华,孙 伟,朱阳戈,桂夏辉,曹学锋,邢耀文,李成必,卫 召(927)
含铜、镍电镀污泥硫化烧结-浮选工艺.....	吕昊子,贺壮志,陈志强,刘 勇,刘牡丹,李 波(942)
尾砂胶结充填料浆剪切触变实验及其基于量纲分析的触变性预测模型	
.....	张友志,甘德清,陈 励,薛振林,任伟成(951)
投稿须知.....	(960)

责任编辑: 王 超, 何学锋, 龙怀中, 李艳红

[期刊基本参数] CN 43-1238/TG*1991*m*A4*251*zh*P*¥80.0*1400*26*2020-04

The Chinese Journal of Nonferrous Metals

(ZHONGGUO YOUSE JINSHU XUEBAO)

Volume 30 Number 4

(Sum 253)

April 2020

CONTENTS

Materials Science and Engineering

Status and prospect for aluminum industrial development in China

.....SHE Xin-wei, JIANG Xian-quan, TAN Xiao-dong, GUO Sheng-feng, TANG Bin-bin, PAN Fu-sheng(709)

Effect of Ce-rich rare earth addition on microstructure and electrical conductivity of aluminum alloy

.....LI Hong-ying, ZHAO Fei, YANG Shen-lan(719)

Effect of A356 alloy covering temperature on microstructure and mechanical properties of Al/low-carbon steel clad plates.....MIAO Peng, LI Yuan-dong, WANG Hui, ZHOU Hong-wei, BI Guang-li(728)

Effect of annealing treatment on interfacial microstructure and properties of Ti/Al FSB joint

.....ZHANG Zhong-ke, WU Jing-wei, ZHAO Hua-xia(739)

Influence of quench delay time on mechanical properties and microstructure of 6061 aluminum alloy

.....KOU Lin-yuan, WANG Guan, MA Chao, BIAN Dong-wei(750)

Calculation of ductile fracture parameters and forming limit of high-strength aluminum sheet

.....CHEN Zhi-wei, ZHAO Chang-cai, DONG Guo-jiang, YANG Zhuo-yun(763)

Effect of melt structure transition on crystallization behavior of $\text{Al}_{85}\text{Ni}_5\text{Y}_8\text{Co}_2$ amorphous alloys

.....WANG Zhi-zhi, ZHANG Xing-yu, WANG Dong, LIU Lin, JIANG Peng, WU Wang-ping(775)

Microstructure and properties of rare earth CeO_2 -doped graphene composite coatings prepared by MAO on AA7050

.....ZONG Yu, SONG Ren-guo, HUA Tian-shun, CAI Si-wei(782)

Effects of Gd on microstructures and mechanical properties of as-cast Mg-8Li-4Zn- x Gd alloys

.....XU Chun-jie, XU Xin-feng, MA Tao, MENG Ling-nan, ZHANG Zhong-ming, SHECHTMAN Dan(793)

Preparation and properties of Al_2O_3 dispersion-strengthened copper-tin oil bearings

.....YAN Zhi-qiao, CHEN Feng, XU Rong-jun, WANG Tao, WU Xiang-tao, ZHOU Zhong(801)

Structure and properties of Ti-Ta alloys with different crystal phases studied by DFT calculations

.....SHAO Xiao-mei, WANG Lu-yao, ZHANG Jun-min, WEN Ming, ZHAO Zong-yan(809)

Laser nitriding behavior of Ti-6Al-4V with different gas sources.....LI Wen-sheng, ZHANG Wen-bin, WU Yan-rong,

.....LIANG Gang, GAO Feng-qin, SHI Yu, YU Wei-yuan, YAO Xiao-chun(817)

$\text{Ti}_2\text{AlC}/\text{TiAl}$ -based laminated composite sheets strengthened by titanium alloy layers with through-holes

.....NIU Qun-fei, AI Tao-tao, LIU Jie, DENG Zhi-feng, FENG Xiao-ming, LI Wen-hu,

.....YUAN Xin-qiang, BAO Wei-wei, DONG Hong-feng(829)

Relationship of pad material parameters and brake disc temperature field

.....GAO Fei, WU Bo-wen, YANG Jun-ying(837)

Metallurgical Engineering, Mine Engineering, Chemistry and Chemical Engineering

- Technical idea of stabilizing arsenic via hydrothermal reduction and mineralization based on geochemistry HU Bin, YANG Tian-zu, LIU Wei-feng, ZHANG Du-chao, CHEN Lin(847)
- Mechanical activation on extraction of vanadium from vanadium slag by calcification roasting-acid leaching process HUANG Qing-yun, XIANG Jun-yi, PEI Gui-shang, WANG Xin, LÜ Xue-wei(858)
- Effects of anode conductive materials on electrolytic iron of Fe-W-Sn alloy powder FAN Ke-biao, ZHENG Ya-jie, HE Han-bing(866)
- A new process based on gas bubble supported organic liquid membrane extraction for treatment of auro-cyanide wastewater LIU Jie, WU Xiao-hong, HUANG Kun, XU Zhong-min, YU Feng-shan, LIU Hui-zhou(875)
- Effect of calcium oxide on carbothermal reduction of nickel slag LI Xiao-ming, ZHANG Xin-yi, LI Yi, XING Xiang-dong(887)
- Effect of supersaturation on morphology and stability of atmospheric pressure scorodite under As(V)-Fe(II) system WANG Chang-yin, LI Min-ting, WEI Chang, LI Xing-bin, DENG Zhi-gan, LI Hui-yang, LEI Fu-guang(896)
- Preparation of MoC by reducing MoO₃ with CO gas SONG Cheng-min, ZHANG Guo-hua, ZHOU Guo-zhi(906)
- Thermodynamic of V(V)-Fe(III)-S(VI)-H₂O system and its utilization for separating vanadium over ferric from acidic solution LIU Jing-wen, YANG Zheng-fei, ZHOU Peng, LI Fei(912)
- Hydrolysis behavior of AlN in aluminum dross and its multivariate nonlinear regression analysis LÜ Shuai-shuai, NI Wei, NI Hong-jun, ZHU Yang-yang(920)
- Flotation theory and research progress of metal ion coordination regulation molecule assembly SUN Wen-juan, HAN Hai-sheng, HU Yue-hua, SUN Wei, ZHU Yang-ge, GUI Xia-hui, CAO Xue-feng, XING Yao-wen, LI Cheng-bi, WEI Zhao(927)
- Sulfidation sintering-flotation process of copper-nickel-bearing electroplating sludge LÜ Hao-zi, HE Zhuang-zhi, CHEN Zhi-qiang, LIU Yong, LIU Mu-dan, LI Bo(942)
- Experiment of shear thixotropy of cemented tailings filling slurry and its prediction model based on dimensional analysis ZHANG You-zhi, GAN De-qing, CHEN Xun, XUE Zhen-lin, REN Wei-cheng(951)
- Information for contributors** (960)

(Managing Editors: WANG Chao, HE Xue-feng, LONG Huai-zhong, LI Yan-hong)