

本出版物被SCI收录

ISSN1002-185X
CODEN XJCGEA

稀有金属材料与工程

RARE METAL MATERIALS AND ENGINEERING



QK1805878



2018年1月

第47卷

1

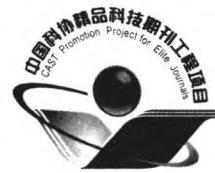


中国有色金属学会
中国材料研究学会
西北有色金属研究院
主办

科学出版社 出版



万方数据



主管单位

中国科学技术协会

主办单位

西北有色金属研究院 中国有色金属学会 中国材料研究学会

出版单位

科学出版社

月刊

国内外公开发行

第 47 卷

第 1 期

总第 378 期

2018 年 1 月

- 美国 SCI Expanded®, Research Alert®, Materials Science Citation Index®
收录期刊
- 美国工程索引 (EI) 文献源期刊
- 国家重点学术期刊
- 国家精品科技期刊
- 两届中国百强报刊
- 两届国家期刊奖
- 期刊数字影响力百强
- 国家数字出版示范单位
- 中国优秀科技期刊一等奖
- 首届中国科协优秀国际科技期刊奖
- 中国有色金属工业优秀科技期刊一等奖
- 全国有色金属优秀科技期刊一等奖
- 中国期刊方阵双奖期刊
- 中国最具国际影响力的学术期刊
- 中国权威学术期刊
- 陕西省首届“大报名刊工程”期刊
- 陕西省优秀科技期刊特等奖
- 陕西省科协精品科技期刊
- 陕西省第 2 届精品科技期刊
- 陕西省新闻出版行业文明单位
- 中国科技论文统计源期刊
- 中国科学引文数据库文献源
- 中文核心期刊
- 中国材料科学核心期刊
- 同方数据独家授权期刊
- 美国化学文摘 (CA) 文献源期刊
- 英国科学文摘 (INSPEC) 文献源期刊
- 日本科学技术文献速报 (JICST) 用刊
- 俄罗斯文摘杂志 (AJ) 文献源期刊
- 剑桥科学文摘 (CSA) 文献源期刊
- 美、英金属文摘 (MA) 文献源期刊
- 美国国会图书馆收藏刊物

目 次

材料科学

- Orientation Dependence of Low Cycle Fatigue Properties of a Ni-based Single Crystal Superalloy DD10 Fan Zhidong, Li Ji, Wang Dong *et al* (1)
- Thermal Stability of Fine-Crystal Cr-NbCr₂ Alloy Deng Liping, Lu Shiqiang, Tang Binbing (7)
- Microstructure and Formation Mechanism of in-Situ TiN-TiB₂/Ni Coating by Argon Arc Cladding Meng Junsheng, Ji Zesheng (13)
- Effect of Ultra-fine WC Particles on Microstructural Evolution and Wear Behavior of Ni-Based Nano-CeO₂ Coatings Produced by Laser Zhao Ning, Tao Li, Guo Hui *et al* (20)
- Formability of Thin-Walled Commercial Pure Titanium Tube upon Rotary Draw Bending Li Guangjun, Yang Heng, Xu Xudong *et al* (26)
- Finite Element Analysis of Surface Roughness Generated by Multiple Laser Shock Peening Zhu Ran, Zhang Yongkang, Sun Guifang *et al* (33)
- Age Hardening and Microstructure of ZA84 Magnesium Alloy with the Combined Addition of Cr and Bi Ye Jie, Lin Xiaoping, Dong Yun *et al* (39)
- Growth and Excellent Field Emission Properties of GaN Nanopencils and Nanotowers Cui Zhen, Li Enling (43)
- Density Enhancement for the Fabrication of Bi-2212 Superconducting Tapes Zhang Shengnan, Li Chengshan, Feng Jianqing *et al* (47)
- Microstructure and Joining Properties of High Nb-containing TiAl Alloy Brazed Joints Song Xiaoguo, Si Xiaoqing, Cao Jian *et al* (52)
- Microstructure Evolution of Si Nanocrystals in Si/C Multilayer Films Chang Gengrong, Liu Mingxia, Ma Fei *et al* (59)
- Growth Behavior Evolution of Al₂O₃ Deposited on HOPG by Atomic Layer Deposition Nie Xianglong, Ma Dayan, Ma Fei *et al* (64)
- Band Gap and Raman Shift of InN Grown on Si (100) by Radio-Frequency Sputtering Wang Xuewen, Li Tingting, Su Xingxing *et al* (69)
- Direct CW-Laser Writing Sub-Diffraction-Limit Nanopore Array Based on the Low One-Photon Absorption of Polymer Fan Lianbin, Zhang Chen, Li Hongfu *et al* (75)
- On the Pilger Rolling of Zr-4 Alloy: Finite Element Modeling and Plastic Deformation Behavior He Weijun, Yuan Gaihuan, Luan Baifeng *et al* (82)

XIYOU JINSHU CAILIAO YU GONGCHENG
稀有金属材料与工程



主管单位 中国科学技术协会
主办单位 西北有色金属研究院 中国有色金属学会
出版单位 科学出版社
月刊 国内外公开发行 第47卷 第1期 总第378期 2018年1月

- Thermoelectric Performance of Quaternary $Mg_2Si_{0.27}Ge_{0.05}Sn_{0.65}Sb_{0.03}$
Solid Solutions Du Zhengliang, Song Zhiliang, Lu Yufu et al (89)
- Microstructure and Properties of Mg-3Zn-0.2Ca Alloy for Biomedical Application Yang Min, Liu Debao, Zhang Runfang et al (93)
- Effects of H, O, P, S and N Impurities on the Plasticity Deformation Mechanism of Ni by First-Principles Calculations Li Chunxia, Dang Suihu, Wang Liping et al (99)
- α 相对高强韧 Ti-55531 合金强化及断裂机制的影响 潘 浩, 毛小南, 黄朝文等 (103)
- Ti-V 合金 hcp 结构弹性性质的第一原理研究 孙士阳, 徐平平, 候永红等 (108)
- 航空发动机叶片 TC4 材料的非线性累积损伤及可靠度研究 李炳强 (113)
- 高 Ca 含量 Mg-13Zn-0.5Nd 合金组织与力学性能 张代东, 蔡彦岑, 时小宝等 (119)
- 基于动态再结晶的铸态 AZ31B 镁合金本构方程 楚志兵, 张 锋, 马立峰等 (124)
- NaCl 含量对盐助燃烧合成超细硼化钨粉体相组成和粒度的影响及其作用机制 韩燚君, 董 鹏, 喇培清等 (131)
- Fe 对 Nb-16Si-22Ti-2Cr-2Al-2Hf 合金组织与高温压缩性能影响研究 褚 楚, 徐严谨, 韩宝帅等 (139)
- Ce 掺杂 Nd-Fe-B 永磁合金的结构及磁性能研究 汪元亮, 张国清, 黄有林等 (146)
- 苛刻环境中钛合金石油管材的抗腐蚀性能研究 高文平, 吕祥鸿, 谢俊峰等 (151)
- 金属原子 (Li/K) 掺杂对 NaMgH₃ 体系放氢性能影响的理论研究 陈玉红, 何开宙, 张梅玲等 (157)
- Al-6Mg-0.8Zn-0.5Mn-0.2Zr-0.2Er 合金低温力学性能与微观组织研究 刘 冉, 黄 晖, 马 俊等 (162)
- 55%SiCp/6061Al 复合材料与 PbO-ZnO-B₂O₃ 玻璃封接机理研究 许 磊, 陈志茹, 历长云等 (169)
- 电子束选区熔化成形 Ti6Al4V 和 316L 不锈钢叶轮体微观组织和力学性能的研究 周 斌, 张 婷, 林 峰等 (175)
- 基于 Calphad 方法计算钛合金 β 相转变温度 王树森, 林崇茂, 胡仁民等 (181)
- NbF₅ 前驱体化学气相沉积铌涂层的生长动力学 郑明珉, 谭成文, 于晓东等 (187)
- AlCrFeNiTi 高熵合金热稳定性的研究 农智升, 李宏宇, 王继杰 (191)

出版 辛学出版社
(北京市东黄城根北街 16 号, 100717)
编辑 《稀有金属材料与工程》编辑部
主编 张平祥
副主编 石应江
编辑部主任 李哲
责任编辑 蒲正利 刘延昌 谢曼
梁燕苑硕
英文编辑 齐国翠
编务 刘亚利
排版 王 嵘 杜亚凤
本期责任编辑 梁燕 蒲正利
印刷 西安创维印务有限责任公司
国内发行 中国邮政集团公司
陕西省报刊发行局
国内发行代号 52-172
国外发行 中国国际图书贸易有限公司
(北京市 399 信箱, 100048)
国外发行代号 M4873
编辑部地址 西安市 51 号信箱 710016
电 话 029-86231117
传 真 029-86231103
<http://www.rmme.ac.cn>
E-mail: rmme@c-nin.com
国内统一连续出版物号 CN 61-1154/TG
国际标准连续出版物号 ISSN 1002-185X
广告经营许可证号 6100004000085
国内外公开发行
定 价 100 元

XIYOU JINSHU CAILIAO YU GONGCHENG
稀有金属材料与工程



主管单位

中国科学技术协会

主办单位

西北有色金属研究院 中国有色金属学会 中国材料研究学会

出版单位

科学出版社

月刊

国内外公开发行

第 47 卷

第 1 期

总第 378 期

2018 年 1 月

- 3d 过渡金属掺杂对 $\text{Bi}_{0.8}\text{Ba}_{0.2}\text{FeO}_3$ 陶瓷多铁性能的影响研究 楚上杰, 张 铭, 邓浩亮等 (197)
微观相场法反演 $\text{Ni}_{0.75}\text{Al}_{1-\text{x}}\text{V}_{0.25-\text{x}}$ 合金的原子间相互作用势 董卫平, 王琳琳, 王晓明等 (201)
Mo-Nb 单晶的热变形行为及本构方程 张 文, 张平祥, 李来平等 (207)
 $\text{Fe}_{72-\text{x}}\text{Nd}_7\text{B}_{21}\text{Nb}_x$ ($\text{x}=0\sim 4.0$) 块体合金晶化过程和磁性能的研究 黄晓倩, 徐 晖, 谭晓华等 (214)
含有闭孔的镍基合金涂层微观结构及性能 丁坤英, 于建海 (219)
Si 对异步轧制 Cu/Al-Si 复合板界面组织及性能影响 刘国平, 王 平, 赵莹莹等 (223)
析出相对 AZ91 镁合金热轧板组织及边裂行为的影响 郑留伟, 聂慧慧, 梁 伟等 (229)
再结晶厚度对定向凝固 DZ125 合金蠕变性能的影响 曲彦平, 周金华, 于兴福等 (235)
 Lu_2O_3 电子结构及物理性质的第一性原理研究 陈晶晶, 惠 群, 邵栋元等 (242)
氟化钾对 AZ91D 镁合金微弧氧化膜的生长及微观结构的影响 董海荣, 马 颖, 王 晟等 (249)
单晶铱纳米压痕下位错形核与形变研究 耿振博, 李双明, 钟 宏等 (255)
镍基高温合金长期时效后元素分布规律研究 黄彦彦, 周青华, 刘 青等 (261)
添加 Cu 对 Ti-16.28Si 合金高温抗氧化行为的影响 刘庆辉, 许晓静, 戈晓岚等 (267)

材料工艺

- 热氧化 TC4 合金在 CO_2 饱和模拟油田采出液中的电化学腐蚀行为 林乃明, 邹娇娟, 王振霞等 (274)
 CaCl_2 作为造孔剂制备泡沫青铜的结构和力学性能 谢 波, 周 芸, 郭坤山等 (279)
形变热处理对 Cu-15Ni-8Sn 系合金组织结构与性能的影响 邢 岩, 李 周, 甘雪萍等 (286)
 $\text{Ti}_2\text{Ni}/\text{TiNi}$ 微叠层复合材料的制备及表征 张由景, 程兴旺, 周士猛等 (293)
电镀阻隔层对钛/钢电子束焊接接头性能的影响 王亚荣, 樊亚丽, 余 洋 (299)
基于 Cu 表面原位制备高熵合金涂层的研究 李智龙, 侯利锋, 卫 欢等 (305)
时效处理对 7N01 铝合金高温动态力学性能与组织演化的影响 刘文辉, 邱 群, 周 凡等 (311)
高速撞击 $\text{Ti}_{44}\text{Ni}_{47}\text{Nb}_9$ 合金相变行为及力学性能研究 朱莹莹, 王海振, 闻光远等 (317)
冷却方式对 BT25y 钛合金显微组织和拉伸性能的影响 张 谦, 陈立佳, 赵子博等 (321)
TC4 合金蜂窝冰固持低温铣削研究 王凤彪, 侯 博, 袁 凯等 (326)
纳米锑颗粒粒径对润滑油摩擦性能的影响 徐建林, 淡小敏, 文 琛等 (333)
硝酸腐蚀对等离子喷涂 YAG:Ce 涂层发光性能的影响 曾 鹏, 王卫泽, 王和慧等 (339)
废旧锂离子电池中 Li, Fe 和 V 的回收及 $x\text{LiFePO}_4\text{-}y\text{Li}_3\text{V}_2(\text{PO}_4)_3$ 的制备 郑茹娟, 刘元龙, 马全新等 (344)
硼硅共渗增强激光重熔 Ni 基 WC 喷焊层耐磨性的研究 杨立军, 代文豪, 党新安 (351)
AZ31 镁合金无缝管斜轧穿孔新工艺研究 丁小凤, 双远华, 王清华等 (357)
温度对 U-5.7Nb 合金动态压缩力学性能影响研究 肖大武, 何立峰, 邱志聪等 (363)
化学镀锡钎料钎焊黄铜的接头组织和力学性能 王星星, 王 博, 韩林山等 (367)
SPS 制备 NiTi 表面多孔梯度合金的组织演变与力学性能研究 栗 智, 张 磊, 孟增东等 (371)
单晶 6H-SiC 经氮离子辐照及退火后的微观组织研究 李瑞祥, 周 韦, 冉 广等 (378)
直接乙醇燃料电池阳极催化剂 Pt-CeO₂/C 的制备与性能表征 郭瑞华, 张捷宇, 周国治等 (383)
 TiNiB 复合钎料钎焊 Ti_2AlNb 基合金接头微观组织及性能 焦 曼, 王 颖, 杨振文等 (389)

综合评述

- 双相材料微观变形行为研究综述 陈国兴, 彭 艳, 刘才溢等 (396)
医用可降解镁合金抗菌性、溶血以及生物相容性的研究进展 林正捷, 赵 颖, 张志雄等 (403)

RARE METAL MATERIALS AND ENGINEERING

This publication is covered in SCI Expanded®, Research Alert®, and Materials Science Citation Index®

Monthly, International Scholarly Journal, ISSN 1002-185X Vol. 47 No. 1 Sum 378 January 2018

CONTENTS

Materials Science

- Orientation Dependence of Low Cycle Fatigue Properties of a Ni-based Single Crystal Superalloy DD10.....Fan Zhidong, Li Ji, Wang Dong *et al* (1)
- Thermal Stability of Fine-Crystal Cr-NbCr₂ AlloyDeng Liping, Lu Shiqiang, Tang Binbing (7)
- Microstructure and Formation Mechanism of in-Situ TiN-TiB₂/Ni Coating by Argon Arc Cladding.....Meng Junsheng, Ji Zesheng (13)
- Effect of Ultra-fine WC Particles on Microstructural Evolution and Wear Behavior of Ni-Based Nano-CeO₂ Coatings Produced by LaserZhao Ning, Tao Li, Guo Hui *et al* (20)
- Formability of Thin-Walled Commercial Pure Titanium Tube upon Rotary Draw Bending.....Li Guangjun, Yang Heng, Xu Xudong *et al* (26)
- Finite Element Analysis of Surface Roughness Generated by Multiple Laser Shock Peening.....Zhu Ran, Zhang Yongkang, Sun Guifang *et al* (33)
- Age Hardening and Microstructure of ZA84 Magnesium Alloy with the Combined Addition of Cr and Bi.....Ye Jie, Lin Xiaoping, Dong Yun *et al* (39)
- Growth and Excellent Field Emission Properties of GaN Nanopencils and Nanotowers.....Cui Zhen, Li Enling (43)
- Density Enhancement for the Fabrication of Bi-2212 Superconducting TapesZhang Shengnan, Li Chengshan, Feng Jianqing *et al* (47)
- Microstructure and Joining Properties of High Nb-containing TiAl Alloy Brazed Joints.....Song Xiaoguo, Si Xiaoqing, Cao Jian *et al* (52)
- Microstructure Evolution of Si Nanocrystals in Si/C Multilayer FilmsChang Gengrong, Liu Mingxia, Ma Fei *et al* (59)
- Growth Behavior Evolution of Al₂O₃ Deposited on HOPG by Atomic Layer Deposition.....Nie Xianglong, Ma Dayan, Ma Fei *et al* (64)
- Band Gap and Raman Shift of InN Grown on Si (100) by Radio-Frequency Sputtering.....Wang Xuewen, Li Tingting, Su Xingxing *et al* (69)
- Direct CW-Laser Writing Sub-Diffraction-Limit Nanopore Array Based on the Low One-Photon Absorption of PolymerFan Lianbin, Zhang Chen, Li Hongfu *et al* (75)
- On the Pilger Rolling of Zr-4 Alloy: Finite Element Modeling and Plastic Deformation BehaviorHe Weijun, Yuan Gaihuan, Luan Baifeng *et al* (82)
- Thermoelectric Performance of Quaternary Mg₂Si_{0.27}Ge_{0.05}Sn_{0.65}Sb_{0.03} Solid Solutions.....Du Zhengliang, Song Zhiliang, Lu Yufu *et al* (89)
- Microstructure and Properties of Mg-3Zn-0.2Ca Alloy for Biomedical Application.....Yang Min, Liu Debao, Zhang Runfang *et al* (93)
- Effects of H, O, P, S and N Impurities on the Plasticity Deformation Mechanism of Ni by First-Principles CalculationsLi Chunxia, Dang Suihu, Wang Liping *et al* (99)
- Influence of α Phase on Strengthening and Fracture Mechanisms of High Strength-Toughness Ti-55531 AlloyPan Hao, Mao Xiaonan, Huang Chaowen *et al* (103)
- First-principles Study on the Elastic Properties of hcp Phase Ti-V AlloySun Shiyang, Xu Pingping, Hou Yonghong *et al* (108)

This Journal is covered in SCI Expanded®, Research Alert®, Materials Science Citation Index® (MSCI); Engineering Index (EI); Chemical Abstracts (CA); Abstracts Journal (AJ); INSPEC; JICST; Cambridge Scientific Abstracts (CSA); Metals Abstracts (MA); World Aluminum Abstracts; Chinese Scientific and Technical Papers and Citations (CSTPC); Chinese Science Citation Index (CSCI).

Administered by China Association for Science and Technology

Sponsored by Northwest Institute for Nonferrous Metal Research, the Nonferrous Metals Society of China, Chinese Materials Research Society

Published by Science Press
(16 Donghuangchenggen North Street, Beijing 100717, China)

Edited by Rare Metal Materials and Engineering Press

Editor in Chief: Zhang Pingxiang

Address: P. O. Box 51, Xi'an, Shaanxi, 710016, China

Tel: 0086-29-86231117

Fax: 0086-29-86231103

http: //www.rmme.ac.cn

E-mail: rmme@c-nin.com

Overseas Distributor: China International Book Trade Corporation
(P. O. Box 399, Beijing 100048, China)

Overseas Annual Subscription Rate: USD300

RARE METAL MATERIALS AND ENGINEERING

This publication is covered in SCI Expanded®, Research Alert®, and Materials Science Citation Index®

Monthly, International Scholarly Journal, ISSN 1002-185X Vol. 47 No. 1 Sum 378 January 2018

Nonlinear Accumulated Damage and Reliability Research of TC4 Material Used in Aero-engine Blades.....	Li Bingqiang (113)
Effect of High Ca Content on Microstructure and Mechanical Property of Mg-13Zn-0.5Nd Alloy	Zhang Daidong, Cai Yancen, Shi Xiaobao <i>et al</i> (119)
Constitutive Equation of As-cast AZ31B Magnesium Alloy Based on Dynamic Recrystallization	Chu Zhibing, Zhang Duo, Ma Lifeng <i>et al</i> (124)
Effect and Mechanism of NaCl Content on Phase and Size of Submicron Tungsten Boride Powders by Salt-assisted Combustion Synthesis.....	Han Yijun, Dong Peng, La Peiqing <i>et al</i> (131)
Effects of Fe on Microstructures and High-Temperature Compressive Mechanical Properties of Nb-16Si-22Ti-2Cr-2Al-2Hf Based Alloy.....	Chu Chu, Xu Yanjin, Han Baoshuai <i>et al</i> (139)
Effects of Ce Doping on the Structure and Magnetic Properties for Nd-Fe-B Alloy	Wang Yuanliang, Zhang Guoqing, Huang Youlin <i>et al</i> (146)
Corrosion Resistance of Titanium Alloy OCTG in Severe Environment.....	Gao Wenping, Lv Xianghong, Xie Junfeng <i>et al</i> (151)
Theoretical Study on the Dehydrogenation from NaMgH ₃ by Metal(Li/K) Doping	Chen Yuhong, He Kaizhou, Zhang Meiling <i>et al</i> (157)
Mechanical Properties at Low Temperature and Microstructure of Al-6Mg-0.8Zn-0.5Mn-0.2Zr-0.2Er Alloy	Liu Ran, Huang Hui, Ma Jun <i>et al</i> (162)
Sealing Mechanism of Interface between 55%SiCp/6061Al Composite Materials and PbO-ZnO-B ₂ O ₃ Glass	Xu Lei, Chen Zhiru, Li Changyun <i>et al</i> (169)
Microstructures and Mechanical Properties of Ti6Al4V and 316L Stainless Steel Impeller Body Made by Electron Beam Selective Melting.....	Zhou Bin, Zhang Ting, Lin Feng <i>et al</i> (175)
Calculation of Beta Transus Temperature of Titanium Alloys by Calphad Method	Wang Shusen, Lin Chongmao, Hu Renmin <i>et al</i> (181)
Growth Kinetics of Niobium Coating Prepared by CVD from NbF ₅	Zheng Mingmin, Tan Chengwen, Yu Xiaodong <i>et al</i> (187)
Thermal Stability of AlCrFeNiTi High Entropy Alloy.....	Nong Zhisheng, Li Hongyu, Wang Jijie (191)
Effect of 3 d Transition Metal Doping on Multiferroic Properties of Bi _{0.8} Ba _{0.2} FeO ₃ Ceramics	Chu Shangjie, Zhang Ming, Deng Haoliang <i>et al</i> (197)
Inversion of the Interatomic Potential in Ni _{0.75} Al _x V _{0.25-x} Alloy by Microscopic Phase-Field Simulation	Dong Weiping, Wang Linlin, Wang Xiaoming <i>et al</i> (201)
Hot Deformation Behavior and Constitutive Equation of Mo-Nb Single Crystals	Zhang Wen, Zhang Pingxiang, Li Laiping <i>et al</i> (207)
Crystallization and Magnetic Properties in Fe _{72-x} Nd ₇ B ₂₁ Nb _x (x=0~4.0) Bulk Alloys	Huang Xiaoqian, Xu Hui , Tan Xiaohua <i>et al</i> (214)
Microstructures and Properties of Porous Ni-based Coatings.....	Ding Kunying , Yu Jianhai (219)
Silicon on Microstructure and Mechanical Properties of Asymmetric Roll Bonded Cu/Al-Si Alloy Clads	Liu Guoping, Wang Ping, Zhao Yingying <i>et al</i> (223)
Effects of Precipitated Phase on Microstructure and Edge Crack Behavior of Hot Rolled AZ91 Magnesium Alloy Plate	Zheng Liuwei, Nie Huihui, Liang Wei <i>et al</i> (229)
Effect of Recrystallization Thickness on Creep Properties of Directionally Solidified DZ125 Alloy	Qu Yanping, Zhou Jinhua, Yu Xingfu <i>et al</i> (235)
Electronic Structure and Physical Properties of Lu ₂ O ₃ : A First Principles Study	Chen Jingjing, Hui Qun, Shao Dongyuan <i>et al</i> (242)
Effect of Potassium Fluoride on Growth and Microstructure of MAO Coatings on AZ91D Magnesium Alloys	Dong Hairong, Ma Ying, Wang Sheng <i>et al</i> (249)
Dislocation Nucleation and Room Temperature Deformation of Single Crystal Iridium	Geng Zhenbo, Li Shuangming, Zhong Hong <i>et al</i> (255)
Distribution of Alloying Elements in a Ni-based Superalloy after Long-time Aging	Huang Yanyan, Zhou Qinghua, Liu Qing <i>et al</i> (261)
Effect of Cu Addition on High Temperature Oxidation Behavior of Ti-16.28Si Alloy	Liu Qinghui, Xu Xiaojing, Ge Xiaolan <i>et al</i> (267)

RARE METAL MATERIALS AND ENGINEERING

This publication is covered in SCI Expanded®, Research Alert®, and Materials Science Citation Index®

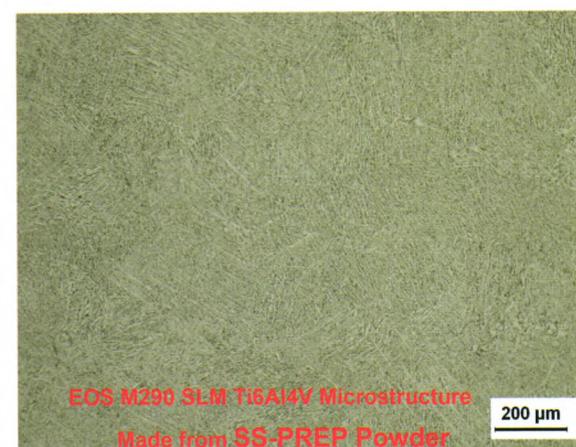
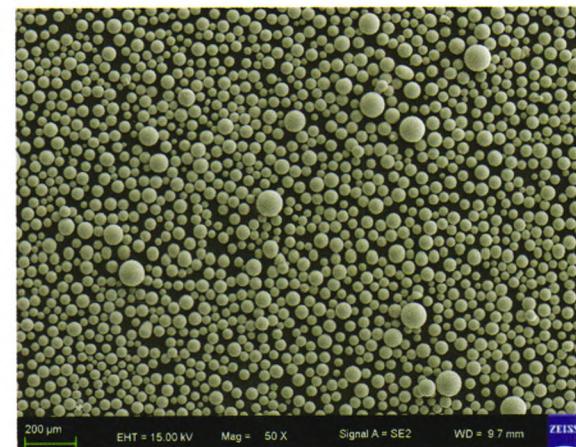
Monthly, International Scholarly Journal, ISSN 1002-185X Vol. 47 No. 1 Sum 378 January 2018

Materials Technology

- Electrochemical Corrosion Behavior of Thermally Oxidized TC4 Alloy in CO₂-saturated Simulated Oilfield Brine Lin Naiming, Zou Jiaojuan, Wang Zhenxia *et al* (274)
- Microstructure and Mechanical Properties of Bronze Foams Prepared Using CaCl₂ as Space Holder Xie Bo, Zhou Yun, Guo Kunshan *et al* (279)
- Effect of Thermo-mechanical Treatment on Microstructure and Properties of Cu-15Ni-8Sn Alloy Xing Yan, Li Zhou, Gan Xueping *et al* (286)
- Synthesis and Characterization of a Ti₂Ni/TiNi Micro-laminated Composite Zhang Youjing, Cheng Xingwang, Zhou Shimeng *et al* (293)
- Effect of Isolation Coatings on Mechanical Property of Electron Beam Welding Joint of Titanium Alloy to Stainless-steel Wang Yarong, Fan Yali, Yu Yang (299)
- In-situ Synthesis of High Entropy Alloy Coating on Copper Surface Using Mechanical Alloying Method Li Zhilong, Hou Lifeng, Wei Huan *et al* (305)
- Effects of Aging Treatments on the Dynamic Mechanical Properties and Microstructure Evolution of 7N01 Aluminum Alloy at High Temperature Liu Wenhui, Qiu Qun, Zhou Fan *et al* (311)
- Phase Transformation and Mechanical Properties of Ti₄₄Ni₄₇Nb₉ Alloy after High-velocity Impact Zhu Yingying, Wang Haizhen, Wen Guangyuan *et al* (317)
- Influence of Cooling Method on Microstructure and Tensile Properties of BT25y Titanium Alloy Zhang Xiao, Chen Lijia, Zhao Zibo *et al* (321)
- Cryogenic Milling of TC4 Alloy Honeycomb in Ice Fixation Wang Fengbiao, Hou Bo, Yuan Kai *et al* (326)
- Effect of Particle Size of Antimony Nanoparticles on Tribological Properties of Lubricant Oil Xu Jianlin, Dan Xiaomin, Wen Chen *et al* (333)
- Effect of Nitric Acid Corrosion on the Luminescent Intensity of Plasma Sprayed YAG:Ce Coatings Zeng Peng, Wang Weize, Wang Hehui *et al* (339)
- Recovery of Li, Fe and V from Spent Lithium Ion Batteries and Preparation of xLiFePO₄-yLi₃V₂(PO₄)₃ Zheng Ruijuan, Liu Yuanlong, Ma Quanxin *et al* (344)
- Wear Resistance of Laser Remelting Ni Based WC Spray Welding Layer Reinforced by Borosiliconizing Yang Lijun, Dai Wenhao, Dang Xin'an (351)
- New Rotary Piercing Technique of AZ31 Magnesium Alloy Seamless Tube Ding Xiaofeng, Shuang Yuanhua, Wang Qinghua *et al* (357)
- Dynamic Compression Behavior of U-5.7Nb Alloy at Elevated Temperatures Xiao Dawu, He Lifeng, Qiu Zhicong *et al* (363)
- Effect of Brazing Alloys with Electroless Plated Tin on Microstructure and Mechanical Properties of Brass Braze Joints Wang Xingxing, Wang Bo, Han Linshan *et al* (367)
- Microstructure Evolution and Mechanical Properties of Porous Surface NiTi Gradient Alloy Prepared by Spark Plasma Sintering Li Zhi, Zhang Lei, Meng Zengdong *et al* (371)
- Microstructural Investigation of Single Crystal 6H-SiC Irradiated by He⁺ Ions and Annealed after Post-irradiation Li Ruixiang, Zhou Wei, Ran Guang *et al* (378)
- Preparation and Characterization of Pt-CeO₂/C as Catalyst for Direct Ethanol Fuel Cell Guo Ruihua, Zhang Jieyu, Zhou Guozhi *et al* (383)
- Interfacial Microstructure and Properties of Ti₂AlNb Joints Brazed with TiNiB Composite Filler Metal Jiao Man, Wang Ying, Yang Zhenwen *et al* (389)

Reviews

- Research Overview on Micro Deformation Behavior of Dual-phase Material Chen Guoxing, Peng Yan, Liu Caiyi *et al* (396)
- Antibacterial Properties, Hemolysis and Biocompatibility of Biodegradable Medical Magnesium Alloys Lin Zhengjie, Zhao Ying, Zhang Zhixiong *et al* (403)



西安欧中材料科技有限公司

Sino-Euro Materials Technologies of Xi'an Co.,Ltd.

西安欧中材料科技有限公司隶属于西北有色金属研究院(集团)，专业从事金属球形粉末生产的高新技术企业，注册资本6000万元。公司引进国外成套等离子旋转电极制粉生产线，获授权国家专利10余项，主要致力于钛合金、高温合金、钴铬合金、特种不锈钢及难熔金属球形粉末的研发、生产和销售，产品主要应用于航空航天、金属增材制造、生物医疗等领域。

西安欧中材料科技有限公司已被西安市认定为高新技术企业，通过ISO9001质量体系认证、AS9100航空航天质量管理体系认证、ISO13485医疗器械体系认证。

SMT PREP Powder

Standard Spherical Powder Products

CP Titanium
Ti-6Al-4V Grade 5 & 23
Ti-6Al-4V 800ppm
BT20(TA15), Ti-6Al-7Nb
Maraging steel, Stainless steel
In625, In718, Hastelloy X
EP741NP
Co-Cr-W, Co-Cr-Mo

Customized Spherical Powder Products

Tantalum
Vanadium
TiAl, Ti₂AlNb
Specialty steel(AF1410, AeroMet 100)

地址：陕西省西安市凤城二路45号

电话：029-86261802

传真：029-86261802

邮箱：market@c-semt.com

网址：www.c-semt.com



ISSN 1002-185X
CN 61-1154/TG

