

# 热 喷 涂 技 术

( Re Pen Tu Ji Shu )

2017 年 9 月

第 9 卷

第 3 期

## 目 次

### \*材料与涂层性能\*

- Fe<sub>2</sub>O<sub>3</sub> 含量对 YSZ 热障涂层抗热震性能的影响研究 ..... 冀晓鹃，魏雨岛，于月光，彭浩然，贾芳 (1)  
Mn-Co 尖晶石涂层对铁素体不锈钢的高温防护 ..... 胡莹珍，李成新，张山林，李长久，杨冠军 (8)  
镍铬铁铝氮化硼可磨耗封严涂层与 Ti<sub>2</sub>AlNb 基材及叶片的匹配性研究  
..... 杨晓剑，程旭莹，刘通，刘建明，章德铭，沈婕 (21)  
等离子喷涂 WC-CrC-Ni 涂层与 WC-12Co 涂层的性能研究 ..... 宋长虹，高峰，白智辉 (26)  
低压等离子喷涂锰酸镧镍热控涂层性能研究 ..... 彭浩然，冀晓鹃，张鑫，贾芳，章德铭 (31)  
真空冷喷涂致密 Al<sub>2</sub>O<sub>3</sub> 陶瓷涂层微观结构的研究  
..... 王丽爽，周恒福，李成新，王豫跃，杨冠军，雒晓涛，李长久 (36)  
氧化铝钛涂层的制备对 TC17 钛合金性能的影响研究  
..... 冀晓鹃，彭浩然，侯伟骜，张鑫，杨永琦，任先京 (46)  
喷雾干燥法制备球形喷涂钼粉及烧结工艺的研究 ..... 陈美英，周小彬，王芦燕，张鑫，李曹兵 (51)

### \*其它\*

- 选区激光熔化 GH4169 粉体特性及成型件组织结构的研究

- ..... 尹燕，刘鹏宇，路超，蔡伟军，肖梦智，张瑞华，屈岳波 (56)  
激光电弧复合焊接用于 27SiMn 板材焊接的工艺研究 ..... 刘虎，宋其，王亚文，杜学芸，澹台凡亮 (63)

### \*译文\*

- 涂层沉积过程对镍基高温合金和 MCrAlY 粘结涂层互扩散行为的影响

- ..... M. Elsaß , M. Frommherz , M. Oechsner ( 杜开平译 , 张淑婷校 ) ( 69 )

---

主管单位 中国有色金属工业协会

主办单位 北京矿冶研究总院

编辑出版 北京矿冶研究总院《热喷涂技术》编辑部

印 刷 廊坊海翔印刷有限公司

发 行 《热喷涂技术》编辑部

地 址 北京市昌平区沙河富生路 5 号

邮 编 102206

电 话 010-80723077

邮 箱 ts\_technology@163.com

---

期刊基本参数：

CN11-5828/TF\*2017\*q\*16\*68\*zh\*P\* ￥10.00\*3000\*09\*2017-03

国际标准刊号 ISSN 1674-7127

国内统一刊号 CN11-5828/TF

万方数据

# THERMAL SPRAY TECHNOLOGY

Vol.9

No.3

Sep., 2017

## CONTENTS

### \*Materials & Coatings Properties\*

- Effect of Fe<sub>2</sub>O<sub>3</sub> Content on Thermal Shock Resistance of YSZ Thermal Barrier Coatings  
.....JI Xiao-juan , WEI Yu-dao , YU Yue-guang , PENG Hao-ran , JIA Fang(1)
- Mn-Co Spinel Coating for Protection of Ferretic Stainless Steel from High-temperature Oxidation  
.....HU Ying-zhen , LI Cheng-xin , ZHANG Shan-lin , LI Chang-jiu , YANG Guan-jun(8)
- Study on Matchability of NiCrFeAl/BN Abradable Sealing Coating with Ti<sub>2</sub>AlNb Substrate and Blade  
.....YANG Xiao-jian , CHENG Xu-ying , LIU Tong , LIU Jian-ming , ZHANG De-ming , SHEN Jie(21)
- Reserch on Performance of WC-CrC-Ni Coating and WC-12Co Coating Produced by APS  
.....SONG CHang-hong , GAO Feng , BAI Zhi-hui(26)
- Study on Property of La<sub>1-x</sub>Sr<sub>x</sub>MnO<sub>3</sub> Thermal Control Coating by Low Pressure Plasma Spraying  
.....PENG Hao-ran , JI Xiao-juan , ZHANG Xin , JIA-Fang , ZHANG De-ming(31)
- Characterization of the Microstructure of Al<sub>2</sub>O<sub>3</sub> Coating Deposited by Vacuum Cold Spray  
... WANG Li-shuang , ZHOU Heng-fu , LI Cheng-xin , WANG Yu-yue , YANG Guan-jun , LUO Xiao-tao , LI Chang-jiu(36)
- Effect of Preparation of Alumina Titanium Coating on Properties of TC17 Titanium Alloy  
.....JI Xiao-juan , PENG Hao-ran , HOU Wei-ao , ZHANG Xin , YANG Yong-qi , REN Xian-jing(46)
- Study on Fabrication of Spherical Thermal Spraying Molybdenum Powders by Spray Drying and Sintering Process  
.....CHEN Mei-ying , ZHOU Xiao-bin , WANG Lu-yan , ZHANG xin , LI Cao-bing(51)

### \*Others\*

- Study on the Characteristics of GH4169 Powder and the Microstructure of Molded Parts  
.....YIN Yan , LIU Peng-yu , LU Chao , CAI Wei-jun , XIAO Meng-zhi , ZHANG Rui-hua , QU Yue-bo(56)
- The Study on Process of Laser Arc Hybrid Welding to 27SiMn Plate  
.....LIU Hu , SONG Qi-wei , WANG Ya-wen , DU Xue-yun , TANTAI Fan-liang(63)

### \*Translation\*

- The Influence of the Coating Deposition Process on the Interdiffusion Behavior between Nickel-based Superalloys and MCrAlY Bond Coats.....M. Elsaß , M. Frommherz , M. Oechsner , Darmstadt/D(69)

---

**Responsible Institution:** China Nonferrous Metals Industry

**Sponsored by** Beijing General Research Institute of Mining, Metallurgy

**Edited & Published by** Editorial Department of Thermal Spray Technology of Beijing General Research Institute of Mining& Metallurgy

**Distributed by** Editorial Department of Thermal Spray Technology

**ADD:** Shahe, Fushengroad, Changping District, Beijing 102206, China

**Email:** ts\_technology@163.com

---