

中国表面工程

ZHONGGUO BIAOMIAN GONGCHENG

2016年12月(双月刊) 第29卷第6期(总第141期)

目 次

【表面工程研究】

- 微组织车刀制备与SUS304钢高速微车削试验 于占江, 蔡倩倩, 王星星, 许金凯, 于化东 (1)
- 表面硅颗粒整形对高硅铝合金缸套摩擦磨损性能的影响 李承娣, 徐佳子, 沈岩, 金梅, 徐久军 (8)
- 超声强化2D12铝合金疲劳断裂过程的微观分析 回丽, 杨林青, 王磊, 许良, 周松 (15)
- 42CrMo钢等离子氮化和水射流喷丸复合处理 范航京, 梁益龙, 邹雄, 杜需轩, 胡君杰, 杨明 (23)
- GCr15钢气体渗氮+淬火复合处理及干摩擦行为 张国松, 崔洪芝, 程贵勤 (30)
- 空气预氧化与盐浴预氧化对盐浴渗氮催渗效果的对比 戴明阳, 魏坤霞, 陈尧, 宋仁国, 孙斐, 胡静 (38)
- 机械能助Al-Zn-Cr共渗工艺及渗层组织 何祖新, 苏旭平, 彭浩平, 刘亚, 吴长军, 涂浩 (44)
- 铬掺杂碳基自润滑薄膜与铝合金的高温磨损机理 梁斐珂, 孙德恩, 陈思琦, 黄佳木, 裴晨蕊 (52)
- 基体偏压对电弧离子镀AlCrSiON涂层结构和热稳定性的影响 耿东森, 吴正涛, 聂志伟, 黎海旭, 张小波, 代伟, 王启民 (60)
- Ti、Cr元素在Cr₂O₃薄膜中的扩散及其对摩擦学性能的影响 何乃如, 王飞飞, 吉利, 李红轩, 陈建敏 (67)
- 金刚石薄膜涂层扇形孔绞线紧压模的制备、抛光及应用 王新昶, 王成川, 孙方宏 (75)

纯镁超声微弧氧化-植酸-镀锌生物膜层的制备与抗菌性	刘继光, 宋稼岐, 李慕勤, 靳朋礼, 魏方红 (83)
银石墨复合镀层的摩擦磨损性能和导电能力	赵生光, 夏延秋, 陈俊寰, 叶志国 (90)
不同催化剂对镁合金表面 $\text{SiO}_2\text{-ZrO}_2$ 涂层耐蚀性的影响	郭亚鑫, 华帅, 陶庆爽, 范爱兰, 唐宾 (99)
等离子喷涂 $\text{Li}_{0.5}\text{Fe}_{2.5}\text{O}_4$ 防护涂层及其表征	祝志祥, 韩钰, 陈新, 马壮, 杨长龙, 张宏宇 (107)
轴向压力对 X65 合金钢摩擦堆焊层组织和磨损性能的影响	张旭, 杨新岐, 崔雷, 杜波 (113)
重载条件下钢基体表面涂层裂纹及分层失效	邹梦杰, 石万凯, 肖洋轶, 杨槐峰 (123)
机械诱导金属表面再生层性能分析	黄书林, 杨屹, 杨刚, 刘剑, 周宇 (129)
【中国学者海外论文摘要】	
离子注入碳化硅实现低温下外延合成石墨烯	张瑞 (136)
【应用实例】	
[例 47] 激光选区熔化技术 3D 打印模具钢工艺及应用	魏青松 (封二)
【本刊讯】	
《中国表面工程》新增 3 篇论文入选“领跑者 5000——中国精品科技期刊顶尖学术论文”	(51)
《中国表面工程》被《日本科学技术振兴机构(中国)数据库》(JSTChina) 收录	(59)
《中国表面工程》第五届编委会换届会议在成都圆满召开	(66)
《中国表面工程》关于参考文献著录的要求	(74)
《中国表面工程》征稿启事	(137)
中国机械工程学会 2017 联合征订	(138)
《中国表面工程》第五届编委会	(封三)
《中国表面工程》第四届理事会	(封三)
《中国表面工程》第 29 卷(2016 年)总目次	(I)

CHINA SURFACE ENGINEERING

Vol. 29 No. 6 (Sum 141)

(Bimonthly)

December 2016

CONTENTS

• Surface Engineering Research •

Preparation of Micro-textured Turning Tools and High Speed Micro Turning Test of SUS304 Steel

..... YU Zhan-jiang, CAI Qian-qian, WANG Xing-xing, XU Jin-kai, YU Hua-dong (1)

Effects of Shaping Silicon Particles on Friction and Wear Properties of Al-Si Alloy Plated Cylinder Liner

..... LI Cheng-di, XU Jia-zi, SHEN Yan, JIN Mei, XU Jiu-jun (8)

Micro-analysis of Fatigue Behavior in Ultrasonic Strengthened 2D12 Aluminum Alloy

..... HUI Li, YANG Lin-qing, WANG Lei, XU Liang, ZHOU Song (15)

Composite Treatment of Water Jet Shot Peening Combined with Plasma Nitriding on 42CrMo Steel

..... FAN Hang-jing, LIANG Yi-long, ZOU Xiong, DU Pei-xuan, HU Jun-jie, YANG Ming (23)

Friction and Wear Behaviors of Gas Nitriding and Quenching Compound Treatment of GCr15 Steels

..... ZHANG Guo-song, CUI Hong-zhi, CHENG Gui-qin (30)

Comparision of Enhancement Effect Between Air Pre-oxidation and Salt Bath Pre-oxidation on Salt Bath Nitriding

..... DAI Ming-yang, WEI Kun-xia, CHEN Yao, SONG Ren-guo, SUN Fei, HU Jing (38)

Al-Zn-Cr Diffusion Process Aided by Mechanical Energy and Microstructure of Alloying Layer

..... HE Zu-xin, SU Xu-ping, PENG Hao-ping, LIU Ya, WU Chang-jun, TU Hao (44)

High Temperature Wear Mechanism of Chromium Doped Carbon-based Self-lubrication Thin Films Against Aluminum Alloy

..... LIANG Fei-ke, SUN De-en, CHEN Si-qi, HUANG Jia-mu, PEI Chen-rui (52)

Influence of Substrate Bias on Microstructure and Thermal Stability of AlCrSiON Coatings Deposited by Arc Ion Plating

..... GENG Dong-sen, WU Zheng-tao, NIE Zhi-wei, LI Hai-xu, ZHANG Xiao-bo, DAI Wei, WANG Qi-min (60)

Diffusion Behavior of Ti and Cr Elements in Cr₂O₃ Film and Its Influence on Tribological Properties

..... HE Nai-ru, WANG Fei-fei, JI Li, LI Hong-xuan, CHEN Jian-min (67)

Fabrication, Polishing and Application of Diamond Coated Compacting Die with Sector-shaped Hole

..... WANG Xin-chang, WANG Cheng-chuan, SUN Fang-hong (75)

Antibacterial Properties of Pure Magnesium Made on Biological Film Treated by Ultrasonic Micro-arc Oxidation Phytic Acid with Chemical Galvanizing	..... LIU Ji-guang, SONG Jia-qí, LI Mu-qin, JIN Peng-li, WEI Fang-hong (83)
Conductivity and Tribological Properties of Ag-graphite Composite Coating Based on Copper Substrate	..... ZHAO Sheng-guang, XIA Yan-qiu, CHEN Jun-huan, YE Zhi-guo (90)
Effects of Different Catalysts on Corrosion Behavior of SiO₂-ZrO₂ Layers on Magnesium Alloy	..... GUO Ya-xin, HUA Shuai, TAO Qing-shuang, FAN Ai-lan, TANG Bin (99)
Preparation and Characterization of Li_{0.5}Fe_{2.5}O₄ Coatings by Plasma Spraying Process	..... ZHU Zhi-xiang, HAN Yu, CHEN Xin, MA Zhuang, YANG Chang-long, ZHANG Hong-yu (107)
Axial Pressure Effects on Microstructure and Wear Resistance During Friction Surfacing of X65 Alloy Steel	..... ZHANG Xu, YANG Xin-qi, CUI Lei, DU Bo (113)
Cracking and Interfacial Delamination in Coated Steel Under Heavy Load Conditions	..... ZOU Meng-jie, SHI Wan-kai, XIAO Yang-yi, YANG Huai-feng (123)
Performance Analysis on Restoration Layer of Metallic Surface Induced by Machinery	..... HUANG Shu-lin, YANG Yi, YANG Gang, LIU Jian, ZHOU Yu (129)
• Abstract of Overseas Articles by Chinese Scholar •	
Graphene Synthesis on SiC at Reduced Graphitization Temperature by Ion Implantation	..... ZHANG Rui (136)
• Applications •	
[Example 47] Selective Laser Melting Technology and Application of 3D Printing Steel	..... WEI Qingsong (inside front cover)
Total Content of <i>China Surface Engineering</i> (Volume 29, 2016)	..... (I)