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主要研究方向

金属表面原位自生陶瓷涂层新材料制备技术与工程应用
金属特异性表面的生物活性设计与改性涂层新材料
航空航天器表面特种防护复合涂层技术及环境损伤行为
新型多层多相复合涂层新材料构建技术与疲劳损伤机制
储能材料与环保节能陶瓷涂层材料

社会兼职

黑龙江省表面工程学会副秘书长

哈尔滨市材料热处理与表面工程青年工作委员会副主任

中国材料研究学会会员

国家自然科学基金通讯评审人

国际杂志 Surface & Coatings Technology, Applied Surface Science, Journal of Materials Science, Scripta Materialia, Materials Science & Engineering A, Electrochemistry Communications, Composite Interfaces, Journal of Alloys and Compounds 等通讯审稿人

主要学术成果

1. 代表性论文

- [1] Y.M. Wang, L.X. Guo, J.H. Ouyang, Y. Zhou, D.C. Jia. Interface adhesion properties of functional coatings on titanium alloy formed by microarc oxidation method. Applied Surface Science. 2009, 255: 6875-6880
- [2] Y.M. Wang, P.F. Zhang, L.X. Guo, J.H. Ouyang, Y. Zhou, D.C. Jia. Effect of microarc oxidation coating on fatigue performance of Ti-Al-Zr alloy. Applied Surface Science. 2009, 255: 8616-8623
- [3] Y.M. Wang, F.H. Wang, M.J. Xu, B. Zhao, L.X. Guo, J.H. Ouyang. Microstructure and corrosion behavior of coated AZ91 alloy by microarc oxidation for biomedical application. Applied Surface Science. 2009, 255: 9124-9131
- [4] Y.M. Wang, B.L. Jiang, T.Q. Lei, L.X. Guo. Microarc oxidation and spraying graphite duplex coating formed on titanium alloy for antifriction purpose. Applied surface science. 2005, 246(1-3): 214-221
- [5] Y.M. Wang, T.Q. Lei, L.X. Guo, B.L. Jiang. Fretting wear behaviour of microarc oxidation coatings formed on titanium alloys against steel in dry and oil lubrication sliding. Applied surface science. 2006, 252 (23): 8113-8120
- [6] Y.M. Wang, B.L. Jiang, T.Q. Lei and L.X. Guo. Microarc oxidation coatings formed on Ti6Al4V in Na₂SiO₃ system solution: microstructure, mechanical and tribological properties. Surface & coating technology. 2006, 201: 82-89
- [7] Y.M. Wang, B.L. Jiang, L.X. Guo, T.Q. Lei. Tribological behavior of microarc oxidation coatings formed on titanium alloys against steel in dry and solid lubrication sliding. Applied surface science. 2006, 252: 2989-2998
- [8] Y.M. Wang, D.C. Jia, L.X. Guo, T.Q. Lei, B.L. Jiang. Effect of discharge pulsating on microarc oxidation coatings formed on Ti6Al4V alloy. Materials chemistry and physics. 2005, 90: 128-133
- [9] Yaming Wang, Bailing Jiang, Tingquan Lei, Lixin Guo. Dependence of growth features of microarc oxidation coatings of titanium alloy on control modes of alternate pulse. Materials letters. 2004, 58(12-13): 1907-1911
- [10] Y.M. Wang, T.Q. Lei, B.L. Jiang, L.X. Guo. Growth, microstructure and mechanical properties of microarc oxidation coatings on titanium alloy in phosphate-containing solution. Applied surface science. 2004, 233: 258-267
- [11] Y.M. Wang, B.L. Jiang, L.X. Guo, T.C. Lei. Controlled synthesis of microarc oxidation coating on Ti6Al4V alloy and its antifriction property. Materials science and technology. 2004, 20: 1590-1594
- [12] Yaming Wang, Bailing Jiang, Lixin Guo, Tingquan Lei. Antifriction property of microarc oxidation coating on titanium alloy under solid lubricating sliding condition. Surface review and letters. 2004, 11(4-5): 367-372
- [13] 王亚明, 周玉, 贾德昌, 郭君巍, 雷廷权. 微弧氧化法制备氧化钛基多孔复合生物陶瓷涂层. 稀有金属材料与工程. 2005, 34 (S1): 1244-1248
- [14] 王亚明, 雷廷权, 蒋百灵, 周玉. Na₂SiO₃-KOH-(NaPO₃)₆ 溶液中 Ti6Al4V 微弧氧化陶瓷膜研究. 稀有金属材料与工程. 2003, 32(12): 1041-1044
- [15] 王亚明, 蒋百灵, 雷廷权, 郭立新, 曹跃平. 电参数对 Ti6Al4V 合金微弧氧化陶瓷膜结构特性的影响. 无机材料学报. 2003, 18(6): 1325-1330
- [16] 王亚明, 蒋百灵, 雷廷权, 郭立新. Na₂SiO₃ 系溶液中制备 Ti6Al4V 微弧氧化涂层的结构与摩擦学特性. 摩擦学学报. 2003, 23(5): 371-375
- [17] 王亚明, 贾德昌, 周玉, 雷廷权. Ba₂Ti₉O₂₀/PTFE 复合材料的组织及力学性能. 宇航材料工艺. 2002, (3): 32-35, 50
- [18] 王亚明, 贾德昌, 周玉. Ba₂Ti₉O₂₀/PTFE 微波介电复合材料的制备及性能. 压电与声光. 2002, 24(3): 225-228, 239
- [19] 王亚明, 贾德昌. Ba₂Ti₉O₂₀/PTFE 材料介电力学性能. 哈尔滨工业大学学报. 2003, (9): 16-21

2. 申请专利

- [1] 王亚明, 文磊, 郭立新, 雷廷权, 贾德昌, 周玉. 一种提高轻合金微弧氧化涂层疲劳寿命的方法. 申请号: 200710144831.6
- [2] 王亚明, 郭立新, 张鹏飞, 周玉, 贾德昌, 欧阳家虎. 一种 TA15 钛合金表面抗腐耐磨陶瓷涂层的制备方法. 申请号: 200810064369.3
- [3] 王亚明, 欧阳家虎, 郭立新, 贾德昌, 周玉. 一种带有复合梯度层的镁或镁合金材料及其制备方法. 申请号: 200810064123.6
- [4] 王亚明, 崔艳芹, 欧阳家虎, 郭立新, 周玉, 贾德昌. 一种在轻合金表面制备防腐隔热抗烧蚀复合涂层的方法. 申请号: 200810064585.8
- [5] 王亚明, 田原, 郭君巍, 郭立新, 周玉. 耐腐蚀镁合金支架及其制备方法. 申请号: 200910312777.0
- [6] 王亚明, 吴骋捷, 欧阳家虎, 侯正全, 李宝辉, 郭立新, 周玉. 在钛金属表面制备黑色氧化钛涂层的方法. 申请号: 201010300399.7

3. 专著情况

Book Chapter: Chapter 5 "Plasma electrolytic oxidation of aluminium and titanium alloys", in Surface Engineering of Light Alloys - Al, Mg Ti Alloys, Woodhead Publishing, Cambridge, UK (ISBN 1 84569 537 2, 2010, Page 110-154).