



北京理工大学材料学院

School of Materials Science & Engineering, Beijing Institute of Technology

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师资队伍

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个人介绍

长期从事热喷涂工艺模拟与涂层材料设计、钛合金材料设计、陶瓷金属复合材料设计等工作，先后主持了总装备部预研基金、国家自然科学基金等多个项目，并作为专题负责人参与国防973项目1项、国防科工局配套项目1项。获国家技术发明二等奖1项（排名第4），国内外重要期刊发表论文40余篇，申请专利10余项。曾受邀担任Surface and Coatings Technology, Journal of Coatings Technology and Research, Applied Mathematical Modelling等期刊论文审稿人。

教育经历

1994.09-1998.07 北京理工大学机械工程与自动化学院，大学本科

1998.09-2001.03 北京理工大学材料科学与工程学院，硕士研究生

2001.04-2004.03 北京理工大学材料科学与工程学院，博士研究生

工作经历

2004.04-2008.04 北京理工大学 讲师

2008.05-2011.09 北京理工大学 副教授

2011.09-目前 北京理工大学 副教授 博导

2010.03-2010.05 德国DAAD高级访问学者

研究领域

热喷涂工艺模拟

热障涂层材料设计

钛合金材料设计

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社会任职

北京理工大学材料学院材料加工系教学副主任

获奖情况

2009年，获国家技术发明二等奖，排名第四

科研项目

• 基于等离子喷涂工艺全程模拟的热障涂层性能预测方法研究，2009-2011，国家自然科学基金，项目负责人

- xx铁合金材料研究, 2011-2015, 总装“十二五”预研项目, 项目负责人
- xx装甲材料xx机制与结构设计方法, 2010-2013, 国防973项目, 专题负责人
- xx热防护材料研究, 2006-2010, 总装预研基金, 项目负责人
- xx涂层材料研究, 2006-2010, 总装预研项目, 子专题负责人
- 高性能热障涂层材料及结构的跨尺度优化设计, 2005-2007, 北京理工大学优秀青年教师基金, 项目负责人

论文专著

主要论文

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- Shen Wei, Wang Fuchi, Fan Qunbo(通讯作者), Ma Zhuang Effects of defects on the effective thermal conductivity of thermal barrier coatings *Applied Mathematical Modelling*.
- Huo Dongmei, Li Shukui, Fan Qunbo(通讯作者), Wang Fuchi Effects of electric pulse heat treatment on microstructures and dynamic deformation behaviors of Ti6441 alloys *Materials Science and Engineering A*, 530(1), pp 161-167, 2011/12/15.
- Zhang Huiling, Fan Qunbo, Wang Fuchi, Zhang Feng, Zhang Hongsong First-principle calculations of rare earth pyrozirconate structure *Rare Metal Materials and Engineering*, 36卷, pp 556-559, 2007/8(SCIE).
- Gao Lihong, Ma Zhuang, Fan Qunbo First-principle studies of the electronic structure and reflectivity of LaTiO₃ and Sr doped LaTiO₃ (La_{1-x}Sr_xTiO₃) *Journal of Electroceramics*, 27(3-4), pp 114-119, 2011/12.
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- Pei Chuanhu, Fan Qunbo(通讯作者), Cai Hongnian, Li Jianchong High temperature deformation behavior of the TC6 titanium alloy under the uniform DC electric field *Journal of Alloys and Compounds*, 489(2), pp 401-407, 2010/1/21.
- Fan Qunbo, Ma Zhuang, Wang Fuchi, Wang Lu Integration design of heat insulation and stress relaxation for FGM thermal barrier coatings *Rare Metal Materials and Engineering*, 36卷, pp 544-547, 2007/8(SCIE).
- Zhang Zhaojun, Shen Xiangbo, Wang Fuchi, Li Shukui, Fan Qunbo . Low-temperature densification of TiB₂ ceramic by the spark plasma sintering process with Ti as a sintering aid *Scripta Materialia*, 66(3-4), pp 167-170, 2012/2.
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专利

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- 一种提高钛合金动态力学性能的××方法, ZL20091024575.3, 2009
- 一种低孔隙长寿命××热障涂层制备方法, ZL200710081795.3, 2009
- 等离子喷枪出口处基本参量的××方法, ZL200510001259.9, 2008
- 一种××用热防护涂层的制备方法, ZL200610056459.9, 2008
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- 一种提高××热障陶瓷涂层抗热冲击性能的方法, ZL200510001180.6, 2008

