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### 主要研究方向

- ◇ 超高温陶瓷基复合材料
- ◇ 钨基复合材料及其应用
- ◇ 复合材料的低温制备技术
- ◇ 复合材料的热处理工艺
- ◇ 含 BN 陶瓷复合材料在钢铁行业的应用基础研究

### 社会兼职

- ◇ 全国热处理学会青年工作委员会副主任委员
- ◇ 哈尔滨市热处理学会副秘书长
- ◇ 哈尔滨市材料热处理与表面工程青年工作委员会主任
- ◇ 中国机械工程学会工程陶瓷专业委员会第五届理事
- ◇ 中国材料研究学会会员

### 主要学术成果

发表及合作发表学术论文 70 余篇 (SCI 收录 40 篇、EI 收录 30 余篇, SCI 他引 100 余次), 申请国家发明专利 7 项 (已授权 1 项), 获部级三等奖 1 项。代表成果如下:

1. **Y. J. Wang**, H.-X. Peng, Y. Zhou, G. M. Song. Influence of ZrC content on the elevated temperature tensile properties of ZrCp/W composites. *Materials Science and Engineering A*. 2011, 528(3): 1805-1811
2. Y. W. Zhao, **Y. J. Wang**, Y. Zhou, P. Shen. Reactive wetting and infiltration of polycrystalline WC by molten Zr<sub>2</sub>Cu alloy. *Scripta Materialia*. 2011, 64(3): 229-232
3. L. Y. Zhao, D. C. Jia, **Y. J. Wang**, et al. ZrC-ZrB<sub>2</sub> matrix composites with enhanced toughness prepared by reactive hot pressing. *Scripta Materialia*. 2010, 63: 887 - 890
4. T. Q. Zhang, **Y. J. Wang**, Y. Zhou, G. M. Song. High temperature electrical resistivities of ZrC particle-reinforced tungsten-matrix composites. *International Journal of Refractory Metals and Hard Materials*. 2010, 28: 498-502
5. T. Q. Zhang, **Y. J. Wang**, Y. Zhou, G. M. Song. Effect of ZrC particle size on microstructure and room temperature mechanical properties of ZrCp/W composites. *Materials Science and Engineering A*. 2010, 527: 4021-4027
6. T. Q. Zhang, **Y. J. Wang**, Y. Zhou, G. M. Song. Effect of heat treatment on microstructure and mechanical properties of ZrC particles reinforced tungsten-matrix composites. *Materials Science and Engineering A*. 2009, 512: 19-25
7. T. Q. Zhang, **Y. J. Wang**, Y. Zhou, G. M. Song. Effect of temperature gradient in the disk during sintering on microstructure and mechanical properties of ZrC<sub>p</sub>/W composite. *International Journal of Refractory Metals and Hard Materials*, 2009, 27(1). 126-129
8. T. Q. Zhang, **Y. J. Wang**, Y. Zhou, G. M. Song. Effect of particle clustering on the effective modulus of ZrC/W composites. *International Journal of Refractory Metals and Hard Materials*, 2009, 27(1): 14-19
9. **Y. J. Wang**, T. Q. Zhang, Y. Zhou, T. Q. Lei, G. M. Song. Elevated temperature compressive strength and deformation behavior of a ZrC<sub>p</sub> reinforced tungsten-matrix composite. *Journal of Computational and Theoretical Nanoscience*, 2008, 5(8). 1730-1734
10. **Y. J. Wang**, L. Chen, T. Q. Zhang, Y. Zhou, Effect of iron additive on the sintering behavior of hot-pressed ZrC-W composites. *Key Engineering Materials*. 2008, 368-372: 1764-1766
11. T. Q. Zhang, **Y. J. Wang**, Y. Zhou, T. Q. Lei, G. M. Song. Compressive deformation behavior of a 30vol.%ZrCp/W composite at temperatures of 1300-1600 °C. *Materials Science and Engineering A*. 2008, 474: 382-389
12. T. Q. Zhang, **Y. J. Wang**, Y. Zhou, T. Q. Lei, G. M. Song. Elevated temperature compressive failure behavior of a 30vol.%ZrC<sub>p</sub>/W composite. *International Journal of Refractory Metal and Hard materials*, 2007, 25: 445-450.
13. T. Q. Zhang, **Y. J. Wang**, Y. Zhou, T. Q. Lei, G. M. Song. Model to determine recrystallization temperature of tungsten based dilute solid solution alloys. *Journal of Materials Science*, 2006, 41: 7506-7508.
14. **Y. J. Wang**, Y. Zhou, G. M. Song, T. Q. Lei. High temperature tensile properties of 30vol pct ZrC<sub>p</sub>/W composite. *Journal of Materials Science and Technology*. 2003, 19(2): 167-170
15. **Y. J. Wang**, Y. Zhou, G. M. Song, T. Q. Lei. Elevated temperature strength of TiC<sub>p</sub>/W composites. *Journal of Materials Science and Technology*. 2001, 17(1): 31-32.