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### 主要研究方向

1. 异种材料连接
2. 陶瓷/陶瓷、陶瓷/金属连接及其界面行为
3. 材料热加工物理模拟技术
4. 材料热变形行为

### 社会兼职

1. 黑龙江省分析测试学会，理事
2. 硅酸盐学会测试分会，理事

### 主要学术成果

1. D. R. Ni, L. Geng, **J. Zhang**, Z. Z. Zheng, Effect of B<sub>4</sub>C particle size on microstructure of in situ titanium matrix composites prepared by reactive processing of Ti-B<sub>4</sub>C system. Scripta Materialia. 2006, 55, 429. (SCI, 影响因子：2.887)
2. L. Geng, **J. Zhang**, Q. C. Meng, C. K. Yao, Side-surface structure of a commercial  $\beta$ -silicon carbide whisker. J. Am. Ceram. Soc. 2002, 11, 2864. (SCI, 影响因子：2.101)
3. **J. Zhang**, X. M. Zhang, Y. Zhou, M. Naka, A Svetlana, Interfacial microstructure of Si<sub>3</sub>N<sub>4</sub>/Si<sub>3</sub>N<sub>4</sub> brazing joint with a Cu-Zn-Ti filler alloy. Materials Science and Engineering A. 2008, 495, 271. (SCI, 影响因子：1.806)
4. Y. M. He, **J. Zhang**, C. F. Liu, Y. Sun, Microstructure and mechanical properties of Si<sub>3</sub>N<sub>4</sub>/Si<sub>3</sub>N<sub>4</sub> joint brazed with Ag-Cu-Ti+SiCp composite filler. Materials Science and Engineering A. 2010, 527, 2819. (SCI, 影响因子：1.806)
5. C. F. Liu, **J. Zhang**, Y. Zhou, Q. C. Meng, M. Naka, Effect of Ti content on microstructure and strength of Si<sub>3</sub>N<sub>4</sub>/Si<sub>3</sub>N<sub>4</sub> joints brazed with Cu-Pd-Ti filler metals. Materials Science and Engineering A. 2008, 491, 483. (SCI, 影响因子：1.806)
6. D. R. Ni, L. Geng, **J. Zhang**, Z. Z. Zheng, Fabrication and tensile properties of in situ TiBw and TiCp hybrid-reinforced titanium matrix composites based on Ti-B<sub>4</sub>C-C. Materials Science and Engineering A. 2008, 478, 291. (SCI, 影响因子：1.806)
7. L. Geng, **J. Zhang**, A study of the crystal structure of a commercial  $\beta$ -SiC whisker by high-resolution TEM. Materials Chemistry and Physics. 2003, 84, 243. (SCI, 影响因子：1.799)
8. A. B. Li, L. Geng, **J. Zhang**, H. Y. Xu, Z. Z. Zheng, C. K. Yao, The effect of whisker misalignment on the hot compressive deformation behavior of SiCw/6061Al composites at 500 degrees C. Material Chemistry and Physics. 2004, 84, 29. (SCI, 影响因子：1.799)
9. A. H. Feng, L. Geng, **J. Zhang**, C. K. Yao, Hot compressive deformation behavior of a eutectic Al-Si alloy based composite reinforced with  $\alpha$ -Si<sub>3</sub>N<sub>4</sub> whisker. Materials Chemistry and Physics. 2003, 3, 618. (SCI, 影响因子：1.799)
10. D. R. Ni, L. Geng, **J. Zhang**, Z. Z. Zheng, TEM characterization of symbiosis structure of in situ TiC and TiB prepared by reactive processing of Ti-B<sub>4</sub>C. Materials Letters. 2008, 62, 686. (SCI, 影响因子：1.748)
11. **J. Zhang**, Y. Zhou, M. Naka, Interfacial microstructure of the Si<sub>3</sub>N<sub>4</sub>/Si<sub>3</sub>N<sub>4</sub> joint brazed with Cu-Pd-Ti filler alloy. Journal of the European Ceramic Society. 2006, 26, 3459. (SCI, 影响因子：1.58)
12. **J. Zhang**, Y. Sun, Microstructural and mechanical characterization of the Si<sub>3</sub>N<sub>4</sub>/Si<sub>3</sub>N<sub>4</sub> joint brazed using Au-Ni-V filler alloys. Journal of the European Ceramic Society. 2010, 30, 751. (SCI, 影响因子：1.58)
13. C. F. Liu, **J. Zhang**, Y. Zhou, H.L.Yi, M. Naka, Effect of holding time on self-joining of silicon nitride. Journal of Alloys and Compounds. 2009, 471, 217. (SCI, 影响因子：1.51)
14. L. Geng, D. R. Ni, **J. Zhang**, Z. Z. Zheng, Hybrid effect of TiBw and TiCp on tensile properties of in situ titanium matrix composites. Journal of Alloys and Compounds. 2008, 463, 488. (SCI, 影响因子：1.51)
15. **J. Zhang**, M. Naka, H. Y. Fang, Y. Zhou, Properties and fracture processes of the Si<sub>3</sub>N<sub>4</sub>/Si<sub>3</sub>N<sub>4</sub> joint brazed using Cu-Zn-Ti filler alloy. Science and Technology of Welding and Joining. 2004, 2, 158. (SCI, 影响因子：1.426)
16. **J. Zhang**, Y. L. Guo, M. Naka, Y. Zhou, Microstructure and reaction phases in Si<sub>3</sub>N<sub>4</sub>/Si<sub>3</sub>N<sub>4</sub> joint brazed using Cu-Pd-Ti filler alloy. Ceramics International. 2008, 34, 1159. (SCI, 影响因子：1.369)
17. C. F. Liu, **J. Zhang**, Q. C. Meng, Y. Zhou, M. Naka, Joining of silicon nitride with a Cu76.5Pd8.5Ti15 filler alloy. Ceramics International. 2007, 33, 427. (SCI, 影响因子：1.369)
18. **J. Zhang**, M. Naka, Y. Zhou, Brazing Si<sub>3</sub>N<sub>4</sub> ceramic using a Cu-Pd-Ti filler alloy for high temperature applications. Journal of Materials Science. 2004, 39, 3159. (SCI, 影响因子：1.181)
19. **J. Zhang**, C. F. Liu, M. Naka, Q. C. Meng, Y.Zhou, A TEM analysis of the Si<sub>3</sub>N<sub>4</sub>/Si<sub>3</sub>N<sub>4</sub> joint brazed with a Cu-Zn-Ti filler metal. Journal of Materials Science. 2004, 39, 4587. (SCI, 影响因子：1.181)
20. 张杰, 周玉, 奈贺正明. 钎焊氮化硅陶瓷的钎料及以该钎料连接氮化硅陶瓷的方法。公开号: ZL 2004 10043962.1
21. 张杰, 孙元. 一种连接氮化硅陶瓷的耐高温钎料。申请号: 200810064249.3
22. 张杰, 宋益标, 耿林. TiAl基复合材料板材轧制成形技术。申请号: 200910071585.5
23. 张杰, 刘春凤, 张九海. 制备异种金属材料过渡接头的方法。申请号: 200910309204.2