

## 张强

工学博士

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### 主要研究方向

电子封装用金属基复合材料设计、制备及其应用研究。

铝基多孔复合材料的功能特性及其 3D 组织评价。

铝基复合材料挤压铸造与无压浸渗工艺研究。

### 社会兼职

中国材料研究学会 会员

复合材料研究学会 会员

### 主要学术成果

1. 国家技术发明二等奖，2008 年
2. **Qiang Zhang**, Peter D. Lee, Gaohui Wu, Randhir Singh, Trevor C. Lindley. Micro-CT characterization of structural features and deformation behavior of fly ash/aluminum syntactic foam. *Acta Materialia*. 2009, 57: 3003~3011 (SCI, 影响因子: 3.729)
3. **Qiang Zhang**, Gaohui Wu, Longtao Jiang. Tensile Deformation Behavior of a sub-micron Al<sub>2</sub>O<sub>3</sub>/6061Al composite. *Materials Science and Engineering A*. 2008, 483-484: 281~284 (SCI, 影响因子: 1.801)
4. **Qiang Zhang**, Gaohui Wu, Longtao Jiang, Bofeng Luan. Thermal properties of a high volume fraction SiC particles reinforced pure aluminum composite. *Physica Status Solidi (a)*. 2005, 202(6): 1033~1040 (SCI, 影响因子: 1.041)
5. **Qiang Zhang**, Ziyang Xiu, Meihui Song, Gaohui Wu. Microstructure and Properties of a 70vol.% SiCp/Al-Si Composite for Electronic Packaging. *Materials Science Forum*. 2005, 475-479: 881~884 (SCI, 影响因子: 0.399)
6. **Qiang Zhang**, Gaohui Wu, Dongli Sun, Guoqin Chen, Longtao Jiang. Microstructure and Thermal Conduction Properties of an Al-12Si Matrix Composite Reinforced with Dual Sized SiC Particles. *Journal of Materials Science*. 2004, 39(1): 303~305 (SCI, 影响因子: 0.864)
7. **Qiang Zhang**, Gaohui Wu, Longtao Jiang, Guoqin Chen. Thermal Expansion and Dimensional Stability of an Al-Si Matrix Composite Reinforced with High SiC Content. *Materials Chemistry and Physics*. 2003, 82: 780~785 (SCI, 影响因子: 1.113)
8. **Qiang Zhang**, Gaohui Wu, Guoqin Chen, Longtao Jiang, Bofeng Luan. The Thermal Expansion and Mechanical Properties of High Reinforcement Content SiCp/Al Composites Fabricated by Squeeze Casting Technology. *Composite Part A - Applied Science and Manufacturing*. 2003, 34(11): 1023~1027 (SCI, 影响因子: 1.145)
9. Gaohui Wu, **Qiang Zhang**, Guoqin Chen, Longtao Jiang, Ziyang Xiu. Properties of High-Reinforcement-Content Aluminum Matrix Composite for Electronic Packages. *Journal of Materials Science-Materials in Electronics*. 2003, 14(1): 9~12 (SCI, 影响因子: 0.624)
10. **Qiang Zhang**, Guoqin Chen, Gaohui Wu, Ziyang Xiu, Bofeng Luan. Property Characteristics of an AlNp/Al Composite Fabricated by Squeeze Casting Technology. *Materials Letters*. 2003, 57(8): 1453~1458 (SCI, 影响因子: 1.186)
11. **Qiang Zhang**, Gaohui Wu, Dongli Sun, Bofeng Luan. Study on the Thermal Expansion and Thermal Cycling of AlNp/Al Composites. *Journal of Materials Science & Technology*. 2002, 18(1): 63~65 (SCI, 影响因子: 0.253)
12. **张强**, 武高辉, 孙东立, 韩杰才. 高体积分数 SiCp/Al 复合材料的微观组织与导热性能. *材料科学与工艺*. 2006, 14(5): 474-477
13. **张强**, 陈国钦, 姜龙涛, 武高辉. 两种粒径颗粒混合增强铝基复合材料的导热性能. *复合材料学报*. 2005, (1): 47~51
14. **张强**, 陈国钦, 武高辉, 姜龙涛, 栾伯峰. 含高体积分数 SiCp 的铝基复合材料制备与性能. *中国有色金属学报*. 2003, 13(5): 1180~1183
15. **张强**, 孙东立, 武高辉. 电子封装基片材料研究进展. *材料科学与工艺*. 2000, (4): 66~72
16. **张强**, 武高辉, 乔菁. 一种 Al<sub>2</sub>O<sub>3</sub> 颗粒增强铝基复合材料的无压浸渗制备方法. 发明专利: ZL. 200710071697.1
17. 武高辉, **张强**. 一种大功率电子器件封装材料及其制备方法. 发明专利: ZL. 03105532.X
18. 武高辉, **张强**, 乔菁. 一种含有微小封闭孔的铝基多孔复合材料的制备方法. 发明专利: ZL. 200710071780.9