

蔡伟

工学博士

材料物理与化学系主任

教授；博士生导师

跨世纪优秀人才\省杰出青年基金获得者\省优秀中青年专家\省研究生优秀导师

+86-451-86418649

weicai@hit.edu.cn

主要研究方向

形状记忆材料

生物医用材料

纳米功能材料

社会兼职

国际形状记忆与超弹性技术顾问委员会

中国仪表材料学会

黑龙江生物医学工程学会

《功能材料》杂志

《中华医药杂志》

《中国组织工程研究与临床康复杂志》

委员

副理事长

常务理事

编委

常务编委

学科首席专家/首席执行编委

主要学术成果（部分论文目录）

- 1 Wu, X; Jiang, P; Ding, Y; **Cai, W.** et al. Mismatch strain induced formation of ZnO/ZnS heterostructured rings. *Advanced Materials* 2007 19: 2319 (IF 8.191)
- 2 Wan, J; **Cai, W;** Meng, X; Liu, E. Monodisperse water-soluble magnetite nanoparticles prepared by polyol process for high-performance magnetic resonance imaging. *Chemical Communications* 2007 (47): 5004 (IF 5.340)
- 3 Wan, JQ; **Cai, W;** Feng, JT; Meng, XX; Liu, EZ. In situ decoration of carbon nanotubes with nearly monodisperse magnetite nanoparticles in liquid polyols. *Journal of Materials Chemistry* 2007 17: 1188 (IF 4.646)
- 4 Wang, ZJ; Wu, LN; **Cai, W.** Size-Tunable Synthesis of Monodisperse Water-Soluble Gold Nanoparticles with High X-ray Attenuation. *Chem. Eur. J (In press)* (IF 5.5)
- 5 Wang, ZJ; **Cai, W;** Sui, JH. Blue Luminescence Emitted from Monodisperse Thiolate-Capped Au-11 Clusters *CHEMPHYSICHEM*, 2009 10: 2012 (IF 3.739)
- 6 **Cai, W;** Zhang, J; Gao, ZY; Sui, JH. Effect of gamma precipitates on martensitic transformation and magnetic properties in aged Mn-Ni-Ga alloys. *Applied Physics Letters* 2008 92: 252502 (IF 3.726)
- 7 Li, ZG; **Cai, W;** Sui, JH. Large-scale preparation of CdS quantum dots by direct thermolysis of a single-source precursor. *Nanotechnology* 2008 19 (3): 035602 (IF 3.446)
- 8 Feng, JT; **Cai, W;** Sui, JH; Li, ZG; Wan, JQ; Chakoli, AN. Poly(L-lactide) brushes on magnetic multiwalled carbon nanotubes by in-situ ring-opening polymerization. *Polymer*, 2008 49 (23): 4989 (IF 3.331)
- 9 **Cai, W;** Li, ZG; Sui, JH. A facile single-source route to CdS nanorods. *Nanotechnology*, 2008 19 (46): 465606 (IF 3.446)
- 10 Sui, JH; Gao, ZY; Yu, HR; Zhang, ZG; **Cai, W.** Martensitic and magnetic transformations of Ni₅₆Fe₁₇Ga_{27-x}Cox high-temperature ferromagnetic shape memory alloys. *Scripta Materialia* 2008 59 (8): 874 (IF:2.887)
- 11 Dong, GF; Tan, CL; Gao, ZY; Feng, Y; Sui, JH; **Cai, W.** The effect of ageing on the microstructure and mechanical properties of Ni₅₃Mn_{23.5}Ga_{18.5}Ti₅ ferromagnetic shape memory alloy. *Scripta Materialia* 2008 59 (3): 268 (IF:2.887)
- 12 **Cai, W;** Feng, Y; Sui, JH; Gao, ZY; Dong, GF. Microstructure and martensitic transformation behavior of the Ni₅₀Mn₃₆In₁₄ melt-spun ribbons. *Scripta Materialia* 2008 58 (10): 830 (IF:2.887)
- 13 Zhang, J; **Cai, W;** Gao, ZY; Sui, JH. Microstructures and magnetic property in Mn-rich off-stoichiometric Mn₂NiGa Heusler alloys. *Scripta Materialia* 2008 58 (9): 798 (IF:2.887)
- 14 Dong, GF; **Cai, W;** Gao, ZY; Sui, JH. Effect of isothermal ageing on microstructure, martensitic transformation and mechanical properties of Ni₅₃Mn_{23.5}Ga_{18.5}Ti₅ ferromagnetic shape memory alloy. *Scripta Materialia* 2008 58 (8): 647 (IF:2.887)
- 15 **Cai, W;** Gao, L; Liu, AL; Sui, JH; Gao, ZY. Martensitic transformation and mechanical properties of Ni-Mn-Ga-Y ferromagnetic shape memory alloys. *Scripta Materialia* 2007 57 (7): 659 (IF:2.887)
- 16 Tan, CL; **Cai, W;** Tian, XH. Structural, electronic and elastic properties of NbRu high-temperature shape memory alloys. *Scripta Materialia* 2007 56 (7): 625 (IF:2.887)
- 17 **Cai, W;** Meng, XL; Zhao, LC. Recent development of TiNi-based shape memory alloys. *Current Opinion in Solid State and Materials Science* 2005 9 (6): 296 (IF 2.976)
- 18 Sui, JH; **Cai, W.** Effect of diamond-like carbon (DLC) on the properties of the NiTi alloys. *Diamond and Related Materials* 2006 15 (10): 1720 (IF 2.092)
- 19 **Cai, W;** Wan, JQ. Facile synthesis of superparamagnetic magnetite nanoparticles in liquid polyols. *Journal of Colloid and Interface Science* 2007 305 (2): 366 (IF: 2.443)