

YUFENG ZHENG (Y.F. Zheng)



Tenured Professor
Department of Advanced Materials and Nanotechnology
College of Engineering
Peking University
Beijing 100871, CHINA
Tel&Fax: +86-10-62767411(Office) 62767760(Lab)
E-mail: yfzheng@pku.edu.cn
Website: <http://amn.coe.pku.edu.cn/LBMD/index.html>

RESEARCH INTEREST

Biomaterials, including biomedical titanium alloys, biodegradable magnesium alloy, nanomaterials used in biomedical field.

Functional materials, including shape memory alloys, smart composite materials.

EDUCATION

Sept. 1989- July 1993: Department of Mechanical Engineering, Harbin Engineering University, Harbin, P. R. China. Undergraduate Student; earned degree: B. S.

Sept. 1993- July. 1998: School of Materials Science and Engineering, Harbin Institute of Technology (HIT), Harbin, P. R. China. Graduate Student; earned degree: Ph.D in Materials Science.

WORKING EXPERIENCE

2006.03-Present, Professor, Department of Advanced Materials and Nanotechnology, College of Engineering, Peking University, CHINA

2004.09-2006.03, Professor, Department of Mechanics and Engineering Science, Peking University, CHINA

2003.08-2004.08, Professor, School of Materials Science and Engineering, Harbin Institute of Technology, CHINA

2003.12-2004.05, Research Fellow, School of Mechanical Engineering, The University of Western Australia, AUSTRALIA

2000.7-2003.07 Associate Professor, School of Materials Science and Engineering, Harbin Institute of Technology, CHINA

2002.11-2002.12, Visiting Scientist, Luminous Devices Technology Corporation, USA

2001.06-2001.07, Visiting Scholar, School of Mechanical Engineering, Florida International University, USA

1999.10- 2000.06, Senior Research Associate, Center of Super-diamond and Advanced Films, Department of Physics and Materials Science, City University of Hong Kong, CHINA

1998.07-1999.09, Assistant Professor, School of Materials Science and Engineering, Harbin Institute of Technology, CHINA

HONORS, AWARDS AND MEMBERSHIP

2008-present, Member of Youth Committee of Chinese Materials Society
2007-present, Member of the Program for New Century Excellent Talents in University
2007-present, Member of the Associate Editorial Board of the international journal “Materials Letters”
2007-present, Deputy Member of Committee for Biomaterials, Chinese Biomedical Engineering Society
2007-present, Deputy Member of Committee for Interventional Medical Engineering, Chinese Biomedical Engineering Society
2007-present, Member of Committee for Biomedical Composite, Chinese Composite Society
2006-present, Member of editor board of Chinese Journal “Materials Reviews”
2005-present, Member of editor board of Chinese Journal “Functional Materials”
2005-present, Member of Chinese Instrument Materials Society
2005-Present, Deputy Member of Heilongjiang Biomedical Engineering Society
2004-present, Adjunct professor, Harbin Engineering University, CHINA
2004-Present Member of Chinese Materials Research Society
2001-Present, Member of Chinese Committee for Biomaterials
2001, Second Prize for the Achievement in Science and Technology awarded by the Ministry of Chinese High Education.
2000, Excellent Doctoral Dissertation of Harbin Institute of Technology During years 1998-2000
1997, Guanghua Scholarship of Harbin Institute of Technology, CHINA
1996, Excellent Graduate Student Award of Harbin Institute of Technology, CHINA
1992, Excellent Undergraduate Student Award of Harbin Engineering University, CHINA
1990, Excellent Undergraduate Student Award of Harbin Engineering University, CHINA

BOOK AND BOOK CHAPTERS

1. Y.F. Zheng(**editor**) and L.C. Zhao, in Chinese Handbook of Aeronautic Materials, Vol. 5, Functional Materials, Chinese Standard Press House, 2002; ISBN 7-5066-2655-1, 1 chapter contributed
2. L.C. Zhao, W.Cai and Y.F. Zheng (**Co-author**), “Shape Memory Effects and Superelasticity in Alloys”, Chinese Defense Industry Press House, 2002; ISBN 7-118-02627-1, 3 chapters contributed
3. Y.F. Zheng (**Author**) and L.C. Zhao, “Biomedical Nickel-Titanium Alloys”, Chinese Science Press House, 2004, ISBN 7-03-013368-4, 7 Chapters contributed
4. Y,F, Zheng (**Author**) and L.Li, “Biomedical Materials”, Harbin Institute of Technology Publishing House, 2005, ISBN7-5603-2232-8/TB.60, 4 chapters contributed

PUBLICATIONS

1. Y.F. Zheng, L.C. Zhao and H.Q. Ye, HREM Study on the Intervariant Structure of Ti-Ni-Hf B19' Martensite, **Scripta Materialia**, Vol. 38, No.8, pp.1249-1253, (1998). **(Corresponding Author)**
2. Y. F. Zheng, W. Cai, Y.Q. Wang, Y.C. Luo and L.C. Zhao, Effects of Heat Treatment on Transformation Temperature and Microstructure of Ni-Ti-Nb Alloy, **Journal of Materials Science & Technology**, Vol. 14, No.1, pp. 37-40, (1998). **(Corresponding Author)**
3. J.X. Zhang, Y. F. Zheng, W. Cai, L.C. Zhao, High Resolution Electron Microscope Observation of Two Kinds of Intervariant Boundaries in 18R Martensite in a Cu-Zn-Al Alloy, **Journal of Materials Science Letters**, Vol.17, pp.395-397, (1998).
4. J.X. Zhang, W. Cai, Y.F. Zheng, L.C. Zhao, Type II Twin and its Deformation Characteristics in 18R Martensite in a Cu-Zn-Al Alloy, **Materials Letters**, Vol.34, pp.351-355, (1998).
5. J.X. Zhang, W. Cai, Y.F. Zheng, L.C. Zhao, The Mobility of Various Intervariant Interfaces in 18R Martensite in a Cu-Zn-Al Alloy Part I in Situ Observation, **Journal of Materials Science & Technology**, Vol. 14, No.3, pp.251-254, (1998).
6. J.X. Zhang, Y.F. Zheng, W. Cai, L.C. Zhao, The Mobility of Various Intervariant Interfaces in 18R Martensite in a Cu-Zn-Al Alloy Part II Some Theoretical Considerations, **Journal of Materials Science & Technology**, Vol. 14, No.4, pp.349-352, (1998).
7. Y.F. Zheng, W. Cai, J.X. Zhang, Y.Q. Wang, L.C. Zhao and H.Q. Ye, High Resolution Electron Microscopy Study on the Substructure of Ti-Ni-Hf B19' Martensite, **Materials Letters**, Vol. 36, pp.142-147, (1998). **(Corresponding Author)**
8. J.X. Zhang, Y.F. Zheng, B.M. Huang, W. Cai, L.C. Zhao, Characteristics of the A/D Type Twin Boundary in 18R Martensite in a Cu-Zn-Al Alloy, **Materials Science & Engineering A**, A251, pp.150-156, (1998).
9. J.X. Zhang, Y.F. Zheng, W. Cai, L.C. Zhao, High Resolution Electron Microscope Observation of Non-basal Planar Defects in 18R Martensite in a Cu-Zn-Al Alloy, **Journal of Materials Science Letters**, Vol.17, No. 19, pp.1657-1660, (1998).
10. J.X. Zhang, Y.F. Zheng, L.C. Zhao, The Structure and Mobility of Intervariant Boundaries in 18R Martensite in a Cu-Zn-Al Alloy, **Acta Materialia**, Vol. 47, No.7, pp.2125-2141, (1999).
11. Y.Q. Wang, Y.F. Zheng, W. Cai and L.C. Zhao, The Tensile Behavior of Ti₃₆Ni₄₉Hf₁₅ High Temperature Shape Memory Alloy, **Scripta Materialia**, Vol.40, pp.1327-1331, (1999).
12. J.X. Zhang, Y.F. Zheng, Y.C. Luo, L.C. Zhao, The Substructure and Boundary Structure of the Deformed 18R Martensite in a Cu-Zn-Al Alloy, **Acta Materialia**, Vol. 47, No.12, pp.3497-3506, (1999).
13. Y. F. Zheng, J.X. Zhang, L. C. Zhao and H. Q. Ye, HREM Studies On the Microstructure of Severely Cold-Rolled TiNi Alloy after Reverse Martensitic Transformation, **Materials Letters**, Vol. 41, No.1, pp.9-15, (1999) **(Corresponding Author)**
14. Y. F. Zheng, L. C. Zhao and H. Q. Ye, HREM studies on the interface structure of deformed stress induced martensite variants in a Ti-Ni-Nb shape memory alloy, **Materials Science & Engineering A**, Vol. 273-275, pp. 271-274, (1999). **(Corresponding Author)**
15. G. H. Wu, C. H. Yu, L. Q. Meng, J. L. Chen, F. M. Yang, S. R. Qi, W. S. Zhan, Z. Wang, Y. F. Zheng and L. C. Zhao, Giant magnetic-field-induced strains in Heusler alloy NiMnGa with modified composition, **Applied Physics Letters**, Vol.75, No.19, PP.2990-2992, (1999)
16. Y. F. Zheng, B.M. Huang, J.X. Zhang and L. C. Zhao, The Microstructure and Linear Superelasticity of Cold Drawn TiNi Alloy, **Materials Science & Engineering A**, Vol. 279, No.1-2(FEB), PP.25-35, (2000). **(Corresponding Author)**

17. X.L. Meng, Y.F. Zheng, Z. Wang and L.C. Zhao, Effect of Aging on the Phase Transformation and Mechanical Behavior of $Ti_{36}Ni_{49}Hf_{15}$ High Temperature Shape Memory Alloy, **Scripta Materialia**, Vol. 42, No.4(JAN), PP. 341-348, (2000).
18. Y. F. Zheng, W. Cai, J.X. Zhang, L. C. Zhao and H.Q. Ye, Microstructural Evolution inside the Stress Induced Martensite Variant in a Ti-Ni-Nb Shape Memory Alloy, **Acta Materialia**, Vol. 48, No.6(APR), PP. 1409-1425, (2000). **(Corresponding Author)**
19. Y.F. Zheng, L.C. Zhao and H.Q. Ye, HREM studies on the microstructure of severely cold-rolled TiNi alloy after reverse martensitic transformation, **Materials Science Forum**, Vols. 327-328, pp. 159-162, (2000). **(Corresponding Author)**
20. C.H. Yu, W.H. Wang, J.L. Chen, G.H. Wu, F.M. Yang, N. Tang, S.R. Qi, W.S. Zhan, Z. Wang, Y.F. Zheng and L.C. Zhao, Magnetic-field-induced strains and magnetic properties of Heusler alloy $Ni_{52}Mn_{23}Ga_{25}$, **Journal of Applied Physics**, Vol.87, No.9, pp. 6292-6294, (2000)
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22. X.L. Meng, Y.F. Zheng, Z. Wang and L.C. Zhao, Shape Memory Properties of the $Ti_{36}Ni_{49}Hf_{15}$ High Temperature Shape Memory Alloy, **Materials Letters**, Vol.45, (AUG) pp.128-132, (2000)
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30. W.H. Wang, G.H. Wu, J.L. Chen, S.X. Gao, W.S. Zhan, Z. Wang, Z.Y. Gao, Y.F. Zheng, L.C. Zhao, Magnetic field-controlled shape memory in $Ni_{52.5}Mn_{23.5}Ga_{24}$ single crystals, **Advanced Engineering Materials** 3 (5): 330-333, (2001)
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49. H.Y. Peng, N. Wang, X.T. Zhou, Y.F. Zheng, C.S. Lee, S.T. Lee, Control of growth orientation of GaN nanowires, **Chemical Physics Letters**, 359 (3-4): 241-245 JUN 20 (2002)

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51. W. Cai, J.X. Zhang, Y.F. Zheng and L.C. Zhao Structure and Mobility of Martensite Variant Interfaces in a CuZnAl shape memory alloy, **Journal De Physique IV**, Vol.112, pp. 519-522, (2003)
52. X. L. Meng, W. Cai, Y. F. Zheng, Y. B. Rao and L.C. Zhao, Two-way Shape Memory Effect Induced by Martensite Deformation and Stabilization of Martensite in $Ti_{36}Ni_{49}Hf_{15}$ High Temperature Shape Memory Alloy, **Materials Letters**, 2003, Vol.57, pp. 4206-4211, (2003),
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55. Y. Cheng, W. Cai, H. T. Li, Y. F. Zheng, L. C. Zhao. Surface Characteristics and Corrosion Resistance Properties of TiNi Shape Memory Alloy Coated with Ta. **Surface and Coating Technology**, Vol.186, pp.346-352, (2004)
56. W. Cai, Y.F. Zheng, X.L. Meng and L.C. Zhao, Superelasticity in TiNi alloys and its applications in smart systems, **Materials Science Forum**, Vols. 475-479, (2005), pp.1915-1920
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58. Yufeng Zheng, Chao Li, Chen Huang and Liancheng Zhao, Torsion Property and Cyclic Fatigue Fracture Behavior of Nickel-Titanium Endodontic Instruments, **Key Engineering Materials**, Vol.288-289, pp.603-606, (2005) **(Corresponding Author)**
59. Chunjiang Li, Yufeng Zheng, Chao Li and Liancheng Zhao, The Studies on Bio-compatibility of Self-Expanding NiTi Stent and Apoptosis of Smooth Muscle Cells after Stenting, **Key Engineering Materials**, Vol.288-289, pp.587-590, (2005)
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63. F. Chen, H.B. Wang, Y.F. Zheng, W. Cai and L.C. Zhao, Effect of Fe addition on transformation temperatures and hardness of NiMnGa magnetic shape memory alloys, **Journal of Materials Science**, Vol.40, pp.219-221, (2005)
64. J. Yin, W. Cai, Y. Zheng, L. Zhao, Effect of Pt film thickness on PtSi formation and film surface morphology, **Surface and Coating Technology**, Vol.198, pp.329-334, (2005)
65. Y. Cheng and Y. F. Zheng, The corrosion behavior and hemocompatibility of TiNi alloys coated with DLC by plasma based ion implantation, **Surface and Coating Technology**, Vol.200, pp 4543-4548, (2006) **(Corresponding Author)**

66. X.J. Xu and Y.F. Zheng, Comparative Study of Torsional and Bending Properties for Six Models of Nickel-Titanium Root Canal Instruments with Different Cross-Sections, **Journal of Endodontics**, Vol.32, No.4, pp.372-375, (2006) **(Corresponding Author)**
67. C. Li and Y.F. Zheng, The electrochemical behavior of a $Ti_{50}Ni_{47}Fe_3$ shape memory alloy, **Materials Letters**, Vol.60, pp. 1646-1650, (2006) **(Corresponding Author)**
68. Y. Cheng and Y. F. Zheng, Effect of N₂/Ar gas flow ratio on the deposition of TiN/Ti coatings on NiTi shape memory alloy by PIIID, **Materials Letters**, Vol. 60 Issue 17/18, pp.2243-2247, (2006) **(Corresponding Author)**
69. B.L. Wang, Y.B. Wang, L. Li and Y.F. Zheng, Microstructure, Mechanical Property and Corrosion Resistance of Ti-Nb Alloys, **Key Engineering Materials**, Vol.324, pp.655-658, (2006)
70. X.X. Xu, L.Li and Y.F. Zheng, Synthesis and characterization of Magnetic Nanoparticles and Reinforcement in Polyurethane Film, **Key Engineering Materials**, Vol.324, pp.659-662, (2006)
71. F. Chen, W. Cai, L.C. Zhao and Y.F. Zheng, Mechanical properties and fracture analysis of Mn-rich Ni-Mn-Ga polycrystalline alloys, **Key Engineering Materials**, Vol.325, pp.691-694, (2006)
72. Y.F. Zheng and B.L. Wang, The Corrosion Behavior of a Beta Titanium Alloy in different Simulated Body Solutions, **Key Engineering Materials**, Vol.325, pp.695-698, (2006)
73. Yinong Liu, Yufeng Zheng, Abdus Mahmud and Jamaluddin Laeng, Transformation Cyclic Damage of Near-equiatomic Ni-Ti, **Key Engineering Materials**, Vol.325, pp.1173-1176, (2006)
74. Y. Cheng and Y. F. Zheng, Influence of negative voltage on the structure and properties of DLC films deposited on NiTi alloys by PBII, **Journal of Materials Science**, Vol.41, pp.4179-4183, (2006)**(Corresponding Author)**
75. Y. Cheng, W. Cai, H. T. Li, Y. F. Zheng, Surface modification of NiTi alloy with tantalum to improve its biocompatibility and radiopacity, **Journal of Materials Science**, Vol.41, pp.4961-4964, (2006)**(Corresponding Author)**
76. Y. Cheng and Y. F. Zheng, A study of ZrN/Zr coatings deposited on NiTi alloy by PIIID technique, **IEEE Transactions on Plasma Science**, Vol.34, No.4, pp.1105-1108, (2006) **(Corresponding Author)**
77. Y. Cheng and Y. F. Zheng, Formation of TiN films on biomedical NiTi shape memory alloy by PIIID, **Materials Science and Engineering A**, Vol.434, Issue 1-2, pp.99-104, (2006) **(Corresponding Author)**
78. Z. Y. Gao, Y. Wu, Y. X. Tong, W. Cai, Y. F. Zheng and L. C. Zhao, Effect of aging on transformation behavior and shape memory effect of a CuAlNb high temperature shape memory alloy, **Journal of Materials Science**, Vol.41, No.18, pp.6165-6167, (2006)
79. Y. Cheng and Y. F. Zheng, Effect of pulse negative bias voltage on the deposition of TiN coatings on shape memory NiTi alloy by PIIID, **Thin Solid Films**, Vol.515, Issue 4, pp.1358-1363, (2006) **(Corresponding Author)**
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81. Y.F. Zheng, B.L. Wang, J.G. Wang, C. Li and L.C. Zhao, The corrosion behavior of Ti-Nb-Sn shape memory alloys in different simulated solutions, **Materials Science and Engineering A**, Volumes 438-440, pp.891-895, (2006) **(Corresponding Author)**

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83. Y. Cheng and Y. F. Zheng, Surface and electrochemical studies of biomedical NiTi alloy coated with TiN by PIII&D, **Materials Science and Engineering A**, Volumes 438-440, pp.1146-1149, (2006) **(Corresponding Author)**
84. X. L. Meng, W.Cai, Y.F. Zheng and L.C. Zhao, Phase transformation and precipitation in aged TiNiHf high temperature shape memory alloys, **Materials Science and Engineering A**, Volumes 438-440, pp.666-670, (2006)
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87. Y. Cheng and Y. F. Zheng, Characterization of TiN, TiC and TiCN coatings on Ti-50.6 at.%Ni alloy deposited by PIII&D technique, **Surface and Coating Technology**, Vol.201, pp.4909-4912, (2007) **(Corresponding Author)**
88. H. F. Zhang, Y. Cheng, Y. F. Zheng, Modification of biomedical NiTi shape memory alloy by TiC/Ti films using PIIID, **Surface and Coating Technology**, Volume 201, Issue 15, Pages 6857-6860, (2007) **(Corresponding Author)**
89. Y. Cheng and Y. F. Zheng, Surface characterization and mechanical property of TiN/ Ti coated NiTi alloy by PIIID, **Surface and Coating Technology**, Volume 201, Issue 15, Pages 6869-6873, (2007) **(Corresponding Author)**
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91. Y.F. Zheng and Y.B. Wang, Microstructure and mechanical properties and corrosion behaviour of TiMoSn alloy, **Key Engineering Materials**, Vol.348-349, pp.281-284, (2007) **(Corresponding Author)**
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