

Wei Chen

Education

-Ph.D., Materials Science and Engineering (2009) GPA-3.9/4.0
Michigan State University-College of Engineering

-B.S., Condensed Matter Physics (2004) GPA-3.3/4.0
Nanjing University – Department of Physics

Work Experience

• **Postdoctoral Research Fellow** March 2010 – Present
Oak Ridge National Laboratory – Materials Processing Group

• **Graduate Research Assistant** August 2006 – December 2009
Michigan State University – College of Engineering
– Investigate creep and fatigue properties of boron-modified Ti alloys for turbine engine applications
– Evaluate the effect of processing on the microstructure and mechanical properties of Ti alloys

• **Research Assistant** October 2003 – June 2004
Microwave Absorption Lab, Nanjing University
– Synthesized W-hexaferrite “ $\text{Ba}(\text{Co}_x\text{Zn}_{1-x})_2\text{Fe}_{16}\text{O}_{27}$ ” using co-precipitation and mechanical milling
– Evaluated the microwave absorption property of ferrite–epoxy composite

Honors & Awards

2010 Fitch Beach Outstanding Graduate Research Award, Michigan State University
2009-2010 Dissertation Completion Fellowship, Michigan State University
2009 HERE Program Fellowship, Oak Ridge National Laboratory
2004 Outstanding Bachelors Degree Thesis

Professional Affiliations

TMS (Member),
Sigma Xi (Member)

Publications

W. Chen, Y. Yamamoto, and W.H. Peter. Investigation of pressing and sintering processes of CP-Ti powder made by Armstrong Process. Key Engineering Materials, Vol. 436 (2010), pp. 123-130.

W. Chen and C.J. Boehlert. Characterization of the microstructure, tensile and creep behavior of powder metallurgy processed and rolled Ti-6Al-4V-1B Alloy. Key Engineering Materials, Vol. 436 (2010), pp. 195-203.

W. Chen and C.J. Boehlert. The 455°C tensile and fatigue behavior of boron-modified Ti-6Al-2Sn-4Zr-2Mo-0.1Si. International Journal of Fatigue, Vol. 32, Issue 5 (2010), pp. 799-807.

W. Chen, C.J. Boehlert, E.A. Payzant, and J.Y. Howe. The effect of processing on the 455°C tensile and fatigue behavior of boron-modified Ti-6Al-4V. International Journal of Fatigue, Vol. 32, Issue 3 (2010), pp. 627-638.

W. Chen and C.J. Boehlert. The effect of boron on the elevated-temperature tensile and creep behavior of cast Ti-6Al-2Sn-4Zr-2Mo-0.1Si. Metallurgical and Materials Transactions A, Vol. 40, No. 7 (2009), pp. 1568-1578.

C.J. Boehlert and **W. Chen**. The elevated-temperature creep behavior of boron-modified Ti-6Al-4V alloys. Materials Transactions Vol. 50, No. 7 (2009), pp. 1690-1703.

W. Chen and C.J. Boehlert. The 455°C tensile and fatigue behavior of boron-modified Ti-6Al-4V. Proceedings of Sixth Internal Conference on Low Cycle Fatigue, (2008), pp. 491-496.

W. Chen and C.J. Boehlert. The elevated-temperature fatigue behavior of boron-modified Ti-6Al-4V castings. Materials Science and Engineering A, Vol. 494 Issues 1-2 (2008), pp. 132-138.

Conference Presentations

W. Chen, Y. Yamamoto, and W.H. Peter. “In-situ compressing and sintering of CP-Ti powder made by Armstrong[®] process”, TMS 2010 Annual Conference, Seattle, WA, February 14-18, 2010.

W. Chen, C.J. Boehlert, A. Payzant, J. Howe, S. Tamirisakandala, and D.B. Miracle. “The processing effects on the fatigue, creep, and fatigue-creep interaction of Ti-6Al-4V alloy”, TMS 2010 Annual Conference, Seattle, WA, February 14-18, 2010.

W. Chen, C.J. Boehlert, A. Payzant, J. Howe, S. Tamirisakandala, and D.B. Miracle. “Effect of processing on the elevated-temperature fatigue behavior of Ti-6Al-4V Alloys”, MS&T Annual Conference, Pittsburgh, PA, October 25-29, 2009.

W. Chen, C.J. Boehlert, A. Payzant, J. Howe, S. Tamirisakandala, and D.B. Miracle. “Mechanical properties of boron-modified Ti alloys for jet engine applications”, Graduate Academic Conference, Michigan State University, East Lansing, MI, March 20, 2009.

W. Chen, C.J. Boehlert, A. Payzant, J. Howe, S. Tamirisakandala, D.B. Miracle, and S.I. Wright. “The Effect of Processing, Microstructure and Texture on the Elevated-Temperature Fatigue Behavior of Boron-Modified Ti Alloys”, TMS 2009 Annual Conference, San Francisco, CA, February 15-19, 2009.

W. Chen, J.P. Quast, C.J. Boehlert, A. Payzant, J. Howe, S. Tamirisakandala, D.B. Miracle, and S.I. Wright. “Effect of microstructure on the elevated-temperature fatigue behavior of Ti Alloys reinforced with SiC Fibers or TiB Whiskers”, MS&T Annual Conference, Pittsburgh, PA, October 5-9, 2008.

W. Chen, C.J. Boehlert, A. Payzant, J. Howe, S. Tamirisakandala, D.B. Miracle, and S.I. Wright. “The 455°C fatigue behavior of boron-modified Ti-6Al-4V(wt.%)”, Sixth Internal Conference on Low Cycle Fatigue, Berlin, Germany, September 8-12, 2008.

W. Chen, C.J. Boehlert, S. Tamirisakandala, D.B. Miracle, and S.I. Wright. “The effect of processing, microstructure, and texture on the elevated-temperature creep and fatigue behavior of Ti-6Al-4V-xB alloys”, Electron Backscattered Diffraction (EBSD) Topical Conference, Madison, WI, May 20-22, 2008.

W. Chen, C.J. Boehlert, S. Tamirisakandala, and D.B. Miracle. “The 455°C fatigue behavior of Ti-6Al-4V-xB alloys”, TMS 2008 Annual Conference, New Orleans, LA, March 5-9, 2008.

W. Chen, C.J. Boehlert, S. Tamirisakandala, and D.B. Miracle. “The elevated-temperature fatigue behavior of boron-modified Ti-6Al-4V castings”, MS&T Annual Conference, Detroit, MI, September 16-20, 2007.