# CARL BOEHLERT Professor 428 South Shaw Lane, 2100 Engineering Building Department of Chemical Engineering and Materials Science Michigan State University East Lansing, Michigan 48824-1226 Tel: (517) 353-3703, Fax:(517) 432-1105 e-mail:boehlert@egr.msu.edu; webpage:http://egr.msu.edu/~boehlert/GROUP

### **EDUCATION**

8/93 - 12/97	UNIVERSITY OF DAYTON, Dayton, Ohio
	PhD in Materials Science and Engineering, Department of Chemical and
	Materials Engineering, School of Engineering. Advisor: Daniel Eylon
	Dissertation: The Phase Evolution, Creep, and Tensile Behavior of Two-Phase
0/01 5/02	Orthorhombic Litanium Alloys.
8/91 - 5/93	UNIVERSITY OF DAYTON, Dayton, Ohio
	MS in Materials Science and Engineering, Department of Chemical and
	Materials Engineering, School of Engineering. Advisor: Daniel Eylon
0/07 5/01	Thesis: Out-of-Phase Thermomechanical Fatigue of Titanium Alloys.
8/87 - 5/91	<b>CORNELL UNIVERSITY</b> , Ithaca, New York
	BS in Agricultural and Biological Engineering, Department of Agricultural and
	Biological Engineering, College of Agriculture and Life Sciences and College of
	Engineering. Concentration Area: Biomechanical Engineering.
	PROFESSIONAL WORK EXPERIENCE
9/01/19 - 6/30/20	UNIVERSIDAD DE CARLOS III. Madrid Spain
	Fulbright Senior Scholar Award. Taught Introduction to Materials Science and
	Engineering class and performed research on powder metallurgy
7/01/15 - present	MICHIGAN STATE UNIVERSITY, East Lansing, MI
I	Professor of Materials Science and Engineering, Department of Chemical
	Engineering and Materials Science (CHEMS), College of Engineering
1/6/14 - 2/7/14	INTERNATIONAL COLLABORATION CENTER (ICC), INSTITUTE
	FOR MATERIALS RESEARCH (IMR), TOHOKU UNIVERSITY, Sendai,
	Japan, Visiting Professor, Biomedical Titanium Alloy Research
10/1/11 - 12/31/14	MADRID INSTITUTE FOR ADVANCED STUDIES-MATERIALS
	(IMDEA MATERIALS INSTITUTE), Madrid, Spain
	Visiting Scholar, Mg Alloy Research sponsored by NSF & Spanish Government
8/1/10 - 7/31/11	MADRID INSTITUTE FOR ADVANCED STUDIES-MATERIALS
	(IMDEA MATERIALS INSTITUTE), Madrid, Spain
	Visiting Scholar, Research sponsored by the Ministerio de Education, Spain;
	collaboration with Industria de Turbo Propulsores, S. A. on a project relating to
	processing microstructure-property relationships of TiAl intermetallic alloys.
Summer 2008	OAK RIDGE NATIONAL LABORATORY, Oak Ridge, Tennessee
	Higher Education Research Experience (HERE) Summer Faculty Fellowship
	High Temperature Materials Laboratory, Microscopy Group
Summers 2005, 2006,	AIR FORCE RESEARCH LABORATORY, Dayton, Ohio
and 2007	ASEE Faculty Fellowship, Materials Directorate, Metallic Composites Team
7/07 - 6/30/15	MICHIGAN STATE UNIVERSITY, East Lansing, MI

	Associate Professor of Materials Science and Engineering, Department of
	Chemical Engineering and Materials Science (CHEMS), College of Engineering
1/05 - 7/07	MICHIGAN STATE UNIVERSITY, East Lansing, MI
	Assistant Professor of Materials Science and Engineering, Department of
	Chemical Engineering and Materials Science (CHEMS), College of Engineering
5/02 - 5/04	LOS ALAMOS NATIONAL LABORATORY, Los Alamos, New Mexico
	Faculty Affiliate, Nuclear Materials Technology (NMT) Division
9/01 - 1/05	ALFRED UNIVERSITY, Alfred, New York
	Assistant Professor, New York State College of Ceramics, School of
	Engineering (SOE)
1/00 - 9/01	LOS ALAMOS NATIONAL LABORATORY, Los Alamos, New Mexico
	Postdoctoral Research Associate, Nuclear Materials Technology (NMT)
	Division
1/98 - 12/99	JOHNS HOPKINS UNIVERSITY, Baltimore, Maryland
	Postdoctoral Fellow, Department of Mechanical Engineering
	Advisor: Kevin Hemker
8/93 - 1/98	UNIVERSAL ENERGY SYSTEMS (UES), Dayton, Ohio
	Materials Scientist, AFRL Metals and Ceramics Division, MMC Group
8/91 - 5/93	UNIVERSITY OF DAYTON, Dayton, Ohio
	Graduate Research Assistant, UD and AFRL, Metals and Ceramics Division
	PROFESSIONAL HONORS AND AWARDS
1/20-6/20	Fulbright Award Recipient (Spain)
12/18	Served as reviewer for Composite Interfaces manuscript submission
10/18	Served as reviewer for Materialia manuscript submission
8/18	Served as examiner of Egypt-Japan University of Science and Technology (E-
	JUST) M.Sc. student thesis titled, "Phase Stability and Super-Elasticity Change
	in Ti-Nb-Ta-Zr Biomedical Alloy System", (student name: Kudakwashe
	Nyamuchiwa)
10/18	Served as examiner of Department of Physics/Material Science & Engineering,
10/18	Jaypee Institute of Information Technology PhD student (Komal Chawla)
10/18 6-7/18	Jaypee Institute of Information Technology PhD student (Komal Chawla) Served as reviewer for the DOE Energy Efficiency and Renewable Energy
10/18 6-7/18	Served as examiner of Department of Physics/Material Science & Engineering, Jaypee Institute of Information Technology PhD student (Komal Chawla) Served as reviewer for the DOE Energy Efficiency and Renewable Energy (EERE) program (8 proposals reviewed)
10/18 6-7/18 4-5/18	Served as examiner of Department of Physics/Material Science & Engineering, Jaypee Institute of Information Technology PhD student (Komal Chawla) Served as reviewer for the DOE Energy Efficiency and Renewable Energy (EERE) program (8 proposals reviewed) Served as review panelist for the New York State Division of Science and
10/18 6-7/18 4-5/18	Served as examiner of Department of Physics/Material Science & Engineering, Jaypee Institute of Information Technology PhD student (Komal Chawla) Served as reviewer for the DOE Energy Efficiency and Renewable Energy (EERE) program (8 proposals reviewed) Served as review panelist for the New York State Division of Science and Technology and Innovation, <u>Center for Advanced Technology Program</u>
10/18 6-7/18 4-5/18 2/18- present	Served as examiner of Department of Physics/Material Science & Engineering, Jaypee Institute of Information Technology PhD student (Komal Chawla) Served as reviewer for the DOE Energy Efficiency and Renewable Energy (EERE) program (8 proposals reviewed) Served as review panelist for the New York State Division of Science and Technology and Innovation, <u>Center for Advanced Technology Program</u> served on the TMS Acta Materialia. Undergraduate Scholarship Committee
10/18 6-7/18 4-5/18 2/18- present 2/18	Served as examiner of Department of Physics/Material Science & Engineering, Jaypee Institute of Information Technology PhD student (Komal Chawla) Served as reviewer for the DOE Energy Efficiency and Renewable Energy (EERE) program (8 proposals reviewed) Served as review panelist for the New York State Division of Science and Technology and Innovation, <u>Center for Advanced Technology Program</u> served on the TMS Acta Materialia. Undergraduate Scholarship Committee Served on NSF MMN virtual panel, 14 proposals reviewed
10/18 6-7/18 4-5/18 2/18- present 2/18 1/1/18-1/1/21	Served as examiner of Department of Physics/Material Science & Engineering, Jaypee Institute of Information Technology PhD student (Komal Chawla) Served as reviewer for the DOE Energy Efficiency and Renewable Energy (EERE) program (8 proposals reviewed) Served as review panelist for the New York State Division of Science and Technology and Innovation, <u>Center for Advanced Technology Program</u> served on the TMS Acta Materialia. Undergraduate Scholarship Committee Served on NSF MMN virtual panel, 14 proposals reviewed Served as TMS representative on the Joint Commission for <i>Metallurgical and</i>
10/18 6-7/18 4-5/18 2/18- present 2/18 1/1/18-1/1/21	Served as examiner of Department of Physics/Material Science & Engineering, Jaypee Institute of Information Technology PhD student (Komal Chawla) Served as reviewer for the DOE Energy Efficiency and Renewable Energy (EERE) program (8 proposals reviewed) Served as review panelist for the New York State Division of Science and Technology and Innovation, <u>Center for Advanced Technology Program</u> served on the TMS Acta Materialia. Undergraduate Scholarship Committee Served on NSF MMN virtual panel, 14 proposals reviewed Served as TMS representative on the Joint Commission for <i>Metallurgical and</i> <i>Materials Transactions</i> for the term 2018-2020
10/18 6-7/18 4-5/18 2/18- present 2/18 1/1/18-1/1/21 12/17	Served as examiner of Department of Physics/Material Science & Engineering, Jaypee Institute of Information Technology PhD student (Komal Chawla) Served as reviewer for the DOE Energy Efficiency and Renewable Energy (EERE) program (8 proposals reviewed) Served as review panelist for the New York State Division of Science and Technology and Innovation, <u>Center for Advanced Technology Program</u> served on the TMS Acta Materialia. Undergraduate Scholarship Committee Served on NSF MMN virtual panel, 14 proposals reviewed Served as TMS representative on the Joint Commission for <i>Metallurgical and</i> <i>Materials Transactions</i> for the term 2018-2020 Served as reviewer for Journal of Central South University manuscript
10/18 6-7/18 4-5/18 2/18- present 2/18 1/1/18-1/1/21 12/17	Served as examiner of Department of Physics/Material Science & Engineering, Jaypee Institute of Information Technology PhD student (Komal Chawla) Served as reviewer for the DOE Energy Efficiency and Renewable Energy (EERE) program (8 proposals reviewed) Served as review panelist for the New York State Division of Science and Technology and Innovation, <u>Center for Advanced Technology Program</u> served on the TMS Acta Materialia. Undergraduate Scholarship Committee Served on NSF MMN virtual panel, 14 proposals reviewed Served as TMS representative on the Joint Commission for <i>Metallurgical and</i> <i>Materials Transactions</i> for the term 2018-2020 Served as reviewer for Journal of Central South University manuscript submission
10/18 6-7/18 4-5/18 2/18- present 2/18 1/1/18-1/1/21 12/17 11/17 – present	Served as examiner of Department of Physics/Material Science & Engineering, Jaypee Institute of Information Technology PhD student (Komal Chawla) Served as reviewer for the DOE Energy Efficiency and Renewable Energy (EERE) program (8 proposals reviewed) Served as review panelist for the New York State Division of Science and Technology and Innovation, <u>Center for Advanced Technology Program</u> served on the TMS Acta Materialia. Undergraduate Scholarship Committee Served on NSF MMN virtual panel, 14 proposals reviewed Served as TMS representative on the Joint Commission for <i>Metallurgical and</i> <i>Materials Transactions</i> for the term 2018-2020 Served as reviewer for Journal of Central South University manuscript submission Served on editorial board for MOJ Mining & Metallurgy, performed reviews on
10/18 6-7/18 4-5/18 2/18- present 2/18 1/1/18-1/1/21 12/17 11/17 – present	Served as examiner of Department of Physics/Material Science & Engineering, Jaypee Institute of Information Technology PhD student (Komal Chawla) Served as reviewer for the DOE Energy Efficiency and Renewable Energy (EERE) program (8 proposals reviewed) Served as review panelist for the New York State Division of Science and Technology and Innovation, <u>Center for Advanced Technology Program</u> served on the TMS Acta Materialia. Undergraduate Scholarship Committee Served on NSF MMN virtual panel, 14 proposals reviewed Served as TMS representative on the Joint Commission for <i>Metallurgical and</i> <i>Materials Transactions</i> for the term 2018-2020 Served as reviewer for Journal of Central South University manuscript submission Served on editorial board for MOJ Mining & Metallurgy, performed reviews on 2+6/18
10/18 6-7/18 4-5/18 2/18- present 2/18 1/1/18-1/1/21 12/17 11/17 – present 2/17-present	Served as examiner of Department of Physics/Material Science & Engineering, Jaypee Institute of Information Technology PhD student (Komal Chawla) Served as reviewer for the DOE Energy Efficiency and Renewable Energy (EERE) program (8 proposals reviewed) Served as review panelist for the New York State Division of Science and Technology and Innovation, <u>Center for Advanced Technology Program</u> served on the TMS Acta Materialia. Undergraduate Scholarship Committee Served on NSF MMN virtual panel, 14 proposals reviewed Served as TMS representative on the Joint Commission for <i>Metallurgical and</i> <i>Materials Transactions</i> for the term 2018-2020 Served as reviewer for Journal of Central South University manuscript submission Served on editorial board for MOJ Mining & Metallurgy, performed reviews on 2+6/18 Served on Scientific Program Committee for the High Power Targetry
10/18 6-7/18 4-5/18 2/18- present 2/18 1/1/18-1/1/21 12/17 11/17 – present 2/17-present	Served as examiner of Department of Physics/Material Science & Engineering, Jaypee Institute of Information Technology PhD student (Komal Chawla) Served as reviewer for the DOE Energy Efficiency and Renewable Energy (EERE) program (8 proposals reviewed) Served as review panelist for the New York State Division of Science and Technology and Innovation, <u>Center for Advanced Technology Program</u> served on the TMS Acta Materialia. Undergraduate Scholarship Committee Served on NSF MMN virtual panel, 14 proposals reviewed Served as TMS representative on the Joint Commission for <i>Metallurgical and</i> <i>Materials Transactions</i> for the term 2018-2020 Served as reviewer for Journal of Central South University manuscript submission Served on editorial board for MOJ Mining & Metallurgy, performed reviews on 2+6/18 Served on Scientific Program Committee for the High Power Targetry Workshop, Facility for Rare Isotrope Beams (FRIB), Michigan State University,
10/18 6-7/18 4-5/18 2/18- present 2/18 1/1/18-1/1/21 12/17 11/17 – present 2/17-present	Served as examiner of Department of Physics/Material Science & Engineering, Jaypee Institute of Information Technology PhD student (Komal Chawla) Served as reviewer for the DOE Energy Efficiency and Renewable Energy (EERE) program (8 proposals reviewed) Served as review panelist for the New York State Division of Science and Technology and Innovation, <u>Center for Advanced Technology Program</u> served on the TMS Acta Materialia. Undergraduate Scholarship Committee Served on NSF MMN virtual panel, 14 proposals reviewed Served as TMS representative on the Joint Commission for <i>Metallurgical and</i> <i>Materials Transactions</i> for the term 2018-2020 Served as reviewer for Journal of Central South University manuscript submission Served on editorial board for MOJ Mining & Metallurgy, performed reviews on 2+6/18 Served on Scientific Program Committee for the High Power Targetry Workshop, Facility for Rare Isotrope Beams (FRIB), Michigan State University, May 21-25 2018
10/18 6-7/18 4-5/18 2/18- present 2/18 1/1/18-1/1/21 12/17 11/17 – present 2/17-present 2/17-present	Served as examiner of Department of Physics/Material Science & Engineering, Jaypee Institute of Information Technology PhD student (Komal Chawla) Served as reviewer for the DOE Energy Efficiency and Renewable Energy (EERE) program (8 proposals reviewed) Served as review panelist for the New York State Division of Science and Technology and Innovation, <u>Center for Advanced Technology Program</u> served on the TMS Acta Materialia. Undergraduate Scholarship Committee Served on NSF MMN virtual panel, 14 proposals reviewed Served as TMS representative on the Joint Commission for <i>Metallurgical and</i> <i>Materials Transactions</i> for the term 2018-2020 Served as reviewer for Journal of Central South University manuscript submission Served on editorial board for MOJ Mining & Metallurgy, performed reviews on 2+6/18 Served on Scientific Program Committee for the High Power Targetry Workshop, Facility for Rare Isotrope Beams (FRIB), Michigan State University, May 21-25 2018 Served on organizing committee for the INTDS (International Nuclear Target
10/18 6-7/18 4-5/18 2/18- present 2/18 1/1/18-1/1/21 12/17 11/17 – present 2/17-present 2/17-present	Served as examiner of Department of Physics/Material Science & Engineering, Jaypee Institute of Information Technology PhD student (Komal Chawla) Served as reviewer for the DOE Energy Efficiency and Renewable Energy (EERE) program (8 proposals reviewed) Served as review panelist for the New York State Division of Science and Technology and Innovation, <u>Center for Advanced Technology Program</u> served on the TMS Acta Materialia. Undergraduate Scholarship Committee Served on NSF MMN virtual panel, 14 proposals reviewed Served as TMS representative on the Joint Commission for <i>Metallurgical and</i> <i>Materials Transactions</i> for the term 2018-2020 Served as reviewer for Journal of Central South University manuscript submission Served on editorial board for MOJ Mining & Metallurgy, performed reviews on 2+6/18 Served on Scientific Program Committee for the High Power Targetry Workshop, Facility for Rare Isotrope Beams (FRIB), Michigan State University, May 21-25 2018 Served on organizing committee for the INTDS (International Nuclear Target Development Society) Conference in Fall 2018 (September 2018).
10/18 6-7/18 4-5/18 2/18- present 2/18 1/1/18-1/1/21 12/17 11/17 – present 2/17-present 2/17-present 10-11/2017	Served as examiner of Department of Physics/Material Science & Engineering, Jaypee Institute of Information Technology PhD student (Komal Chawla) Served as reviewer for the DOE Energy Efficiency and Renewable Energy (EERE) program (8 proposals reviewed) Served as review panelist for the New York State Division of Science and Technology and Innovation, <u>Center for Advanced Technology Program</u> served on the TMS Acta Materialia. Undergraduate Scholarship Committee Served on NSF MMN virtual panel, 14 proposals reviewed Served as TMS representative on the Joint Commission for <i>Metallurgical and</i> <i>Materials Transactions</i> for the term 2018-2020 Served as reviewer for Journal of Central South University manuscript submission Served on editorial board for MOJ Mining & Metallurgy, performed reviews on 2+6/18 Served on Scientific Program Committee for the High Power Targetry Workshop, Facility for Rare Isotrope Beams (FRIB), Michigan State University, May 21-25 2018 Served on organizing committee for the INTDS (International Nuclear Target Development Society) Conference in Fall 2018 (September 2018). Served as external reviewer for promotion case at West Virginia University

11/14-17/2018	Judge Travel Award for the 2018 Annual Biomedical Research Conference for Minority Students (ABRCMS) held in Indiana Convention Center, Indianapolis, IN
11/1-5/2017	Judge Travel Award for the 2017 Annual Biomedical Research Conference for Minority Students (ABRCMS).
3/17-present	Served on Board of Review for Materials Science and Engineering A
2010	Selection of the Global Directory of Who's Who for Executives and Professionals
2008-09	Selection of Who's Who Among Executives and Professionals "Honors Edition"
2008	Selected for Faculty Membership into the Honor Society of Phi Kappa Phi
2008	ORNL Higher Education Research Experience Summer Faculty Fellowship
2007-2008	Michigan State University Teacher Scholar Award
2007	Withrow Teaching Excellence Award in CHEMS
2007	AFRL Air Vehicle's Directorate Summer Faculty Fellowship
2007	Selected to Who's Who of Emerging Leaders First Edition
2005/06	Selection of Academic Keys Who's Who in Engineering Education (WWEE).
2005	Inducted into the Vestal Central School District Hall of Fame (Vestal, New
	York)
2005/06/07	ASEE Summer Faculty Fellowship at the Air Force Research Laboratory
2004	Biography published in <u>2000 Outstanding Intellectuals of the 21<sup>st</sup> Century</u> and <u>Great Lives of the 21<sup>st</sup> Century</u> and received <u>21<sup>st</sup> Century Award for</u> Achievement by International Biographical Centre, Cambridge, England
2004+2008+2010	Selection of Madison Who's Who 2004 and 2008 and 2010 Editions
02/03 05/06 08/09 10/11	Selection of Who's Who in Science and Engineering $(6^{\text{th}} 8^{\text{th}} 10^{\text{th}} 11^{\text{th}} \text{Editions})$
2004/05	Manchester Who's Who Among Executives and Professionals (2004/5 Honors Edition).
2002	Defense Program (DP) Department of Energy (DOE) Presidential Early Career
	Award for Science and Engineering (PECASE)
2002	NSF CAREER Award recipient
2003/04	Honored Member Strathmore's Who's Who (Edition 2003-2004).
2003	American Institute for Mining Engineers (AIME) Rossiter W. Raymond Memorial Award for best paper published by AIME written by a member under 33 years of age
2001	International Metallographic Contest, Honorable Mention for Class 5: Unique, Unusual, and New Techniques in Microscopy, "First EBSD Image of Pu-Ga Alloy"
2001-04 07-09	Selection of Who's Who in America ( $55^{\text{th}} 56^{\text{th}} 57^{\text{th}} 58^{\text{th}} 61^{\text{th}} 62^{\text{nd}} 63^{\text{rd}} \text{Editions}$ )
1999	TMS Young Leader Intern for the Structural Materials Division (SMD)
1998	ASM International Graduate Student Paper Contest Winner
1995-97	Dayton Area Graduate Studies Institute (DAGSI) Scholarship recipient
1997	ASM University of Dayton Graduate Student Award Recipient.
	MEMBERSHIPS/SOCIETIES
2008-2010	Society for Engineering Science (SES)
2008-present	Phi Kanna Phi
2005-20008	Biomedical Engineering Society (BMES)
2003 20000 2004- present	American Society for Mechanical Engineers (ASMF)
2004-2007	American Ceramic Society (ACers)
5/03-present	American Society for Engineering Education (ASEE)
5/01-03	Foundation for Advances in Medicine and Science (FAMS)
5/92-present	The Material Society (TMS)
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1992-98, 2001-present	American Society of Materials (ASM) International
1997-98, 2001, 05-07	Materials Research Society (MRS)

# INSTITUTIONAL AND PUBLIC SERVICE

**External Committees** 

12/19/11	Served as a reviewer for the inaugural TMS Open Innovation Project Proposals
2011	Sponsored by the Propane Education and Research Council (PERC).
2011	Member of the TMS Honors & Professional Pacagnition Award Committee
2010	Selected to serve on Undergraduate Education Coordinating Committee on a
9/09-present	TMS representative
2009-11	Served as Secretary of the ORNL SHARE User Executive Committee (UEC)
	(UEC) {to be Vice Chair in 2011-12 and Chair in 2012-3}
2006-12	Elected to be secretary of the Joint TMS/ASM Composites Committee in 2007/8, vice chairperson in 2009/10, and chairperson in 2011/12.
2008-11	Served as Nominated Member on the TMS Robert Lansing Hardy and Champion H. Mathewson Awards Committee (Chair of Committee in 2010)
2008-09	Served as Member of the TMS Structural Materials Division Awards Committee
2008-11	Served as Information Technology Representative for TMS Structural Materials
	Division
2006	Served on the Scientific Committee of the Special Session:"The Processes of
	Metals Plastic Deforming: Modeling and Experiments" at the International
	Scientific Conference on Continuum Mechanics (CM'06) sponsored by the
	World Scientific and Engineering Academy and Society (WSEAS), May 10-13,
	2006.
2005-10	Served as Invited/Appointed Member of the TMS Education Committee and
	TMS Academic Alliance Committee Focus Group; Served as vice chair of the
	TMS Education Committee in 2007-08; Chair in 2009-10 and representative for
	TMS Public and Governmental Affairs Committee in 2006-2015.
2004-present	Served on Engineering Accreditation Committee (EAC) of the Accreditation
	Board for Engineering and Technology (ABET) as a reviewer for engineering
	physics and materials science and engineering programs (10 visits through 2019)
2004-06	Served as Scientific Committee member of THERMEC'2006 International
	Conference on Processing and Manufacturing of Advanced Materials held at
	Vancouver British Columbia July 4-8, 2006.
2002-04	Served as co-advisor to the Journal of Metals from the Nuclear Materials
	Committee of the Structural Materials Division of The Materials Society
2002-04	Executive Committee Member ASM International Southwestern New York State
	Chapter

## Internal Committees

Michigan State University	
2008-2011, 2013	University Awards Committee
2008-2010, 2015-present	Internal CHEMS Advisory Board
2005-2007, 2010-present	CHEMS Graduate Studies Committee
2005-2009	College of Engineering Graduate Studies Committee/Task Force
2007-2009	CHEMS Curriculum Committee

# Alfred University

- Materials Science and Engineering Committee Curriculum and Teaching Committee 2/02-04
- 2/02-04

- 9/03-04 School of Engineering Graduate Admissions Committee for Materials Science and Engineering
- 9/03-04 PhD Engineering Faculty Committee

Michigan State University Service

2008-2011, 2013 Served on the University Awards Committee

4/24/17-8/15/19 served on the University Committee on International Studies and Programs (ISP)

4/12/17 Presented Poster titled "Increasing the Strength of Titanium Alloys" at the MSU Innovation Celebration at the Spartan Stadium, Huntington Club, on MSU Campus

9/17-present Served on PhD committee for Shruthi T Kumar Raj, Chemistry student (Greg Swain is her advisor)

10/16-12/16 Served on PhD committee for Catherine Munson, Chemistry student (Greg Swain is her advisor)

12/15 - present serving as advisor for Greg Swain's student, Hillary Asberry

8/15-9/16 served as mentor for Academy for Global Engagement for Assistant Professor Wei Lai (CHEMS)

10/14-9/15 served as mentor for Academy for Global Engagement for Assistant Professor Nelson Sepulveda (ECE)

6/24-26/15 Taught 4 4-H Exploration Days Seminars titled "Scanning Electron Microscopy" (24 total students)

6/26/17-6/28/18 Taught 4 Grandparent's University Seminars titled "Topics in Materials Science and Engineering" (xx total students and their relatives)

6/27/17-6/29/17 Taught 4 Grandparent's University Seminars titled "Topics in Materials Science and Engineering" (53 total students and their relatives)

6/30/15-7/2/15 Taught 4 Grandparent's University Seminars titled "Scanning Electron Microscopy" (53 total students and their relatives)

Feb-March 2012, 2013, 2014, 2015 Served on the selection committee for the Alumni Distinguished Scholarship (ADS) Competition

3/17 Served as faculty reviewer for applications from Honors College students for international study awards

3/14+3/15+3/16+3/17+3/18 Served as faculty reviewer for applications (~13/year) from Honors College students for study abroad awards

2/11/14 Participated on panel for MSU Academy of Global Engagement

2012 served as coordinator of 20 professorial assistants placed for CHEMS faculty in fall 2012.

4/13/18 Served as mentor for 15 posters (15 students) presented at the University Undergraduate Research and Arts Forum (UURAF)

4/17 Served as mentor for 16 posters (16 students) presented at the University Undergraduate Research and Arts Forum (UURAF)

4/16 Served as mentor for 15 posters (15 students) presented at the University Undergraduate Research and Arts Forum (UURAF)

4/15 Served as mentor for 15 posters (15 students) presented at the University Undergraduate Research and Arts Forum (UURAF)

4/4/14 Served as mentor for 12 posters (12 students) presented at the University Undergraduate Research and Arts Forum (UURAF)

2008-2011, 2013 Served on the University Awards Committee

3/14+3/15+3/16 Served as faculty reviewer for applications (13/year) from Honors College students for study abroad awards

2/2014, Served on Alumni Distinguished Scholar Selection Committee for the Honors College.

4/4/13 Served as mentor for 12 posters (12 students) presented at the University Undergraduate Research and Arts Forum (UURAF)

6/28-30/10 Taught 4 Grandparent's University Seminars titled "Scanning Electron Microscopy" (53 total students and their relatives)

2012 served as coordinator of 20 professorial assistants placed for CHEMS faculty in fall 2012.

4/13/12 Served as mentor for 12 posters (12 students) presented at the University Undergraduate Research and Arts Forum (UURAF)

4/13/12 Served as judge for poster session at the University Undergraduate Research and Arts Forum (UURAF)

6/20-22/12 Taught 4 4-H Exploration Days Seminars titled "Scanning Electron Microscopy" (xx total students)

February and March, 2012, Served on Alumni Distinguished Scholar Selection Committee for the Honors College.

3/30/12 Served as judge for the MSU Council of Graduate Students 4<sup>th</sup> Annual Graduate Academic Conference.

1/11-12/12 Served on Boren Review Committee for Student applicants (Internal Office Activity)

6/23-25/10 Taught 4 4-H Exploration Days Seminars titled "Scanning Electron Microscopy" (22 total students)

5/20/10, attended the Mentoring Workshop sponsored by MSU through a NSF grant.

1/10, served as reviewer for MSU Honors College Honors Seminar Proposals (3).

11/13/09 Gave Honors Research Seminar talk about "Introduction to Materials Research in a Service Learning for Leadership Environment" to interested faculty and Honors Research Seminar Instructors

4/16/10 Served as mentor for 12 posters (12 students) presented at the University Undergraduate Research and Arts Forum (UURAF)

4/6/09 Served as mentor for 12 posters (12 students) presented at the University Undergraduate Research and Arts Forum (UURAF)

6/25-27/08 Taught 4 Grandparent's University Seminars titled "Scanning Electron Microscopy" (68 total students and their relatives)

6/18-20/08 Taught 4 4-H Exploration Days Seminars titled "Scanning Electron Microscopy" (25 total students)

4/11/08 Served as judge for poster session at the University Undergraduate Research and Arts Forum (UURAF)

4/11/08 Served as mentor for 13 posters (14 students) presented at the University Undergraduate Research and Arts Forum (UURAF)

3/08 Served as research advisor for a Honor's Chemistry Freshman Student Daniel Lenders for the Spring 2008 semester.

2/1/08 and 2/8/08 Alumni Distinguished Scholarship (ADS) Program speaker on Undergraduate Research (1,000+ students and parents in audience for each presentation)

10/05, served as reviewer for MSU internal CVM Companion Animal proposal submission.

6/29/07 Taught a Grandparent's University Seminar titled "Scanning Electron Microscopy" 9-11am (17 students and their relatives)

Michigan State University College of Engineering Service

2-3/2018 served on review committee for COE Global Leadership Withrow Award

2018- present supervisor of the PENTATECH summer study abroad program

2017- present supervisor of the DECATECH summer study abroad program

1/18-present Served on PhD committee for Prathima Nuli (ECE student), Dr. Shanelle Foster is his supervisor.

1/18-present Served on PhD committee for Anthony Robert Wente (ME student), Dr. Xinran Xiao is his supervisor.

1/17-present Served on PhD committee for Kevin Kauth (ME student), Dr. Mueller is his supervisor.

1-3/2017 served on COE review committee for EGR-393 Cooperative Engineering Education fellowships

4/16 - 12/16 Served on COE integrity issue special committee

9/2/15-12/31/15 Served as CHEMS representative for Engineering Graduate Studies Committee (EGSC)

6/22/15-7/31/15 served as superisovor for a teacher for the Summer 2015 NSF Research Experiences for Teachers (RET) program on Robotics Engineering for Better Life and Sustainable Future, Monday, June 22 - Friday, July 31 on MSU campus.

4-8/15 Served as chair of the teaching specialist search for CHEMS+CORE, candidate to start by Fall 2015 semester

9/14- present Volunteered for being mentor in MSU chapter of the Society of Asian Scientists and Engineers (SASE), mentee is Hazeeq Muhaimien

6/14 Served on MS committee for Isabel David (MSE student), Dr. Jeffrey Sakamoto is her supervisor.

4/1/14 Helped Organize "New experimental Methods" ASM Saginaw Valley Chapter workshop held at MSU

2/10 Asked by Thomas Wolff to serve as Chair of Committee for appointment/promotion of Mr. Tim Hinds to senior specialist

4/12/2013 Served as judge for poster competition for engineering student posters at the university undergraduate research and arts forum (UURAF).

3/13 to present Served on MS/PhD committee for: Andrew Vanderklok (ME student), Dr. Sharon Xiao is his supervisor.

5-8/2013 Served as supervisor for the MSU COE Summer Undergraduate Research Program (4 students: Hongjie Tang, Cory Neal, Daniel Leonard, and Andrew Poteracki).

2/12/13 I gave 60 minute Engineering Connect presentation on MSE to freshman and sophomore students.

9/17/12 I gave 60 minute Engineering Connect presentation on MSE to freshman and sophomore students.

3/24/12 Hosted Catered dinner at my house for CHEMS and ME prospective graduate students on graduate student recruitment weekend, 9 CHEMS students and 5 ME students attended along with CHEMS faculty and grad students (40 total people)

4/18/12 gave Lecture to Biomedical Materials Engineering Society (BMES) University Chapter

5-8/2012 Served as supervisor for the MSU COE Summer Undergraduate Research Program (2 students: Matthew Whitmer and Shenli Pei). And one student not in this program (Michael Wydrzynski).

9/21/11 With Tom Bieler, I gave 60 minute Engineering Connect presentation on MSE to freshman and sophomore students.

2011 (fall) Served on search committee for the Director of the Engineering Residential Experience and Cornerstone Engineering Program (Internal Search only).

2011- present supervisor of the MSU-UPM study abroad program (both summer study abroad and semester interchange programs), gave talk to UPM undergraduates on 2-11-2011.

6-8/2010 Served as mentor for the MSU COE Diversity Program Office Summer Undergraduate Research Academy (SURA) Program (Ernest Jackson MSU CHE sophomore student).

7/12/10,7/19/10: MSU COE Middle and High School Research Experiences; 5 such students were educated in my lab on these two days

5-8/2010 Served as mentor for the MSU COE Summer Undergraduate Research Program (Nestor Alvarez from University of Puerto Rico Mayaguez).

 $1/28/10\,$  Performed recruitment visit at University of Tennessee and met with 5 prospective COE graduate students

2/5/10 Gave 15 minute Alumni Distinguished Scholarship (ADS) presentation on MSE to visiting students and parents (~ 40 total in session).

2/12/10 Gave 15 minute Alumni Distinguished Scholarship (ADS) presentation on MSE to visiting students and parents (~ 40 total in session).

1/7/10 Gave Laboratory Tour to 4 counselors from New Trier High School

12/11/09 Gave Laboratory Tour to 35 students and 4 counselors/administrators from Utica High Schools (Michigan)

7/12-16/09 performed 4 2.5-hour outreach sessions at High School Engineering Institute (HSEI) at MSU

8/5/09 Participated as faculty representative for Oak Ridge Associated Universities (ORAU) Graduate Student Fair MSU Booth in Oak Ridge, TN from 5:00pm-7:00pm

8/4/08 Participated as faculty representative for Oak Ridge Associated Universities (ORAU) Graduate Student Fair MSU Booth in Oak Ridge, TN from 5:00pm-7:00pm

7/12-16/09 performed 4 2.5-hour outreach sessions at High School Engineering Institute (HSEI) at MSU

4/3/09 participated as COE representative for MSU Living Learning Panel Discussion for Malow-Sage Elementary Student Group and their parents (~200 in all)

2/6/09 Gave two 15 minute Alumni Distinguished Scholarship (ADS) presentations on MSE to visiting students and parents (~ 40 total in each session).

10/29-30/08 visited Consumers energy in South Haven, MI to discuss potential MSU COE collaboration activities (with Leo Kempel, Garth Motsebacker, Joydeep Mitra, and Tim Grotjohn)

12/16/08 visited Consumers Energy in Jackson, MI to discuss potential MSU COE collaboration activities (with Theodore Caldwell, Garth Motsebacker, and Tim Grotjohn)

10/30/08 gave Lecture to Biomedical Materials Engineering Society (BMES) University Chapter

9/27/08 Served as CHEMS faculty panelist for prospective graduate school applicants (MSU juniors and seniors) through the Harriet Rigas Program.

7/08-present Served on the Search Committee for the Associate Director for the COE Diversity Programs Office

2/8/08 Gave two 15 minute Alumni Distinguished Scholarship (ADS) presentations on MSE to visiting students and parents (~ 40 total in each session).

11/07 – present Served on PhD thesis committee for: Amol Patki (defense on 8/20/10) and Azadeh Sheidaei: ME students (Dr. Patterson's students)

9/07- present Participated on Implementation Team for EGR 102 inaugural offering in Spring 2008.

8/2007- present Served as CHEMS representative on Search Committee for Composite Vehicle Research Center (CVRC) for two new faculty hires.

MSU Department of Chemical Engineering and Materials Science (CHEMS) Service

12/2010 – present Served on PhD committees for Di Kang (Bieler's student)

2/1/19 Gave two 15 minute Alumni Distinguished Scholarship (ADS) presentations on MSE to visiting students and parents (~ 40 total in each session).

2018 Served on MS degree committee of Ms Mingwan Zhu

1-5/2018 participated in committee for buying departmental SEM for curriculum needs

5/17 – present Served a MSE Program Undergraduate Curriculum Coordinator

2/17 - 5/17 Ad-Hoc committee member for evaluating CHEMS Faculty Rating System

2/3/17 Gave 15 minute Alumni Distinguished Scholarship (ADS) presentations on MSE to visiting students and parents (~ 40 total in each session).

1/27/17 Gave 15 minute Alumni Distinguished Scholarship (ADS) presentations on MSE to visiting students and parents (~ 40 total in each session).

9/16-present Chair of the CHEMS Promotion and Tenure Committee

9/16 helped writeup current state of the department document for CHEMS chair search to begin in fall 2016

9/27/17 I gave 60 minute Engineering Connect presentation on MSE to freshman and sophomore students.

2/9/17 I gave 90 minute Engineering Connect presentation on MSE to freshman and sophomore students.

9/9/16 I gave 60 minute Engineering Connect presentation on MSE to freshman and sophomore students.

1/8/16 I gave 60 minute Engineering Connect presentation on MSE to freshman and sophomore students.

9/22/15 I gave 60 minute Engineering Connect presentation on MSE to 25 freshman and sophomore students.

9/18/14 I gave 60 minute Engineering Connect presentation on MSE to freshman and sophomore students.

2/8/13 Gave 15 minute Alumni Distinguished Scholarship (ADS) presentations on MSE to visiting students and parents (~ 40 total in each session).

6/11-12/12 Took three graduate students (Zhe Chen, Hongmei Li, and Ajith Chakkedath) on a site plant visit to RTI international in Niles Ohio. Each of us presented our research in 15 minute presentations.

2/10/12 Gave 15 minute Alumni Distinguished Scholarship (ADS) presentations on MSE to visiting students and parents (~ 40 total in each session).

5/11 3 extended abstracts, 2 posters submitted to CHEMS Research Forum from our group's graduate students

4/2010 Served on PhD qualifier committees for Hongmei Li, James Seal (Crimp's student)

5/15/09 – present Served as the CHEMS MSE graduate program coordinator

5/19/10 3 extended abstracts, 1 talk, and 1 poster submitted to CHEMS Research Forum from our graduate students

2/10-present served as mentor for assistant professor Wei Lai

8/20/09 Gave presentation about MSU COE graduate programs to prospective graduate students at the University of Tennessee in Knoxville.

6/3/09 3 extended abstracts and 2 posters and 1 oral presentation submitted to CHEMS Research Forum from our graduate students

2/5/10 Gave 15 minute Alumni Distinguished Scholarship (ADS) presentations on MSE to visiting students and parents (~ 40 total in each session).

2/12/10 Gave 15 minute Alumni Distinguished Scholarship (ADS) presentations on MSE to visiting students and parents (~ 40 total in each session).

4/09-2011 served on the CHEMs Research Faculty committee

12/18/09 Performed Recruitment interviews for CHEMS graduate student applicants from Shanghai Jiao Tong University, Nanjing University, Nanjing University of Technology, and Zhejiang University on campus at Shanghai Jiao Tong University.

3/6/09 Participated as faculty host for two minority prospective CHEMS graduate student applicants from Ohio State University participating in the Harriet Rigas Program

2/20/09 Participated as faculty representative for Graduate Student Awareness CHEMS booth from 11:30am-1:00pm during Engineering Week

1/09-2011 Served on PhD thesis committee for: Yiyi Yang defense and comp exam (Dr. Bieler and Crimp's student)

6/3/09 3 extended abstracts and 2 posters and 1 oral presentation submitted to CHEMS Research Forum from our graduate students

5/08-2011 served on the CHEMs subcommittee for updating the CHEMs webpage

5/21-22/08 3 extended abstracts and 3 posters submitted to CHEMS Research Forum from our group

12/18/07 Performed Recruitment interviews for CHEMS graduate student applicants from Shanghai Jiao Tong University, Nanjing University, Nanjing University of Technology, and Zhejiang University on campus at Shanghai Jiao Tong University.

9/18/07 Organized the Michigan State University Alumni Reception, held in conjunction with MST'07 in Detroit, Michigan on Monday, February 26<sup>th</sup> from 6:00 -8:00 p.m.

2/26/07 Organized the Michigan State University Alumni Reception, held in conjunction with the TMS 2007 Annual Meeting in Orlando, Florida on Monday, February 26<sup>th</sup> from 6:30 -8:30 p.m.

4/5/07 4 extended abstracts and 3 posters submitted to CHEMS Research Forum and Jeff Quast gave oral presentation on "The Effect of Mo on the Microstructure and Creep Behavior of Ti-24Al-17Nb Alloys and their Composites"

2/10/07 attended Alumni Distinguished Scholarship (ADS) luncheon (Saturday)

2/2/07 Gave 15 minute Alumni Distinguished Scholarship (ADS) presentation on MSE to visiting students

Attendance at the Fall 2006 graduate degree (12/8/07) and undergraduate degree ceremonies (12/9/07).

2005-present CHEMS Honors College Advisor (Advisees: Jason Johnson, Lauren Blair, John Schiefer, Derek Miller, etc.)

8/25/06 Served as CHEMS-Materials Science Program representative for College Colloquium during Freshman Welcome Week.

8/21/06 Served as CHEMS-Materials Science Program representative for new students transition to campus for the Leadership Advantage (LA) engineering student organization

8/06 Served as CHEMS MSE program professorial assistant coordinator

10/16/06 Performed graduate student recruiting visit at. Material Advantage Student Graduate Program Connection Program at MST'06 meeting in Cincinnati, OH

11/28/06 Performed graduate student recruiting visit at Fall 2006 MRS Meeting Nov 27-29, 2006; interviewed potential applicants.

Performed graduate student recruiting visit at Fall 2005 MRS Meeting Nov 27-30, 2005; interviewed 8 potential applicants.

Served on PhD thesis committee for: Yijuan Zhang 4/06 defense and 12/05 comp. exam (Dr. Grummon's student)

4/2005 Served on PhD qualifier committees for Cowen, Quast, Deep (Lee's student) & Dr. Chan's female student

4/2006 Served on PhD qualifier committees for Lindsay Wright (Dr. Baumann's student).

9/2007 Organized the Michigan State University Alumni Reception, held in conjunction with MST'07 in Detroit, Michigan on Monday, February 26<sup>th</sup> from 6:00 -8:00 p.m.

2/2007 Organized the Michigan State University Alumni Reception, held in conjunction with the TMS 2007 Annual Meeting in Orlando, Florida on Monday, February 26<sup>th</sup> from 6:30 -8:30 p.m.

12/18/07 Performed Recruitment interviews for CHEMS graduate student applicants from Shanghai Jiao Tong University, Nanjing University, Nanjing University of Technology, and Zhejiang University on campus at Shanghai Jiao Tong University

#### Alfred University Service

Served on MS graduate committee for: MS Gao Zhanhua (Mechanical Engineering) and Nakul Karkare (BMES)

3/03 Faculty/Teacher Panel Discussion for Prospective Students

8/01 Faculty/Student Orientation Program Volunteer Faculty Facilitator

10//01 C.J. Boehlert taught seminars on: "Composites", Materials Science Day, Alfred University, Alfred, NY.

10/02 C.J. Boehlert taught seminars on: "Composites", Materials Science Day, Alfred University, Alfred, NY.

10/03 C.J. Boehlert taught seminars on SEM for local HS teachers for Materials Science Day, Alfred University, Alfred, NY.

10-11/03 Served on organization committee for the conference on Biomedical Engineering In New York held at Alfred University, November 1-2, 2003.

#### Other Service

Proposal Reviewer for the National Nuclear Security Administration (NNSA) Stewardship Science Academic Alliance (SSAA), National Science Foundation (NSF), NSF Graduate Research Fellowship Program (NSF GRFP), Army Research Office (ARO), US Civilian Research and Development Foundation, and Academic Research Fund, Ministry of Education, Czech Science Foundation, Nanyang Technological University, Department of Defense Strategic Environmental Research and Development Program (SERDP), National Priorities Research Program (NPRP) of the Qatar National Research Fund (QNRF), Nuclear Energy University Programs (NEUP), DOE-NE's Consolidated Innovative Nuclear Research Program, Stewardship Science Academic Alliance Review, Department of Energy (DOE) Basic Energy Science (BES) Early Career Program, DOE Graduate Student Fellowship Program, DOE SBIR program, ASEE SMART Graduate Fellowship Program, The Canada Foundation for Innovation (CFI)/Leaders Opportunity Fund (LOF), ASEE National Defense Science and Engineering Graduate (NDSEG) Fellowship Program, TMS Open Innovation Project Proposals sponsored by the Propane Education and Research Council (PERC), Natural Sciences and Engineering Research Council of Canada (NSERC)

Reviewer for the following journals: Acta Materialia, Acta Biomaterialia, Advanced Engineering Materials, Advanced Science Letters, Advances in Materials Science and Engineering, Applied Physics A, Applied Physics Letters, Applied Surface Science, Bulletin of Materials Science, Composite Interfaces, Composites Science and Technology, Corrosion Science, Encyclopedia of Biomaterials and Biomedical Engineering, Experimental Techniques, IMechE Part N: Journal of Nanoengineering and Nanosystems, Internetallics, International Journal of Applied Ceramic Technology, International Journal of Fatigue, International Journal of Materials Research, International Journal of Smart and Nano Materials Journal of Composites Part A, Journal of Alloys and Compounds, Journal of Applied Crystallography, Journal of Biomedical Materials Research: Part A, Journal of Central South University, Journal of Composites Part B, Journal of Electronic Materials, Journal of Electron Microscopy Technique, Journal Materia, Journal of Materials: Design and Applications, Journal of Materials Engineering and Performance, Journal of Materials Processing Technology, Journal of Materials Research, Journal of Materials Science, Journal of Materials Science and Technology, Journal of the Mechanical Behavior of Biomedical Materials, Journal of Microscopy, Journal of Powder Technology, Journal of Strain Analysis for Engineering Design, Journal of Undergraduate Materials Research, Journal of Strain Analysis for Engineering Design, Materials, Chemistry, and Physics, Materialia, Materials Characterization, Materials Letters, Materials Research Letters, Materials Science and Engineering A, Mechanics of Materials, Metallurgical Transactions, Metallography, Microstructure, and Analysis, Microscopy and Microanalysis, MRS Advances, Philosophical Magazine, Proceedings of the Institution of Mechanical Engineers, Part C, Journal of Mechanical Engineering Science, Science and Engineering of Composite Materials, Science and Technology of Advanced Materials, Scripta Metallurgica et Materialia, Surface and Coatings Technology, Ultramicroscopy

Reviewer for book proposal for Elsevier's Materials Science and Engineering team, TMS/JOM Book Review Program, <u>The Story of Ceramics</u> published by Millbrook Press, 2006 ASME International Conference on Manufacturing Science and Engineering (MSEC), ICOTOM 15 (2008) Proceedings, Oak Ridge National Laboratory Internal Reviewer for Employee manuscripts. MSU Honors College Honors Research Seminar Proposals

4/17-7/19	Served as Co-organizer of Symposium titled "Composition-Processing- Microstructure-Property Relationships of Titanium Alloys" at MST'18 Columbus, OH October 14-18, 2018, 5 sessions and 34 talks and 3 posters (37 total papers presented); Served as co-editor for 5 papers submitted from this symposium published in the <i>IOM</i> July 2019 issue
10/11-10/13	Served as Co-Coordinator for Symposia: "Titanium and Titanium Alloys: Processing, Deformation Behavior, Properties and Applications" at MST'13, Oct. 27-31, 2013, Montreal, Canada, (23 presentations), session chair 10/27- 31/13. Performed Session Chair duties on 10/27/13
3/4/2013	Served as Session chair for symposium on <i>the Deformation, Damage, and Fracture of Light Metals and Alloys</i> at TMS 2013, March 3-7, 2013, San Antonio, Texas.
1/7/13	Served as chair of the mini symposium on at Plasticity 2013 Nassau Beach, Nassau, Bahamas
11/11-7/14	Served as Coorganizer for the "International Workshop on Processing- Microstructure-Property Relationships & Deformation Mechanisms of Magnesium Alloys" held in Madrid, Spain from May 21-24, 2013, Maria Teresa Perez-Prado and Javier Llorca were the other co-organizers, 99 talks and 27 posters. Served as Co Editor for Special Issue in <u>Metallurgical Transactions A</u> published in July 2014 involving 15 papers from this Workshop (175 pages). Served as Session Chair for Morning session of Workshop on 5/23/13
8/10-8/11	Co-organizer for Symposium on <i>EBSD</i> at the Microscopy and Microanalysis (M&M11) Meeting in Nashville, TN July 7-11, 2011 (xx presentations).
2009	Session Chair for the Symposia titled "Characterization Methods for Elucidating Fatigue Mechanisms" and "The Role of Microstructure in Fatigue" at the TMS Annual Meeting, February 15-19, 2009 San Francisco, CA.
2008-present	Served on Editorial Board for Journal of Metallurgy
2005-11	Served as Key Reader for <u>Metall. and Materials Trans A</u> ; served on the <u>Metall.</u> and Materials Trans A Board of Review
2008-09	Co-organizer for Symposium on <i>In-Situ</i> Methods in Microscopy at Microscopy and Microanalysis Meeting in Richmond, Virginia July 26-30, 2009.
2009-11	Co-Coordinator for Symposia: <i>Commonality of Phenomena in Composite</i> <i>Materials II</i> , at TMS 2011, February 27-March 3, 2011, San Diego, CA.
2008-09	Co-Coordinator for Symposia: "Processing and Characterization of Metal Matrix Composite Materials" at MST'08, Oct. 25-29, 2009, Pittsburgh, PA.
2007-08	Co-Chair for Metal Implants and Biofunctionalization Symposium at the 8 <sup>th</sup> World Biomaterials Congress May 28 <sup>th</sup> -June 1, 2008 in Amsterdam, the Netherlands.
2006-07	Co-Coordinator for Symposia, <i>Commonality of Phenomena in Composite Materials</i> , MST'07, Detroit, MI, September 16-20, 2007. Served as co-editor for special issue of <u>Journal of Materials Science</u> , 2008, Vol. 43, 10 total papers, (100 total pages).
2006-07	Co-Coordinator for Symposia, Next Generation Biomaterials: Advanced Processing, Characterization, and Modeling of Materials for Medical Devices, at MST'07, Detroit, MI, October 26-29, 2007.
2006	Co-Coordinator for Symposia, Advanced Processing of Biomaterials, at the TMS Fall Meeting MST'06, Cincinnati, OH, October 26-29, 2006; (49 total papers); Serving as editor for special issue of Materials Science and Engineering C: Biomimetic and Supramolecular Systems Materials Science and Engineering C: Biomimetic and Supramolecular Systems.

2003	Served on organization committee for the conference on Biomedical Engineering
2004	In New York held at Alfred University, October 31-November 2, 2003. Coordinator for Symposia, <i>Titanium for Biomedical, Dental, and Healthcare Applications</i> , at the TMS Fall Meeting MST'04, New Orleans, LA, September 26-29, 2004; served as editor for special issue of <i>Materials Science and</i>
	Engineering C: Biomimetic and Supramolecular Systems Materials Science and Engineering C: Biomimetic and Supramolecular Systems, 2005, Vol. 25, 24 total
	papers, 247-432 (186 total pages).
2003	Co-coordinator of 4 sessions on Composite Materials at THERMEC'2003 Intern.
	Conf. on Processing and Manufacturing of Advanced Materials, Madrid Spain,
	07/7-13/2003.
2003	Co-organizer of Journal of Metals theme articles on "Plutonium Materials
	Science".
2000	Session co-chair for the Symposium on Research and Development Efforts on Metal Matrix Composites held at the TMS Annual Meeting, March 15, 2000.
1999	Session co-chair for three Symposia on High Temperature Behavior and Advances in Processing and Heat Treatment held at the TMS Fall Meeting October 31-November 5
1992-93	President of the University of Dayton ASM Student Chapter
1001	A dministrative Aggistent for Women in Engineering (WIE) Degional Conference
1991	Administrative Assistant for women in Engineering (wite) Regional Conference

### FORMER ADVISEES

### **Postdoctoral Fellows**

Dr. Dingqiang Li	5/03-1/05
Dr. Ravi C.Gundakaram	2/03-12/03

### PhD

Christopher J. Cowen, "The Physical and Mechanical Metallurgy of Advanced O+BCC Titanium Alloys" (2006)

Jeffrey P. Quast, "The Effect of Molybdenum on the Physical and Mechanical Metallurgy of Advanced Titanium Aluminide Alloys and Metal-Matrix Composites" (2008)

Wei Chen, "The Elevated-Temperature Creep and Fatigue Behavior of Boron-Modified Ti-6Al-4V(wt.%)" (2010).

Zhe Chen, "The Effect of Thermomechanical Processing on the Fatigue Behavior of AM60 Magnesium Alloy" (2012).

Hongmei Li, "Analysis of the Deformation Behavior of the Hexagonal Close-Packed Alpha Phase in Titanium and Titanium Alloys" (2013).

Ajith Chakkedath, "A Study of the Effects of Rare-Earth Elements on the Microstructural Evolution and Deformation Behavior of Magnesium Alloys at Temperatures up to 523K" (2016).

Vahid Khademi, "An Experimental-Computational Study on the Plastic Deformation Behavior of Body-Centered Cubic Titanium Alloys", (2018)

### MS

Indraroop Dastidar, "Understanding the Deformation Mechanisms of Ti-8Al-1Mo-1V(wt.%)" (2014) Sara Longanbach, (2012).

Christopher J. Cowen, "Microstructure and Elevated-Temperature Mechanical Behavior of Ti-15Al-33Nb(at.%) and Ti-21Al-29Nb(at.%) Alloys" (2004)

Daniel S. Dickmann, "The Effect of Sheet Processing on the Elevated Temperature Strength and Creep Behavior of INCONEL<sup>®</sup> Alloy 718" (2004)

Serkan Civelekoglu, "The Use of Electron Backscatter Diffraction for Understanding the Effect of Cold Rolling and Annealing on the Grain Boundary Character Distribution of INCONEL® Alloy 718" (2003)

### **Senior BS Thesis**

Daniel Burnett II, "Ceramic Materials Research" (2005) Matthew Dispenza, "Mechanical Properties of Mg-Zn-Zr and Mg-Y-Zn Alloys" (2005) Gerry Wynick, "Investigating Al<sub>2</sub>O<sub>3</sub> with Colloidal SiO<sub>2</sub> as a Polishing Abrasives and the Benefits of Electropolishing for the Preparation of Electron Backscatter Diffraction Specimens" (2004) Jay Spike, "Processing – Mechanical Property Relationships of a Ni-base Superalloy: INCONEL® alloy 718" (2002)

### **COURSES TAUGHT**

Spring 2002:	CES 220 Mechanics of Materials (18 students)
Fall 2002:	CES 252 Microscopy and Microstructural Characterization <sup>+</sup> (26 students*)
	CES 579 Fracture Fatigue and Creep of Materials** (7 students)
Spring 2003:	CES 220 Mechanics of Materials (55 students*)
	CES 252 Microscopy and Microstructural Characterization <sup>†</sup> (34 students <sup>*</sup> )
Fall 2003:	CES 252 Microscopy and Microstructural Characterization <sup>†</sup> (20 students)
	CES 579 Fracture Fatigue and Creep of Materials (11 students)
Spring 2004:	CES 252 Microscopy and Microstructural Characterization <sup>†</sup> (18 students <sup>*</sup> )
	EGR 371 Undergraduate Engineering Seminar (215+ students)
Fall 2004:	CES 449/570 Physical and Mechanical Metallurgy II (7 students)
	CES 252 Microscopy and Microstructural Characterization <sup>†</sup> (15 students)
Fall 2005:	MSE 320 Mechanical Behavior of Materials (20 students)
	MSE-CHE 892 Seminar (80 students)
Spring 2006:	MSE 360 Fundamentals of Microstructural Design (19 students)
	MSE-CHE 892 Seminar (80 students)
Fall 2006:	MSE 320 Mechanical Behavior of Materials (26 students)
	MSE-CHE 892 Seminar (80 students)
Spring 2007:	MSE 360 Fundamentals of Microstructural Design (24 students)
	MSE-CHE 892 Seminar (80 students)
Fall 2007:	MSE Mechanical Behavior of Materials (23 students; 3cr)
	UGS 200H Introduction to Materials Research Through Scanning Electron Microscopy
	(14 students: Honors Research Seminar Students Only {freshman and sophomores}; 3cr)
	MSE 490-603 Independent Study in Materials Science and Engineering (2 students; 3cr)
Spring 2008:	MSE 360 Fundamentals of Microstructural Design (25 students; 3cr)
	UGS 200H Introduction to Materials Research Through Scanning Electron Microscopy
	(14 students: Honors Research Seminar Students Only {freshman and sophomores})
	MSE 974B High Temperature Deformation and Processing (7 students; 3 cr)
	{co-instructor with T. Bieler}
Fall 2008	UGS 200H-010 Introduction to Materials Research Through Scanning Electron
	Microscopy (12 students: Honors Research Seminar Students Only {freshman and
	sophomores }; 3cr)
	MSE 320 Mechanical Behavior of Materials (20 students; 3cr)
	EGR 102 -001 Introduction to Engineering Modeling (22 freshman engineering
	students)
	EGR 102 -001 Introduction to Engineering Modeling (23 freshman engineering
G	MSE 490-603 Independent Study in Materials Science and Engineering (1 students; 3cr)
Spring 2009	IVISE 500 Fundamentals of Microstructural Design (20 students; 5cr)
	Microscopy (12 students: Honors Desearch Seminer Students Only (freehmen and
	whenescopy (12 students: monors Research Seminar Students Only (Iteshman and someones); 200)
	sophomores; scr)

Fall 2009	UGS 200H-001 Introduction to Materials Research in a Service Learning for Leadership Environment (12 students: Honors Research Seminar freshman & sophomores Students Only) 3cr
	MSE 320 Mechanical Behavior of Materials (14 students; 3cr)
	EGR 102 - 001 Introduction to Engineering Modeling (126 students)
Spring 2010	UGS 200H-001 Introduction to Materials Research in a Service Learning for Leadership
	Environment (12 students: Honors Research Seminar freshman & sophomores Students
Fall 2011	UIGS 200H-013 Introduction to Materials Research in a Service Learning for Leadership
1 all 2011	Environment (12 Honors Students) 3cr
	MSE 250 Introduction to Materials Science (162 students: 3cr)
	EGR 102 - 001 Introduction to Engineering Modeling (210 students)
	CHE 490-750 Independent study (3 cr:two students Crystal Alton and Samantha Vitous)
Spring 2012	UGS 200H-013 Introduction to Materials Research in a Service Learning for Leadership
	Environment (12 Honors Students) 3cr
Summer 2012	MSE/ME 426-750 Introduction to Composite Materials (7 students, taught in Madrid, Spain: 3 crs)
	SPN 290-756 (6 studs, taught in Madrid, Spain by Spanish instructor at Politecnic Univ. of
	Madrid)
	MSE 491-750 Independent study (4 credits: one student: Isabel David)
Fall 2012	UGS 200H-001 Introduction to Materials Research in a Service Learning for Leadership
	Environment (13 honors students; 3cr)
	MSE 250 Introduction to Materials Science and Engineering (170 students; 3cr) 4TAs
Semina $2012$	MSE 490 independent study (1 student (William Asherman (physics), 1cr)
Spring 2015	Environment (12 honors students: 3cr)
Summer 2013	MSE/ME 426-750 Introduction to Composite Materials (7 studs taught in Madrid 3 crs)
Summer 2013	EGR 291-750 Special Topics in Composite Materials (2 students, taught in Madrid; 3 crs)
	SPN 290-756 (11 students, taught in Madrid, Spain by Spanish instructor at UPM)
	MSE 491-750 Independent study/Special Topics (3 credits: 3 students)
	ME 490 Independent Study (4 credits: one student: Katie Renaud)
Fall 2013	UGS 200H-001 Introduction to Materials Research in a Service Learning for Leadership
	Environment (12 honors students; 3cr)
Service $\sim 2014$	MSE 250 Introduction to Materials Science and Engineering (219 students; 3cr) 5 TAs
Spring 2014	Environment (12 honors students: 3cr)
	MSF 490 Independent study (3 credits: one student: Mike Wydrzynski)
Summer 2014	MSE/ME 426-750 Introduction to Composite Materials (7 studs, taught in Madrid, 3 crs)
2011	SPN 290-756 (9 students, taught in Madrid, Spain by Spanish instructor at UPM)
Fall 2014	UGS 200H-001 Introduction to Materials Research in a Service Learning for Leadership
	Environment (14 honors students; 3cr)
	MSE 250 Introduction to Materials Science and Engineering (252 students 13 lab sects;
	3cr) 5 TAs
g : 2015	MSE499 Undergraduate Thesis (co-advisor for 1 senior MSE student: Jake Finkbiner)
Spring 2015	UGS 200H-001 Introduction to Materials Research in a Service Learning for Leadership
	Environment (14 nonors students; 3cr) ME/MSE 425 (DME 425) Diameterial and Diagompatibility (25 students; 2 sr)
	MSE499 Undergraduate Thesis (co-advisor for 1 senior MSE student: Laffrey Tatum)
Fall 2015	UGS 200H-001 Introduction to Materials Research through Scanning Electron Microscopy
- 411 2010	(16 honors students; 3cr)
	MSE 200 Materials and Society (37 students)

\* distance learning provided for off campus students †CES 252 curriculum development: website (http://www.cems.alfred.edu/ces252/index.html or http://people.alfred.edu/~boehlecj/ces252/index.html), lab workbook edited prior to Fall 2003; \*\*CES 579 developed for first time during Fall 2002.

### **CURRENT AND PAST FUNDING**

- 1. C.J. Boehlert, "Grain Boundary Engineering Effects on Mechanical Behavior of Nickel-Based Superalloys", Center for Advanced Ceramic Technology (CACT) SEED Grant, Alfred University, September 28, 2001-June 30, 2002. \$18,000 (in collaboration with Special Metals Corporation (SMC), Huntington, WV.
- 2. C.J. Boehlert, "Understanding Elevated-Temperature Grain Boundary Deformation Processes of High-Temperature Structural Alloys through Grain Boundary Engineering", National Science Foundation (NSF) CAREER Award through Division of Materials Research (DMR-0134789 AU then DMR-0533954 MSU). August 15, 2002-August 31, 2007. \$452,702.
- C.J. Boehlert, "Understanding Microstructure-Property Relationships of Ti Alloys used for Biomedical Implants", The NYSTAR James D. Watson Young Investigator Program, January 1, 2003-December 31, 2004. (C020080 \$200,000).
- 4. C.J. Boehlert, "REU Supplement: Understanding Elevated-Temperature Grain Boundary Deformation Processes of High-Temperature Structural Alloys through Grain Boundary Engineering", National Science Foundation (NSF) Research Experiences for Undergraduates (REU) May 22-July 31, 2003. \$12,000-3 undergraduate summer students.
- C.J. McConville and C.J. Boehlert, "MRI: Acquisition of a Field Emission Gun Environmental Scanning Electron Microscope for Research and Education", NSF MRI Program Division of Materials Research (DMR), September 1, 2003-August 31, 2006. (DMR-0320992) \$323,000 for capital equipment costs.
- "NSF INT: International Collaboration Between Alfred University, USA and Fraunhofer Institute, Germany For Understanding Processing-Microstructure-Property Relationships of Ti-Al-Nb Alloys", January 15, 2004-January 15, 2006, \$19,550 for international travel and materials and supplies expenses. (Award# 0134789)
- 7. C.J. Boehlert, Alfred University Service-Learning Award for Curricular Development, "Service Learning through Scanning Electron Microscopy Education of High School Students and Nonengineering Majors at Alfred University", \$3,000, January 1, 2004 May 31, 2004.
- 8. C.J. Boehlert, Defense Program (DP) Department of Energy (DOE) Presidential Early Career Award for Science and Engineering (PECASE), May 15, 2005 to May 15, 2010, \$250,000.
- C.J. Boehlert and A.M. Meier, "Acquisition of a MATE Thermo-Mechanical Testing System for Research and Education in Materials Science and Engineering", Instrumentation for Materials Research (IMR) Program of NSF; September 15, 2004-July 31, 2007, \$175,000 for capital equipment costs (\$75,000 university cost sharing) (DMR-0415019 AU then DMR-0455467 MSU).
- 10. K. Knittel, M. Patterson, C.J. Boehlert, and D. Schwam, "Beryllium Replacement SBIR Phase II Proposal Define/Demonstrate Non-hazardous or Less Hazardous Beryllium Material for Defense Applications", Phase II Proposal TOPIC NUMBER: MDA04-059, Strategic Missile Defense Agency (SMDA) through Raytheon Missile Systems, subcontracted from Advanced Ceramics Research (ACR) for \$80,000 to MSU 8/2005-8/2007.
- 11. C.J. Boehlert "Enhancing the Specific Strength, Stiffness, and Creep Properties of Titanium Alloys through Boron Additions", MSU Intramural Research Grant Program (IRGP) New Faculty Program Proposal, December 15, 2005-June 15, 2007, \$50,000, for graduate student and materials and supplies (05-IRGP-290).
- 12. C.J. Boehlert, "REU Supplement: Understanding Processing-Microstructure-Property Relationships of High-Temperature Structural Alloys through Grain Boundary Engineering", National Science Foundation (NSF) Research Experiences for Undergraduates (REU) May 22-July 31, 2003. \$4,000

salary for one undergraduate student and \$1,000 indirect costs, April 15, 2006 through July 31, 2007. (proposal #: DMR-0617870)

- C.J. Boehlert, T.R. Bieler, and M.A. Crimp, "Acquisition of a Vacuum System for Performing Elevated-Temperature Mechanical Testing to Understand Processing-Microstructure-Property Relationships of Structural Alloys", Defense University Research Instrumentation Program (DURIP); 5/15/2006-5/14/2007, \$100,000; AFOSR equipment Grant Award No. FA9550-06-1-0354; MSU APP No. 92585.
- 14. C.J. Boehlert and Katherine Chen, Visiting Faculty Program, Funded by the MSU Provost's Office, \$35,000 for visiting faculty's salary, travel expenses and materials and supplies, 07/01/07-07/01/08.
- 15. A. Lee, C.J. Boehlert, and M.A. Crimp, MSU China Program Proposal, \$3,000 for travel to China for research and education collaborative efforts; 8/07-12/07
- 16. J. Leboeuf and C.J. Boehlert, NIST Summer Undergraduate Research Fellowship Program, "Inorganic Ceramics for Semiconductors", \$7,370, 5/1/07 – 9/1/07, for undergraduate student summer research stipend and materials and supplies (MSU acct# 61-3931).
- 17. C.J. Boehlert, "Scanning Electron Microscopy", Creating Inclusive Excellence at MSU proposal with local HS teachers, \$20,000, 7/01/07-7/01/08.
- C.J. Boehlert, "REU Supplement: Understanding Processing-Microstructure-Property Relationships of High-Temperature Structural Alloys through Grain Boundary Engineering", National Science Foundation (NSF) Research Experiences for Undergraduates (REU). \$4,000 salary for one undergraduate student and \$1,000 indirect costs, April 15, 2008 through July 31, 2008.
- 19. C.J. Boehlert, MSU Honors Citizenship/Leadership Research Seminar proposal, "Introduction to Materials Research Through Scanning Electron Microscopy", \$3,000 for materials and supplies for the seminar and \$4,000 discretionary funding. Fall 2007-Spring 2008.
- C.J. Boehlert, MSU Honors Citizenship/Leadership Research Seminar proposal, "Introduction to Materials Research Through Scanning Electron Microscopy", \$3,000 for materials and supplies for the seminar and \$4,000 discretionary funding. Fall 2008-Spring 2009.
- 21. C.J. Boehlert, "In-situ characterization of the deformation behavior of structural alloys", Shared Research Equipment (SHaRE) User Facility Research Proposal at Oak Ridge National Laboratory (ORNL), 5/08-5/10 for use of ORNL microscopy facilities by C.J. Boehlert, W. Chen, S.C. Longanbach, and Zhe Chen
- 22. C.J. Boehlert, MSU Honors Citizenship and Leadership Seminar proposal, "Introduction to Materials Research in a Service Learning for Leadership Environment", \$3,000 for materials and supplies for the seminar and \$3,750 discretionary funding. Fall 2009-Spring 2010.
- 23. C.J. Boehlert, Faculty and Student Team Program (FaST), sponsored by the Department of Energy and the National Science Foundation (NSF), to work for 10 weeks in the summer along with two MSU undergraduate students on a project at Oak Ridge National Laboratory (ORNL), \$21,000 (11,147.23 salary and \$852.77 fringe) for summer faculty salary, and \$9,000 for student salary and travel expenses, summer 2009 (NSF #0934332).
- C.J. Boehlert, M.A. Crimp, and T.R. Bieler, "Characterization and Modeling of Deformation Induced Damage in Titanium Alloys", Single Investigator and Small Group (SISGR) DOE Materials Under Extreme Environments (MUEE), (MSU APP#107772). \$555,000, 9/15/09-9/14/12.
- 25. C.J. Boehlert, "Residual stress measurement of thixomolded Mg alloys as a function of thermal mechanical processing", High-Temperature Materials Laboratory (HTML) User Facility Research Proposal at Oak Ridge National Laboratory (ORNL), 5/09-5/11 for use of ORNL microscopy and XRD facilities by C.J. Boehlert, W. Chen, and S.C. Longanbach, Z. Chen, A. Ritter, and B. Kuhr. {HTML Proposal 2010-024}
- 26. C.J. Boehlert, MSU China Program Proposal, 3/20/09, \$4,000 for travel to China for research and education collaborative efforts.
- C.J. Boehlert, "Residual stress measurement of automotive aluminum alloy castings as a function of metal and glass shot peening", High-Temperature Materials Laboratory (HTML) User Facility Research Proposal at Oak Ridge National Laboratory (ORNL), 5/09-5/11 for use of ORNL

microscopy and XRD facilities by C.J. Boehlert, A. Ritter, Zhe Chen, and B. Kuhr. {HTML Proposal 2009-030}

- 28. C.J. Boehlert, "Thermomechanical processing effects on fatigue crack growth behavior of an AM60 Mg alloy", High-Temperature Materials Laboratory (HTML) User Facility Research Proposal at Oak Ridge National Laboratory (ORNL), 11/09-11/11 for use of ORNL fatigue testing and microscopy facilities by C.J. Boehlert, Zhe Chen, and Hongmei Li. {HTML Proposal 2010-004}
- 29. C.J. Boehlert, "Development of Gamma-Titanium Aluminides for High Temperature Structural Applications", Grant from the Spanish government to support foreign scientists on sabbatical leave, 8/15/10-8/14/2011, 29,400 euros, (~\$44,100+\$4,500 for travel expenses)
- 30. C.J. Boehlert, M.A. Crimp, and T.R. Bieler, \$489,585, Single Investigator and Small Group (SISGR) DOE Materials DOE Grant #113920 Submission of Supplemental Applications: DOE Equipment Proposal requesting a SEM with EDS and EBSD, 2010.
- 31. C.J. Boehlert, "Characterization of the deformation behavior of structural alloys using the electron microscopy facilities at Oak Ridge National Laboratory", Shared Research Equipment (SHaRE) User Facility Research Proposal at Oak Ridge National Laboratory (ORNL), 5/10-5/12 for use of ORNL microscopy facilities by C.J. Boehlert, Z. Chen, H. Li, and S.C. Longanbach.
- 32. C.J. Boehlert, MSU Honors Citizenship and Leadership Seminar proposal, "Introduction to Materials Research in a Service Learning for Leadership Environment", \$3,000 for materials and supplies for the seminar and \$3,000 discretionary funding. Fall 2011-Spring 2012.
- 33. C.J. Boehlert, "Materials World Network: Understanding the Microstructural Evolution and Deformation Behavior in Mg-Mn-RE Alloys", NSF MWN DMR1107117, collaboration with the Institute for Advanced Studies-Materials (IMDEA) and the University Politecnica Madrid (UPM), submitted November 10, 2010, 8/15/11-7/31/14, \$312,000.
- 34. C.J. Boehlert, "REU Supplement: Understanding the Microstructural Evolution and Deformation Behavior in Mg-Mn-RE Alloys", NSF Research Experiences for Undergraduates (REU). \$4,800 salary for one undergraduate student and \$1,200 indirect costs, May 15, 2012 through August 15, 2012.
- 35. C.J. Boehlert, MSU Honors Citizenship and Leadership Seminar proposal, "Introduction to Materials Research in a Service Learning for Leadership Environment", \$3,000 for materials and supplies for the seminar and \$3,000 discretionary funding. Fall 2012-Spring 2013.
- 36. C.J. Boehlert, M.A. Crimp, and T.R. Bieler, DOE Materials DOE Grant #113920 renewal, "Characterization and Modeling of Deformation Induced Damage in Titanium Alloys", 9/15/12-9/14/15. \$585,000.
- C.J. Boehlert, "AGEP-GRS: Understanding the Microstructural Evolution and Deformation Behavior in Mg-Mn-RE Alloys", NSF Research Experiences for Undergraduates (REU). \$52,036 salary for one graduate student from August 16, 2012 through August 15, 2013. (MSU proposal ##7255466)
- 38. G. Bollen, P. Duxbury, W. Mittig, C. Boehlert, T. Grotjohn, F. Pellemoine, R. Ronningen, A. Stolz, and C-T. Ruan, "FRIB: Materials in Extreme Environments", 2011 MSU Strategic Partnership Grants (SPG) Preproposal submitted September 22, 2011. Chosen for full-proposal to be submitted by February 2, 2012. \$479,028 (\$399,189 from msu, the other \$80,000 is matching from dept/colleges) for three years, chosen for presentation to MSU given on June 7, 2012. Funding from August 2012-August 2015.
- 39. C.J. Boehlert, "AGEP-GRS: Understanding the Microstructural Evolution and Deformation Behavior in Mg-Mn-RE Alloys", \$53,450 salary for one graduate student from August 16, 2013 through August 15, 2014. (MSU proposal #7363653). NSF proposal #1341283.
- 40. C.J. Boehlert, MSU Honors Citizenship and Leadership Seminar proposal, "Introduction to Materials Research in a Service Learning for Leadership Environment", \$3,000 for materials and supplies for the seminar and \$3,000 discretionary funding. Fall 2013-Spring 2014.
- 41. IMDEA Materials Institute, "Nanomechanical testing of strong solids at high temperature (HOT NANOMECH)" submitted to Ministerio de Economía y Competitividad Secretaría General de

Investigación, Desarrollo e Innovación; Dirección General de Investigación y Gestión del Plan Nacional de I+D+I, January 2012.

- 42. P. Eisenlohr and C.J. Boehlert, "Twinning in hexagonal metals -- 3D characterization and full field simulation", NSF MEP, submitted September 15, 2014, 8/16/15-8/15/18, \$381,722. (NSF#1463006).
- 43. C.J. Boehlert, site Visit to Madrid Spain for MSU Office of Study Abroad, Spring 2015, \$3,600. Research Extension Grants for attending Research Meetings in Madrid Spain during summer 2013 (\$1,500) and summer of 2014 (\$2,500).
- C.J. Boehlert, "AGEP-GRS: Understanding the Microstructural Evolution and Deformation Behavior in Mg-Mn-RE Alloys", \$55,334 salary for one graduate student from August 15, 2014 through July 31, 2015. (MSU proposal #7458757). NSF proposal #1433933
- C.J. Boehlert, M.A. Crimp, T.R. Bieler, and Philp Eisenlohr, DOE Materials Science Division renewal, "Characterization and Modeling of Deformation Induced Damage in Hexagonal Materials", submitted 1/14/15, 9/15/15-9/14/18. \$609,569.
- 46. C.J. Boehlert, "REU Supplement: Understanding the Microstructural Evolution and Deformation Behavior in Mg-Mn-RE Alloys", NSF Research Experiences for Undergraduates (REU). \$8,000 salary for two undergraduate students, submitted March 16, 2015; May 18, 2015 through August 15, 2015. (NSF proposal #: 1540821)
- 47. C.J. Boehlert, A. Amroussia, F. Pellomoine, "In situ study of defect accumulation in Ti-6Al-4V under heavy ion irradiation", Nuclear Science User Facilities (NSUF) Rapid Turnaround Research at the IVEM-Tandem TEM facility at Argonne National Laboratory, submitted September 30, 2015, funded for first half of 2016, use of their facility with no financial cash award.
- 48. U. Okeke and C.J. Boehlert, "TEM investigation of Friction Stir Welded Al-2029 alloy", Center for Nanomaterials Science (CNMS) TEM facility at Argonne National Laboratory, submitted March 30, 2016, funded for 1 year, use of their TEM facility for 7 days with no financial cash award.
- C.J. Boehlert, "Development of novel high strength biodegradable metals for temporary biomedical implants" NSF DMR MMN, submitted November 2, 2015, 5/16/16-5/15/19, \$316,973. (NSF#1607942).
- 50. 61. A. Amroussia, C.J. Boehlert, F. Pellomoine, "In situ study of defect accumulation in Ti-6Al-4V and CP Ti under heavy ion irradiation", Nuclear Science User Facilities (NSUF) PIE : IVEM-Tandem TEM facility(?) at Argonne National Laboratory, submitted May 31, 2016, funded for using facility for 6-10days with no financial cash award.
- 51. T.R. Bieler, M.A. Crimp, P. Eisenlohr, C.J. Boehlert, and A. Beaudoin, CHESS Proposal 2241: Internal stress generation due to anisotropic thermal contraction in titanium, for use of Cornell Synchotron in 2016, submitted June 10, 2016.
- C.J. Boehlert, "AGEP-GRS: Development of novel high strength biodegradable metals for temporary biomedical implants", \$58,659 salary for one graduate student from January 1, 2017 through December 31, 2017. (MSU proposal #152148). NSF proposal #1664909), submitted September 28, 2017
- 53. A. Amroussia, C.J. Boehlert, F. Pellomoine, "Post-irradiation characterization of ion irradiation damage in Ti-6Al-4V and CP-Ti : Influence of the microstructure and temperature " (17-968), award using instruments located in the Low Activation Materials Development and Analysis Laboratory (Oak Ridge National Laboratory) 6days of FIB and 10 days of TEM, NSUF Rapid turnaround Proposal for research at Low Activation Materials Development and Analysis Laboratory, awarded 4/27/17 and good for 9 months. No financial cash award.
- 54. C.J. Boehlert, MSU Education Abroad Development Grant, \$10,000 for developing a new study abroad program in Madrid, \$10,000 for assisting with study abroad student support, implemented in new faculty-led program in summer of 2018 in Madrid, Spain
- 55. Center for Nanoscale Materials proposal CNM 57830, titled "Study of defect accumulation in Ti-6Al-4V under heavy ion irradiation: Influence of the microstructure and temperature", has been accepted in RAPID ACCESS MODE. This mode allows users up to 5 days of equipment access without an external peer review evaluation. 12/18

- 56. C.J. Boehlert, MSU Honors Research Seminar proposal, "Introduction to Materials Research through Scanning electron Microscopy", \$3,000 for materials and supplies for the seminar and \$3,000 discretionary funding. Fall 2018-Spring 2019.
- 57. C.J. Boehlert, "TEM investigation of Ti Alloy which underwent phase transformation". CENTER FOR NANOPHASE MATERIALS SCIENCES RESEARCH PROPOSAL, ORNL characterization work, submitted January 29, 2016, work performed March 1-7, 2016.
- 58. C.J. Boehlert and D. Escobar, "TEM and APT characterization of ultrafine-grained Zn-Mg hybrids processed via High-Pressure Torsion". CENTER FOR NANOPHASE MATERIALS SCIENCES RESEARCH PROPOSAL, ORNL characterization work, submitted April 28, 2018.
- 59. C.J. Boehlert, M.A. Crimp, T.R. Bieler, and P. Eisenlohr, DOE Materials Under Extreme Environments Grant renewal, "Characterization and Modeling of Deformation Induced Damage in Titanium Alloys", 9/15/18-9/14/21. \$650,000, submitted January 14, 2018.
- **60.** Alliance for African Partnership (AAP), MSU grant for international travel Summer and Fall 2018, \$3,952
- 61. C.J. Boehlert, NSF Alliances for Graduate Education and Professoriate Graduate Research Supplement (AGEP-GRS): Development of novel high strength biodegradable metals for temporary biomedical implants", \$60,406 salary for one graduate student from May 15, 2018 through May 15, 2019. (MSU proposal 28706). NSF proposal #18-11306, submitted November 5, 2017.
- 62. C.J. Boehlert and A. Amroussia, "In-situ investigation of the Threshold Incubation Dose for the formation of c-component loops in additively manufactured and powder metallurgy rolled Ti-6Al-4V" National Science Users Facility (NSUF) Rapid Turnaround Proposal, submitted June 29, 2018 for use of TANDEM IV ANL facility.
- 63. C.J. Boehlert, NSF Alliances for Graduate Education and Professoriate Graduate Research Supplement (AGEP-GRS): Development of novel high strength biodegradable metals for temporary biomedical implants", \$60,170 salary for one graduate student from May 15, 2019 through May 15, 2020.
- 64. C.J. Boehlert, CORE US Fulbright Scholar Program, submitted August 1, 2018; start date January 1, 2020 lasting 6 months. For performing Teaching and Research at Universidad Carlos III de Madrid
- 65. J. Klausner, Y. Qi, and C.J. Boehlert, "Titanium Enables Diversity (TED)", NSF CMMI, Funding for economically-challenged and ethnic minorities to attend the Titanium USA 2019 and Titanium USA 2020 conferences, \$21,000. Submitted February 2019 and award dates are July 1, 2019 through June 30 2020. NSF Award number 1929761.
- 66.

#### PUBLICATIONS

#### **Reviewed Archival Journal Publications**

- C.J. Boehlert, C.J. Cowen, and J.P. Quast, M. Niinomi, and T. Akahori, "Fatigue and Wear evaluation of Ti-15Al-33Nb(at.%) and Ti-21Al-29Nb(at.%) alloys for biomedical applications", <u>Materials Science and</u> <u>Engineering C: Biomimetic and Supramolecular Systems</u>, Vol. 28 (2008) 323-330.
- 2. C.J. Boehlert, "The Tensile and Creep Behavior of Mg-Zn Alloys with and without Y and Zr as Ternary Elements", Journal of Materials Science, Vol. 42 No. 10 (2007) 3675-3684.
- 3. J.P. Quast and C.J. Boehlert, "Comparison of the Microstructure, Tensile, and Creep Behavior for Ti-24Al-17Nb-0.66Mo (at%) and Ti-24Al-17Nb-2.3Mo (at.%) Alloys", <u>Metallurgical Transactions</u>, Vol. 38A, No. 3 (2007) 529-536.
- 4. C.J. Cowen and C.J. Boehlert, "Comparison of the Microstructure, Tensile, and Creep Behavior for Ti-22Al-26Nb (at%) and Ti-22Al-26Nb-5B (at.%)", <u>Metallurgical Transactions</u>, Vol. 38A, No. 1 (2007) 26-34.
- C.J. Boehlert, C.J. Cowen, S. Tamirisakandala, D.J. McEldowney, and D.B. Miracle, "In Situ Scanning Electron Microscopy Observations of Tensile Deformation in a Boron-Modified Ti-6Al-4V Alloy", <u>Scripta Materialia</u>, 55 (2006) 465-468.
- 6. C.J. Boehlert and K. Knittel, "The Microstructure, Tensile Properties, and Creep Behavior of Mg-Zn Alloys Containing 0-4.4wt.%Zn", <u>Materials Science and Engineering A</u>, 417 (2006) 315-321.
- 7. C.J. Cowen and C.J. Boehlert, "Microstructure, Creep, and Tensile Behavior of a Ti-21Al-29Nb(at.%) Orthorhombic+B2 Alloy", <u>Intermetallics</u> Volume 14, Issue 4, (2006) pp. 412-422.

- C.J. Boehlert, K.A. Rider, and L.M. Flick, "Biocompatibility Evaluation of Ti-15Al-33Nb(at.%) and Ti-21Al-29Nb(at.%)", <u>Materials Transactions</u>, Vol. 45, No. 7 (2005) 1-9. (invited: Special Issue on Medical, Healthcare, Sports and Leisure Materials).
- 9. C.J. Cowen and C.J. Boehlert, "Microstructure, Creep, and Tensile Behavior of a Ti-15Al-33Nb (at.%) Beta+Orthorhombic Alloy", <u>Philosophical Magazine</u>, vol. 86 issue 1 (2006) 99-124.
- G.L. Wynick and C.J. Boehlert, "Electron Backscattered Diffraction Characterization Technique for Analysis of a Ti-Al-Nb Orthorhombic Alloy", <u>Journal of Microscopy</u>, Vol 219 Pt3 September (2005) 115-121.
- 11. D. Li and C.J. Boehlert, "Processing Effects on the Grain Boundary Character Distribution of the Orthorhombic Phase in Ti-Al-Nb Alloys", <u>Metallurgical and Materials Transactions</u>, 36A (2005) 2569-2584.
- G.L. Wynick and C.J. Boehlert, "Use of Electropolishing for Enhanced Metallic Specimen Preparation for Electron Backscattered Diffraction Analysis", <u>Materials Characterization Journal</u>, Vol. 55, Issue 3 (2005) 190-202.
- C.J. Boehlert, C.J. Cowen, C.R. Jaeger, M. Niinomi, and T. Akahori, "Tensile and fatigue evaluation of Ti-15Al-33Nb(at.%) and Ti-21Al-29Nb(at.%) alloys for biomedical applications", <u>Materials Science and</u> <u>Engineering C: Biomimetic and Supramolecular Systems</u>, 2005, Vol. 25, pp. 263-275.
- 14. D. Li, S.T. Wright, and C.J. Boehlert, "The Grain Boundary Character Distribution in a Fully-Orthorhombic Ti-25Al-24Nb(at.%) Alloy", <u>Scripta Materialia</u>, Vol. 51/6 (2004) 545-550.
- C.J. Boehlert, D.S. Dickmann, and N.C. Eisinger, "The Effect of Sheet Processing on the Microstructure, Tensile and Creep Behavior of INCONEL® alloy 718", <u>Metallurgical and Materials Transactions</u>, Vol. 37A Issue 1 (2006) 27-40.
- J.N. Mitchell, M. Stan, D.S. Schwartz, and C.J. Boehlert, "Phase Stability and Phase Transformations in Plutonium and Plutonium-Gallium Alloys", <u>Metallurgical and Materials Transactions</u>, 35A issue 8 (2004) 2267-2278.
- 17. C.J. Boehlert, T.G. Zocco, R.K. Schulze, J.N. Mitchell, and R.A. Pereyra, "Electron Backscatter Diffraction (EBSD) of a Plutonium-Gallium Alloy", Journal of Nuclear Materials, Vol. 312 (2003) 67-75.
- 18. C.J. Boehlert, J.D. Farr, R.K. Schulze, R.A. Pereyra, and J.C. Archuleta, "Initial Electron Backscattered Diffraction Observations of Cerium", *Philosophical Magazine*, Vol. 83, no.14 (2003) 1735-1744.
- 19. C.J. Boehlert, "Part III. The Tensile Behavior of Ti-Al-Nb O+BCC Orthorhombic Alloys", <u>Metallurgical and</u> <u>Materials Transactions</u>, 32A (2001) 1977-1988.
- C.J. Boehlert, D.M. Dimiduk, and K.J. Hemker, "The Phase Evolution, Mechanical Behavior, and Microstructural Instability of a Fully-Lamellar Ti-46Al(at.%) Alloy", <u>Scripta Materialia</u>, Vol 46/4 (2002) 259-267.
- C.J. Boehlert and J.F. Bingert, "Microstructure, Tensile, and Creep Behavior of O+BCC Ti<sub>2</sub>AlNb Alloys Processed Using Induction-Float-Zone Melting", <u>Journal of Materials Processing Technology</u>, vol. 117 (2001) 401-408.
- C.J. Boehlert, B.S. Majumdar, and D.B. Miracle, "Application of the Cruciform Specimen Geometry to Obtain Transverse Interface Property Data in a High Fiber-Volume-Fraction SiC/Titanium Alloy Composite", <u>Metallurgical and Materials Transactions</u>, 32A #12 (2001) 3143-3155.
- M. Zupan, M.J. Hayden, C.J. Boehlert, and K.J. Hemker, "Development of High Temperature Microsample Testing", <u>Experimental Mechanics</u>, 41 no. 3 (2001) 242-247.
- C.J. Boehlert, "The Effects of Forging and Rolling on Microstructure in O+BCC Ti-Al-Nb Alloys", <u>Materials</u> <u>Science and Engineering</u>, A279/1-2 (2000) 118-129.
- 25. C.J. Boehlert, "The Phase Evolution and Microstructural Stability of an Orthorhombic Ti-23Al-27Nb Alloy", Journal of Phase Equilibria, vol. 20 no. 2 (1999) 101-108.
- C.J. Boehlert, "Microstructure, Creep, and Tensile Behavior of a Ti-12Al-38Nb(at.%) Beta+Orthorhombic Alloy", <u>Materials Science and Engineering</u>, A267 (1999) 82-98.
- 27. C.J. Boehlert, B.S. Majumdar, V. Seetharaman, and D.B. Miracle, "Part I: The Microstructural Evolution in Ti-Al-Nb O+BCC Orthorhombic Alloys", <u>Metallurgical and Materials Transactions</u>, 30A (1999) 2305-2323.
- 28. C.J. Boehlert and D.B. Miracle, "Part II: The Creep Behavior of Ti-Al-Nb O+BCC Orthorhombic Alloys", <u>Metallurgical and Materials Transactions</u>, 30A (1999) 2349-2367.
- C.J. Boehlert, B.S. Majumdar, S. Krishnamurthy, and D.B. Miracle, "Role of Matrix Microstructure on RT Tensile Properties and Fiber-Strength Utilization of an Orthorhombic Ti-alloy Based Composite", <u>Metallurgical</u> <u>and Materials Transactions</u>, 28A (1997) 309-323.
- C.J. Boehlert, B.S. Majumdar, and D. Eylon, "Properties and Damage Mechanisms in Three Classes of Titanium Composite Matrices", <u>Key Engineering Materials</u>, vol. 127-131 Part I (1997) 843-850.

- 31. S.M. Russ, C.J. Boehlert, and D. Eylon, "Out-of-phase thermomechanical fatigue of titanium composite matrices", <u>Materials Science and Engineering</u>, A192/193 (1995) 483-489.
- 32. C.J. Boehlert, "The Effect of Thermomechanical Processing on the Creep Behavior of Alloy 690", <u>Materials</u> <u>Science and Engineering A</u>, Vol. 473 (2008) 233-237.
- 33. C.J. Boehlert, S.C. Longanbach, and T.R. Bieler "The effect of thermomechanical processing on the creep behavior of Udimet Alloy 188", *Philosophical Magazine*, Vol. 88 Issue 5 (2008) 641-664.
- C.J. Boehlert, S.C. Longanbach, M. Nowell, and S. Wright, "The evolution of grain boundary cracking evaluated through *in-situ* tensile creep testing of Udimet alloy 188", <u>Journal of Materials Research</u>, Vol. 23 No. 2 (2008) 500-506.
- C.J. Cowen and C.J. Boehlert, "The Microstructure, Creep, and Tensile Behavior for Ti-5Al-45Nb(at%) Fully-β Alloy", <u>Metallurgical Transactions</u>, 38A No. 11 (2007) 2747-2753.
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### **CONFERENCE, SEMINAR, AND WORKSHOP PRESENTATIONS**

Invited Presentations at Conferences and Professional Society Meetings

- 1. 7/10/06, *B. Bartha* and C.J. Boehlert, "Experimental investigation on the mechanical behavior of grains in a polycrystalline alloy," Photomechanics 2006, July 10-14, 2006, Claimont Feriand, France.
- 2. 5/11/06, *C.J. Boehlert*, "The effect of cold rolling on the creep behavior of Udimet alloy 188", World Scientific and Engineering Academy and Society (WSEAS) Conference on Continuum Mechanics held in Evia Island Greece, May 11-13, 2006.
- 3. 10/9/06, *C.J. Boehlert*, "The Biocompatibility of Ti-Al-Nb Alloys", 2006 ASME International Conference on Manufacturing Science and Engineering (MSEC), Ypsilanti, MI
- 4. 9/27/05, *J.P. Quast*, M.J. Baumann, and C.J. Boehlert, "Comparison of Biomedical Characteristics of Ti-15Al-33Nb(at.%) and Ti-22Al-28Nb(at.%) with Ti-6Al-4V(wt.%), presented at the *Advanced Processing of Biomaterials* Symposium at MST'05, Pittsburgh, PA, September 26-29, 2005.
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- 3/17/2015, A. Chakkedath, J. Bohlen, S. Yi, D. Letzig, Z. Chen, and C. J. Boehlert, "The Deformation Behavior, Microstructure and Mechanical Properties of Cast and Extruded Mg-1Mn-xNd(wt%) at Temperatures Between 50°C and 250°C", presented at the symposium on Magnesium Technology 2015 at TMS 2015, March 15-19, 2015, Orlando, Florida.
- 12/18/15, V. Khademi, C.J. Boehlert, and M. Ikeda, "Characterization and Modeling of Deformation Induced Damage in Titanium Alloys", Twenty-Fourth International Symposium on Processing and Fabrication of Advanced Materials (PFAM XXIV), Kansai University (Osaka) JAPAN, December 18-20, 2015 (plenary talk).
- 31. 7/20/16, V. Khademi, C.J. Boehlert, M. Ikeda, "Increasing the Elevated-Temperature Strength of a Beta Titanium Alloy Through Thermomechanically-Induced Phase Transformation", Beyond Nickel-Based Superalloys II and Engineering Conferences International Conference, Clare College, Cambridge, UK, July 17-21, 2016 (poster)
- 32. 5/20/15, A. Amroussia, F. Pellomoine, W. Mittig, and *C.J. Boehlert*, "Graphite and Titanium Alloy Radiation Tests", 2nd RaDIATE Collaboration Meeting, Oxford, England, May 20-21, 2015.
- 33. 9/26/16, *C.J. Boehlert*, "Composites Materials as a Threat To Titanium", Titanium 2016, Scottsdale, Arizona, September 25-28, 2016
- 34. 6/9/16, C.J. Boehlert, "Strengthening Ti Alloys through Phase Transformation", Lightweighting Innovation for Tomorrow (LIFT) Research Partner Workshop, Detroit, MI
- 35. 6/8/16, C.J. Boehlert "Stability and Mechanical and Microstructural Integrity of Welded Assemblies", Lightweighting Innovation for Tomorrow (LIFT) Research Partner Workshop, Detroit, MI
- 3/12/19, C.J. Boehlert, etc. "Omega Phase Titanium alloys, "International Conference on Materials Science and Engineering, Recent Advances and Challenges (ICMSE-RAC 2019), March 11-13, 2019, Cairo, Egypt (Keynote/Plenary)
- 37. 8/8-9/19, A. Chakkedath and C.J. Boehlert, "A Study of the Effects of Rare-Earth Elements on the microstructural evolution and deformation behavior of magnesium alloys at Temperatures up to 523K", PRedictive Integrated Structural Materials Science (PRISMS) Center workshop, Ann Arbor, MI
- 10/15-18/19, J. Ballor, V. Khademi, M. Ikeda, and C.J. Boehlert, "The Microstructural Evolution and Mechanical Behavior of Fe and Al modified Ti-12Cr(wt.%)", 9th International Light Metals Technology (LMT2019) Conference, Shanghai, China

3rd Global summit and Expo

on Nanotechnology and Nanomedicine conference that will take place at

39. Barcelona, Spain during September 18-20, 2019.

### Invited Seminars at Universities, Government and Industrial Meetings, and Professional Society Dinner Meetings

1. 4/10/07, *C.J. Boehlert*, "Biomedical Compatibility of Novel Titanium Alloys for Implant Applications", Saginaw Valley ASM International Chapter Dinner Meeting, Frankenmuth, Michigan.

- 4/25/07, C.J. Boehlert, "In-Situ Electron Backscattered Diffraction Mapping During Tensile-Creep Testing of Advanced Alloys", presented at the National Institute for Standards and Technology (NIST) Gaithersburg, MD.
- 3. 11/2/06, C.J. Boehlert, "Performing Elevated-Temperature Mechanical Testing to Understand Processing-Microstructure-Property Relationships of Structural Alloys", AFOSR Metallic Materials Grantees Meeting, Nov. 1-3, 2006, Arlington, VA (NSF)
- 4. 4/28/06, C.J. Boehlert, "Titanium-Aluminum-Niobium Alloys for Biomedical Implants", Symmetry Medical, Lansing, MI
- 5. 5/8/06, C.J. Boehlert, "Biomedical Compatibility of Ti-Al-Nb Alloys for Implant Applications", Detroit ASM International Chapter Dinner Meeting, Detroit, Vladimir's Restaurant, Farmington Hills, Michigan.
- 6. 11/17/05, C.J. Boehlert, "The Future of Advanced Metallic Systems", presentation to the MSU CHEMS Advisory Board.
- 7. 5/24/05, *C.J. Boehlert*, "The Potential for Orthorhombic+Body-Centered-Cubic Titanium Alloys with Boron Additions for Mechanical Behavior Enhancement", The Air Force Research Laboratory, Research Group Meeting, Dayton, OH.
- 8. 2/11/03, *C.J. Boehlert* "Understanding Microstructure-Property Relationships of Ti Alloys", University of Albany, Albany, NY
- 9. 10/13/05, *C.J. Boehlert*, C.J. Cowen, and S. Tamirisa, "Processing and Characterization of Ti-Al-NbxB Orthorhombic Alloys", Titanium-Boride Workshop, Dayton, OH, October 11-13, 2005.
- 10. 1/28/05, *C.J. Boehlert*, "The Physical Metallurgy of two Ti<sub>2</sub>AlNb-based Intermetallic Alloys: Ti-15Al-33Nb and Ti-21Al-29Nb(at%)", Binghamton University, Mechanical Engineering and Materials Science and Engineering Departments, Binghamton, NY
- 11. 12/21/04, *C.J. Boehlert*, "The Microstructural Evolution and Mechanical Behavior of Ti-Al-Nb Alloys the Potential for Biomedical Implant Applications as well as Aerospace Applications", Fraunhofer Institute für Werkstoffmechanik IWM, Freiburg Germany.
- 12. 2/2/04, *C.J. Boehlert*, "Microstructure-Property Relationships of Ti Alloys", Mechanical And Aerospace Engineering Graduate Seminar at West Virginia University, Morgantown, WV.
- 13. 6/8/03, C.J. Boehlert, "The Colorful Art of Orientation Imaging Microscopy" Alfred University/Jo Gitter Outreach Program Seminar.
- 14. 4/9/03, C.J. Boehlert, "Grain Boundary Engineering of a Nickel-Based Superalloy Using Electron Backscatter Diffraction", presented at the Buffalo Chapter of ASM-International dinner, Buffalo, NY.
- 15. 2/10/03, *C.J. Boehlert*, "Understanding Microstructure-Property Relationships of Ti Alloys", James D. Watson Investigator Award Ceremony, Albany, NY
- 16. 1/24/03, *C.J. Boehlert*, "Orientation Imaging Microscopy: A Research and Education Tool" Alfred University/Chemistry Department Seminar.
- 17. 2/13/02, C.J. Boehlert, "Orientation Imaging Microscopy: A Research and Education Tool", presented at the Southwestern New York Chapter of ASM-International dinner, Wellsville, NY.
- 18. 3/14/02, *C.J. Boehlert*, "Orientation Imaging Microscopy used for Understanding Grain Boundary Engineering of Ni-based Superalloys", presented at the West Virginia Chapter of ASM-International dinner, Huntington, WV.
- 19. 9/19/02, *C.J. Boehlert* "Grain Boundary Engineering of a Nickel-Based Superalloy" Alfred University/Ceramic Engineering and Materials Science Graduate Seminar.
- 20. 9/19/02, C.J. Boehlert, "The Colorful Art of Orientation Imaging Microscopy" Alfred University/Ceramic Engineering and Materials Science Undergraduate Seminar.
- 21. 2/2/01, *C.J. Boehlert*, "Recent Electron Backscattered Diffraction Observations of Pu-Ga and Ti-Al-Nb Alloys", presented at the University of British Columbia Department of Metals and Materials Engineering, Vancouver, British Columbia, Canada.
- 22. 9/14/00, *C.J. Boehlert*, "An Introduction to the Physical Metallurgy of Plutonium", presented at the Alfred University School of Ceramic Engineering and Materials Science, Alfred, NY.

- 23. C.J. Boehlert, "The Room Temperature Tensile Behavior of Ti-25Al-17Nb/SCS-6 and Ti-6Al-2Sn-4Zr-2Mo/Sigma Metal Matrix Composites" University of Madrid, Madrid, Spain, May 1999, (presented in Spanish).
- C.J. Boehlert, "The Room Temperature Tensile Behavior of Ti-25Al-17Nb/SCS-6 and Ti-6Al-2Sn-4Zr-2Mo/Sigma Metal Matrix Composites", Centro de Estudios e Investigaciones Technicas de Guipuzcoa (CEIT), San Sebastian, Spain, May 1999.
- 25. *C.J. Boehlert*, "The Physical Metallurgy of Intermetallic Titanium-Aluminindes based on Ti<sub>2</sub>AlNb and TiAl", Centro de Estudios e Investigaciones Technicas de Guipuzcoa (CEIT), San Sebastian, Spain, May 1999.
- J.N. Mitchell, C.J. Boehlert, R.K. Schulze, D.S. Schwartz, L. Morales, T.G. Zocco, and R.A. Pereyra, "Plutonium Microstructure Investigations", March 22, 2001, Lawrence Livermore National Laboratory.
- 27. 11/9/07, C.J. Boehlert, "The Elevated-Temperature Creep and Fatigue Behavior of Boron-Modified Ti-6Al-4V", Materials Science and Engineering Department Seminar Series, Michigan Tech, Houghton, MI.
- 28. 7/31/07, C.J. Boehlert, "The Elevated-Temperature Creep and Fatigue Behavior of Boron-Modified Ti-6Al-4V", The Air Force Research Laboratory, Dayton, OH.
- 29. 4/24/07, *C.J. Boehlert*, "*In-Situ* Electron Backscattered Diffraction Mapping During Tensile-Creep Testing of Advanced Alloys", presented at the Naval Research Laboratory (NRL) Washington, DC.
- 12/17/07 C.J. Boehlert and W. Chen, "The Effect of Boron on the Elevated-Temperature Creep and Fatigue Behavior of Ti-6Al-4V(wt.%)", Key Laboratory for Metal Matrix Composites, Shanghai Jiao Tong University, Shanghai, China.
- 31. 5/14/08 C.J. Boehlert, "In-Situ Tensile and Tensile-Creep Testing of Structural Alloys", Oak Ridge National Laboratory Microscopy Group
- 32. 5/6/09, W. Chen and C.J. Boehlert, "The Effect of Boron-Addition and Processing on the Mechanical Properties of Titanium Alloys", SHared Research Equipment (SHaRE) Peer Review Meeting, Oak Ridge National Laboratory, Oak Ridge, TN (poster).
- 33. 8/20/09, C.J. Boehlert, "The Elevated-Temperature Creep and Fatigue Behavior of Boron-Modified Ti-6Al-4V" University of Tennessee Materials Science and Engineering Program, Knoxville, TN
- 34. 8/20/09, *C.J. Boehlert*, "Elevated-Temperature *In-Situ* Tensile, Fatigue, and Creep Experimentation of Structural Alloys Using Scanning Electron Microscopy" University of Tennessee Department of Materials Science and Engineering Special Seminar, Knoxville, TN
- 35. 5/6/09, W. Chen, C.J. Boehlert, E.A. Payzant, J.Y. Howe, E.A. Kenik, S. Tamirisakandala, and D.B. Miracle, "The Effect of Boron-Addition and Processing on the Mechanical Properties of Titanium Alloys", SHared Research Equipment (SHaRE) Peer Review Meeting, Oak Ridge National Laboratory, Oak Ridge, TN (poster).
- 36. 12/17/09, C.J. Boehlert, "The Effect of Thermomechanical Processing on the Microstructure and Mechanical Behavior of Thixomolded AM60 Alloy", Shanghai Jiaotong University, National Research Center of Light Alloy Net Forming Engineering, School of Materials Science and Engineering, Shanghai, China.
- 37. 8/4/10, C.J. Boehlert, "In-Situ SEM/EBSD Observations of Grain Boundary Cracking in Udimet Alloy 188," presented to staff at the Madrid Institute for Advanced Studies in Materials (IMDEA), Madrid, Spain
- 38. 9/30/10, H. Li, J. Seal, *M.A. Crimp, T.R. Bieler*, and C.J. Boehlert, "Characterization and Modeling of Deformation Induced Damage in Titanium Alloys", 2010 Mechanical Behavior and Radiation Effects Contractors Meeting, September 28- October 1, 2010, Rockville, MD.
- 39. 1/11/11, C.J. Boehlert, "*In-Situ* Microscopia Electrónica Para Comprender la Deformación del Comportamiento de Materiales", presented at the Seminarios para Centro Nacional de Investigaciones Metalurgicas (CENIM), Madrid, Spain (in spanish).
- 40. 9/30/10, C.J. Boehlert, M.A. Crimp, T.R. Bieler, J. Seal IV, H. Li, L. Wang, and Y. Yang, "Characterization and Modeling of Deformation Induced Damage in Titanium Alloys", 2010

Mechanical Behavior and Radiation Effects Contractors Meeting, September 28- October 1, 2010, Rockville, MD.

- 41. 4/11/11, C.J. Boehlert, "*In-Situ* Microscopia Electrónica Para Comprender la Deformación del Comportamiento de Materiales", presented at the Seminarios Internacionales de Fronteras de la Ciencia de Materiales, Politecnica Universidad Politecnica de Madrid (UPM), Madrid, Spain (in Spanish).
- 42. 3/4/11, C.J. Boehlert, "*In-Situ* Scanning Electron Microscopy Characterization During Deformation of Structural Alloys", Fraunhofer Institute for Mechanics of Materials, Freiburg, Germany
- 43. 10/4/12,C.J. Boehlert, "Development of Methodologies for Characterization of the Microstructure and Deformation Behavior of Radioactive Materials and Materials to be used in Irradiation Environments", Center for Research excellence in Complex Materials (CORE-CM) Seminar Series.
- 44. 1/8/14, C.J. Boehlert, "*In-Situ* Scanning Electron Microscopy Characterization During Deformation of Structural Alloys", Tohoku University, Institute for Material Research (IMR), Sendai, Japan
- 45. 11/12/14, C.J. Boehlert, "The Deformation Behavior of Titanium Alloys", American Society of Metals (ASM) West Michigan Chapter, Grand Rapids, Michigan
- 46. 12/16/2015, A. Chakkedath and C.J. Boehlert, "The Deformation Behavior, Microstructure and Mechanical Properties of Cast and Extruded Mg-1Mn-xNd (wt%) at temperatures between 50°C and 250°C", invited seminar at School of Materials Science and Engineering, Southwest Jiaotong University (SWJTU), Chengdu, Sichuan, China
- 47. 6/9/16, C.J. Boehlert, "Strengthening Ti Alloys through Phase Transformation", Lightweighting Innovation for Tomorrow (LIFT) Research Partner Workshop, Detroit, MI
- 48. 6/8/16, C.J. Boehlert "Stability and Mechanical and Microstructural Integrity of Welded Assemblies", Lightweighting Innovation for Tomorrow (LIFT) Research Partner Workshop, Detroit, MI
- 49. 9/26/16, C.J. Boehlert, Composites Materials as a Threat To Titanium, Titanium 2016, Scotsdale, Arizona, September 25-28, 2016
- 50. 4/4/17, A. Chakkedath and C.J. Boehlert, "A Study of the Effects of Rare-Earth Elements on the microstructural evolution and deformation behavior of magnesium alloys at Temperatures up to 523K", Laval University, Quebec City, Canada.
- 51. 12/16/2015, A. Chakkedath and C.J. Boehlert, "The Deformation Behavior, Microstructure and Mechanical Properties of Cast and Extruded Mg-1Mn-xNd (wt%) at temperatures between 50°C and 250°C", invited seminar at School of Materials Science and Engineering, Southwest Jiaotong University (SWJTU), Chengdu, Sichuan, China
- 52. 9/26/2017, C.J. Boehlert, "Case Studies: "EBSD Characterization of Metals that form Thick Surface Oxides and in-situ EBSD During Creep and Elevated Temperature Exposures" EDAX Short Lecture Workshop For EBSD, Center for Electron Microscopy and Analysis (CEMAS), The Ohio State University, Columbus, OH
- 53. 8/26/18, V. Khademi and *C.J. Boehlert*, "A Study on the Plastic Deformation Behavior of Body-Centered Cubic Titanium Alloys", Egypt – Japan University of Science and Technology, Borg El-Arab, Alexandria, Egypt.
- 54. 10/10/18, D. Hernández Escobar, Z. Ur Raman H. Yilmazer, M. Kawasaki, and C. J. Boehlert, "Achieving high-strength Zn-Mg hybrids through High-Pressure Torsion", Central Michigan University School of Engineering and Technology Graduate Student Seminar, October 10, 2018
- 55. 10/15-18/19, J. Ballor, V. Khademi, M. Ikeda and *C.J. Boehlert*, "The Microstructural Evolution and Mechanical Behavior of Fe and Al modified Ti-12Cr(wt.%)", Shanghai Jiao Tong University, Shanghai, China
- 56. 6/4/19, V. Khademi, J. Ballor, H. Chakraborty, D. Hernandez Escobar, and C.J. Boehlert, "The Elevated-Temperature Strength Enhancement of a Low-Cost β Titanium Alloy Through Thermomechanically-Induced Phase Transformation", Eastern NY ASM 2019 Annual Symposium: Lifecycle of Materials, at GE Research in Niskayuna, NY
- 57. 2/15/19, A. Chakkedath and *C.J. Boehlert*, "A Study of the Effects of Rare-Earth Elements on the microstructural evolution and deformation behavior of magnesium alloys at Temperatures up to 523K", Michigan Technological University Department of Materials Science and Engineering, Houghton, MI
- 58. 11/8/17, C.J. Boehlert, "A Study of the Effects of Rare-Earth Elements on the microstructural evolution and

deformation behavior of magnesium alloys at Temperatures up to 523K", Central Michigan University, Mount Pleasant, MI

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### <u>Contributed Presentations at Conferences, Professional Society Meetings, Workshops, and</u> <u>Gatherings</u>

- 1. 4/5/07 J.P. Quast and C.J. Boehlert, "The Effect of Mo on the Microstructure and Microstructure and Mechanical Behavior of Ti-24Al-17Nb Alloys and their Composites", CHEMS Research Forum, Lansing Convention Center, Lansing Michigan.
- 9/17/07, J.P. Quast and C.J. Boehlert, "The Effect of Quaternary Mo Additions on the Tensile and Creep Behavior of Ti-24Al-17Nb-xMo Atomic Percent Alloys and their SiC Continuous Fiber-Reinforced Composites", presented at the Commonality of Phenomena in Composite Materials Symposium, at the TMS Fall Meeting MST'07, Detroit, MI, September 16-20, 2007.
- 3. 9/19/07, *C.J. Boehlert*, M. Nowell, and S. Wright, "*In-Situ* Electron Backscattered Diffraction Mapping During Tensile-Creep Testing of Advanced Alloys", presented at the *Characterization and Modeling of the Mechanical Performance of Advanced Alloys – Bridging the Gap* Symposium, at the TMS Fall Meeting MST'07, Detroit, MI, September 16-20, 2007.
- 4. 9/20/07, W. Chen and C.J. Boehlert, "The Elevated-Temperature Fatigue Behavior of Boron-Modified Ti-6Al-4V(wt.%)", presented at the *High Temperature Materials Systems Fatigue Mechanisms and Prognosis*, Symposium at the TMS Fall Meeting MST'07, Detroit, MI, September 16-20, 2007.
- 6/7/07 C.J. Boehlert, S. Tamirisakandala, and D. B. Miracle, "The Effect of Boron on the Elevated-Temperature Creep Behavior of Ti-6Al-4V(wt.%)", 11th World Conference on Titanium, Kyoto, Japan.
- 6. 2/26/07, C.J. Boehlert, "Scanning Electron Microscopy Education Outreach Program", Outreach Programs in Materials Science and Engineering Symposium, TMS 2007 Annual Meeting, Orlando, Florida.
- 2/28/07, C.J. Cowen and C.J. Boehlert, "The Microstructure, Tensile, and Creep Behavior of Boron-Modified Ti-15Al-33Nb(at%) and Ti-22Al-26Nb(at%)", Innovations in Titanium Technology Symposium, TMS 2007 Annual Meeting, Orlando, Florida.
- 8. 2/28/07, J.P. Quast and C.J. Boehlert, "The Effect of Mo on the Microstructure and Microstructure and Mechanical Behavior of Ti-24Al-17Nb Alloys and their Composites", Advanced Metallic Composites and Alloys for High Performance Applications Symposium, TMS 2007 Annual Meeting, Orlando, Florida.
- 9. 2/28/07, *S. Longanbach* K. Knittel, A. Lee, and C.J. Boehlert, "Microstructure-Property Relationships of Mg Alloys Containing either Y-Zn-Zr or Zr-B as Alloying Elements", *Magnesium Technology 2007* Symposium, TMS 2007 Annual Meeting, Orlando, Florida.
- 9/18/06, J.P. Quast and *C.J. Boehlert*, "The Effect of Molybdenum on the Microstructure, Tensile, and Creep Behavior of Ti-24Al-17Nb-xMo(at.%) and its Composites", 21<sup>st</sup> American Society of Composites (ASC) Technical Conference, University of Michigan Dearbon, Dearborn, MI.
- 11. 10/17/06, *C.J. Boehlert*, "The Effect of Cold Rolling on the Creep Behavior of Udimet 188", Symposium on High Temperature Degradation of Fe-, Ni-, and Co-Based Alloys Including Metal Dusting at MST'06, October 16-19, 2006, Cincinnati, Ohio.
- 12. 10/16/06, *J.P. Quast* and C.J. Boehlert, "The Effect of Molybdenum on the Microstructure, Tensile, and Creep Behavior of Ti-24Al-17Nb-xMo(at %) and its Composites" Symposium on Deformation Mechanisms in Complex Materials at MST'06, October 16-19, 2006, Cincinnati, Ohio,
- 13. 3/13/06, C.J. Boehlert, J.P. Quast, and C.J. Cowen, "The Biocompatibility of Ti-Al-Nb Alloys", TMS 2006 Annual Meeting, Biomaterials Symposium, San Antonio, TX
- 14. 3/14/06, *C.J. Boehlert*, "The Microstructure, Tensile, and Creep Behavior of Mg-Zn Alloys with and without Y and Zr as Ternary Elements", TMS 2006 Annual Meeting, *Magnesium Technology Symposium*, San Antonio, TX

- 15. 3/15/06, C.J. Cowen and C.J. Boehlert, "Microstructure, Tensile, and Creep Behavior of Ti-15Al-33Nb(at%) and Ti-21Al-29Nb(at%) Orthorhombic+BCC Alloys", TMS 2006 Annual Meeting, *Titanium Alloys for Elevated Temperature Applications Symposium: Symposium Dedicated to the memory of Martin Blackburn*, San Antonio, TX
- 16. 9/16/05, C.J. Boehlert, "Where are We (CHEMS) Heading", presentation to the 1961 Metallurgy Dept MSU Alumni.
- 10/4/05, C.J. Boehlert and N.C. Eisinger, "The Effect of Sheet Processing on the Creep Behavior of INCONEL® alloy 718", <u>Sixth International Special Emphasis Symposium on Superalloys 718, 625,</u> <u>706 and Derivatives</u>, Pittsburgh, PA, 2005.
- 18. 4/7/05, C.J. Boehlert, "Titanium-Aluminum-Niobium Alloys Potential for Biomedical Implants as well as Aerospace Applications", CHEMS Annual Research Forum, Lansing Convention Center
- 19. 4/7/05, *C.J. Boehlert*, "Materials Engineering Education through Service Learning Involving Scanning Electron Microscopy Education", proceedings of the 2005 ASEE North Central Conference held at Ohio Northern University, Ada, Ohio April 7-8, 2005.
- 20. 2/15/05, C.J. Boehlert, K.A. Rider, and L.M. Flick, "Comparison of the Fatigue and Tensile Behavior and Biocompatibility of Ti-15Al-33Nb(at.%) + Ti-21Al-29Nb(at.%) with CP Ti, Al<sub>2</sub>O<sub>3</sub>, and Ti-6Al-4V", presented at the "Biological Materials Science and Engineering", symposium at the 2005 TMS Annual meeting, San Francisco, CA, February 13-17, 2005.
- 12/1/04, C.J. Cowen, *Dingqiang Li*, and C.J. Boehlert, "Microstructure-Property Relationships of Two Ti<sub>2</sub>AlNb-based Intermetallic Alloys: Ti-15Al-33Nb(at.%) and Ti-21Al-29Nb(at%), presented at MRS Fall 2004 symposium on "Integrative and Interdisciplinary Aspects of Intermetallics", Boston, Massachusetts.
- 22. 9/28/04, C.J. Cowen, C.R. Jaeger, M. Niinomi, T. Akahori, and C.J. Boehlert, "Tensile and fatigue evaluation of Ti-15Al-33Nb and Ti-21Al-29Nb(at.%) alloys for biomedical applications", presented at the "Titanium for Biomedical, Dental, and Healthcare Applications" joint TMS/JIM symposium at the TMS Fall 2004 meeting MST'04, New Orleans, LA, September 26-29, 2004.
- 23. 9/29/04, *Dingqiang Li* and C.J. Boehlert, "The Phase Transformation Behavior and Grain Boundary Character Distribution in Ti-Al-Nb Alloys, presented at the "*Applications of Orientation Microscopy Techniques to Phase Transformations*" symposium at the TMS Fall 2004 meeting, New Orleans, LA, September 26-29, 2004.
- 24. 4/4/04, *C.J. Boehlert*, Defense Program (DP) Department of Energy (DOE) Presidential Early Career Award for Science and Engineering (PECASE) Award Ceremony Poster, Washington, DC.
- 25. 3/17/04, *C.J. Boehlert*, D.S. Dickmann, and N.C. Eisinger, "The Role of Grain Size and Grain Boundary Character on the Creep Behavior of INCONEL alloy 718", presented at the *The Role of Grain boundaries in Material Design* symposium at the TMS Annual 2004 meeting, Charlotte, North Carolina, March 14-18, 2004.
- 26. 11/11/03, D.S. Dickmann, S. Civelekoglu, D. Li, N.C. Eisinger, G.D. Smith, and C.J. Boehlert, "Comparison of the Microstructure and Mechanical Behavior of INCONEL alloy 718 as a Function of Sheet Processing", Processing and Properties of Structural Alloys symposium of the TMS Fall Meeting, Chicago, Illinois.
- 27. 7/14/03 *C.J. Boehlert*, S. Civelekoglu, R. Gundakaram, and J.F. Bingert, "The Grain Boundary Character Distribution in BCC and O+BCC Ti-Al-Nb Alloy Microstructures", presented at the 10<sup>th</sup> World Conference on Titanium, Ti-2003, Intermetallics symposium, Hamburg, Germany (www.ti-2003.dgm.de).
- 28. 6/11/03, C.J. Boehlert, S. Civelekoglu, N.C. Eisinger, and G.D. Smith, "The Grain Boundary Character Distribution and Mechanical Behavior of INCONEL 718SPF", presented at AEROMAT 2003 in Dayton, Ohio.
- 29. 3/4/03 S. Civelekoglu, "The Grain Boundary Character Distribution of INCONEL® alloy 718", presented in the student poster session of the TMS Annual Meeting, March 3-5, 2003, San Diego, CA (poster).

- 30. 3/5/03, C.J. Boehlert, S. Civelekoglu, N.C. Eisinger, G.D. Smith, and J.R. Crum, "The Effect of Cold Rolling and Annealing on the Grain Boundary Character Distribution of INCONEL® alloy 718", presented in the High Temperature Alloys: Processing for Properties symposium at the TMS Annual Meeting, San Diego, CA.
- 31. 3/4/03 *C.J. Boehlert*, T.G. Zocco, R.K. Schulze, J.N. Mitchell, and R.A. Pereyra, "Electron Backscatter Diffraction (EBSD) of Plutonium-Gallium Alloys", presented in the Actinides Materials: Processing, Characterization, and Behavior symposium at the TMS Annual Meeting, San Diego, CA.
- 32. 11/7/01, *C.J. Boehlert*, B.S. Majumdar, and D.B. Miracle, "Application of the Cruciform Specimen Geometry to Obtain Transverse Interface Property Data in a High Fiber-Volume-Fraction SiC/Titanium Alloy Composite", presented in the symposium on Affordable Metal-Matrix Composites for High Performance Applications at the TMS Fall Meeting, Indianapolis, IN, November 4-8, 2001.
- 11/7/01, C.J. Boehlert, R.K. Schulze, J.N. Mitchell, and T.G. Zocco, "Orientation Imaging Microscopy of Plutonium-Gallium Alloys", presented in the General Abstracts: Surface Engineering symposium at the TMS Fall Meeting, Indianapolis, IN, November 4-8, 2001.
- 34. 5/5/01, C.J. Boehlert, R.K. Schulze, J.N. Mitchell, and T.G. Zocco, "Initial Electron Backscatter Diffraction Observations of a Plutonium-Gallium Alloy", presented at Scanning 2001, New York, NY.
- 6/7/07 C.J. Boehlert, S. Tamirisakandala, and D. B. Miracle, "The Effect of Boron on the Elevated-Temperature Creep Behavior of Ti-6Al-4V(wt.%)", 11th World Conference on Titanium, Kyoto, Japan.
- 36. 6/5/07 *C.J. Boehlert*, T. Akahori, and M. Niinomi, "Fatigue and Wear Evaluation of Ti-Al-Nb alloys for biomedical applications", 6th International Symposium on Titanium in Dentistry (ISTD), Kyoto, Japan (poster).
- 37. 7/20/07, D. Kumar, T.R. Bieler, M.A. Crimp, S.C. Longanbach, C.J. Boehlert, P. Eisenlohr, F. Roters, and D. Raabe "On Predicting Nucleation of Microcracks Due to Slip-System Interactions at Grain Boundaries in Duplex γ-TiAl (and in creep of a Co based superalloy)", Material Processing Defects Conference, Cornell University, Ithaca, New York.
- 11/26/07, C.J. Boehlert, S.C. Longanbach, M. Nowell, J. Carpenter, and S. Wright, "In-Situ Tensile-Creep Testing of Structural Alloys", Quantitative Electron Microscopy for Materials Science Symposium MRS Fall Meeting, Boston, MA (poster)
- 39. 9/16/08, S.C. Longanbach and C.J. Boehlert, "The Effect of Thermomechanical Processing on the Microstructure and Creep Behavior of Udimet Alloy 188", 11<sup>th</sup> International Symposium on Superalloys (TMS, Warrendale, PA), Session titled *Mechanical Behavior - Creep*, Silver Springs, PA, September, 2008. (poster)
- 40. 10/27-31/08, *T.R. Bieler*, M.A. Crimp, C.J. Boehlert, Y. Yang, L. Wang, P. Eisenlohr, F. Roters, D. Raabe, W. Liu, G. Ice, D.E. Mason, "Computational modeling of interactions between slip-systems and grain boundaries that lead to fracture initiation", The Fourth International Conference on Multiscale Materials Modeling, Symposium on *Defects in Materials*, October 27-31, 2008, Tallahassee, FL, USA
- 41. 10/8/08, W. Chen, J.P. Quast, and C.J. Boehlert, "Effect of microstructure on the elevated-temperature fatigue behavior of Ti Alloys reinforced with SiC Fibers or TiB Whiskers", presented at the Fundamentals & Characterization: Fatigue of Materials: Competing Failure Modes and Variability in Fatigue Life Symposium Fatigue of Steels, Nickel and Titanium Alloys Session, at the MST'08, Pittsburgh, PA, October 5-9, 2008.
- 42. 10/9/08, C.J. Boehlert, S.C. Longanbach, M. Nowell, and S. Wright, "In-Situ Tensile-Creep Characterization of Structural Alloys using a Scanning Electron Microscope", presented at the Fundamentals and Characterization: Recent Advances in Structural Characterization of Materials Symposium Electron Microscopy and Electron Diffraction: Developments and Applications II Session, at the MST'08, Pittsburgh, PA, October 5-9, 2008.

- 43. 5/21/2008, S.C. Longanbach, C.J. Boehlert, M. Nowell, and S. Wright, "*In-Situ* SEM/EBSD Observations of Grain Boundary Cracking in Udimet Alloy 188," EBSD 2008 sponsored by the Microbeam Analysis Society and held at the University of Wisconsin, Madison, Wisconsin (poster).
- 44. 5/22/2008, W. Chen, C.J. Boehlert, S. Wright, S. Tamirisa, and D.B. Miracle "EBSD Observations of Cast and Cast and Extruded Boron-Modified Ti-6Al-4V(wt.%)," EBSD 2008 sponsored by the Microbeam Analysis Society and held at the University of Wisconsin, Madison, Wisconsin.
- 45. 10/3/07, *C.J. Boehlert* and P. Kwon, "Development of Cutting Tools For Machining Titanium", Advanced Cutting Tool technology Workshop, Michigan State University, East Lansing, MI.
- 46. 9/11/08, W. Chen, C.J. Boehlert, S. Tamirisakandala, and D.B. Miracle, "Effect of Boron on the Low-Cycle Fatigue Behavior of Ti-6Al-4V at Elevated Temperature", presented at the Sixth International Conference on Low Cycle Fatigue, Berlin, Germany.
- 47. 6/4/08, C.J. Boehlert, W. Chen, A. Payzant, J. Howe, S. Tamirisakandala, D.B. Miracle, and S. Wright, "The Effect of Processing on the Texture and Creep Behavior of Boron-Modified Ti-6Al-4V", International Conference on Textures of Materials (ICOTOM) 2008, Hexagonal Metals Symposium, Texture-Property Relations Session, Pittsburgh, PA.
- 48. 3/11/08, J.P. Quast, and C.J. Boehlert, "Evaluation of the Interface Strength and 90-degree Creep Resistance of Continuously-Reinforced Metal Matrix Composites Containing Ti-25Al-17Nb-xMo Matrices", presented at the *Mechanics and Kinetics of Interfaces in Multi-Component Materials Systems* Symposium, TMS 2008 Annual Meeting, New Orleans, Louisiana.
- 49. 3/11/08, W. Chen and C.J. Boehlert, "The Elevated-Temperature Creep and Fatigue Behavior of Boron-Modified Ti-6Al-4V(wt.%)", presented at the *Mechanical Behavior*, *Microstructure*, and *Modeling of Ti and Its Alloys* Symposium, TMS 2008 Annual Meeting, New Orleans, Louisiana.
- 50. 10/14/08, *C.J. Boehlert*, S.C. Longanbach, M. Nowell, Y. Yamamoto, and S. Wright, "In-Situ Tensile-Creep Characterization of Structural Alloys" Experimental Multi-Scale Mechanics Symposium of the Society of Engineering Science 45th Annual Meeting at the University of Illinois at Urbana-Champaign campus I-Hotel and Conference Center in Research Park.
- 51. 2/18/09, W. Chen, C.J. Boehlert, A. Payzant, J. Howe, S. Tamirisakandala, D.B. Miracle, "The Effect of Processing, Microstructure, and Texture on the Elevated-Temperature Fatigue Behavior of Boron-Modified α+β Titanium Alloys", presented at the *Fatigue Mechanisms, Theory, Experiments, and Industry Practice: Fatigue at High Temperatures and in Harsh Environments* symposium, TMS 2009 Annual Meeting, San Francisco, California.
- 2/17/10, W. Chen, C.J. Boehlert, J. Howe, S. Tamirisakandala, Daniel Miracle, "Elevated-temperature fatigue behavior of boron-modified Ti-6Al-4V", presented at the Cost-Affordable Titanium III symposium of the TMS Annual Meeting, Seattle Washington, February 14-18, 2010.
- 53. 2/17/10, Z. Chen, *C.J. Boehlert*, J. Huang, R. Decker, and S. Lebeau, "The Effect of TTMP and Annealing on the Tensile and Fatigue Behavior of Thixomolded® AM60", presented at the Magnesium Technology 2010 symposium of the TMS Annual Meeting, Seattle Washington, February 14-18, 2010.
- 54. 8/5/09, B. Kuhr, A. Ritter, C. Hubbard, and C.J. Boehlert, "Processing-Microstructure-Property Relationships of Thixomolded Magnesium Alloy AM60", poster presented at the ORNL Summer Student Poster Session, Oak Ridge National Laboratory, Oak Ridge, TN (abstract to be published in DOE<sup>1</sup>s Journal of Undergraduate Research)
- 55. 8/5/09, A. Ritter, B. Kuhr, C. Hubbard, and C.J. Boehlert, "Effects of shot blasting aluminum sheet with steel and glass shot on through-thickness residual stresses", poster presented at the ORNL Summer Student Poster Session, Oak Ridge National Laboratory, Oak Ridge, TN (abstract to be published in DOE<sup>1</sup>s Journal of Undergraduate Research)
- 56. 10/26/09, W. Chen, C.J. Boehlert, E.A. Payzant, J.Y. Howe, S. Tamirisakandala, and D.B. Miracle, "The Effect of Boron Additions on the Elevated-Temperature Fatigue Behavior of α+β Ti Alloys", presented at the *Characterization of Metal Matrix Composite Materials* Symposium *Modeling and Mechanical and Physical Behavior* Session, at the MST'09, Pittsburgh, PA, October 25-29, 2009.

- 57. 7/12-17/09, *J.N. Mitchell* and C.J. Boehlert, "Microstructure Influence on the γ to α' transformation in Pu-Ga Alloys", Presented at *Actinides 2009*, San Francisco, CA, July 12-17, 2009.
- 58. 7/27/09, S.C. Longanbach and C.J. Boehlert, "In-Situ Tensile-Creep Observations of a Cobalt-Based Superalloy", In-Situ Microscopy: Real Time Correlation of Structure, Processing and Properties Symposium, Microscopy and Microanalysis 2009 (M&M 2009), Richmond, Virginia (Sara Longanbach received MSA Distinguished Scholar Award for this work).
- 2/17/10, S.C. Longanbach and C.J. Boehlert, "Creep and Fatigue Interactions of Haynes 282 at Elevated Temperatures", presented at the "Advances in Composite Cellular and Natural Materials", symposium of the TMS Annual Meeting, Seattle Washington, February 14-18, 2010.
- 60. 2/17/10, W. Chen, C.J. Boehlert, J. Howe, S. Tamirisakandala, Daniel Miracle, "Elevated-temperature fatigue behavior of boron-modified Ti-6Al-4V", presented at the Cost-Affordable Titanium III symposium of the TMS Annual Meeting, Seattle Washington, February 14-18, 2010.
- 61. 2/17/10, Z. Chen, *C.J. Boehlert*, J. Huang, R. Decker, and S. Lebeau, "The Effect of Thermomechanical Processing on the Microstructure and Mechanical Behavior of Thixomolded® AM60", presented at the Magnesium Technology 2010 symposium of the TMS Annual Meeting, Seattle Washington, February 14-18, 2010.
- 62. 10/11/10, S.C. Longanbach and C.J. Boehlert, "Creep and Fatigue Interactions of Haynes 282 at Elevated Temperatures", presented at the 7<sup>th</sup> International Symposium on Superalloys and Derivatives, Pittsburgh, PA, February 10-13, 2010.
- 63. 5/25/10, S.C. Longanbach, C.J. Boehlert, "*In-Situ* SEM/EBSD Observations of Grain Boundary Cracking in Udimet Alloy 188," EBSD 2010 sponsored by the Microbeam Analysis Society and held at the University of Wisconsin, Madison, Wisconsin (poster).
- 64. 2/15/11, Z. Chen, A. Shyam, J. Howe, J, Huang, R. Decker, S. LeBeau, C.J. Boehlert, "The Effect of Thermomechanical Processing on the Small Fatigue Crack Growth Behavior of an AM60 Mg Alloy", presented at the Magnesium Technology 2011 symposium of the TMS Annual Meeting, San Diego, California, February 14-18, 2011 (poster).
- 65. 2/15/10, A. Ritter, B. Kuhr, C. Hubbard, T.R. Watkins, C.J. Boehlert, and X. Niu, "Effects of shot peening aluminum alloy A356.2 cast plate with steel and glass shot on the through-thickness residual stresses", presented at the Neutron and X-ray Studies of Advanced Materials III symposium of the TMS Annual Meeting, Seattle Washington, February 14-18, 2010.
- 66. 9/15/2011, *R. Munoz*, T. Perez-Prado, J. Llorca, and C.J. Boehlert, An *in-situ* SEM evaluation of the creep deformation behavior of a γ-TiAl alloy", presented at the Fourth International Workshop on Titanium Aluminides, Nurernberg, Germany.
- 67. 10/20/11, Z. Chen, A. Shyam, J. Huang, R. Decker, S. LeBeau, and C.J. Boehlert, "The Small Fatigue Crack Growth Behavior of an AM60 Magnesium Alloy", presented at the Fatigue and Microstructure: A Symposium on Recent Advances, at MST'11, Columbus, OH, October 16-20, 2011.
- 68. 10/19/11, *H. Li*, C.J. Boehlert, T.R. Bieler, and M.A. Crimp, "*In-Situ* Scanning Electron Microscopy Observations of the 455°C creep and tensile deformation behavior of Ti-5Al-2.5Sn(wt.%)", presented at the *Deformation and Transitions at Grain Boundaries* Symposium, at MST'11, Columbus, OH, October 16-20, 2011.
- 69. 10/18/11, J. Seal, C.J. Boehlert, T.R. Bieler, and M.A. Crimp, "deformation behavior of Ti-5Al-2.5Sn(wt.%)", presented at the xxx Symposium, at MST'11, Columbus, OH, October 16-20, 2011.
- 70. 10/19/11, D.D. Yin, Q.D. Wang, and C.J. Boehlert, "The Creep behavior of peak-aged Mg-11Y-5Gd-2Zn-0.5Zr (wt.%) for engine piston applications", presented at the *Characterization and Modeling of the Performance of Advanced Alloys for the Transportation Industry -- Bridging the Data Gap II*, at MST'11, Columbus, OH, October 16-20, 2011.
- 71. 6/21/2011, *H. Li*, C.J. Boehlert, T.R. Bieler, M.A. Crimp, "Analysis of the tension and creep behavior of Ti-5Al-2.5Sn(wt.%) using *in-situ* SEM Experiments", The 12th World Conference on Titanium, Beijing, China.

- 72. 3/12/12, C.J. Boehlert, Z. Chen, I. Gutierrez, J. Bohlen, S. Yi, D. Letzig, J. Llorca, and M.T. Perez-Prado, "In-situ analysis of the tensile deformation mechanisms in Mg-1Mn-1Nd(wt.%) between 50-250°C", presented at the Magnesium Technology 2012 symposium of the TMS Annual Meeting, Orlando, Florida, March 11-15, 2012.
- 73. 6/22/2011, R. Munoz-Moreno, Y. Cui, J. Llorca, E.M. Ruiz, M.T. Perez-Prado, and C.J. Boehlert, "An in-situ SEM evaluation of the fracture behavior of a γ-TiAl alloy", Session on Intermetallics and MMCs, The 12th World Conference on Titanium, Beijing, China.
- 74. 6/20-21/12, D.D. Yin, Q.D. Wang, C.J. Boehlert, Z. Chen, A. Chakkedath, A.K. Sachdev, and R.K. Mishra, "In situ study of the tensile deformation and fracture modes in peak-aged Mg-11Y-5Gd-2Zn-0.5Zr alloy", presented at EBSD 2012: Tutorial and Topical Conference, Carnegie Mellon University, Pittsburgh, PA, June 19-21, 2012 (poster).
- 75. 6/20-21/12, Z. Chen, C.J. Boehlert, I. Gutiérrez-Urrutia, J. Llorca, J.Bohlen, S. Yi, D. Letzig, M.T. Pérez-Prado, "In-situ Analysis of the Tensile Deformation Mechanism in Rolled AZ31 and Extruded MN11 Magnesium Alloys", presented at EBSD 2012: Tutorial and Topical Conference, Carnegie Mellon University, Pittsburgh, PA, June 19-21, 2012.
- 76. 6/20-21/12, H. Li, C.J. Boehlert, T.R. Bieler, and M.A. Crimp, "Analysis of Deformation Behavior of Commercially Pure Titanium and Ti-5Al-2.5Sn (wt.%) Using *in-situ* Scanning Electron Microscopy and Electron Backscattered Diffraction", presented at EBSD 2012: Tutorial and Topical Conference, Carnegie Mellon University, Pittsburgh, PA, June 19-21, 2012 (poster).
- 77. 10/10/12, J. Seal, T.R. Bieler, C.J. Boehlert, and M.A. Crimp, In-Situ Characterization of slip transfer across α/β interfaces in equiaxed Ti-5Al-2.5Sn (wt. %) using EBSD and Microcantilever Beams", presented at the <u>Novel Methods for Deformation Testing of Metals and Materials</u>, at MST'12, Pittsburgh, PA, October 7-11, 2012.
- 10/9/12, C.J. Boehlert, "In-Situ SEM-based Testing Methodology for Understanding the Deformation Behavior of Materials", presented at the <u>Novel Methods for Deformation Testing of Metals and</u> <u>Materials</u>, at MST'12, Pittsburgh, PA, October 7-11, 2012.
- 79. 10/9/12, H. Li, C.J. Boehlert, T.R. Bieler, M.A. Crimp, "Comparison of the Deformation Behavior of Commercially Pure Titanium and Ti-5Al-2.5Sn(wt.%) at 296K and 728K Using *In-situ* SEM Experiments", presented at the symposium on Recent Advances in Phase Transformations and Structural Evolution in Titanium and its Alloys, at MST'12, Pittsburgh, PA, October 7-11, 2012.
- 80. 10/9/12, C. Zhang, H. Li, P. Eisenlohr, T.R. Bieler, M.A. Crimp, and C.J. Boehlert, "Study of Slip Activity and Stress State Development in Heterogeneous Deformation of Polycrystalline Ti-5Al-2.5Sn with CPFE Simulation", presented at the symposium on Quantification of Texture and Microstructure Gradients in Polycrystalline Materials, at MST'12, Pittsburgh, PA, October 7-11, 2012.
- 81. 10/8/12, *J.P. Quast* and C.J. Boehlert, "The Effect of Quaternary Mo Additions on the Tensile and Creep Behavior of a Ti-24Al-17Nb-xMo/SiC Continuous Fiber-Reinforced Composite", presented at the symposium on Functional and Innovative Composites, at MST'12, Pittsburgh, PA, October 7-11, 2012.
- 82. 7/3/12, C. Boehlert, Z. Chen, I. Gutiérrez-Urrutia, J. Llorca and M.T. Pérez-Prado, "On the Controversy of Grain Boundary Sliding in Magnesium AZ31", presented at ICSAM 2012 (11th International Conference on Superplasticity of Advanced Materials, Albi, France, July 3-5, 2012
- 83. 5/12, C.J. Boehlert, Z. Chen, I. Gutierrez, J. Llorca, J. Bohlen, S. Yi, D. Letzig, and M.T. Perez-Prado, "Analisis in-situ de los mecanismos de deformación en aleaciones de Magnesio" or "In-situ analysis of the deformation mechanisms in Mg", presented at XII Congreso Nacional de Materiales (12<sup>th</sup> Spanish National Conference on Materials), Alicante, Spain, 2012.
- 84. 3/14/12, Leyun Wang, H. Li, R. Barabash, M.A. Crimp, C.J. Boehlert, P. Eisenlohr, T. Bieler, and W. Liu, "Study of geometrically necessary dislocations by depth-resolved 3D X-ray microdiffraction and crystal plasticity modeling", presented at the Neutron and X-Ray Studies of Advanced Materials V: CENTENNIEL symposium of the TMS Annual Meeting, Orlando, Florida, March 11-15, 2012.
- 85. 3/31/11, *R. Munoz-Moreno*, E.M. Ruiz-Navas, J. Llorca, M.T. Perez-Prado, and C.J. Boehlert, An *insitu* SEM evaluation of the elevated-temperature tensile and creep deformation behavior of a γTiAl

Alloy", presented at Sixth European Aerodays 2011, the Sixth European Aeronautics Days, Madrid Spain, March 31-April 1, 2011 (second prize in the PhD Students category).

- 86. 3/14/12, C. Zhang, H. Li, M.A. Crimp, C.J. Boehlert, and T.R. Bieler, "Comparison of CPFE and Experimental Results for the Study of Interaction between Grain Boundary and Dislocation Slip" presented at the *Titanium: Advances in Processing, Characterization and Properties* symposium, of the TMS Annual Meeting, Orlando, Florida, March 11-15, 2012.
- 87. 5/22/2013, A, Chakkedath, Z. Chen, C.J. Boehlert, I. Gutiérrez-Urrutia, J. Llorca, J.Bohlen, S. Yi, D. Letzig, M.T. Pérez-Prado, "The Effect of Nd on the Deformation Behavior of Extruded Mg-1Mn(wt%)", presented at Processing-Microstructure-Property Relationships and Deformation Mechanisms of Magnesium Alloys: an International Workshop, Madrid, Spain, May 21-24, 2013.
- 88. 3/5/2013, H. Li, C.J. Boehlert, T.R. Bieler, M.A. Crimp, "In-Situ Scanning Electron Microscopy (SEM) Observations of Tensile and Tensile-creep Deformation of Ti-3Al-2.5V(wt.%)", symposium on the Deformation, Damage, and Fracture of Light Metals and Alloys at TMS 2013, March 3-7, 2013, San Antonio, Texas.
- 89. 3/5/2013, C. Zhang, H. Li, P. Eisenlohr, T. Bieler, M. Crimp, C. Boehlert, "Study of the Relationships between Local Stress State and Slip Activity in Heterogeneous Deformation of Polycrystalline Ti-5Al-2.5Sn with CPFE Simulation", symposium on *Modeling and Experimental Validation of Multiscale Mechanical Behavior from Atomic Scale to Macro Scale* at TMS 2013, March 3-7, 2013, San Antonio, Texas.
- 90. 11/2?/12, R. Muñoz-Moreno, C.J. Boehlert, M.T. Pérez-Prado, E.M. Ruiz-Navas, and J. Llorca, "In situ analysis of the deformation and fracture mechanisms of Ti-45Al-2Nb-2Mn-0.8v.% TiB<sub>2</sub> at high temperature", Symposium JJ: Intermetallic-based Alloys–Science, Technology, and Applications, MRS Fall Meeting, November 25-30, 2012, Boston, MA.
- 91. 10/27-31/13, C.J. Boehlert, T. Sano, and C-F. Chen, "In-Situ Scanning Electron Microscopy Observations of the Deformation Behavior of Friction Stir Welded Al2139-T8" symposium on Light Metals for Transportation, at MST'13, Oct. 27-31, 2013, Montreal, Canada.
- 92. 10/29/13, A, Chakkedath, Z. Chen, C.J. Boehlert, I. Gutiérrez-Urrutia, J. Llorca, J. Bohlen, S. Yi, D. Letzig, and M.T. Pérez-Prado, "The Effect of Nd on the Deformation Behavior of Extruded Mg-1Mn(wt%)", symposium on *Magnesium Technology*, at MST'13, Oct. 27-31, 2013, Montreal, Canada.
- 93. 10/29/13, H. Li, C.J. Boehlert, T.R. Bieler, M.A. Crimp, "Estimating the Critical Resolved Shear Stress Ratios of the Deformation Systems in Ti and Ti Alloys", symposium on *Titanium and Titanium Alloys: Processing, Deformation Behavior, Properties and Applications*, at MST'13, Oct. 27-31, 2013, Montreal, Canada.
- 94. 3/4/2013, *C.J. Boehlert* and W. Chen, "The Effect of Processing, Microstructure and Texture on the Elevated-Temperature Fatigue Behavior of Boron-Modified  $\alpha/\beta$  Ti Alloys", symposium on *the Deformation, Damage, and Fracture of Light Metals and Alloys* at TMS 2013, March 3-7, 2013, San Antonio, Texas.
- 95. J.R. Seal, T.R. Bieler, C.J. Boehlert, M.A. Crimp, "In-Situ Characterization of Slip Transfer Across α/β Interfaces in Equiaxed Ti-5Al-2.5Sn Using EBSD & Microcantilever Beams," Electron Back-Scattered Diffraction Conference, Pittsburgh, PA, 19-21 May 2012.
- 96. J.R. Seal, T.R. Bieler, C.J. Boehlert, M.A. Crimp, "Exploring Slip Transmission Across the α/β Interface in Ti-5Al-2.5Sn (wt.%) Using Microcantilever Beams," Michigan State University Research Forum, East Lansing, MI, April 9, 2012.
- 97. J.R. Seal, T.R. Bieler, C.J. Boehlert, M.A. Crimp, "Heterogeneous Deformation and Damage Nucleation at the α/β Interface in Equiaxed Ti-5Al-2.5Sn," Michigan State University Research Forum, East Lansing, MI, May 23, 2011.
- 98. 7/17-21/16, V. Khademi, C.J. Boehlert, M. Ikeda, "Increasing the Elevated-Temperature Strength of a Beta Titanium Alloy Through Thermomechanically-Induced Phase Transformation", Beyond Nickel-Based Superalloys II and Engineering Conferences International Conference, Clare College, Cambridge, UK, July 21-24, 2016 (poster)

### **Professional Development Activities – Conference and Workshop Attendance**

- 14<sup>th</sup> World Conference on Titanium, Nantes, France, June 10-14, 2019
- 3rd Global Summit and Expo on Nanotechnology and Nanomedicine Conference Barcelona, Spain, September 18-20, 2019.
- 9th International Light Metals Technology (LMT2019) Conference, Shanghai, China, October 15-18, 2019
- PRedictive Integrated Structural Materials Science (PRISMS) Center Workshop, Ann Arbor, MI, August 8-9, 2019
- International Conference on Materials Science and Engineering, Recent Advances and Challenges (ICMSE-RAC 2019), March 11-13, 2019, Cairo, Egypt
- 2018 Annual Biomedical Research Conference for Minority Students (ABRCMS), November 14-17, 2018, Indiana Convention Center in Indianapolis, Indiana.
- MST'18, Columbus, Ohio, October 14-18, 2018
- TMS Annual Meeting, March 11-March 15, 2018, Phoenix, Arizona
- Biosimilar Workshop 2017, December 11-15, 2017, ICT Mumbai, Mumbai, India
- 2017 Mechanical Behavior and Radiation Effects Principal Investigators' Meeting for the Department of Energy (Basic Energy Science), Gaithersburg Marriott Washingtonian Center, Gaithersburg, Maryland, September 19-21, 2017.
- 2017 Annual Biomedical Research Conference for Minority Students (ABRCMS), Phoenix, Arizona, November 1-5, 2017
- MST'17, October 8-12, 2017, Pittsburgh, PA
- EDAX Short Lecture Workshop For EBSD, Center for Electron Microscopy and Analysis (CEMAS), The Ohio State University, Columbus, OH, September 26-27, 2017
- MST'16, October 23-27, 2016, Salt Lake City, Utah
- TMS Annual Meeting, February 26-March 2, 2017, San Diego, California
- Titanium 2016, Scottsdale, Arizona, September 25-28, 2016
- Lightweighting Innovation for Tomorrow (LIFT) Research Partner Workshop, June 8-9, 2016, Detroit, Michigan.
- Lightweighting Innovation for Tomorrow (LIFT) Roadmapping Workshop, April 26-27, 2016, Detroit, Michigan.
- Beyond Nickel-Based Superalloys II and Engineering Conferences International Conference, Clare College, Cambridge, UK, July 17-21, 2016
- TMS Annual Meeting, February 14-18, 2016, Nashville, Tennesee.
- The 13th World Conference on Titanium, August 16-20, 2015, San Diego, California.
- Twenty-Fourth International Symposium on Processing and Fabrication of Advanced Materials (PFAM XXIV), Kansai University (Osaka) Japan, December 18-20, 2015.
- Invited Seminar at Southwest Jiaotong University Chengdu, Sichuan, 610031, P.R. China, December 16, 2015
- Gordon Research Conference on Physical Metallurgy, July 20-25, 2015, University of New England, Biddeford, Maine
- 2nd Meeting of the International Collaboration on Radiation Damage In Accelerator Target Environments (RaDIATE), May 19-20, 2015, Oxford, England
- TMS Annual Meeting, March 15-19, 2015, Orlando, Florida.
- 40<sup>th</sup> Annual AVS (American Vacuum Society)-MI Chapter Symposium :Thin Films for Energy Storage and Conversion applications", August 25, 2014, Michigan State University (International Center Building)
- International Conference on Martensitic Transformations (ICOMAT2014), Bilbao, Spain,

July 6-11, 2014.

- The 17th U. S. National Congress on Theoretical and Applied Mechanics (USNCTAM-2014) June 15-20, 2014 at Michigan State University, East Lansing, Michigan.
- Predictive Integrated Structural Materials Science (PRISMS) Workshop, May 5-6, 2014, University of Michigan, Ann Arbor, Michigan
- Computational Materials Research Initiative (CMRI) International Symposium 2014, January 8-10, 2014, Tohoku University, Sendai, Japan
- Workshop on Titanium Alloys for Energy Applications, January 24, 2014, Kansai University, Osaka, Japan
- MST'13, October 27-31, 2013, Montreal, Canada
- International Workshop on Synthesis, Properties and Applications of Graphene and 2D Materials, Madrid, Spain, July 16, 2013.
- First Workshop on "Materials in Extreme Environments MatX", Michigan State University, May 13-14, 2013
- Processing-Microstructure-Property Relationships and Deformation Mechanisms of Magnesium Alloys: an International Workshop, Madrid, Spain, May 21-24, 2013.
- TMS Annual Meeting, March 3-7, 2013, San Antonio, Texas.
- Plasticity '13, Nassau Bahamas, January 3-8, 2013
- SHared Research Equipment (SHaRE) User Program Meeting, April 27, 2012, Oak Ridge
- Processing-Microstructure-Property Relationships and Deformation Mechanisms of Magnesium Alloys: An International Workshop, May 21-25, 2013, Madrid, Spain
- MST'12, October 7-11, 2012, Pittsburgh, PA
- 19<sup>th</sup> International Symposium, Plasticity 2013, Nassau Beach, Nassau, Bahamas, January 3-8, 2013
- US Navy Submarine Educator Orientation Visit, March 8-10, 2012, San Diego, CA
- Advanced Manufacturing Partnership Regional Meeting and Materials Genome Initiative Workshop, December 12, 2012, Ann Arbor, MI
- TMS Annual Meeting, February 11-15, 2012, Orlando, FL.
- Euromat 2011, Montpellier, France, September 12-15, 2011.
- 2011 Joint CNMS-SHaRE User Meeting, September 19-20, 2011, Oak Ridge, TN
- MST'11, October 16-20, 2011, Columbus, OH
- SHared Research Equipment (SHaRE) User Facility-Annual SAC-UEC Meeting, March 16, 2011, Oak Ridge, TN
- SHared Research Equipment (SHaRE) Scientific Advisory Council (SAC)/User Executive Committee (UEC) Meeting, January 27, 2010, Oak Ridge, TN
- 1st TMS-ABM International Materials Congress July 26-30, 2010, Rio de Janeiro, Brazil.
- EBSD 2010 sponsored by the Microbeam Analysis Society and held at the University of Wisconsin, Madison, Wisconsin, May 24-26, 2010
- MST'09, October 25-29, 2009, Pittsburgh, PA.
- 2009 Joint CNMS-SHaRE User Meeting, September 16-17, 2009, Oak Ridge, TN
- SHared Research Equipment (SHaRE) User Program Meeting, May 6-7, 2009, Oak Ridge
- TMS Annual Meeting, February 14-18, 2010, Seattle, WA.
- TMS Annual Meeting, February 15-19, 2009, San Francisco, CA.
- 4th International Symposium on Designing, Processing and Properties of Advanced Engineering Materials (ISAEM-2008), Nagoya University, Japan, Nov. 18-21, 2008
- Society of Engineering Science (SES) 45th Annual Meeting at the University of Illinois, October 12-15, 2008.
- MST'08, October 5-9, 2008, Pittsburgh, PA.

- Internat. Conference on Textures of Materials (ICOTOM), June 2-6, 2008, Pittsburgh, PA
- Creep 2008 11th International Conference on Creep and Fracture of Engineering Materials and Structures, May 5-9, 2008, Bayreuth, Germany.
- TMS Annual Meeting, February 26-March 1, 2007, Orlando, FL.
- Microscopy and Microanalysis 2007, August 5-9, 2007, Ft. Lauderdale, FL.
- MST'07, September 16-20, 2007, Detroit, MI,
- 11th World Conference on Titanium (3-7 June 2007) at Kyoto International Conference Hall in Kyoto, Japan
- MRS Fall Meeting, November 26-29, 2006, Boston, MA.
- AFOSR Metallic Materials Programs Review, November 1-3, 2006, Arlington, VA.
- MST'06, October 16-19, 2006, Cincinnati, OH.
- ASME International Conference on Manufacturing Science and Engineering (MSEC), October 9-11, 2006, Ypsilanti, MI
- 21<sup>st</sup> American Society of Composites (ASC) Technical Conference, September 19-21, 2006, University of Michigan Dearborn, Dearborn, MI.
- World Scientific and Engineering Academy and Society (WSEAS) Conference on Continuum Mechanics, May 11-13, 2006, Evia Island Greece.
- TMS Annual Meeting, March 12-15, 2006, San Antonio, TX.
- ASEE Engineering Research Council Workshop, Summit, and Forum, February 26-28, 2006, Arlington, VA.
- MRS Fall Meeting, November 27-30, 2005, Boston, MA.
- Titanium-Boride Workshop, October 11-13, 2005, Dayton, OH.
- Sixth International Special Emphasis Symposium on Superalloys 718, 625, 706 and Derivatives, October 3-5, 2005, Pittsburgh, PA, 2005.
- ASEE North Central Conference, April 7-8, 2005, Ohio Northern University, Ada, OH.
- TMS Annual Meeting, February 13-17, 2005, San Francisco, CA.
- MRS Fall Meeting, November 28-December 1, 2004, Boston, MA.
- MST'04, September 26-29, 2004, New Orleans, LA.
- TMS Annual Meeting, March 15-18, 2004, Charlotte, NC.
- 2003 Materials Week, October 9-12, 2003, Chicago, IL.
- 10<sup>th</sup> World Conference on Titanium (Ti-2003), July 12-16, 2003, Hamburg, Germany.
- AEROMAT 2003, June 11-14, 2003, Dayton, OH.
- TMS Annual Meeting, March 1-6, 2003, San Diego, CA.
- THERMEC' 2003, July 7-11, Madrid, Spain.
- 2002 Materials Week, ASM/TMS Fall Meetings, October 6-10, 2002, Columbus, OH.
- 2001 Materials Week, ASM/TMS Fall Meetings, November 4–8, 2001, Indianapolis, IN.