Department of Physics, Oregon State University, 301Weniger Hall, Corvallis, OR 97331-6507
Tel: (541) 737-1700 E-mail: tate@physics.oregonstate.edu
Fax: (541) 737-1683 Website: http://www.physics.oregonstate.edu/~tate/

Professional Positions:

2002+	Professor of Physics, Oregon State University
2002+	Adjunct Professor of Chemistry, Oregon State University
1994-2002	Associate Professor of Physics, Oregon State University
1995-1996	Visiting Researcher, Strathclyde University, Scotland
1989-1994	Assistant Professor of Physics, Oregon State University
1987-1989	Post-doctoral Fellow, Technische Universität München (Prof. Helmut Kinder)
1982-1987	Graduate Research Assistant, Stanford University, CA (Prof. Blas Cabrera)

Education:

1988	Ph.D. in Physics, Stanford University, Stanford, CA
1984	M.S. in Physics, Stanford University, Stanford, CA
1981	B.Sc. (Hons) Physics *cum Laude*, University of Natal, South Africa
1980	B.Sc. in Physics and Chemistry, University of Natal, South Africa

Professional Societies:

American Physical Society, Materials Research Society, American Association of Physics Teachers

Professional Affiliations:

Oregon Nanoscience and Microtechnologies Institute, Center for Sustainable Materials Chemistry, OSU Materials Synthesis and Characterization Facility, OSU Materials Science Faculty

Honours:

2007	Milton Harris Award in Basic Research
2002	Frederick H. Horne Award for Sustained Excellence in Teaching Science
1998	Thomas T. Sugihara Young Faculty Research Award
1997, 1995	Mortar Board Top Prof Award
1993	Phi Kappa Phi Emerging Scholar Award (OSU Chapter)
1991-1993	Alfred P. Sloan Research Fellowship
1989	Young Scientist Prize (European Materials Research Society)
1987-1989	Alexander von Humboldt Fellowship
1982-1984	Fulbright Scholarship for graduate study at Stanford University

National Committees:

2013-2015	APS Committee on Careers and Professional Development (Chair, 2014)
2008	NSF NINN Review Committee
2007-2008	Chair, APS/AAPT *Graduate Education in Physics: Which Way Forward?*
2005-2007	American Physical Society Committee on Education
2002	National Science Foundation MRSEC Review Panel
1994-1995	National Science Foundation ILI Review Panel
1992	Department of Energy Basic Energy Sciences Program Review Panel

University Service:

2013-2015 College of Science Promotion and Tenure Committee
2012 College of Science Dean Search Committee
2012 UCSEE Sub-Committee on Academic Support Services
2010-2012 Faculty Senate (also (1997-1999)
2010+ Writing Intensive Curriculum Advisory Committee
2002-2005 Research Council
1999-2005 CAMR Advisory Committee
1998+ Search Committees: Director of Undergraduate Research, College of Science, Interim Dean, Chemistry Chair, Chemistry faculty, Mechanical Engineering Faculty, College of Science Associate Dean

Departmental Service (recent)

2013-2014 Comprehensive Examination Committee
2011-2013 Professional Science Masters Program Director
2009 Long Range Plan coordinator (also 2003)
2007-2014 Graduate curriculum group
2007-2014 Upper Division curriculum group
2007 – 2012 Newsletter organization
2010 Graduate Admissions Committee
2004+ Faculty Search Committee: (8 total, 4 as chair)
1999+ Advisory Committee (elected to 7 two-year terms)
1996+ Promotion and Tenure Committee (12 total; 3 as chair, 3 as representative)

Professional Development:

Building Partnerships Workshop on Water Energy and the Environment for Women Scientists from Morocco, Algeria and Tunisia, Casablanca, Morocco, March 2013 (COACh Workshop Facilitator)
WIC Faculty seminar, 2011 (presenter, *Ethics in the WIC curriculum*)
OSU Leadership Academy, 2010-2013 (participant)
WIC Faculty seminar, 2009 (participant)
Women in Physics group, 1996+ (mentor)

Conference & Workshop Organization:

TOEO-8, Waseda University, Tokyo, Japan, May 2013 (International Advisory Comm.)
Physics careers in industry and government, Tutorial workshop, March Meeting of the American Physical Society, Portland, OR, 2010 (moderator/co-organizer with S. Zollner)
Graduate Education in Physics: Which Way Forward? APS/AAPT Conference, College Park, MD, January 2008 (Chair, moderator, fund-raiser)
APS Northwest Meeting, Univ. of Puget Sound, May 2006 (Session Organizer and Chair)
Materials Research Society Fall Meeting, Boston, MA, Nov. 2005 (Symposium Organizer),
Materials Research Society Fall Meeting, Boston, MA, December 2002 (Symposium Organizer),

Outreach

Discovering the Scientist Within You, AWIS Workshop for middle school girls, for 12 years since 1996. (Lead hands-on physics exploration sessions; 4 workshop keynote talks, 1 parent workshop)

Grant and Contract Support: Over $40,000,000 to OSU requested from 22 funded and 3 pending grants from NSF, DoE, ONR/ONAMI, Research Corporation, Kelley Foundation, HP, ARO, NATO Scientific Exchange.

A. Current support:

Amorphous Metals for Thermal Inkjet Applications, J. Wager, D. A. Keszler, **J. Tate** and A. Wang, Hewlett Packard, 2013-2014, $240,000.

High Temperature Oven for Hall Measurement System, **J. Tate**, 2012-2012, OSU RERF $28,867 + $13,000 match from CSMC and OSU Physics.

SOLAR: Enhanced Photovoltaic Efficiency through Heterojunction Assisted Impact Ionization, S. Kevan, J. D. Cohen, G. Richmond, **J. Tate**, A. Rockett, G. Schneider, M. Peszynska, National Science Foundation, 2010-2014), $1,638,803 (OSU $694,357).

Match to SOLAR: Enhanced …, J. Tate, G. Schneider and M. Peszynska, ONAMI, $67,000 (2011-2013).

Center for Sustainable Materials Chemistry, D.A. Keszler, D. C. Johnson, D. W. Johnson, J. F. Wager, National Science Foundation, $20,000,000. (role: senior personnel).

IGERT: Interdisciplinary Green Materials Program to Prepare Students as Scientific Leaders for a Sustainable Society J. Hutchison D. A. Keszler, and D. Tyler (JT is one of 16 supporting senior personnel), National Science Foundation, 07/01/2009-06/30/2014, $3,191,399. (U.S. students beyond the candidacy exam are eligible for support under this program; none of my students is currently supported.)

B. Pending Support

MRI: Acquisition of a Near Ambient Pressure X-ray Photoelectron Spectroscopy System to Enable Active Near-Surface and Interface Analysis, G. S. Herman and D.A. Keszler, National Science Foundation, 09/01/14 - 01/31/16, $648,109 (Role: senior personnel)

Designing new semiconductors for thermoelectrics, **J. Tate** and G. Schneider, National Science Foundation, 2014-2017, $575,332.

Oregon Center for Materials Research, M. Subramanian, NSF MRSEC, 2014-2020, $13,870,358 (role: senior personnel and IRG1 leader)

Center for Next Generation of Materials by Design: Incorporating Metastability,W. Tumas (PI), DoE ERFC, 2014-2019, $20,000,000 (OSU $1,900,000) (role: Senior personnel and Thrust 3 co-leader)

C. Past support

Bipolar doping in Wide-Band-Gap Semiconductors, J. Tate and D. A. Keszler, National Science Foundation DMR, 1 July 2008 - 30 June 2011, $270,000 (NCE to August 2012). + Supplement of $3,000 (student travel to Brookhaven National Lab, 2011).

URISC funding for River Wiedle, OSU Research Office, Summer 2011.

Chemical imaging of the bio-nano interface and thin film nanostructures by micro-Raman/Photoluminescence spectroscopy, G. Rorrer, E. Minot, D. H. McIntyre, O. Ostroverkhova, J. Tate, P. Dhagat, A. Jander, (Instrumentation) ONAMI/ONR, 1 September 2009 - 30 August 2010, $290,000.

Micro- and nanoscale building blocks for optoelectronics: solution-based fabrication of high-performance nanophotonic and nanoelectronic devices, J. Tate, D. H. McIntyre, and

D. A. Keszler, ONAMI/ONR, 1 January 2008 - 31 December 2008 (NCE to Dec. 2009), $116,000.

Graduate Education in Physics: Which way forward? J. Tate, T. W. Hodapp, C. Singh, M. R. Thoennessen, National Science Foundation DGE, 1 January 2007 - 31 December 2007 (NCE to Aug 2009), $72,500.

Micro- and nanoscale building blocks for optoelectronics: Solution-based writing with inorganic inks, J. Tate, D. H. McIntyre, and D. A. Keszler, ONAMI, 1 January 2006 - 31 July 2007 (NCE to Dec. 2009), $130,098.

Nanoarchitectures for Enhanced Performance, Janet Tate (sub contract from DoD contract with D.A. Keszler and D. C. Johnson) 28 September, 2006 - 27 September 2007 (NCE to Dec 2008), $25,424.

URISC funding for Alden Jurling, OSU Research Office, Summer 2007.

Ocean Optics UV-Visible-NIR Spectrometer, J. Tate and D. H. McIntyre, OSU Research Equipment Reserve Fund, (2007) $34,555.

IGERT: Interdisciplinary Materials Program to Accelerate the Transition from Student to Scientist, D. C. Johnson and H. Linke (UO), National Science Foundation DGE 0549503, 15 September 2006 - 31 August 2008, $1,246,295 (one of 14 supporting co-PIs). Tate graduate students Paul Newhouse (2006, 2007) and Annette Richard (2006) had 3 total years of direct support from this grant.

FRG: Transparent Conductors, J. Tate, D. A. Keszler, A. W. Sleight, J. F. Wager, National Science Foundation, June 2003 – May 2006, $637,000

Intelligent luminescence for communication, display and identification, C. J. Summers (GIT), P. Holloway (UF), J. F. Wager (OSU), I.C. Khoo (Penn. St. U.), N. Farhat (U. Penn.), DoD Multidisciplinary Research Program of the University Research Initiative BAA, May 2001 - 30 April 2006, $5,000,000. (OSU Co-PIs: D. A. Keszler, M. Lerner, J. Tate)

Acquisition of a HIP/PLD instrument cluster for materials research, device development and education, D. A. Keszler, J. Tate and J. F. Wager, Army Research Office, 5 May 2004 - 4 May 2005, $209,250.

HP/OSU Pulsed laser Deposition, J. Tate and D.A. Keszler, Hewlett Packard Company, January 2004 - August 2004, $13,600

Pulsed laser deposition system, J. Tate, D. A. Keszler, J. F. Wager, A.W. Sleight, Kelley Family Equipment Grants for Materials Science, December 2001, $100,000 (equipment grant with additional $110,000 match from OSU).

FRG: P-type transparent conductive oxides: Synthesis and applications, J. Tate, D. A. Keszler, A. W. Sleight, J. F. Wager, National Science Foundation, May 2000 – April 2003, $750,000 (with additional $168,000 match from OSU).

GOALI: Full-Color Phosphors for Electroluminescent Displays, J. F. Wager, D. A. Keszler, J. Tate, National Science Foundation, $582,436 August 2000 – July 2003 (with additional $135,000 match from OSU).

New oxides for optical systems, J. Tate, Research Corporation, $25,000, May 2000 – April 2001 (with additional $25,000 match from OSU).

Acquisition of an atomic force microscope, J. Simonsen, P. Humphrey, P. Watson, S. Subramanian, J. Tate, S. Rochefort, K. van Holde, Kelley Family Equipment Grants for Materials Science, June 1999, $85,000 (equipment grant with additional $85,000 match from OSU).

Paradigms in Physics, C. A. Manogue, P. J. Siemens and J. Tate, National Science Foundation DUE 96-53250, May, 1997 - April 2000, $450,000.

Supplement to above: $47,063, October, 1999 - December 2000.

Research Experience for Undergraduates, Janet Tate, for student Sean Herring, OSU Research Office, Summer 1997, $2,300.

L. L. Stewart Award for Curriculum Development, Oregon State University, July 1996 - June 1997, $4,400.

Thin-film high-temperature superconductors: structure, processing, and transport, J. Tate, and J. A. Gardner, National Science Foundation, July 1994 - June 1997, $225,000.

Normal state transport properties and vortex dynamics of n- and p-type superconducting films, R. Suryanarayanan, J. Tate and S. Mézsaros, NATO Scientific Exchange Program, 1993 - 1995, $8,200.

Alfred P. Sloan Research Fellowship, J. Tate, Alfred P. Sloan Foundation, June 1991- June 1993, $30,000.

Microstructure of bulk and thin film high temperature superconductors by PAC spectroscopy, J. A. Gardner and J. Tate, National Science Foundation DMR 9013897, June 1991 - July 1994, $315,000.

REU supplements to above, 1991, 1992, 1993 ($10,000 each).

Current Research Group:

Graduate Students: Christopher Reidy (Ph.D.), Kai Zhan (M.S.)
Undergraduates: Aaron Kratzer, Kathleen Stevens, Rodney Snyder, Daniel Speer, Joshua Mutch

Dissertations supervised:

Growth and characterization of the p-type semiconductors SnS and BiCuOSe, Jason Francis, Ph.D. 2013 (Intel, Hillsoboro, OR).

Development of a Data Acquisition System for a 3ω-Thermal Experiment, Matthew Oostman, M.S. (project) 2012

Single crystal growth, powder synthesis and characterization of layered chalcogenide semiconductors, Annette Richard, CH Ph.D. 2011 (Praxis, Indianapolis IN).

Measurement of optical bandgap energies of semiconductors, Joshua Russell, M.S. 2010 (co-supervisor; David McIntyre was major professor) (SolarWorld, Hillsboro, OR)

The synthesis, optical, and transport properties of $SnZrS_3$, Daniel Harada, M.S. 2010 (Process Engineer, WaferTek, Camas WA).

BaCuChF (Ch = S, Se, Te) p-type transparent conductors, Andriy Zakutayev, M.S. 2009; Ph.D. 2010 (Staff scientist, NREL; formerly post-doc, NREL)

Growth and characterization of wide-gap semiconducting oxide and chalcogenide thin films by pulsed laser deposition, Paul Newhouse, Chemistry Ph.D. 2008 (Scientist, Joint Center for Artificial Photosynthesis (JCAP) Pasadena, formerly post doc, University of Wyoming; formerly post-doc, NREL)

Pulsed laser deposition and thin film properties of p-type BaCuSF, BaCuSeF, BaCuTeF and n-type $Zn_2In_2O_5$ wide band-gap semiconductors, Robert Kykyneshi, Mat. Sci. Ph.D. 2007 (Post doc, Oregon State Univ.; formerly Instructor, LBCC).

Characterization of $MgSnO_3$ films deposited using RF magnetron sputtering (project), Matthew Price, M. S. 2005 (Asst. Prof. Ithaca College).

Zinc tin oxide thin films by pulsed laser deposition for use as transparent thin film transistors, James Osborne, M. S. October, 2004 (Engineer, Microsoft Corp.)

Transport properties of $CuSc_{1-x}Mg_xO_{2+y}$ and $BaCu_2S_2$ transparent semiconductors, Robert Kykyneshi, M. S. May, 2004. (Post doc, Oregon State Univ.; formerly Instructor, LBCC).

Analysis of the processing and characterization of p-type $CuScO_2$ thin films, Benjamin Nielsen, M. S. Materials Science, February, 2003 (NTE Albany, formerly Engineer, PMIC Corvallis, OR)

Optical materials: red TFEL phosphors and p-type transparent conducting oxides, Andrew Draeseke (ABD Winter 2002). (Startup software company, Fremont CA)

Magnetization studies of layered TBCCO, Eric J. M. Moret, Ph.D. 1999 (Engineer, Intel, Hillsboro, OR)

Critical current distributions in Co-doped YBaCuO single crystals (project), Amy Droegemeier, M.S. 1999 (Triquint, Portland)

Oxygen-deficient $YBa_2Cu_3O_{6+x}$ films investigated by perturbed angular correlation spectroscopy, Irene D. Dumkow, Ph. D. 1998 (Post-doc.,Uni. Essen, Germany)

Neutron irradiation and dc transport in YBaCuO single crystals: A study of vortex depinning, Brandon R. Brown, Ph. D. 1997 (Associate Professor, University of San Francisco, San Francisco, CA)

Flux creep in $Bi_2Sr_2CaCu_2O_x$ and $YBa_2Cu_3O_x$ thin films: Magnetization and susceptibility studies, Goran Karapetrov, Ph. D. 1996 (Assistant Professor, Drexel University, formerly Staff, Argonne National Laboratory, Argonne, IL)

Microstructural characterization of $YBa_2Cu_3O_{7-\delta}$ thin films with time-differential perturbed angular correlation spectroscopy, Dennis W. Tom, Ph. D., 1996. (Engineer, Microsoft Corporation; formerly Engineer, Hewlett-Packard, Corvallis, OR)

Critical scaling of thin-film YBaCuO and NdCeCuO resistivity-current isotherms: Implications for vortex phase transitions and universality, Jeanette M. Roberts, Ph. D. 1995 (Engineer, Intel, Hillsboro, OR)

Resistance in superconductors - A comparison of $Y_1Ba_2Cu_3O_{6+x}$ and $Nd_{2-x}Ce_xCuO_{4-y}$ thin films, Bianca A. Hermann, M.S. 1992. (teacher; formerly C3 Professor of Physics, Ludwig Maximillian Universität, München)

Post Doctoral Associates:

2001 - 2003: Hiroshi Yanagi, Ph. D. (Professor of Applied Chemistry, Yamanshi University)
1999 -2001: M. K. Jayaraj, Ph. D. (Professor of Physics, Cochin University)
1998 - 1999: Valentina Dimitrova, Ph. D. (Program manager, Intel Corporation)

Visitors:

June – Dec 2008: Honglyoul Ju, Joon-Chul Moon, Yonsei University

Scientific Collaborations:

Shannon Boettcher (UO), David Johnson (UO), Brady Gibbons (OSU), David Ginley (NREL), Stephen Kevan (UO), Douglas Keszler (OSU), Stephan Lany (NREL), Corinne Manogue (& Paradigms group at OSU), David McIntyre (OSU), Catherine Page (UO), John Perkins (NREL), Malgo Peszynska (OSU), Louis Piper (SUNY Binghamton), Angus Rockett (UIUC), Geraldine Richmond (UO), Guenter Schneider (OSU), Mas Subramanian (OSU), John Wager (OSU), Andriy Zakutayev (NREL)

Undergraduate Research:

2013/14: Rodney Snyder, *The Hall effect in semiconductors*, **honors thesis**
Kathleen Stevens, *Optical measurements of ZnS thin films*, thesis
Daniel Speer, *Thermoelectric effect, tetrahedrites,* thesis
Aaron Kratzer, *Optical measurements of ZnS thin films*, thesis
Joshua Mutch, *Transport measurements*

Summer 2013: Rose Baunach, James Cutz, *Thermal conductivity by the 3ω method*, CSMC REU

2012/13: River Wiedle, *Thermal conductivity by the 3ω method*, **honors thesis**
Casey Hines, *Practical Implementation of a Physical Vapor Deposition System in a Research Environment,* thesis
Rodney Snyder, *The Hall effect in semiconductors*, thesis
Kathleen Stevens, *Optical measurements of ZnS thin films*
Ben Howorth, *Detecting ZnS films on Si substrates using X-ray diffraction*, thesis
Nicola Schmidt, *Thermal conductivity of amorphous metals*, thesis (University of Konstanz student intern)
Novela Aupary, *Room-temperature Seebeck coefficients of metals and semiconductors*, thesis

2011/12: River Wiedle, *Thermal conductivity*, URISC research,
Kevin Albright, *Hall Effect measurements*, freshman research

2010/11: Rachel Waite, *The Seebeck Effect of BiCuOSe:Ca and a Comparison of the Carrier Concentration of ITO and BiCuOSe:Ca through Hall and Chaiken and Beni Analysis*, thesis
Dave Mack, *Optical and Electrical Properties of Thin Film $BaSnO_3$*, thesis

2008/09: Evan deBlander, *Characterization of BaCuSF Thin Films Grown in Excess Copper, by Pulsed Laser Deposition,* **honors thesis**

2007/08: Alden Jurling, *Impedance Analysis and Breakdown Voltage of Dielectric Materials*, thesis, URISC research
Evan deBlander, *Pulsed laser deposition*, research

Summer 2007: Alden Jurling, Impedance spectroscopy

2006/07: Joseph Kinney, "Room Temperature Excitons in BaCuChF", thesis; David Mack, *$BaSnO_3$ transport*, research

2004/05: Susan Guyler, *Transport & spectroscopy measurements of BaCuSF*, thesis; URISC research
David Mack, *$BaSnO_3$ transport measurements*, research
Tim Murrell, *Transport measurements*, research

2003/04: Briony Horgan, *Investigating grain boundaries in $BaCuS_{1-x}Se_xF$ using impedance spectroscopy*, thesis;
Nicholas Lane, *Transport in p-type MCuQF materials*, research

2002/03: Dara Easley, *Room Temperature Seebeck Measurements on $CuSc_{1-x}Mg_xO_{2+y}$ Transparent Conductive Thin Films*, **honors thesis**
Levi Kilcher, *Infrared properties of transparent conductors*, thesis (D. H. McIntyre, co-supervisor)

2002: Martin Held – *Fractography of a Nd:YAG single crystal*, thesis

2001/02: Derek Tucker, *Optical Characterization of Transparent Conductive Thin Films*", **honors thesis** (D. H. McIntyre, co-supervisor)

Summer 2000: Megan van der Burch and Elia Nelson, transparent oxides, NSF REU

2000/01: Ross Brody, *Band gap analysis of doped and undoped $CuCrO_2$ thin films*, thesis (D. H. McIntyre, co-supervisor)

1999/2000: Diedrich Schmidt, *P-type electrical conduction in transparent conducting oxides*, thesis

Summer 1999: Karen Hirst and Kim Schulze, NSF REU students - transparent oxides

1998/99: Nate Bezayiff, *Circuit to observe quantum conductance*, thesis

1997/98: Brandon van Leer, *Analysis of $YBa_2Cu_3O_7$ films by X-ray diffraction*, thesis
Joseph Neal, *Integrated Laboratory Experiences in Physics Education*, thesis

Summer 1997: Jill Reilly and Chris Tebow, NSF REU students - *PAC in YBaCuO*,
Sean Herring, OSU REU student – *Thin-film YBaCuO*

1994/95: Andrew R. Fowler, *Current dependence of resistivity of YBaCuO in zero magnetic field*, thesis

1993/94: Amy J. Spofford, *An analysis of the current-voltage characteristics of $YBa_2Cu_3O_7$ in the vortex state*, thesis

1992/93: Jeffrey Arasmith, *An introduction to superconductors for undergraduate research assistants*", thesis

1991/92: Anupama Bhat, *The temperature and magnetic field dependence of the activation energy in $YBa_2Cu_3O_7$ in the flux creep region*, thesis

Invited Talks:

1. 15 November, 1988 Conf. on the Science and Technology of Thin Film Superconductors, Colorado Springs, CO
"Superconducting films of YBCO on bare silicon"
2. 27 March, 1989 Texas A&M Physics Seminar
"Phonon transport in high-Tc superconductors"
3. 29 March, 1989 University of New Mexico Physics Seminar
"Phonon transport in high-Tc superconductors"
4. 3 April, 1989 Oregon State University Physics Colloquium
"The Cooper pair mass: precision measurements of fundamental constants"
5. 4 April, 1989 Oregon State University Physics Solid State Seminar
"Phonon transport in high-Tc superconductors"
6. 26 March, 1989 University of Texas (Austin) Physics Seminar
"Phonon transport in high-Tc superconductors"
7. 25 October, 1989 Oregon State University Physics Solid State Seminar
"Thin film high-Tc superconductors"
8. 22 January, 1990 University of Oregon Material Science Institute Seminar
"Acoustic phonons and high-Tc superconductors"
9. May, 1990 Oregon Materials Science Symposium, Oregon State University
"Thin films of the high temperature superconductors $YBa_2Cu_3O_{7-\delta}$ and $Nd_{2-x}Ce_xCuO_{4-\delta}$ by thermal coevaporation"
10. 24 October, 1990 Oregon State University Physics Solid State Seminar
"Making thin films: A tutorial"
11. 25 February, 1991 Portland State University Physics Colloquium
"Precision measurements with superconductors"
12. 23 April, 1992 Lewis and Clark College Colloquium
"Resistance in superconductors"
13. 19 November, 1992 Reed College Physics Colloquium
"Are superconductors super conductors?"
14. 25 November, 1992 Oregon State University Physics Solid State Seminar
"Are superconductors super conductors?"

15. 18 October, 1993 Oregon State University Physics Colloquium
"Glasses, pins, creep and flow: Vortices in high temperature superconductors"

16. 14 May, 1994 Oregon Material Science Symposium, OSU
"Are superconductors super conductors?"

17. April, 1996 National Physical Laboratory, Teddington, UK
"Fast response of high temperature superconductors"

18. 15 May, 1996 Strathclyde University Physics Colloquium
"The flux lattice in high-Tc superconductors"

19. 6 November, 1996 OSU Solid State Seminar
"High Temperature Superconductivity"

20. 20 May, 1998 OSU Solid State Seminar
"To melt or not to melt: first order phase transitions in the vortex lattice"

21. 21 May, 1999 APS Northwest Meeting
"Paradigms in Physics: A new approach to the upper-division curriculum"

22. 17 February, 2000 Oregon State University Undergraduate teaching workshop
"Modular Teaching: What works and what doesn't" (with Manogue, Siemens, Browne)

23. April 20, 2000 University of San Francisco Colloquium
"New developments in transparent conductive oxides"

24. 29 April, 2000 Southern Oregon University Colloquium
"New developments in transparent conductive oxides"

25. 17 May, 2000 Oregon State University Solid State Seminar
"New developments in transparent conductive oxides"

26. 8 March, 2001 University of Wisconsin, Madison, R.G. Herb Materials Phys. Sem. Series
"p-Type Transparent Conductive Oxides"

27. 18 April, 2001 MRS meeting, San Francisco, CA
"Transparent p-n heterojunction thin film diodes"

28. 29 October, 2001. Oregon State University Physics Colloquium
"Transparent Conductors"

29. 8-9 November 2001 2nd International Symposium on Transparent Oxide Thin Films for Electronics and Optics, Tokyo, Japan
"P-type oxides for use in transparent diodes".

30. 8 April 2002 OSU Chemistry Colloquium
"Recent advances in the search for transparent conductors"

31. 19 August 2002 Metal Oxide Symposium of the American Chemical Soc., Boston
"P-type conductivity in transparent oxides and sulfide fluorides"

32. 11 November 2002 Physics Colloquium, Lewis and Clark College
"Transparent Conductors"

33. 14 November 2002 Science Connection series, Portland, OR
"Transparent electronic materials"

34. 11 April, 2003 3rd International Symposium on Transparent Oxide Thin Films for Electronics and Optics, Tokyo, Japan
"Gap modulation in $BaCu[Q_{1-x}Q'_x]F$ (Q, Q'= S, Se, Te) and related materials"

35. 4 June, 2004 University of Oregon Materials Science Seminar, Eugene, OR
"Oxide and sulfide transparent p-type conductors"

36. 24 July 2004 OSU ASE Midsummer Conference (HS interns)
"What's strange about transparent conductors?"

37. 6 October, 2004 Physics Colloquium, Reed College
"A rediscovery of transparent conductors"

38. 14 April, 2005 Science Connection series, Portland, OR
"See-through electronics: How does it work?"

39. 16 February, 2006 Argonne National Laboratory
"P-Type Conductivity and Transparent Electronics"

40. 6 March, 2006 University of California at Berkeley
"P-Type Conductivity and Transparent Electronics"

41. 6 September, 2006 DARPA TACOS Workshop
"P-Type Conductivity in Cu-based Transparent Conductors"

42. 15 February, 2007 OSU Materials Science Seminar
"Transparent Conductors"

43. 25 April, 2007 OSU Solid State & Optics seminar"
"Cu-based chalcogenides in transparent electronics"

44. 26 April, 2007 University of Oregon Women in Graduate Science seminar
"From there to here: A (sort of) random walk through physics"

45. 21 May, 2007 5th International Symposium on Transparent Oxide Thin Films for Electronics and Optics, Tokyo, Japan
"Chalcogenide and oxy-chalcogenide p-type transparent conductors"

46. March, 2008 Meeting of the American Physical Society, New Orleans, LA
"Thinking like a physicist: Condensed Matter and Materials Physics in the Paradigms Curriculum at Oregon State University"

47. 16 April, 2008 OSU Solid State & Optics Seminar
"A report on the conference Graduate Education in Physics: Which Way Forward?"

48. 6 June, 2008 AAPT/APS Physics Chairs Conference
"Graduate Education in Physics: Which Way Forward?"

49. December, 2008 Fall Meeting of the Materials Research Society, Boston, MA
"Chalcogenide-based p-type wide-gap semiconductors for optoelectronics"

50. 14 May, 2009 Thin Film and Particle Workshop for Oregon Industry, Eugene, OR
"Transport and optical characterization of thin-film materials"

51. 30 April, 2009 Triad Club, Oregon State University.
"Adventures in Electronic Materials"

52. 17 March, 2010 March Meeting of the American Physical Society, Portland, OR
"The 2008 APS/AAPT Conference on Graduate Education in Physics"

53. 16 June, 2010 CIMTEC 5th Forum on New Materials, Montecatini Terme, Italy
"P-type Transparent Semiconductors: Synthesis and Applications"

54. 15 November, 2010 Portland State University Colloquium, Portland, OR
"P-type wide-gap semiconductors"

55. December, 2010 Fall Meeting of the Materials Research Society, Boston, MA
"Non-oxide transparent conductors"

56. 15 March 2011 TOEO 7, the 7th International Symposium on Transparent Oxide Thin Films for Electronics and Optics, Tokyo, Japan 14 – 16 Mar. 2011
"BiCuOSe thin-film p-type semiconductors," (given by A. Zakutayev in my absence)

57. 3 November, 2011 Materials Science Seminar, Oregon State University
"The BaCuChF and BiCuOCh semiconductors"

58. 4 November 2011 Willamette University Colloquium, Salem, OR
"The semiconductor playground"

59. 1-3 May 2014 APS Northwest Meeting, University of Washington
"Chalcogenide semiconductors for energy applications"

Conference Participation:

APS Northwest Meeting, University of Washington, Seattle WA, 1-3 May 2014 (invited speaker).

COACh Workshop, Casablanca, Morocco, 4-8 March, 2013 (funded by U.S. State Department)

Center for Sustainable Materials Chemistry Kickoff Conference, Corvallis, OR, 24-25 October, 2011.

American Physical Society Northwest Section Meeting, Corvallis, OR, 20-22 October, 2011 (session chair).

Center for Green Materials Chemistry Review, Irvine, CA 31 March, 2011 (funded participant).

TOEO 7, Tokyo Japan, March 2011 (invited speaker; talk given by Andriy Zakutayev).

Fall Meeting of the Materials Research Society, Boston, MA Nov – Dec 2010 (invited speaker)

2010 Summer Meeting of the American Association of Physics Teachers, Portland, OR, 20 July, 2010 (panelist).

CIMTEC 5th Forum on New Materials, Montecatini Terme, Italy, 13-19 June, 2010 (invited speaker).

March Meeting of the American Physical Society, Portland, OR, 15-19 March, 2010 (invited speaker).

Tutorial session March Meeting of the American Physical Society, Portland, OR, 18 March, 2010 (moderator and co-organizer with S. Zollner of "Physics careers in industry and government").

October meeting of the Oregon AAPT, Eugene, OR, 17 October, 2009.

Materials Research Society Fall Meeting, Boston, MA, 1 - 5 Dec, 2008 (invited speaker).

APS/AAPT Chairs' Conference, College Park, MD 6-8 June, 2008 (invited speaker).

March Meeting of the American Physical Society, New Orleans, LA, March, 2008 (invited speaker).

5th International Symposium on Transparent Oxide Thin Films for Electronics and Optics, Tokyo, Japan, 21-23 May, 2007 (invited speaker).

Oregon Academy of Sciences 2007 Meeting, Monmouth OR, 24 February, 2007 (session chair).

20th Materials Science Institute retreat, Salishan Spa and Golf Club, Glen Eden Beach, OR 12 December, 2006.

DARPA TACOS Workshop, Arlington, VA; 6-7 September, 2006 (invited speaker).

American Physical Society Northwest Section Meeting, Tacoma, WA; 19-20 May 2006, (Condensed Matter coordinator with 2 others, session chair).

Oregon Academy of Sciences, Eugene, OR, 25 February, 2006.

Materials Research Society Fall Meeting, Boston, MA, 28 Nov - 2 Dec, 2005 (symposium co-organizer, proceedings editor, and session chair).

Spring Meeting of the American Association for the Advancement of Science, Ashland, OR, 14 June 2005.

American Physical Society Northwest Section Meeting, Portland, OR, 30-31 May 2003

3rd International Symposium on Transparent Oxide Thin Films for Electronics and Optics, Tokyo, Japan, 10-11 April, 2003 (invited speaker).

Oregon Academy of Sciences, Linfield, OR, February, 2003

Materials Research Society Fall Meeting, Boston, MA, December, 2002 (symposium co-organizer, proceedings editor, and session chair).

American Chemical Society Fall Meeting, Boston, MA, 18-22 August, 2002 (invited speaker).

American Physical Society Northwest Section Meeting, Banff, Alberta, 17-18 May, 2002 (co-convener of CMP session).

American Physical Society March Meeting, Indianapolis, IN; 18-19 March, 2001.

2001 International Symposium on Transparent Oxide Thin Films for Electronics and Optics, Tokyo, Japan, 8-9 November 2001 (invited speaker).

Materials Research Society Spring Meeting, San Francisco, CA; 16-20 April, 2001.

American Physical Society March Meeting, Seattle, WA; 12-16 March, 2001.

2000 Electronic Materials Conference, Denver, CO, 21-23 June, 2000.

MRS Workshop on Transparent Conducting Oxides, Denver, CO, 19-20 June, 2000.

Harris/Sugihara symposium on the chemistry and physics of thin films, Oregon State University, 1 June, 1999 (Co-organizer with Arthur Sleight).

American Physical Society Northwest Section Meeting, Vancouver, B.C., 21-22 May, 1999.

Oregon AAPT Meeting, Forest Grove, OR, 18 April, 1998.

American Physical Society March Meeting, Los Angeles, CA; 15-20 March, 1998.

American Physical Society March Meeting, Kansas City, MO; 16-21 March, 1997.

Oregon AAPT Meeting, Corvallis, OR, 10 October, 1996.

Oregon Materials Science Symposium, OSU, 6 May, 1995.

American Physical Society March Meeting, San José, CA; 20-24 March, 1995.

PKAL Colloquium, Reed College, Portland, OR; 11-13 November, 1993.

20th International Conference on Low Temperature Physics, Eugene, OR; 4-12 August, 1993.

Workshop on Vortex Dynamics, Eugene, OR; 1-3 August, 1993.

Conference on the Introductory Physics Course, Troy, NY; 20-23 May, 1993.

Oregon Materials Science Symposium, Oregon State University, 11 May, 1993.

13th General Conference of the Condensed Matter Division of the European Physical Society, Regensburg, Germany; 29 March - 4 April, 1993.

Gordon Conference on Superconductivity, Oxnard, CA; 4-8 January, 1993.

Oregon Materials Science Symposium, Oregon State University, OR; May, 1992.

American Physical Society March Meeting, Indianapolis, IN; 16-20 March, 1992.

Applied Superconductivity Conference, Snowmass, CO; 24-28 September, 1990.

Oregon Materials Science Symposium, Oregon State University, OR; May, 1990.

American Physical Society March Meeting, Anaheim, CA; 12-16 March, 1990.

Phonons '89, Heidelberg, West Germany; 21-25 August, 1989.

Materials and Mechanisms of Superconductivity: High Temperature Superconductors, Stanford, CA; 23-28 July, 1989.

Conference on Science and Technology of Thin Film Superconductors, Colorado Springs, CO; 14-18 November, 1988.

European Materials Research Society Fall Meeting, Strasbourg, France; 8-10 November, 1988.

Materials and Mechanisms of Superconductivity: High Temperature Superconductors, Interlaken, Switzerland; 28 February - 4 March, 1988.

18th International Conference on Low Temperature Physics, Kyoto, Japan; 20-26 August, 1987.

Conference on Precision Electromagnetic Measurements, Gaithersburg, MD; 23-27 June, 1986.

17th International Conference on Low Temperature Physics, Karlsruhe, Germany, 15-22 August, 1984.

FORMAL INSTRUCTION

PH 314	Introductory Modern Physics	F 1989	65
PH 331	Physics of Music	W 1990	15
PH 314	Introductory Modern Physics	S 1990	100
PH 314	Introductory Modern Physics	F 1990	93
PH672	Solid State Physics	W 1991	12
PH314	Introductory Modern Physics	S 1991	80
PH211	General Physics with Calculus	F 1991	230
PH212	General Physics with Calculus	W1992	200
PH211	General Physics with Calculus	F 1992	200
PH212	General Physics with Calculus	W 1993	200
PH672	Solid State Physics	W 1993	13 (6 lectures)
PH673	Solid State Physics	S 1993	14 (6 lectures)
PH211	General Physics with Calculus	F 1993	250
PH202	Introductory Physics	W 1994	285 (2 sections)
PH401/3	Research/thesis	1994/1995	Andrew Fowler
PH451/551	Quantum Physics	F 1994	20/2
PH452/552	Quantum Physics	W 1995	13/3
PH652	Solid State Physics (2 weeks of 10; team teach mode)	W 1995	12
PH453/553	Quantum Physics	S 1995	12/1
PH314	Introductory Modern Physics	S 1995	40
PH451/551	Quantum Physics	F 1996	16/5
PH452	Quantum Physics	W 1997	8
PH221H	Introductory Physics Honors Recitation	W 1997	12

PH401/3	Research/thesis	1997/1998	Brandon van Leer
PH401/3	Research/thesis	1997/1998	Joseph Neal
PH451/551	Quantum Physics	F 1997	8/2
PH424	Paradigms in Physics: 1-D Waves	W 1998	24
PH427	Paradigms in Physics: Periodic Systems	S 1998	12
PH401/3	Research/thesis	1998/1999	Nathan Bezayiff
PH451	Capstones in Physics: Quantum Physics	F 1998	16
PH424	Paradigms in Physics: 1-D Waves	W 1999	18
PH222H	Introductory Physics Honors Recitation	W 1999	2
PH427	Paradigms in Physics: Periodic Systems	S 1999	16
PH401/3	Research/thesis	1999/2000	Diedrich Schmidt
PH451/551	Capstones in Physics: Quantum Physics	F 1999	12/2
PH424	Paradigms in Physics: 1-D Waves	W 2000	22
PH427	Paradigms in Physics: Periodic Systems	S 2000	22
PH314	Introductory Modern Physics	S 2000	45
PH401/3	Research/thesis	2000/2001	Ross Brody
PH314	Introductory Modern Physics	F 2000	39
PH427	Paradigms in Physics: Periodic Systems	S 2001	21
PH314	Introductory Modern Physics	S 2001	52
PH401	Research	S 2001	Dara Easley
PH401/3	Research/thesis (Honors)	2001/2002	Dara Easley (HC),
Derek Tucker (HC)* (*co-supervisor: David McIntyre)			
PH320	Paradigms: Symmetries and Idealizations	F 2001	29
PH481	Physical Optics	W 2002	25
PH427	Paradigms in Physics: Periodic Systems	S 2002	23
PH223H	Introductory Physics Honors Recitation	S 2002	8
PH401/3	Research/thesis	2002/2003	Levi Kilcher*
(*co-supervisor: David McIntyre)			
PH320	Paradigms: Symmetries and Idealizations	F 2002	27
PH481	Physical Optics	W 2003	
PH427	Paradigms in Physics: Periodic Systems	S 2003	
PH424/524	Paradigms: 1-Dimensional Waves	W 2004	23/6
PH401/403	Research/thesis	2004/2005	Susan Guyler
PH401/403	Research/thesis	2004/2005	Dave Mack, Tim Murrell
PH421	Paradigms: Oscillations	F 2004	28
PH607	TA seminar	F 2004	6
PH607	Teaching seminar	F 2004	5

PH424	Paradigms: 1-Dimensional Waves	W 2005	26
PH475	Solid State Physics	S 2005	15
PH401/403	Research/thesis	2005/2006	Dave Mack
PH421	Paradigms: Oscillations	F 2005	≈25
PH607	TA seminar	F 2005	≈7
PH424	Paradigms: 1-Dimensional Waves	W 2006	≈25
PH475/575	Solid State Physics	S 2006	21
PH401/403	Research/thesis	2006/2007	Dave Mack, Joe Kinney
PH421	Paradigms: Oscillations	F 2006	≈23
PH607	TA seminar	F 2006	5
PH424	Paradigms: 1-Dimensional Waves	W 2007	
PH 607	Research seminar	W 2007	
PH475/575	Solid State Physics	S 2007	
PH221H	Introductory Physics Honors Recitation	S 2007	12
PH401/403	Research/thesis	2007/2008	Alden Jurling
PH421	Paradigms: Oscillations	F 2007	
PH607	TA seminar	F 2007	
PH424	Paradigms: 1-Dimensional Waves	W 2008	
PH 607	Research seminar	W 2008	
PH475/575	Solid State Physics	S 2008	
PH401/403	Research/thesis	2008/2009	Evan deBlander
PH421	Paradigms: Oscillations	F 2008	
PH607	TA seminar	F 2008	
PH424	Paradigms: 1-Dimensional Waves	W 2009	
PH 607	Research seminar	W 2009	
PH575	Solid State Physics	S 2009	
PH421	Paradigms: Oscillations	F 2009	
PH607	TA seminar	F 2009	
PH424	Paradigms: 1-Dimensional Waves	W 2010	
PH426	Paradigms: Central Forces	W 2010	
PH 607	Research seminar	W 2010	
PH575	Solid State Physics	S 2010	
PH403	Thesis	WS 2010	
PH401	Research/thesis	2010/2011	Rachel Waite, Dave Mack
PH421	Paradigms: Oscillations	F 2010	
PH424	Paradigms: 1-Dimensional Waves	W 2011	
PH575	Solid State Physics	S 2011	
PH403	Thesis	F 2010, WS 2011	

PH401/403	Research/thesis	20101/2012	River Wiedle (HC), Nicola Schmidt, Novela Auparay
PH421	Paradigms: Oscillations	F 2011	
PH424	Paradigms: 1-D Waves	W 2012	
PH575	Solid State Physics	S 2012	
PH403	Thesis	F 2011, WS 2012	
PH401/403	Research/thesis	2012/2013	River Wiedle (HC), Rodney Snyder, Kathleen Stevens
PH421	Paradigms: Oscillations	F 2012	
PH451	Capstone: Quantum Mechanics	W 2013	
PH575	Solid State Physics	S 2013	
PH403	Thesis	F 2012, WS 2013	
PH401/403	Research/thesis	2013/2014	Rodney Snyder (HC), Daniel Speer, Kathleen Stevens, Aaron Kratzer
PH314	Introductory Modern Physics	F 2013	
PH451	Capstone: Quantum Mechanics	W 2014	
PH575	Solid State Physics?	S 2014	
PH403	Thesis	F 2013, WS 2014	

ADVISING

Thesis Committees (since 2003):

Christopher Reidy	Physics	Ph. D. (2014)	Major Professor
Jason Francis	Physics	Ph. D. 2013	Major Professor
Annette Richard	Chemistry	Ph. D. 2011	Major Professor
Andriy Zakutayev	Physics	Ph. D. 2010	Major Professor
Paul Newhouse	Chemistry	Ph. D. 2008	Major Professor
Robert Kykyneshi	Materials Science	Ph. D. 2007	Major Professor
Kai Zhan	Physics	M.S. (2014)	Major Professor
Daniel Harada	Physics	M. S. 2010	Major Professor
Matthew Price	Physics	M. S. 2005	Major Professor
James Osborne	Physics	M. S. 2004	Major Professor
Robert Kykyneshi	Physics	M. S. 2004	Major Professor
Benjamin Nielsen	Materials Science	M. S. 2003	Major Professor
River Wiedle	Physics	B.S. Hons 2013	Major Professor
Evan deBlander	Physics	B.S. Hons 2009	Major Professor
Brian Johnson	Physics	Ph. D. (2016)	Committee member
Rebecca Grollman	Physics	Ph. D. (2016)	Committee member
Jason Vielma	Physics	Ph. D. (2013)	Committee member
Whitney Shepherd	Physics	Ph. D. (2012)	Committee member
Fay Barras	Physics	Ph. D. (2013)	Committee member
Andrew Jameson	Physics	Ph. D. 2012	Committee member
Matthew Leyden	Physics	Ph. D. 2011	Committee member
K. C. Walsh	Physics	Ph. D. 2010	Committee member

Jeremy Danielson	Physics	Ph. D. 2008	Committee member
Jonathon Day	Physics	Ph. D. 2008	Committee member
Matthew Neel	Physics	Ph. D. -	Committee member
Naaman Amer	Physics	Ph. D. 2006	Committee member
Silas Scott	Physics	Ph. D. 2003	Committee member
Joshua Russell	Physics	M. S. 2011	Committee member
Vincent Ceremile	Physics	M. S. 2007	Committee member
Nathan Nebergall	Physics	M. S. 2007	Committee member
Lisa Eccles	Physics	M. S. 2006	Committee member
Grant Eastland	Physics	M. S. 2006	Committee member
Dara Easley	Physics	M. S. 2005	Committee member
Colin Shear	Physics	B.S. Hons 2010	Committee member
Benjamin Legg	Physics	B.S. Hons 2003	Committee member
Shawn Decker	Chemistry	Ph. D. (2017)	Committee member
Joshua Flynn	Chemistry	Ph. D. (2017)	Committee member
Jaeseok Heo	Chemistry	Ph. D. (2015)	Committee member
Geneva Laurita-Plankis	Chemistry	Ph. D. (2014)	Committee member
Voranutch Jieratum	Chemistry	Ph. D. 2012	Committee member
James Eilertson	Chemistry	Ph. D. 2011	Committee member
Tosapol Maluangnont	Chemistry	Ph. D. 2011	Committee member
Theeranun Siritanon	Chemistry	Ph. D. 2011	Committee member
Andrew Smith	Chemistry	Ph. D. 2010	Committee member
Peter Hersh	Chemistry	Ph. D. 2007	Committee member
JoaJoung Jeong	Chemistry	Ph. D. 2007	Committee member
Cheol-Hee Park	Chemistry	Ph. D. 2005	Committee member
Jun Li	Chemistry	Ph. D. 2005	Committee member
Bahar Ozmen	Chemistry	M. S. 2007	Committee member
Michael Schoemaker	Chemistry	M. S. 2005	Committee member
Linda Engelbrecht	EECS	Ph. D. 2011	Committee member
Celia Hung	EECS	M.S. 2006	Committee member?
Matthew Spiegelberg	EECS	M. S. 2005	Committee member
Ashley Mason	Materials Science	Ph. D. (2016?)	Committee member
Yu Hong Jeon	Materials Science	Ph. D. (2013?)	Committee member
Morgan Emerson	Materials Science	M. S. 2009	Committee member
Calan Cwmcwlamare	Mathematics	M. S. -	Committee member
Len Cerny	SMED	Ph. D. 2012	Committee member
Somnath Jana	Chemistry	Ph. D. 2012	GCR
Heather Platt	Chemistry	Ph. D. 2010	GCR
Jack Rundel	Chemistry	Ph. D. 2008	GCR
Joshi Pranav	Chem. Engineering	Ph. D. 2006	GCR
Louisa Hooven	Biochemistry	Ph. D. 2003	GCR
Munseork Choi	EECS	Ph. D. -	GCR
Hai Chiang	EECS	Ph. D. 2007	GCR
Drake Miller	EECS	Ph. D. -	GCR
Layannah Feller	EECS	M.S. 2011	GCR
Taran Harman	EECS	M. S. 2003	GCR

PUBLICATIONS

Peer-reviewed journal articles:

1. "Precise determination of h/m_e using a rotating, superconducting ring", S. B. Felch, J. Tate, B. Cabrera and J. T. Anderson, *Phys. Rev. B* 31, 7006 (1985).
2. "New data in the precise determination of h/m_e using a rotating, superconducting ring", B. Cabrera and J. Tate, in *Proceedings of the 1986 Conference on Precision Electromagnetic Measurements*, edited by R. F. Dziuba, (I.E.E.E, New York, 1986) p. 8.
3. "High-T_c films by thermal coevaporation: First phonon experiments", P. Berberich, W. Dietsche, H. Kinder, J. Tate, C. Thomsen, and B. Scherzer, *Physica C* 153-155, 1451-1452 (1988).
4. "Low temperature preparation of $YBa_2Cu_3O_{7-\delta}$ films on Si, MgO and $SrTiO_3$ by thermal coevaporation", P. Berberich, J. Tate, W. Dietsche, and H. Kinder, *Appl. Phys. Lett.* 53, 925-927 (1988).
5. "Ellipsometric spectra of $YBa_2Cu_3O_7$ in the 1.7 - 5.3 eV range", J. Humlìcek, M. Garriga, M. Cardona, B. Gegenheimer, E. Schönherr, P. Berberich, and J. Tate, *Solid State Commun.* 66, 1071-1075 (1988).
6. "Superconducting films of YBCO on bare silicon", J. Tate, P. Berberich, W. Dietsche, and H. Kinder, in *Science and Technology of Thin Film Superconductors*, R. McConnell and S. A. Wolf, editors, (Plenum, New York, 1988) pp. 347-352.
7. "Low frequency noise reduction in SQUID measurements using a laser-driven superconducting switch. Part A: Direct input circuit switching", J. T. Anderson, B. Cabrera, M. Taber, S. B. Felch and J. Tate, *Review of Scientific Instruments* 60, 202-208 (1989).
8. "Absolute measurement of the diameter of a fused quartz hemisphere at 6 K", J. Tate, D. H. McIntyre, and B. Cabrera, *Review of Scientific Instruments* 60, 985-992 (1989).
9. "A precise determination of the Cooper pair mass", J. Tate, B. Cabrera, S. B. Felch, and J. T. Anderson, *Phys. Rev. Lett.* 62, 845-848 (1989).
10. "Preparation and characterization of superconducting thin films of YBCO on silicon", J. Tate, P. Berberich, W. Dietsche, and H. Kinder, *Jour. of the Less Common Metals* 151, 311-316 (1989).
11. "YBCO films on silicon substrates: Fabrication, characterization, and use as a phonon detector", M. Obry, J. Tate, P. Berberich, and H. Kinder, *Physica C* 162-164, 389-390 (1989).
12. "Far infrared transmission of YBCO films deposited on Si substrates", S. Cunsolo, P. Dore, H. Kinder, R. Pullo, and J. Tate, *Solid State Commun.*72, 681- 684 (1989).
13. "Determination of the Cooper pair mass in niobium", J. Tate, S. B. Felch, and B. Cabrera, *Phys. Rev. B* 42, 7885-7893 (1990).
14. "The resistive transition of superconducting $Nd_{2-x}Ce_xCuO_{4-\delta}$ films", J. Tate and B. A. Hermann, *Physica C* 193, 207-211 (1992).

15. "Study of phonon pulse propagation in silicon and the effect of N-processes", M. Obry, J. Tate, P. Berberich, and H. Kinder, in *Phonon Scattering in Condensed Matter VII*, Springer Series in Solid State Sciences, v. 112, edited by M. Meissner and R. O. Pohl, (Springer, Berlin, 1993) p. 84.
16. "Incorporation of hyperfine probes into the thin-film superconductor $YBa_2Cu_3O_{7-\delta}$ during deposition", D. W. Tom, R. Platzer, J. A. Gardner, and J. Tate, *Appl. Phys. Lett.* 63, 3224-3226 (1993).
17. "Field dependence of the current-voltage characteristics of thin-film YBaCuO at low magnetic fields", J. Roberts, B. A. Hermann, G. Karapetrov, D. W. Tom, A. Spofford, and J. Tate, *Physica B* 194-196, 1889 - 1890 (1994).
18. "Scaling of voltage-current characteristics of thin-film YBaCuO at low magnetic fields", J. M. Roberts, B. Brown, B. A. Hermann, and J. Tate, *Phys. Rev. B* 49, 6890 - 6894 (1994).
19. "Scaling of thin-film NdCeCuO resistivity-current isotherms at low fields: Implications for vortex phase transitions and universality", J. M. Roberts, B. Brown, J. Tate, X. X. Xi, and S. N. Mao, *Phys. Rev. B*51, 15281-15285 (1995).
20. "Evidence for 3-dimensional flux creep in thin-film $Bi_2Sr_2CaCu_2O_8$", G. Karapetrov and J. Tate, *Phys. Rev. B* 52, 3776-3783 (1995).
21. "Boltzmann distribution", in *Macmillan Encyclopedia of Physics*, Simon & Shuster, New York, 134-136 (1996).
22. "Condensation", in *Macmillan Encyclopedia of Physics*, Simon & Shuster, New York, 239-240 (1996).
23. "Neutron-irradiation effects on the V-I characteristics of YBaCuO crystals: linking transport results in a variety of copper-oxide superconductors", B. Brown, J. M. Roberts, J. Tate, and J. W. Farmer, *Phys. Rev. B* 55, 8713R (1997).
24. "High temperature microscopic structure of $YBa_2Cu_3O_x$ studied by ^{111}In/Cd time differential γ-γ perturbed angular correlation spectroscopy", R. Platzer, R. Schwenker, A. Füssel, D. W. Tom, J. Tate, J. A. Gardner, W. E. Evenson, and J. A. Somers, *Hyperfine Interactions* 110, 271-286 (1997).
25. "Tetragonal-orthorhombic phase transition in YBaCuO thin films observed by perturbed angular correlation spectroscopy", R. Platzer, I. D. Dumkow, D. W. Tom, J. A. Gardner, and J. Tate, *Journal of Materials Research* 13, 947-953 (1998).
26. "Red electroluminescence from ZnGaS:Mn thin films", V. Dimitrova, A. Draeseke, J. Tate, T. Yokoyama, B. L. Clark, and D. A. Keszler, *Appl. Phys. Lett.* 75, 2353-2355 (1999).
27. "Oxygen dynamics in epitaxial $YBa_2Cu_3O_{7-\delta}$ thin films", R. Platzer, I. D. Dumkow, J. A. Gardner, and J. Tate, *Hyperfine Interactions* 120-121, 325-329 (1999).
28. "Synthesis and characterization of some ZnS-based phosphors for electroluminescent device applications", V. Dimitrova and J. Tate, *Thin Solid Films* 365, 134-138 (2000).
29. "Transparent p-type $CuScO_{2+x}$ films", N. Duan, M. K. Jayaraj, J. Tate, and A. W. Sleight, *Appl. Phys. Lett.* 77, 1325-1326 (2000).

30. "P-type conductivity in $CuCr_{1-x}Mg_xO_2$ films and powders", R. Nagarajan, A. Draeseke, A. W. Sleight, and J. Tate, *J. Appl. Phys.* 89, 8022-8025 (2001).

31. "P-type conductivity in the delafossite structure", R. Nagarajan, N. Duan, M. K. Jayaraj, J. Li, K.A. Vanaja, A. Yokochi, A. Draeseke, J. Tate, and A.W. Sleight, *International Journal of Inorganic Materials* 3, 265-270 (2001).

32. "Paradigms in Physics: A new upper-division curriculum", C. A. Manogue, P. J. Siemens, J. Tate, K. Browne, M. L. Niess, and A. Wolfer, *Am. J. Phys.* 69, 978-990 (2001).

33. "P-type transparent thin films of $CuY_{1-x}Ca_xO_2$", M. K. Jayaraj, A. D. Draeseke, J. Tate, and A. W. Sleight, *Thin Solid Films* 397/1-2, 244-248 (2001).

34. "Transparent pn heterojunction thin film diodes", M. K. Jayaraj, A. D. Draeseke, J. Tate, R. L. Hoffman, and J. F. Wager, in *Transport and Microstructural Phenomena in Oxide Electronics*, edited by D. S. Ginley, M. E. Hawley, D. C. Paine, D. H. Blank, S. K. Streiffer (2001). (Also: Mater. Res. Soc. Symp. Proc. 666, 2001 p. F4.1/1-F4.1/9.)

35. "Electrical characterization of transparent pin heterojunction diodes", R. L. Hoffman, J. F. Wager, M. K. Jayaraj, and J. Tate, *J. Appl. Phys.* 90, 5763-5767 (2001).

36. "P-Type oxides for use in transparent diodes", J. Tate, M. K. Jayaraj, A. D. Draeseke, T. Ulbrich, A. W. Sleight, K. A. Vanaja, R. Nagarajan, J. F. Wager, and R. L. Hoffman, *Thin Solid Films* 411, 119-124 (2002).

37. "New $CuM_{2/3}Sb_{1/3}O_2$ and $AgM_{2/3}Sb_{1/3}O_2$ compounds with the delafossite structure", R. Nagarajan, S. Uma, M. K. Jayaraj, J. Tate, and A. W. Sleight, *Solid State Sciences* 4(6), 787-792 (2002).

38. "Electrical and optical properties of $PbCu_2O_2$", H. Yanagi, J. Tate, R. Nagarajan, A. W. Sleight, *Solid State Communications* 122, 295-297 (2002).

39. "P-type conductivity in wide-band-gap BaCuQF (Q = S, Se)", H. Yanagi, J. Tate, S. Park, C.-H. Park, D. A. Keszler, *Appl. Phys. Lett.* 82, 2814-2816 (2003).

40. "P-type conductivity in transparent oxides and sulfide fluorides", H. Yanagi, S. Park, A. D. Draeseke, D. A. Keszler, and J. Tate, *Journal of Solid State Chemistry* 175, 34-38 (2003).

41. "Crystalline oxide-silicon heterostructures and oxide optoelectronics", edited by D. Ginley, S. Guha, S. Carter, S. A. Chambers, R. Droopad, H. Hosono, D. C. Paine, D. G. Schlom, and J. Tate, Materials Research Society Symposium Proceedings, Vol 747, Materials Research Society, PA (2003).

42. "Gap modulation in $MCu[Q_{1-x}Q'_x]F$ (M = Ba, Sr; Q, Q' = S, Se, Te) and related materials", C.-H. Park, D. A. Keszler, H. Yanagi, and J. Tate", *Thin Solid Films* 445, 288-293 (2003).

43. "Transparent Electronics and Prospects for Transparent Displays," J. F. Wager, M. M. Valencia, J. P. Bender, B. J. Norris, H. Q. Chiang, D. Hong, L. N. Norris, T. V. Harman, S. Park, J. Anderson, C.-H. Park and D. A. Keszler, J. Tate, H. Yanagi, M. Price, and R. L. Hoffman, Proceedings of SPIE (Vol. 5080 Cockpit Displays X), D. G. Hopper (ed), pgs. 330-339 (2003).

44. "Structural and transport properties of $CuSc_{1-x}Mg_xO_{2+y}$ delafossites," R. Kykyneshi, B. C. Nielsen, J. Tate, J. Li, and A. W. Sleight, *Jour. Appl. Phys.* 96, 6188-6194 (2004).

45. "Nuclear Quadrupole Resonance Studies of Transparent Conducting Oxides," W. W. Warren, Jr., A. Rajabzadeh, T. Olheiser, J. Liu, J. Tate, M. K. Jayaraj, K. A. Vanaja, *Solid State Nuclear Magnetic Resonance* 26, 209-214 (2004).
(Proceedings of International Symposium on Recent Advances and Applications of Solid State NMR, Warwick, UK, September, 2004)

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68. "Sputtered thin films of Yb_2O_3 - Fe_2O_3", A. P. Richard, M. A. Subramanian, A. W. Sleight, and J. Tate, presented at the *20th Materials Science Institute Retreat*, Salishan Spa and Golf Club, Glen Eden Beach, Oregon, 12 December, 2006.

69. "Powder and thin film development of a new *p*-type transparent semiconductor Cu_3TaS_4", P. F. Newhouse, P. A. Hersh, D. A. Keszler, and J. Tate, presented at the *20th Materials Science Institute Retreat*, Salishan Spa and Golf Club, Glen Eden Beach, Oregon, 12 December, 2006.

70. "Room temperature excitons in BaCuSF", J. Kinney, R. Kykyneshi, D. McIntyre, J. Tate, presented at the *Oregon Academy of Science Annual Meeting*, Monmouth, OR, February 24, 2007.

71. "$Zn_2In_2O_5$ amorphous thin films by pulsed laser deposition", R. Kykyneshi and J. Tate, presented at the *Oregon Academy of Science Annual Meeting*, Monmouth, OR, February 24, 2007.

72. "Thin film preparation of the p-type transparent semiconductor Cu_3TaS_4", P. F. Newhouse, P. A. Hersh, D. A. Keszler, and J. Tate, presented at the *2007 March Meeting of the American Physical Society*, Denver, CO, March 5, 2007. D39.00011, http://meetings.aps.org/Meeting/MAR07/Event/57960.

73. "Properties of a potential transparent p-type semiconductor Cu_3TaS_4", P. A. Hersh, P. F. Newhouse, D. A. Keszler, and J. Tate, presented at the *2007 March Meeting of the American Physical Society*, Denver, CO, March 5, 2007. D39.00012, http://meetings.aps.org/Meeting/MAR07/Event/57961.

74. "Transparent conductive BaCuTeF thin films by pulsed laser deposition", R. Kykyneshi, D. H. McIntyre, J. Tate, C.-H. Park, and D. A. Keszler, presented at the *2007 March Meeting of the American Physical Society*, Denver, CO, March 5, 2007. D39.00013, http://meetings.aps.org/Meeting/MAR07/Event/57962.

75. "Novel Materials Development for Polycrystalline Thin-Film Solar Cells", H. A. S. Platt, P. Hersh, R. Kykyneshi, R. Schafer, J. Spies, J. Tate, J. F. Wager, D. A. Keszler, DOE/EERE Solar Program Annual Review Meeting, Denver, CO, 17-19 April, 2007. http://www1.eere.energy.gov/solar/review_meeting/

76. "Wide-gap *p*-type semiconductors Cu_3TaQ_4 (Q = S or Se)", P. Hersh, P. Newhouse, J. Tate, D. A. Keszler, presented at the *North American Solid State Chemistry Conference*, College Station TX, May 18, 2007.

77. "Optical and electronic properties of p-type semiconductors Cu_3TaQ_4 (Q = S, Se)", P. F. Newhouse, P. A. Hersh, A. Richard, A. Zakutayev, D. A. Keszler, J. Tate, presented at the *21st Materials Science Institute Retreat*, Salishan Spa and Golf Club, Glen Eden Beach, OR, December 12, 2007.

78. "Wide-gap iron sulfides for polycrystalline thin-film solar cells", H.A.S. Platt, R. Kykyneshi, J. Tate, D.A. Keszler, presented at the *Spring 2008 National Meeting of the American Chemical Society*, New Orleans, LA, April 6-10, 2008.

79. "Integrating Computational Activities into the Upper-division Paradigms Curriculum", C. A. Manogue, D. H. McIntyre, and J. Tate, presented at the *2008 Winter Meeting of the AAPT*, Baltimore, MD January 19-23, 2008.

80. "Thinking like a physicist: Condensed Matter and Materials Physics in the Paradigms Curriculum at Oregon State University", Janet Tate, presented at the *March Meeting of the American Physical Society*, New Orleans, LA, March, 2008 (invited).

81. "Effect of spin-orbit coupling on excitonic levels in layered chalcogenide-fluorides", A. Zakutayev, R. Kykyneshi, J. Kinney, D. H. McIntyre, G. Schneider, J. Tate, presented at the *March Meeting of the American Physical Society*, New Orleans, LA, March, 2008.

82. "Wide-gap iron sulfides for polycrystalline thin-film solar cells", H. A. S. Platt, R. Kykyneshi, J. Tate, D. A. Keszler, presented at the Spring 2008 *National Meeting of the American Chemical Society*, New Orleans, LA, April 6-10, 2008.

83. "Transparent Conductive Oxide by Pulsed Laser Deposition: $Zn_2In_2O_2$", R. Kykyneshi and J. Tate, presented at the *Annual Meeting of the Northwest Section of the American Physical Society*, Portland, OR, May 15-17, 2008.

84. "Epitaxial BaCuSeF thin films: a new blue LED candidate?", A. Zakutayev, R. Kykyneshi, D. H. McIntyre, H.A.S. Platt, D. A. Keszler, and J. Tate, presented at the *10th Annual Meeting of the Northwest Section of the American Physical Society*, Portland, OR, May 15-17, 2008.

85. "Wide band gap p-type semiconductors Cu_3TaQ_4", P.F. Newhouse, P. A. Hersh, A. Zakutayev, A. Richard, H. A. S. Platt, D. A. Keszler, and J. Tate, presented at the *10th Annual Meeting of the Northwest Section of the American Physical Society*, Portland, OR, May 15-17, 2008.

86. "Thin film preparation and characterization of wide band gap Cu_3TaQ_4 (Q = S or Se) p-type semiconductors", P. F. Newhouse, P. A. Hersh, A. Richard, A. Zakutayev, D. A. Keszler, and J. Tate, presented at the E-MRS Spring Meeting of the European Materials Research Society, Strasbourg, France, May 20-26, 2008 (Symposium L, Thin film chalcogenide photovoltaic materials).

87. "Controlling carrier concentration in the misfit layered compound $[(PbSe)_{0.99}]_1(WSe_2)_1$," Q. Lin, C. Mortensen, C. Heideman, N. Nguyen, M. Smeller, P. Newhouse, J. Tate, and D. C. Johnson, presented at the *International Conference on Thermoelectrics,* Corvallis, OR, Aug 3-7, 2008 (Poster P83).

88. "TiO_2/AlPO multilayered dielectric elements via low temperature inorganic solution deposition method," A. Zakutayev, K. Jiang, D. A. Keszler, J. Tate, and D. H. McIntyre,

presented at the Oregon Center for Optics Fall Retreat, Cottage Grove OR, September 17-18, 2008.

89. "Chalcogenide-based p-type wide-gap semiconductors for optoelectronics," J. Tate, A. Zakutayev, R. Kykyneshi, P. Newhouse, D. H. McIntyre, G. Schneider, D. A. Keszler, P. A. Hersh, presented at the Fall Meeting of the Materials Research Society, Boston, MA, 1-5 Dec, 2008 (invited, session B.5).

90. "Low-temperature, solution-based processing of TiO_2 thin films; Fabrication of dielectric mirrors and microcavities," K. Jiang, A. Zakutayev, J. Tate, D. McIntyre and D. Keszler, presented at the Fall Meeting of the Materials Research Society, Boston, MA, 1-5 Dec, 2008 (contributed poster, session F6.8).

91. "Engineering of physical properties in transparent p-type semiconductors," A. Zakutayev, D. McIntyre, G. Schneider, R. Kykyneshi and J.Tate, presented at the Spring Meeting of the Materials Research Society, San Francisco, CA, 13-17 April, 2009 (Symposium M: Thin-Film Compound Semiconductor Photovoltaics, contributed poster M8.14).

92. "On the origin of p-type conductivity in BaCuChF (Ch = S, Se, Te)," A. Zakutayev, J. Tate and G. Schneider, Symposium F: Advances in transparent electronics: from materials to devices, E-MRS 2009 Spring Meeting, Strasbourg, France, 8-12 June, 2009. http://www.emrs-strasbourg.com/index.php?Itemid=1&id=253&option=com_content&task=view

93. "Solution-processed multilayer dielectric optical elements", A. Zakutayev, K. Jiang, J. Stowers, M. D. Anderson, J. Tate, D. A. Keszler, D. C. Johnson, and D. H. McIntyre, presented at the *Micro-Nano Breakthrough Conference*, Portland, OR, 21-23 September, 2009 (oral).

94. "BaCuChF - Potential P-type Back-Contact for Chalcogenide Thin Film Solar Cells," A. Zakutayev, H. Platt, A. Barati, D. Keszler, G. Schneider, W. Jaegermann, A. Klein, J. Tate, *Canada-America-Mexico Graduate Student Physics Conference*, Acapulco, Mexico, 22-24 October, 2009. http://cam2009.smf.mx/index.php?option=com_content&view=article&id=11&Itemid=9

95. "An in-class coaxial cable experiment to study waves at boundaries," J. Tate, presented at the October meeting of the Oregon AAPT, Eugene, OR, 17 October, 2009.

96. "The 2008 APS/AAPT Conference on Graduate Education in Physics," J. Tate, presented at the *March Meeting of the American Physical Society*, Portland, OR, 15-19 March, 2010 (invited). http://meetings.aps.org/Meeting/MAR10/Event/121414

97. "Band alignment and interdiffusion at the BaCuSeF/ZnTe interface", A. Zakutayev, J. Tate, H. A. S. Platt, D.A. Keszler, A. Barati, W. Jaegermann, A. Klein, presented at the *March Meeting of the American Physical Society*, Portland, OR, 15-19 March, 2010. http://meetings.aps.org/Meeting/MAR10/Event/116717

98. "Band structure investigations of $SnZrCh_3$ (Ch=S and Se) by DFT and XPS," A. Richard, D. Harada, A. Zakutayev, R. Kykyneshi, J. Tate, A. Klein, presented at the March Meeting of the American Physical Society, Portland, OR, 15-19 March, 2010. http://meetings.aps.org/Meeting/MAR10/Event/118070

99. "Optical and Transport Properties of $SnZrCh_3$ (Ch = S, Se)," D. Harada, A. Richard, A. Zakutayev, D. A. Keszler, J. Tate, presented at the March Meeting of the American Physical

Society, Portland, OR, 15-19 March, 2010.
http://meetings.aps.org/Meeting/MAR10/Event/119517

100. "Native point defects and grain boundaries in wide-bandgap *p*-type semiconductor BaCuChF (Ch = S, Se, Te)", A. Zakutayev, G. Schneider, A. Klein, J. Tate, presented at the Spring Meeting of the Materials Research Society, San Francisco, CA, 5-9 April, 2010. Session EE4.9 http://www.mrs.org/s_mrs/doc.asp?CID=25913&DID=307630

101. "Interdiffusion at the BaCuSeF/ZnTe interface," A. Zakutayev, J. Tate, S. Xie, B. J. Gibbons, H. A. S. Platt, D. A. Keszler, A. Barati, A. Klein, W. Jaegermann, presented at the 2010 meeting of the European Materials Research Society, Strasbourg, France, 7-11 June, 2010. Session M-P319.
http://www.emrs-strasbourg.com/index.php?option=com_content&task=view&Itemid=114&id=319

102. "P-type transparent semiconductors: synthesis and applications," J. Tate, A. Zakutayev, H.A.S. Platt, D.A. Keszler, C. Hein, T. Meyer, A. Klein, presented at CIMTEC 2010, the 5th Forum on New Materials, Montecatini, Italy 13-18 June, 2010 (invited). Session FI-2 IL11 (erroneously listed in session FJ)
http://www.cimtec-congress.org/2010/invited_forum.asp)

103. "Non-oxide wide-bandgap p-type semiconductors BaCuChF (Ch = S, Se, Te)," A. Zakutayev, R. Kykyneshi, G, Schneider, J. Tate, H. A. S. Platt, D. A. Keszler, and A. Klein, CIMTEC June 2010, presented at CIMTEC 2010, the 5th Forum on New Materials, Montecatini, Italy 13-18 June, 2010. Session FI-2 L03.

104. "Waves and Oscillations in the Paradigms Curriculum", J. Tate (part of Panel: An Interactive Guide to the Paradigms in Physics Programs), presented at the 2010 Summer Meeting of the American Association of Physics Teachers, Portland, OR, 20 July, 2010. Session ED04.

105. "Growth of tin sulfide thin films by pulsed laser deposition, " J. Francis and J. Tate, presented at the *12th Annual Meeting of the Northwest Section of the American Physical Society*, Walla-Walla, WA, November 11-12, 2010.
http://meetings.aps.org/Meeting/NWS10/Event/134892

106. "Non-oxide p-type wide-gap semiconductors," J. Tate, presented at the 2010 Fall Meeting of the Materials Research Society, Boston, MA, Nov. 29 – Dec. 3, 2010 (invited). Symposium MM7.3
http://www.mrs.org/f10program-mm/

107. "BiCuOSe thin-film p-type semiconductors," A. Zakutayev & J. Tate, presented at TOEO 7, the 7th International Symposium on Transparent Oxide Thin Films for Electronics and Optics, Tokyo, Japan 14 – 16 Mar. 2011 (invited).
http://toeo7.msl.titech.ac.jp/wiki/index.php?Invited%20Speakers

108. "Representations for a Spins-First Approach to Quantum Mechanics", C. Manogue, E. Gire, D. McIntyre, J. Tate, Proceedings of the 2011 Physics Education Research Conference (in press, 2012).

109. "Representations for a Spins-First Approach to Quantum Mechanics," C. A. Manogue, E. Gire, D. H. McIntyre, J. Tate, presented at the Physics Education Research Conference 2011, 3-4 August, 2011, Omaha, NE.

110. "Thermal conductivity measurements of dielectric substrates via the 3-omega method," R. Wiedle, M. Warner, J Tate, presented at Annual Symposium of the NW Chapter of the American Vacuum Society, Wilsonville, OR, 15 – 16 Oct. 2011. http://www2.avs.org/chapters/pnw/symposium/

111. "Growth and Characterization of Oriented SnS Thin Films," J. Francis, J. Tate, presented at the Annual Symposium of the NW Chapter of the American Vacuum Society, Wilsonville, OR, 15 – 16 Oct. 2011. http://www2.avs.org/chapters/pnw/symposium/

112. "Ultra-Smooth ZnS Films Grown on Silicon via Pulsed Laser Deposition", C. Reidy, J. Tate, presented at the 13th Annual meeting of the NW Section of the American Physical Society, Corvallis, OR, 20 – 21 Oct. 2011. Session C2.00009 http://meetings.aps.org/Meeting/NWS11/Event/157398

113. "Soft x-ray spectroscopy of Ca-doped BiCuOSe thin films grown by pulsed laser deposition", J. Francis, J. Tate, Shawn Sallis, L. Piper, presented at the 13th Annual meeting of the NW Section of the American Physical Society, Corvallis, OR, 20 – 21 Oct. 2011. Session C2.00010 http://meetings.aps.org/Meeting/NWS11/Event/157399

114. "Thermal conductivity measurements of amorphous HafSOx and AlPO thin films," R. Wiedle, M. Warner, S. Lucchini, D. A. Keszler, J. Tate, presented at the 13th Annual meeting of the NW Section of the American Physical Society, Corvallis, OR, 20 – 21 Oct. 2011. Session D1.00018. http://meetings.aps.org/Meeting/NWS11/Event/157426

115. "Tin Monosulfide Thin Films for Photovoltaic Applications," J. Francis, J. Tate, A. Ritenour, S.W. Boettcher, presented at the Materials Research Society Spring Meeting, 9-13 April 2012, San Francisco, CA. Session V3.7 http://mrs.org/s12-program-v/

116. "Correlating p-type Doping with the Charge State of Copper in BiCuOSe," S. Sallis, L. F. J. Piper, J. Francis, J. Tate, presented at the Materials Research Society Fall Meeting, November 2012, Boston, MA. Symposium Z

117. "Thermal conductivity measurements of $AlZrO_x$ via the 3ω method," R. Banauch, J. Cutz and J. Tate, presented at the 2014 West Coast Conference for Undergraduate Women in Physics, Berkeley, CA., 17-19 January, 2014.

118. "Chalcogenide semiconductors for energy applications," J. Tate (invited), to be presented at the APS Northwest Meeting, Seattle, WA, 1-3 May 2014.