Ulrike Diebold

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Professional Objectives:

Interdisciplinary research in surface science, physical chemistry, condensed matter physics, materials science, and nanoscience. Investigating the atomic-scale geometric and electronic surface structure of pure and doped oxide materials; adsorption of gases and metals; correlating nanoscopic measurements with materials applications in nanocatalysis, photocatalysis, gas sensing, (opto) electronics, and spintronics. Growth of epitaxial thin films and supported nanoclusters. Teaching and mentoring.

Professional Experience:

Institute of Applied Physics, TU Vienna

Professor of Surface Science (2010 -)
Deputy Department Head (2010 -)

Department of Physics, Tulane University, New Orleans

Research Professor (2010 -)
Yahoo! Founder Chair in Science and Engineering (2006 -2009);
Associate Department Chair (2002 -2009);
Professor of Physics (2001 -2009);
Associate Professor (1999 – 2001);
Assistant Professor (1993 – 1999);
Adjunct Professor of Chemistry (1993 - 2009)

***Visiting and Short-Term Appointments**:*

6/2008: Fellow, Research Center Dresden-Rossendorf, Dresden, Germany
Fall 2005 (displaced by Hurricane Katrina) *Visiting Professor*, Rutgers, The State University of New Jersey, and *Visiting Research Collaborator*, Princeton University
Summer 2004: *Professor*, Institute of Materials Chemistry, Surface and Interface Chemistry Group, University of Technology, Vienna, Austria
5/2002 – 12/2002 Visiting Scientist, Department of Chemical Physics, Fritz-Haber Institut of the Max-Planck-Gesellschaft, Germany, and Department of Surface Chemistry and Catalysis, University of Ulm, Germany (Alexander-von-Humboldt Research Prize and Fellowship)
7/ 1997 – 10/1997: Visiting Scientist, Pacific Northwest National Laboratory, Environmental Molecular Sciences Laboratory, Richland, WA (Research Sabbatical)
March 1997 - June 1997: Visiting Professor, Technische Universität Wien, Vienna, Austria (Research Sabbatical)

1990 - 1993: Research Associate, Rutgers, The State University of New Jersey, Advisor: Prof. Theodore E. Madey
1986 – 1990: *Research Assistant*, University of Technology, Vienna, Austria

Education:

1986 Diplom Ingenieur in Engineering Physics (eq. MS)
1990 Ph.D. in Physics, both degrees from the University of Technology, Vienna, Austria; Advisor: Prof. Peter Varga

Personal Background:

Born 1961, married to Gerhard Piringer, 2 sons (Thomas *1996 and Niklas *1999)
Dual citizenship (Austria/United States)

Current Research Programmw:

Recent research is focused on investigating the surfaces of metal oxides (e.g., TiO_2, ZnO, SnO_2, Fe_3O_4, In_2O_3, perovskites) with scanning probe techniques and surface spectroscopies. The goal is to understand, with atomic-scale detail, electronic and geometric surface structure (including intrinsic and extrinsic defects), and its relation to chemical reactivity and surface electrical and magnetic properties. Growth of nanostructures (supported 1D, 2D, and 3D clusters), and epitaxial thin films. Exploration how these atomic-scale properties affect materials applications in photocatalysis, nanocatalysis, spintronics, (opto)electronics, chemical sensing, and biomaterials.

Established an international reputation as one of the leading groups in metal oxide surfaces, first at Tulane University, and, since 2010, at the TU Vienna. The current research group consists of three tenured professors, 2 post-docs, 5 PhD students, and 3 Masters' students. Research laboratory with several ultrahigh vacuum chambers with Scanning Tunneling Microscopes, surface characterization, and growth (molecular-beam epitaxy) facilities. Additional experiments are conducted at synchrotron radiation sources, and in collaboration with theoretical and other experimental groups.

Ongoing and recently concluded research projects include:

- Co-P.I, *Austrian Science Fund, Doctoral Program DK+, 'Building Solids for Function – SolidFun'*(Speaker: U. Schubert, €3,474k, ca. €200k to U.D., 3/2012 – 3/2016) Graduate education through interdisciplinary research in solid state physics, chemistry, and engineering.
- P.I*., European Research Council, Advanced Research Grant 'Microscopic Processes and Phenomena at Metal Oxide Surfaces – OxideSurfaces'* (€2.491k, 2/2012 – 1/2017). This project encompasses three, partly interrelated work packages: the interaction between bulk and near-surface defects and surface chemical processes; the investigation of complex, ternary oxide materials; and the expansion of atomic-scale STM studies to liquid environments.
- Co-P.I. and Deputy Speaker, *Austrian Science Fund (* €3,3M; €501k to U.D., 2011 – 2014)*, Special Research Programme (SFB) "Functional Surfaces and Interfaces (FOXSI)"* The goal of this multi- investigator project is to

significantly contribute to the understanding of fundamental surface processes relating to solid oxide fuel cells. U.D.'s subproject focuses on atomic-scale investigations of oxidation reduction reactions on perovskite cathodes. To this end, a laser-MBE system is interfaced to one of her surface analysis chambers.

- Co-P.I. and Deputy Speaker, *Vienna University of Technology, Doctoral College 'Catalysis Materials and Technology, CatMat'* (€300k, 2011 - 2014): Training programme for 20+ graduate students in catalysis through an integrated, interdisciplinary teaching and research programme.
- Co-P.I., *Department of Energy, Energy Focused Research Center* (2009 – 2014, $12.5M total, $537k to U.D.) "Computational Catalysis and Atomic-Level Synthesis of Materials: Building Effective Catalysts From First-Principles– CALC-D". The goal of this inter-university, interdisciplinary research project is to develop novel approaches to catalyst design, starting at the atomic level. UD is leading a seven-P.I. subproject entitled 'Designing Nanocatalysts via Atomically Controlled Metal Clusters and their Supports'**.**
- P.I. – *National Science Foundation* (2007-2011, $488k) Atomic-scale Investigations of Metal Oxide Single Crystals, Nanostructures, and Thin Films. Single-investigator grant that laid the base for UD's research on metal oxide surfaces. Based on a previous NSF-CAREER grant (1997 – 2001), and a single-PI grant (2001 – 2004, with a two-year 'Grant extension for special creativity' 2005-2007).
- Lead P.I. - *Department of Energy- Basic Energy Sciences, Catalytic and Chemical Transformations Program*: (2005 – 2012, $762 k over the last 3 years): Joint experimental and theoretical (with A. Selloni, Princeton University) approach to investigate molecular-based processes in photocatalysis.
- P.I. – *Infrastructure Grants:* Wrote several grants to secure funds for scientific infrastructure improvements at Tulane University and the TU Vienna: Surface Chemistry Setup (*Louisiana Board of Regents,* 2004-2007; $200k); Oxygen-plasma-assisted MBE chamber with in-situ characterization (*NSF-MRI*, 2002-2005, $420k; *Louisiana Board of Regents,* 2002-2005; $200k); Multi-user Atomic Force Microscopy/surface characterization facility (*Louisiana Board of Regents* 1999-2002; $270k); *Vienna University of Technology*, 'Innovative Project: An Apparatus for Investigating Organic Molecules on Oxide Surfaces', €141k, 2011 - 2013
- Co-P.I. – *Intel Corporation* (2006-2011, $300k to U.D.): Devising a coating of optical mirrors compatible with new extreme ultraviolet (EUV) lithographic processes; fundamental studies of radiation-induced surface chemistry combined with a search of appropriate mitigation conditions for mirror degradation.
- Co-P.I. – *Louisiana Board of Regents (Industrial Ties Program with Sharp Industries, 2007 – 2010, $240k*): Preserving the ferromagnetic half-metallicity of magnetite through adsorption of various adsorbates

(See separate List of Funding History for more detail)

Publications:

149 peer-reviewed papers and book chapters

>7700 citations to papers, 17 papers with more than 100 citations, h-index: 40
(source: ISI Web of Knowledge, September 2011)
(see separate Publication List)

Invited Lectures:

Close to 200 total (> 94 at technical conferences, >97 seminars and colloquia);
(see separate List of Invited Talks)

Honors and Awards:

2011 European Research Council (ERC), Advanced Research Grant
2008 Fellow, Research Center Dresden-Rossendorf, Germany
2008 Outstanding Researcher Award, Tulane's School of Science and Engineering
2007 Fellow, American Association for the Advancement of Science
2006 Yahoo! Founder Chair in Science and Engineering
2005 Fellow, AVS – The Science and Technology Society
2005 Provost's Recognition Award for Research and Scholarly Achievement
2004 Tulane Liberal Arts and Sciences Faculty Research Award
2004 Fellow, American Physical Society
2003 National Science Foundation, "Special Creativity Award"
2001 Friedrich Wilhelm Bessel Research Prize from the Alexander von Humboldt Foundation, Germany
1998 Habilitation in "Experimental Physics", Technische Universität Wien
1997 NSF CAREER Award
1995 Oak Ridge Associated Universities, Junior Faculty Enhancement Award
1992 "Charlotte Bühler Fellowship" for Habilitation from the Austrian Science Foundation" (not assumed)
1983, 1984, 1985 Fellowships for 'Especially Talented Students', University of Technology, Vienna

Editorial Activites and Advisory Boards:

2012 - 2014 Divisional Associate Editor (Materials Physics) for *Physical Review Letters*
2010 – Advisory Editorial Board for *Surface Science*
2009 – 2010 Reader Panel, *Nature*
2009 Guest Editor (together with T.M. Orlando), "*Non-Thermal Processes on Surfaces. Dedicated to the Memory of Prof. Theodore E. Madey"* Special Issue in *J. Phys.: Cond. Matter*)
2007 – 2010 Advisory Editorial Board for *Open Journal of Physical Chemistry*
2006 – 2007 Guest Editor (together with A. Selloni and C. Di Valentin), "*Doping and Functionalization of Semiconducting Metal Oxides*", Special Issue in *Chemical Physics*, 2006 – 2007

2006 – 2007 Surface, Interface and Atomic-Scale Science Editorial Board of *Journal of Physics: Condensed Matter*
2003 – Advisory Editorial Board for *Surface Science Reports*

Professional Activities and Service:

2006 - 2007 American Physical Society, Selection Committee for the David Adler Lectureship Award
1998 – 2001 Executive Committee, Surface Science Division, American Vacuum Society
2006 – 2009 General Committee of the Physical Electronics Conference
2005 – 2007 Elected member, CAMD (Center for Advanced Microstructures and Devices, LSU) User's Committee

Organizer (together with P. Varga and F. Aumayr), 25th Symposium on Surface Science, '3S, St. Christoph/Arlberg, Austria, March 11 – 16, 2012
Organizer (together with Art Baddorf, Dietrich Hesse, Andrew Rappe, Nayoe Shibata) Symposium for the 2010 MRS Spring Meeting on "Structure-Function Relations at Perovskite Surfaces and Interfaces"
Organizer (together with Thom Orlando), International Workshop on Desorption Induced by Electronic Transitions, DIET XII, Spring 2009
Organizer (together with Kieron Burke) of the "Tulane DFT Fest: celebrating the achievements of Prof. John Perdew (New Orleans, March 2008)
Organizer (together with A. Selloni and M. Batzill), Focus Session entitled "Materials for photovoltaic and photocatalysis", March Meeting of the American Physical Society, March 2008, New Orleans
Organizer (together with D.W. Goodman and D. Jennison), 2nd International Workshop on Oxide Surfaces IWOX-2, Taos, New Mexico, January 2001
Local Organizing Committee, 60th Physical Electronic Conference, Baton Rouge, LA, Spring 2000
General Committee of the Physical Electronics Conference (2006 – 2009)

European Research Council, Advanced Investigator Grant Initiative, Panelist, Panel PE 4 (Physical and Analytical Chemical Sciences), 2008, 2010, 2012
Committee of Visitors for the Materials Sciences and Engineering Division in the Department of Energy Office of Basic Energy Sciences, March 31 – April 2, 2009, Germantown, MD

Serving on the International Advisory Board of multiple international conferences and workshops, reviewer for multiple funding agencies, tenure and promotion packages, etc. (see separate List 'Service')

Teaching and Mentoring:

Supervised 20 post-docs and 22 graduate students; 7 former co-workers now hold faculty positions

(see separate List 'Teaching and Advising')

Professional Affiliations:

Member of the American Physical Society (Fellow), American Vacuum Society (Fellow), AAAS (Fellow), Austrian Physical Society, Materials Research Society, Deutsche Bunsengesellschaft

FUNDING HISTORY:

Current:

COST-Action, "Structure, functions and applications of reducible oxide systems"
(role: Supporter and designated deputy speaker. Coordinator: M. Reichling, €500k, 2012 – 2016, 5/2012 - 2016)

Austrian Science Fund, Doctoral Program DK+, 'Building Solids for Function – SolidFun'
(role: Co-PI, Speaker: U. Schubert, €3,474k; ca. €200k to U.D. 2012 – 2016)

European Research Council, Advanced Researcher Grant
"Microscopic Processes and Phenomena at Oxide Surfaces"
(requesting €2.490k, recommended for funding)

Vienna University of Technology, Doktoratskolleg 'Catalysis Materials and Technology, CatMat' (Co-PI, Speaker: Günther Rupprechter, October 1, 2011 – September 30, 2014)

Vienna University of Technology, 'Innovative Project: An Apparatus for Investigating Organic Molecules on Oxide Surfaces'
(Lead PI, with M. Schmid, G. Parkinson, G. Rupprechter, Ch. Weilach, €141k, June 1, 2011 - May 31, 2013)

Austrian Science Fund, Special Research Programme (SFB G107) "Functional Oxide Surfaces and Interfaces (FOXSI)", Subproject "Growth and Fundamental Surface Properties of Perovskites"
(Total Funding, €3,331,410, €501,620 to U.D., March 1, 2011 – February 28, 2014)

National Science Foundation, MRI Program
"MRI-R2: Acquisition of a High Resolution Field Emission Transmission Electron Microscope for Collaborative Research in Materials and Biolomolecular Nanostructures"
(requested $1,300,000, approved for funding, actual sum being negotiated, co-PI; PI: Vijay John)

Department of Energy, Energy Frontier Research Center
"Computational Catalysis and Atomic-Level Synthesis of Materials: Building Effective Catalysts From First-Principles" Award #: DE-SC0001058
(Co-PI, Lead PI: Jerry Spiver, LSU; 8/15/09 – 8/14/14, $537,8920 to Diebold, 0.25 mo summer salary)

Department of Energy, Basic Energy Sciences, Catalysis and Chemical Transformations Program, "Towards a Molecular-Scale Understanding of Surface Chemistry and Photocatalysis on Metal Oxides: Surface Science Experiments and First-Principles Theory" Award #: DE-FG02-05ER15702
(Lead PI, together with A. Selloni, Princeton, $690,000, 8/15/08 – 8/14/11, no summer salary)
Supplement to DE-FG02-05ER15702 for equipment purchase: $72,000, 7/2009

Intel Corporation,
"EUV lithography aspects of titanium dioxide surfaces"
(July 2006 – December 2011, $700k, ($330k to Tulane), co-PI, together with R.A. Bartynski, Rutgers, 0.34 mo summer support)

Tulane University Research Enhancement Fund Initiative – Phase I

$26k (July 2006 – August 2012)

National Science Foundation, CHE-0715576
"Atomic-scale Investigations of Metal Oxide Single Crystals, Nanostructures, and Thin Films"
(single PI, $488,000, August 1, 2007 – July 31, 2011, 0.5 mo summer salary)

DoD-DEPSCoR Program
"Study of metal-insulator transitions of perovskite ruthenates for bolometric detection"
(Co-PI, with lead: Zhiqiang Mao, Tulane University, Aug 1, 2009 – July 31, 2012, requested $450k, match: $232k, 0.33 mo summer salary)

Pending:

Completed:

Louisiana Board of Regents, Industrial Ties Subprogram
"Preserving half-metallicity on the surface of Fe_3O_4 for spintronic applications"
(co-PI, together with Jinke Tang, UNO, and Zhiqiang Mao, Tulane; $226,149 ($112,500 to Tulane), June 1, 2007 – June 30, 2011)

Tulane University Research Enhancement Fund Initiative – Phase II, $100,000 (July 2007 – December 2010)

National Science Foundation, "Support for the International Workshop on Desorption Induced by Electronic Transitions, DIET XII", Callaway Gardens, Pine Mountain GA, USA, April 19 -24, 2009 (co-organizer together with T. Orlando, Georgia Tech, $10,000)

Louisiana Board of Regents, Traditional Enhancement Program
"A Physical Property Measurement System for Tulane University"
($190,365, co-PI, PI: Zhiqiang Mao, Tulane University, 6/1/08 – 6/30/09, no summer salary)

Tulane's Center for Public Service Learning, Grant to develop a Public Service Learning Course entitled "Introduction to Physics Pedagogy" together with Lusher Charter School
(Co-PI, together with other 4 other physics faculty, $5000, April 2007 – June 2008)

Tulane Research Enhancement – Phase II
"The Tulane DFT Fest: Celebrating the Achievements of Prof. John P. Perdew"
($20,000, co-PI together with John Perdew, conference organization, no summer salary)

National Synchrotron Light Source at Brookhaven National Laboratories: "Resonant Photoemission of Metal Nanoclusters on Oxide Surfaces", (20 days of requested beamtime was allocated, and financial support for the Faculty/Student user team was granted, March 1994)

Petroleum Research Fund: "Study of Metal Nanoclusters on Surfaces of Metal Oxide Thin films" ($20k, Sept. 1994-Aug. 1996) (Single P.I.)

Louisiana Education Quality Support Fund: "Investigation and Modification of Metal Compound Surfaces" ($124k, July 1994 - June 1998, LEQSF (1994-97)RD A 26) (Single P.I.)

National Science Foundation, EPSCoR Program for "Establishment of a Center of Excellence on Photoinduced Processes" ($2,100k, Sept. 1995 - Sept. 1997) (Co-P.I.)

Oak Ridge Associated University, Junior Faculty Enhancement Award
"Geometric Structure of Ultrathin Metal Oxide Films" ($10k, July 1995-June 1997)
(Single P.I.)

Department of Energy, EPSCoR Program, "Inorganic Synthesis and Laser-Induced Photochemistry Relevant to the Fabrication of Electronic Materials"
($1,919 k, 1993-1999) (Co-P.I.)

Louisiana Education Quality Support Fund, Enhancement Subprogram
"Nano-Engineering and Atomic-Scale Characterization of Thin Films: MBE/STM Auxiliary System for Synchrotron-Based Research"
($170k, 1997-1999, Co-P.I.)

National Science Foundation, CAREER Program
"Structure, Defects and Chemistry of Transition Metal Oxide Surfaces"
($260k, July 1997 - January 2001, Single P.I.)

Visiting Professor, Technische Universität Wien, Sabbatical
(Spring 1997, $7k)

Research Fellowship Pacific Northwest Laboratories (Sabbatical)
(Summer 1997, $15k)

Louisiana Board of Regents Support Fund, Travel Grant for Emerging Faculty (Fall 1998, $1k)

Louisiana Board of Regents Support Fund, Traditional Enhancement Program
"Enhancement of Research and Education in Nanoscale and Thin Film Science"
($269,700, July 1999-June 2001, Lead P.I.)

DoE/EPSCoR/ Building EPSCoR-State National Laboratory Partnerships
"Growth, Surface Characterization, and Reactivity of TiO2 Anatase Films"
($223,759, September 2000 - August 2004, single PI., DE-FG02-00ER45834)

NASA EPSCoR
"Toward Improving the Pulsed Laser Deposition (PLD) of Hard Materials Such as SiC"
($1,035,000, Co P.I., Aug 1, 2001 - July 31, 2006)

National Science Foundation
"Nanoscale Surface Investigations of Semiconducting Metal Oxides"
(Single PI, August 1, 2001 - July 31, 2004, $363,500, CHE-0109804)

Department of Energy
"Establishment of the Livingston Digital Millenium Center for Computational Sciences at Tulane and Xavier Universities"
(Co-PI, May 15, 2001 - May 14, 2003, $1,922,000)

American Physical Society

"Travel Grants for Women Speakers Program"
(Fall 2001, $500 for inviting speakers to the Departmental Seminar)

Louisiana Board of Regents Support Fund, Traditional Enhancement Program
"A Sample Growth/Preparation Apparatus to Enhance Research and Instruction in Nanoscale and Materials Physics"
(Lead PI, $200,000, June 1, 2002 - May 31, 2004, LEQSF(2002-03)-ENH-TR-65)

National Science Foundation, Major Research Instrumentation (MRI) Program
"Acquisition of a Sample Growth/Preparation Apparatus for Nanoscale and Materials Physics at Tulane and Xavier Universities"
(Lead PI, $325,000, Sept. 1, 2002 - Aug. 31, 2005, CHE-0215776)

National Science Foundation, Extension for Special Creativity Award
(Single PI, $310,000, Aug 1, 2004 - July 31, 2006, CHE-010908)

Petroleum Research Fund, AC sub-program
"Towards a better fundamental understanding of metal-oxide gas sensing materials -- Atomic scale surface science investigations"
(Single PI, $80,000, 6/1/2004 - 8/31/2007, PRF #40919-AC5)

Selected by the Committee for the Status of Women in Physics (CSWP) of the American Physical Society for a Travel Grant to attend a Professional Skills Development Workshop for Mid-Career Female Physics Professors, Tampa, FL, April 15, 2005

National Science Foundation, Supplement to grant CHE-010908 to allow for Recovery from Hurricane Katrina
(Single PI, $169,000, Aug 1, 2006 - July 31, 2007)

American Physical Society
"Travel Grants for Women Speakers Program"
(Fall 2007, $500 for inviting speakers to the Departmental Seminar/Colloquium)

Department of Energy, Basic Energy Sciences, Catalysis and Chemical Transformations Program,
“Towards a Molecular-Scale Understanding of Photocatalysis on Metal Oxides: Surface Science Experiments and First-Principles Theory”
(Lead-PI, together with A. Selloni, Princeton, $610k, August 15, 2005 – August 14, 2008, 0.85 mo summer support, Award #: DE-FG02-05ER15702)

Louisiana Board of Regents, Traditional Enhancement Program
“An Experimental Setup for Research and Education in Nanoscale and Surface Chemistry”
(Lead PI, $141,695 (match $49,850), LEQSF(2005-2006)-ENH-TR-75, June 1, 2005-June 30, 2008)

Louisiana Board of Regents, Traditional Enhancement Program
"A crystal orientation system to enhance research and education in condensed matter physics at Tulane"
(co-PI with Zhiqiang Mao, $121,033, LEQSF(2005-2006)-ENH-TR-##, June 1, 2005-June 30, 2008)

REFEREED PUBLICATIONS IN JOURNALS AND BOOKS:
Citations (source: ISI Web of Knowledge, ResearcherID: A-3681-2010, Feburary 2012); total number > 8000; 18 papers with more than 100 citations; h-index = 41]

2012

154. Daniel Hagleitner, Peter Jacobson, Sara Blomberg, Karina Schulte, Edvin Lundgren, Markus Kubicek, Jürgen Fleig, Frank Kubel, Christoph Puls, Andreas Limbeck, Herbert Hutter, Lynn A. Boatner, Michael Schmid, Ulrike Diebold
"Bulk characterization and surface properties of In_2O_3(100) single crystals"
Physical Review B, in press (Feburary 2012)
FWF-FOXSI, ORNL

153. Ya. B. Losovyj, Shao-Chun Li, Natalia Lozova, Daniel Stellwagen, Ulrike Diebold, Lingmei Kong, Challa Kumar
"Evidence for p – d hybridization Au38 gold nanoclusters"
Journal of Physical Chemistry Letters, in press (February 2012)
Center for Atomic-Level Catalyst Design, an Energy Frontier Research Center funded by the U.S. Department of Energy, Office of Science, Office of Basic Energy Sciences under Award Number #DE-SC0001058

152. Jinke Tang, Gareth Parkinson, Ulrike Diebold, and Leszek Malkinski
"Surface and Reconstruction of Magnetic Oxides for Spintronic Applications"
Book Chapter in 'Magnetic Materials', Intechweb, Edited by L. Malkinski et al.,
in press (October 2011)
EFRC, LaBOR-ITRS

151. Shao-Chun Li, Peter Jacobson, Shu-Lei Zhao, Xue-Qing Gong, and Ulrike Diebold
"Trapping Nitric Oxide by Surface Hydroxyls on Rutile TiO_2(110)"
Journal of Physical Chemistry C, in press (December 2011)
dx.doi.org/10.1021/jp209290a
DE-FG02-05ER15702

150. Peter Jacobson, Bernhard Stöger, Andreas Garhofer, Gareth S. Parkinson, Michael Schmid, Roman Caudillo, Florian Mittendorfer, Josef Redinger, Ulrike Diebold
"Disorder and Defect Healing in Graphene on Ni(111)"
Journal of Physical Chemistry C Letters, 3 (2012) 136−139
dx.doi.org/10.1021/jz2015007
Intel Corp.; Austrian Science Fund (FWF) within the Wissenschaftskolleg WK04 and project I422-N16.

2011

149. G. S. Parkinson, Z. Novotny, P. Jacobson, M. Schmid, and U. Diebold
"Water Mediated Reduction of the Fe_3O_4(001) Surface"
Journal of the American Chemical Society, in press (July 2011)
dx.doi.org/10.1021/ja203432e

148. S-C. Li, Y. Losovji, U. Diebold
"Adsorption-site dependent electronic structure of catechol on TiO_2 anatase (101) surface"
Langmuir 27, (2011) 8600-8604
dx.doi.org/10.1021/la201553k

147. Gareth S. Parkinson, Zbynek Novotny, Peter Jacobson, Michael Schmid, and Ulrike Diebold
"A Metastable Fe(A) Termination at the Fe_3O_4(001) Surface"
Surface Science Letters, in press (March 2011)

doi:10.1016/ j.susc.2011.05.018

146. Li-Min Liu, Shaochun Li, Hongzhi Cheng, Ulrike Diebold, and Annabella Selloni
"Growth and organization of an organic molecular monolayer on TiO_2: catechol on anatase (101)"
Journal of the American Chemical Society, 133 (20) (2011) 7816–7823
doi: 10.1021/ja200001r

145. Shao-Chun Li, Yaroslav Losovyi, Vinod Kumar Paliwal, and Ulrike Diebold
"Photoemission study of azobenzene and aniline adsorbed on TiO_2 anatase (101) and rutile (110) surfaces"
Journal of Physical Chemistry C 115 (20) (2011) 10173-1017
doi: 10.1021/jp202029a

144. Ulrike Diebold
"Photocatalysts: Closing the gap", News & Views article
Nature Chemistry, 3 (2011) 271 – 272
doi:10.1038/nchem.1019

143. M. J. Uddin, D. Mondal, C. A. Morris, U. Diebold, R. D. Gonzalez
"An *in-vitro* controlled release study of valproic acid encapsulated within a titania ceramic matrix"
Applied Surface Science, 257 (2011) 7920–7927
doi:10.1016/j.apsusc.2011.03.079

2010

142. Philipp Scheiber, Alexander Riss, Michael Schmid, Peter Varga, and Ulrike Diebold
"Observation and Destruction of an Elusive Adsorbate with STM: $O_2/TiO_2(110)$"
Physical Review Letters, 105 (2010) 216101
Doi:10.1103/PhysRevLett.105.216101

141. Gareth Parkinson, Narasimham Mulakaluri, Yaroslav Losovji, Peter Jacobson, Rossitza Pentcheva, and Ulrike Diebold
"Adsorption-Induced Half-Metallicity at the Magnetite (001) Surface"
Physical Review B, 82 (2010) 125413
Doi: 10.1103/PhysRevB.82.125413

140. Maher Fathalla, Amelia Neuberger, Shao-Chun Li, Russell Schmehl, Ulrike Diebold, and Janarthanan Jayawickramarajah
"Straightforward Self-Assembly of Porphyrin Nanowires in Water: Harnessing Adamantane/β-Cyclodextrin Interactions"
Journal of the American Chemical Society (Communications), 132 (2010) 9966 - 9967
Doi:10.1021/ja1030722
(Paper highlighted in Nature Materials' Research Highlights, vol. 9, August 2010)

139. Shaochun Li, *U. Diebold,* Li-Na Chu, and Xue-Qing Gong
"Hydrogen controls the dynamics of catechol adsorbed on a $TiO_2(110)$ surface"
Science 328 (2010) 882 - 884
(DE-FG02-05ER15702, CHE-0715576)
(Paper highlighted in C&EN News)

138. U. Diebold
"Oxide Surfaces: Surface Science goes Inorganic" (News & Views article)
Nature Materials, 9 (2010) 185 - 187

137. Ulrich Aschauer, Yunbin He, Hongzhi Cheng, Shao-Chun Li, Annabella Selloni, and Ulrike Diebold
"Influence of subsurface defects on the surface reactivity of TiO_2: water on anatase (101)"
Journal of Physical Chemistry C, 114 (2) (2010) 1278 - 1284
doi: 10.1021/jp910492b

136. Olga Dulub and Ulrike Diebold
"Preparation of a Pristine TiO_2 Anatase (101) Surface by Cleaving"
Journal of Physics: Condensed Matter 22 (2010) 084014
(Special Issue Honoring the Memory of Prof. T.E. Madey)
doi:10.1088/0953-8984/22/8/084014

135. (*Invited Review*) *U. Diebold,* Shao-Chun Li, and Michael Schmid
"Oxide Surface Science"
Annual Review in Physical Chemistry, 61 (2010) 131 - 148
doi: 10.1146/annurev.physchem.012809.103254
CHE-0715576, DE-FG02-05ER15702, LaBoR-ITRS, Foreign sources

134. Shao-Chun Li and Ulrike Diebold
"Reactivity of TiO_2 Rutile and Anatase Surfaces towards Nitroaromatics"
Journal of the American Chemical Society (Communication), 132 (2010) 64 – 66;
doi: 10.1021/ja907865t

2009

133. Erie H. Morales and Ulrike Diebold
"The polar ITO(001) surface: Surface structure and stabilization mechanism"
Applied Physics Letters, 95 (2009) 253105; doi:10.1063/1.3275716

132. Shao-Chun Li and Ulrike Diebold
"Direction-dependent intermolecular interactions: catechol on TiO_2(110)-1x1"
Proc. SPIE, Vol. 7396, 73960P (2009); doi:10.1117/12.828204 (July 2009)

131. Maher Fathalla, Shao-Chun Li, Ulrike Diebold, Alina Alb, Wayne Reed, and Janarthanan Jayaywickramarajah
"Water-Soluble Nanorods Self-Assembled via Pristine-C60 and Porphyrin Moieties"
Chemical Communications 28 (2009) 4209 – 42w11

130. Yunbin He, Antonio Tilocca, Olga Dulub, Annabella Selloni, and Ulrike Diebold
"Local ordering and electronic signatures of submonolayer water on anatase TiO_2(101)"
Nature Materials 8 (2009) 585 - 589

129. Yunbin He, Wei-Kun Li, Xue-Qing Gong, Olga Dulub, Annabella Selloni, and Ulrike Diebold
"Nucleation and growth of 1D water clusters on rutile TiO_2(011)-2x1"
Journal of Physical Chemistry C (Letter), 13 (24) 10329-10332.

128. Yunbin He, Olga Dulub, Hongzhi Cheng, Annabella Selloni, and Ulrike Diebold
"Evidence for the Predominance of Subsurface Defects on TiO_2 Anatase (101)"
Physical Review Letters, 102 (10) (2009) 106105.

127. Shao-Chun Li, Jian-guo Wang, Peter Jacobson, Xueqing Gong, Annabella Selloni, and Ulrike Diebold
"Correlation between bonding geometry and band gap states at organic-inorganic interfaces: catechol on rutile TiO_2(110)"
Journal of the American Chemical Society, 131 (3) (2009) 980 - 984

126. Xue-Qing Gong, Navid Khorshidi, Andreas Stierle, Vedran Vonk, Claus Ellinger, Helmut Dosch, Hongzhi Cheng, Annabella Selloni, Yunbin He, Olga Dulub, Ulrike Diebold
"The 2×1 Reconstruction of the Rutile TiO_2(011) Surface: a Combined Density Functional Theory, X-ray Diffraction, and Scanning Tunneling Microscopy Study"
Surface Science, 603 (2009) 138 - 144

2008

125. Erie H. Morales, Yunbin He, *Ulrike Diebold,* and Bernard Delley
"Surface structure of Sn-doped In_2O_3(111) thin films by STM"
New Journal of Physics, 10 (2008) 125030
[Paper listed a 'Best of New Journal of Physics of 2008']

124. P. Jacobson, Shao-chun Li, Chundao Wang, and U. Diebold
"Decomposition of catechol and carbonaceous residues on TiO_2(110): A model system for cleaning of EUVL optics"
Journal of Vacuum Science and Technology B, 26 (6) (2008) 2236 - 2240

123. Shao-Chun Li, Olga Dulub and Ulrike Diebold
"Scanning Tunneling Microscopy Study of a Vicinal TiO_2 Anatase Surface"
Journal of Physical Chemistry C, 112 (2008) 16166 - 16170

122. Kh. Katsiev, A. Kolmakov, M. Fang, and U. Diebold
"Characterization of individual SnO_2 nanobelts with STM"
Surface Science Letters, 602 (2008) L112 – L114

121. Khabibullah Katsiev, Matthias Batzill, Lynn A. Boatner, and Ulrike Diebold
"Defects and Pd Growth on the Reduced SnO_2(100) Surface"
Surface Science, 602 (2008) 1699 - 1704

120. (*Invited*) *U. Diebold*
"Wiggling its way out of surface polarity: Fe_3O_4 (100) (A Perspectives on the article: A combined DFT/LEED approach for compex oxide surface structure determination: Fe_3O (011)" by R. Pentcheva, W. Moritz, J. Rundgren, S. Frank, D. Schrupp, M. Scheffler"
Surface Science, 602 (2008) 1297 - 1298

119. Xue-Qing Gong, Annabella Selloni, Olga Dulub, Peter Jacobson, and Ulrike Diebold
"Small Au and Pt clusters at the anatase TiO_2(101) surface: behavior at terraces, steps, and oxygen vacancies"
Journal of the American Chemistry Society, 130 (2008) 370-381

118. P. Lascano, M. Batzill, U. Diebold, and P. Häberle
"Oxygen adsorption on Cu/ZnO (0001)-Zn"
Physical Review B 77 (2008) 035435

2007

117. M. Batzill, E. H. Morales, and U. Diebold
"Surface Studies of Nitrogen Doped TiO_2"
Chemical Physics, 339 (2007) 36 – 43

116. O. Dulub, M. Batzill, S. Solovyev, E. Loginova, A. Alchagirov, T. E. Madey, and U. Diebold
"Formation of defects on TiO2 under electron bombardment: site-specific oxygen desorption"
Science 317 (2007) 1052 – 1056

115. (Invited) C.A. Ventrice, Jr., D.R. Borst, H. Geisler, J. van Ek, Y.B. Losovyj, P.S. Robbert, U. Diebold, J. A. Rodriguez, G.X. Miao, and A. Gupta
"Are the surfaces of CrO_2 metallic?"
Journal of Physics C: Condensed Matter, 19 (2007) 315207 - 315218 [1]

114. G. Saurav, J. Zhong, T. Siegrist, O. Dulub, U. Diebold, Y. Lu
"Surface and Interface Properties of a-plane $Mg_xZn_{1-x}O$ ($0 \leq x \leq 0.3$) films"
Journal of Electronic Materials, 36 (4) (2007) 446 - 451

113. K. Katsiev, M. Batzill, U. Diebold, A. Urban and B. Meyer
"Growth of One-Dimensional Pd Nanowires on the Terraces of a Reduced SnO_2(101) Surface"
Physical Review Letters, 98 (2007) 186102
[Article featured in the May 14, 2007 issue of Virtual Journal of Nanoscale Science & Technology] [2]

112. (Invited Review) M. Batzill and U. Diebold
"Surface Studies of Gas Sensing Metal Oxides"
Physical Chemistry Chemical Physics, 9 (2007) 2307- 2318
[Paper was promoted as a 'hot article' by PCCP]

2006

111. O. Dulub, C. Di Valentin, A. Selloni, and U. Diebold
"Structure, Defects, and Impurities at the Rutile TiO2(101) Surface: A Scanning Tunneling Microscopy Study
Surface Science, 600 (19) (2006) 4407- 4417
[Paper was featured in a 'Surface Science Perspectives' article, written by C.L. Pang and G. Thornton entitled "The many faces of rutile titania", Surface Science 600 (2006) 4405-4406; Paper also featured in C&EN News; Oct. 16, 2006]

110. X.-Q. Gong, A. Selloni, M. Batzill, and *U. Diebold*
"Steps on TiO_2 Anatase (101)"
Nature Materials, 5 (2006) 665 -670
[Paper featured in High Tech Materials HTM Alerts,published by the Technical Insights division of Frost & Sullivan (www.ti.frost.com)]

109. W. Wang, M. Yu, M. Batzill, J. He, U. Diebold, and J. Tang
"Enhanced tunneling magnetroresistance and high spin polarization at room temperature in polystyrene coated Fe3O4 granular system through surface engineering"
Physical Review B 73 (2006) 134412

108. (Invited) M. Batzill, K. Katsiev, J.M. Burst, Y. Losvoyi, W. Bergermayer, I. Tanaka, and U. Diebold
"Tuning surface properties of SnO2(101) by reduction"
Journal of Physics and Chemistry of Solids, 67 (9-10) (2006) 1923 – 1929

107. M. Batzill, W. Bergermayer, I. Tanaka, and U. Diebold
"Tuning the chemical response of a gas sensitive material: Water adsorption on SnO2(101)"
Surface Science Letters, 600 (2006) L29 – L 32

106. M. Batzill, and U. Diebold
"Characterizing solid state gas response by surface charging in photoemission: Water adsorption on SnO2(101)", Journal of Physics C: Condensed Matter, 18 (2006) L129-L134.

105. M. Batzill, E.H. Morales, and U. Diebold

"Influence of Nitrogen doping on the Surface Properties of TiO2 Anatase and Rutile"
Physical Review Letters, 9 (2) (2006) 026103

2005

104. M. Batzill, K. Katsiev, J.M. Burst, *U. Diebold,* A. M. Chaka, and B. Delley
"Gas-phase-dependent properties of SnO_2 (110), (100), and (101) single-crystal surfaces: Structure, composition, and electronic properties"
Physical Review B, 72 (2005) 165414

103. (Invited) O. Dulub, M. Batzill, and U. Diebold
"Growth of Copper on Single Crystalline ZnO: Surface Study of a Model Catalyst"
"Topics in Catalysis", vol. 36 (1-4) (2005) 65 – 76

102. (Invited Review) M. Batzill and U. Diebold
"The Surface and Materials Science of Tin Oxide"
Progress in Surface Science, 79 (2-4) (2005) 47 – 154

101. O. Dulub, B. Meyer, and U. Diebold
"Observation of the dynamical change in a water monolayer adsorbed on a ZnO surface"
Physical Review Letters, 95 (2005) 136101

100. C. Di Valentin, A. Tilocca, A. Selloni, T.J. Beck, A. Klust, M. Batzill, Y. Losovij, and U. Diebold
"Water adsorption on reconstructed rutile TiO2(011)-(2x1): Ti=O double bonds and surface reactivity"
Journal of the American Chemical Society, 127, (2005) 9895-9903.

99. T.J. Beck, A. Klust, M. Batzill, U. Diebold, C. Di Valentin, A. Tilocca, and A. Selloni
"Mixed dissociated/molecular monolayer of water on the TiO2(011)-(2x1) surface"
Surface Science Letters, 591, Issues 1-3 (2005) L267-L272

98. M. Batzill, J. M. Burst, and U. Diebold
"Pure and Co-doped SnO2(101) Films grown by MBE on Al2O3"
Thin Solid Films 484 (2005) 132– 139.

97. (Invited) Ulrike Diebold
"Dispersed Au Atoms, Supported on TiO2"
Surface Science Perspectives for Lee et al, Surface Science 578 (1-3) (2005) 1-3. [12]
Also published in the CSA Materials Research Database with METADEX

96. M.G. Cutrufello, U. Diebold, and R.D. Gonzalez
"Optimization of synthesis variables in the preparation of active sulfated zirconica catalysts"
Catalysis Letters, 101 (1-2) (2005) 5 – 13.

2004

95. M. Batzill, K. Katsiev, *U. Diebold*
"Tuning the oxide/organic interface: Benzene on SnO_2(101)"
Applied Physics Letters, 85 (2004) 5766

94. B. Meyer, D. Marx, O. Dulub, *U. Diebold*, M. Kunat, D. Langenberg, C. Wöll
"Partial Dissociation Water on the Surface of Zinc Oxide"
Angewandte Chemie, International Edition 43, (2004) 6642-6645.

93. (Invited) U. Diebold, L. Vogel Koplitz, O. Dulub
"Atomic-Scale Properties of Low-Index ZnO Surfaces"
Applied Surface Science 237 (1 - 4) (2004) 336-342

92. T.J. Beck, A. Klust, M. Batzill, U. Diebold, C. Di Valentin, A. Selloni
"Surface Structure of TiO2(011)-(1x2)"
Physical Review Letters 93 (3) (2004) 036104

91. M. Batzill, A. M. Chaka, and U. Diebold
"Surface Oxygen Chemistry of a Gas Sensing Material: SnO_2(101)"
Europhysics Letters 65 (1) (2004) 61 - 67.

2003

90. G. Kresse, O. Dulub, and *U. Diebold*
"Competing Stabilization Mechanisms for the Polar ZnO(0001)-Zn Surface"
Physical Review B 68 (2003) 245409.

89. I. Kuyanov, D. Lacks, D. R. Jennison, and U. Diebold
"Dynamics of TiO2(110) surface and step: Onset of defects in the ordered structure"
Physical Review B, 68 (2003) 233404.

88. L. Vogel Koplitz, O. Dulub, and U. Diebold
"STM study of Cu growth on ZnO(0001)-Zn and ZnO(0001bar)-O"
Journal of Physical Chemistry B, (2003) 107(38), 10583-10590.

87. (Invited) U. Diebold, N. Ruzycki, G.S. Herman, and A. Selloni
"One Step Towards Bridging the Materials Gap: Surface Studies of TiO2 Anatase" in
"Metallic Oxides Filling the Gap between Real Catalysis and Surface (eds. H. Idriss and M.A. Barteau),
Special Issue in Catalysis Today, 85 (2003) 93-100.

86. M. Batzill, K. Katsiev, and U. Diebold
" Surface morphologies of SnO2(110)"
Surface Science , 529/3 (2003) 295 – 311

85. N. Ruzycki, G.S. Herman, L.A Boatner, and U. Diebold
"Scanning Tunneling Microscopy Study of the TiO2 Anatase (100) Surface"
Surface Science Letters, 529/1-2 (2003) L239 - L244

84. G.S. Herman, Z. Dohnalek, N. Ruzycki, and U. Diebold
"Experimental Investigation on the Interaction of Water and Methanol with Anatase-TiO2(101)"
Journal of Physical Chemistry B, 107 (2003) 2788 - 2795

83. R. Marcus, U. Diebold and R. D. Gonzalez
"The Locus of Sulfate Sites on Sulfated Zirconia"
Catalysis Letters, 86(4) (2003) 151-156

82. (Invited) U. Diebold, "The Surface Science of Titanium Dioxide", Surface Science Reports", 48 (2003) 53 - 229 [1021]
(rated 'top-10 most popular articles' in ScienceDirect - Elsevier, October-November 2003, December 2003: #3 in Materials Science, #6 in Physical and Theoretical Chemistry, #6 in Physics and Astronomy; rated 'top 1% in the field' according to Essential Science IndicatorsT' by ISI Thompon, 2005; 'top 25 hottest articles' in Chemistry, July-Sept 2008, ScienceDirect-Elsevier)

81. O. Dulub, U. Diebold, and G. Kresse

"Novel Stabilization Mechanism on Polar Surfaces: ZnO(0001)-Zn"
Physical Review Letters 90 (2003) 016102. (Selected to be featured in the "Virtual Journal of Nanoscale Science & Technology", January 2003, http://www.vjnano.org)

2002

80. M. Batzill, E.L.D. Hebenstreit, W. Hebenstreit, and U. Diebold
"Influence of Charged Subsurface Impurities on the Adsorption of Cl on TiO_2(110)"
Chemical Physics Letters, 367 (3-4) (2002) 319 - 323

79. M. Batzill, B. Katsiev, D.J. Gaspar, and U. Diebold
"Variations of the Local Electronic Surface Properties of TiO2(110) Induced by Intrinsic and Extrinsic Defects"
Physical Review B 66 (2002) 235401

(Invited) 78. U. Diebold
"Structure and Properties of TiO2 Surfaces: A Brief Review"
Applied Physics A 76 (2002) 1 - 7

77. O. Dulub, L. A. Boatner, and U. Diebold
"STM Study of the Geometric and Electronic Structure of ZnO(0001)-Zn, (0001bar)-O, (101bar0), and (112bar0) Surfaces"
Surface Science 519 (3) (2002) 201 - 217

76. J. Jiménez-Mier, U. Diebold, D.L. Ederer, T.A. Calcott, M. Grush, R.C. Perera, "Decay Channels for the Ti(2p1/2) Core Hole Excitations in TiO2 Observed by X-ray Raman Scattering"
Physical Review B 65 (2002) 184105

75. O. Dulub, L. A. Boatner, U. Diebold
"STM study of Cu growth on the ZnO (1 0 1bar 0) surface"
Surface Science, 504 (2002) 271 –281

74. J. Tang, J. Dai, K. Wang, W. Zhou, N. Ruzycki, U. Diebold
"Current-controlled Channel Switching and Magnetoresistance in an Fe3C Island Film Supported on a Si Substrate"
Journal of Applied Physics, 91 (10) (2002) 8411 - 8413

73. D. Vogtenhuber, R. Poducky, J. Redinger, E.L.D. Hebenstreit, W. Hebenstreit, and U. Diebold
"A Combined Ab-initio and Experimental Study of Chlorine Adsorption on the Rutile TiO2(110) Surface"
Physical Review B, 65 (12) (2002) 125411/1-125411/11

72. E.L.D. Hebenstreit, W. Hebenstreit, H. Geisler, C.A. Ventrice, Jr., D.A. Hite, P.T. Sprunger, and U. Diebold
"The Adsorption of Chlorine on TiO2(110) Studied with Scanning Tunneling Microscopy and Photoemission Spectroscopy"
Surface Science, 505 (1-3) (2002) 336-348

2001

71. S.A. Chambers, S. Thevuthasan, R.F.C. Farrow, R.F. Marcks, J. Ulrich-Thiele, L. Folks, M. Samant, N. Ruzycki, D. L. Ederer, and U. Diebold
"Epitaxial Growth and Properties of Ferromagnetic Co-doped TiO2 Anatase"

Applied Physics Letters, 79 (2001) 3467

70. D.R. Jennison, O. Dulub, W. Hebenstreit and U. Diebold
"Structure of ultrathin TiO films, formed by the strong metal support interaction (SMSI), on Pt nanocrystals on TiO2(110)"
Surface Science Letters 492(1-2) (2001) L677-L687

69. (Invited) U. Diebold
"The surface structure of TiO2(110)"
Chapter 11 in: "The Chemical Physics of Solid Surfaces, Vol. 9: Oxide Surfaces", edited by D.P. Woodruff, Elsevier (2001), p.443-480

68. (Invited) U. Diebold
"Understanding Metal Oxide Surfaces at the Atomic Scale: STM Investigations of Bulk-defect Dependent Surface Processes"
Proceedings of the Materials Research Society Meeting, Fall 2001, "Structure-Property Relationships of Oxide Surfaces and Interfaces",vol. 654 (2001) AA.5.1.1 - AA.5.1.9

67. E.L.D. Hebenstreit, W. Hebenstreit, H. Geisler, C.A. Ventrice, Jr., D. Hite, P.T. Sprunger, Jr., and U. Diebold
"Study of Sulfur on TiO2(110) with Angle Resolved Resonant Photoemission"
Physical Review B, 64 (2001) 115418

66. E.L.D. Hebenstreit, W. Hebenstreit, H. Geisler, C.A. Ventrice, Jr., P.T. Sprunger, and U. Diebold
"Bulk-defect Dependent Adsorption on a Metal Oxide Surface: S/TiO_2(110)"
Surface Science Letters, 486 (2001) L467 - L474

65. E.L.D. Hebenstreit, W. Hebenstreit, and U. Diebold
"Structures of Sulfur on TiO2(110) Determined by STM, XPS, and LEED
Surface Science, 470 (3) (2001) 347-360

2000

64. W. Hebenstreit. N. Ruzycki, G. S. Herman, and U. Diebold
"Scanning Tunneling Microscopy Investigation of the TiO2 Anatase (101) Surface"
Physical Review B, rapid communications, 64 (24) (2000) R16334

63. J. Dai, H. Xu, J. Tang, H. Xu, L. Spinu, W. Wang, K. Wang, A. Kumbhar, M. Li, and U. Diebold
"Characterization of the natural barriers of intergranular tunnel junctions: Cr2O3 surface layers on CrO2 nanoparticles"
Applied Physics Letters, 77(8) (2000) 2840 -2842

(Invited) 62. U. Diebold, M. Li , O. Dulub, E.L.D. Hebenstreit, and W. Hebenstreit
"The Relationship between Bulk and Surface Properties of Rutile TiO2(110)"
Surface Reviews and Letters, 5/6 (2000) 613

61. E.L.D. Hebenstreit, W. Hebenstreit, and U. Diebold
"Adsorption of sulfur on TiO2(110) studied with STM, LEED and XPS: Temperature-dependent change of adsorption sites combined with O-S exchange"
Surface Science 461 (2000) 87 - 97

60. M. Li, W. Hebenstreit, U. Diebold, Alexei M. Tyryshkin, Michael K. Bowman, Glen G. Dunham, and M.A. Henderson
"The Influence of the Bulk Reduction State on the Surface Structure and Morphology of Rutile TiO2(110) Single Crystals"

Journal of Physical Chemistry B 104 (20) (2000) 4944 - 4950

59. O. Dulub, W. Hebenstreit, and U. Diebold
"Imaging Cluster Surfaces with Atomic Resolution: The Strong Metal-Support Interaction State of Pt Supported on TiO2(110)"
Physical Review Letters, 84 (16) (2000) 3646

58. B. Stanka, W. Hebenstreit,U. Diebold , and S.A. Chambers
"Surface Reconstructions of Fe3O4(001)"
Surface Science 448 (1) (2000) 49

57. M. Li, W. Hebenstreit and U. Diebold
"Surface Morphology Change of Oxgyen Restructured TiO2(110) Surfaces by UHV Annealing: Formation of a 'Low-Temperature' (1x2) Phase
Physical Review B 61 (7) (2000) 4926

(Invited) 56. M. Li, W. Hebenstreit, U. Diebold, M.A. Henderson, and D.R. Jennison
"Oxygen-Induced Restructuring of Rutile TiO2(110): Formation Mechanism, Atomic Models, and Influence on Surface Chemistry"
Faraday Discussions 114 (1999) 245

55. M. Li, L. Groß, W. Hebenstreit, U. Diebold, M.A. Henderson, D.R. Jennison, P.A. Schulz, M.P. Sears
"Oxygen-Induced Reconstruction of the TiO2(110) Surface: A Comprehensive Study", Surface Science 437 (1999) 173

54. M.A. Henderson, W.S. Epling, C.L. Perkins, C.H.F. Peden, and U. Diebold
"Interaction of Molecular Oxygen with the Vacuum Annealed TiO2(110) Surface: Molecular and Dissociative Channels"
Journal of Physical Chemistry B, 103 (1999) 5328 - 5337

53. L.P. Zhang, J. van Ek and U. Diebold
"Spatial Self-Organization of Nanoscale Structure on Pt(111) Surface"
Physical Review B, 59 (8) (1999) 5837 - 5846

52. K.A. Shaw, E. Lochner, D.M. Lind, J.F. Anderson, M. Kuhn and U. Diebold
"Magnesium outdiffusion through magnetite films grown on magnesium oxide (100) substrates" (abstract)
Journal of Applied Physics 81 (8) (1997) 5176

51. W.S. Epling, C.H. F. Peden, M.A. Henderson, and U. Diebold
"Evidence for Oxygen Adatoms on TiO2(110) Resulting from O2 Dissociation at Vacancy Sites"
Surface Science 412-413 (1998) 333 - 343

50. M. Li, W. Hebenstreit and U. Diebold
"Oxygen-Induced Restructuring of Rutile TiO2(110) Surface"
Surface Science Letters 414 (1/2) (1998) L951-959

49. L.P. Zhang, M. Li and U. Diebold
"Characterization of Ca Impurity Segregation on the TiO2(110) Surface"
Surface Science 412/413 (1998) 242 - 251

48. U. Diebold, J. Lehman, T. Mahmoud, M. Kuhn, W. Hebenstreit, G. Leonardelli, M. Schmid and P. Varga
"Intrinsic Defects on TiO2(110)(1x1) Surface and Their Reaction with Oxygen: A Scanning Tunneling Microscopy Study"

Surface Science 411 (1998) 137 - 153

47. U. Diebold, W. Hebenstreit, G. Leonardelli, M. Schmid and P. Varga
"High Transient Mobility of Chlorine on TiO2(110): Evidence for Cannon-ball Trajectories of Hot Adsorbates"
Physical Review Letters 81 (2) (1998) 405-408

46. P.S. Robbert, H. Geisler, C.A. Ventrice, Jr., J. van Ek, S. Chaturvedi, J.A. Rodriguez, M. Kuhn, and U. Diebold
"Novel Electronic and Magnetic Properties of Ultra-Thin Chromium Oxide Films on Pt(111)"
Journal of Vacuum Science and Technology A 16 (3) (1998) 990

(Invited) 45. U. Diebold
"Specimen Treatment: Preparation of Metal Compound Materials (Mainly Oxides), ", book chapter in: "Specimen Handling, Preparation, and Treatments for Surface Characterization." edited by A. W. Czanderna, C. J. Powell, and T. E. Madey. Plenum Publishing Corporation, New York, (1999) [8]

44. J.F. Anderson, M. Kuhn, and U. Diebold
"Epitaxially Grown Fe3O4 Thin Films - an XPS study"
Surface Science Spectra 4 (3) (1998) 266 - 272

43. U. Diebold and T.E. Madey
"TiO2 by XPS"
Surface Science Spectra 4 (3) (1998) 227 - 231

42. J.A. Rodriquez, S. Chaturvedi, M. Kuhn, J. van Ek, U.Diebold, P.S. Robert, H. Geisler, and C.A. Ventrice, Jr.
"H2S Adsorption on Chromium, Chromia, and Gold/Chromia Surfaces: Photoemission Studies"
Journal of Chemical Physics 107 (1997) 9146

41. M.Kuhn, J.F. Anderson, J. Lehman, T. Mahmoud, and U.Diebold
"Intrinsic Point Defects on a TiO2(110) Surface and Their Reaction with Oxygen: A Scanning Tunneling Microscopy Study"
Materials Research Society Symposium Proceedings, Vol. 474 (1997) "Epitaxial Oxide Thin Films III" edited by D.G. Schlom, C.-B. Eom, M.E. Hawley, C.M. Foster, and J.S. Speck, p.359.[1]

40. J.F. Anderson, M. Kuhn, U. Diebold, K.Shaw, P. Stroyanov, and D. Lind
"Surface Structure and Morphology of Mg-Segregated Epitaxial Fe3O4(001) Films on MgO(001)"
Materials Research Society Symposium Proceedings, Vol. 474 (1997) "Epitaxial Oxide Thin Films III" edited by D.G. Schlom, C.-B. Eom, M.E. Hawley, C.M. Foster, and J.S. Speck, p.265

39. L.P. Zhang, J. van Ek and U. Diebold
"Highly ordered nanoscale surface alloy formed through Cr-induced Pt(111) reconstruction"
Physical Review B v 57 n 8 (1998) R4285
[Featured as "Editor's Choice", MRS Bulletin October 1988, Vol.23, No. 10, p.17]

38. J.F. Anderson, M. Kuhn, U. Diebold, K. Shaw, P. Stoyanov and D. Lind
"Surface Structure and Morphology of Mg-Segregated Epitaxial Fe3O4 Thin Films on MgO(001)"
Physical Review B 56 (15) (1997) 9902

37. L.P. Zhang, M. Kuhn, and U. Diebold
"The Epitaxial Growth of Ultrathin Films of Chromium and Its Oxides on Pt(111)"
Journal of Vacuum Science and Technology A, 15 (3) (1997) 1576 - 1580

36. L.P. Zhang, M. Kuhn, U. Diebold, and J.A. Rodriguez
"Thermal Stability of Ultrathin Cr Films on Pt(111)"

Journal of Physical Chemistry B, 101 (23) (1997) 4588-4596

35. H.S. Tao, U. Diebold, N.D. Shinn, and T.E. Madey
"Decomposition of P(CH3)3 on Ru(0001): Comparison with PH3 and PCl3"
Surface Science 375 (1997) 257 - 267

34. L.P. Zhang, M. Kuhn, and U. Diebold
"Growth, Structure and Thermal Properties of Chromium Oxide Films on Pt(111)"
Surface Science, 375 (1997) 1- 12

33. L.P. Zhang, M. Kuhn, and U. Diebold
"Growth and Structure of Ultrathin Cr Films on Pt(111)"
Surface Science, 371 (1997) 223

32. U. Diebold, J.F. Anderson, K.-O. Ng, and D. Vanderbilt
"Evidence for the Tunneling Site on Transition Metal Oxides: TiO2(110)"
Physical Review Letters 77 (7) (1996) 1322-1325

31. U. Diebold, L. Zhang, J.F. Anderson, and P. Mrozek
"Surface Segregation of Silicon in platinum(111)",
Journal of Vacuum Science and Technology A 14 (3) (1996) 1679-1683

30. H.-S. Tao, U. Diebold, V. Chakarian, D.K. Shuh, J.A. Yarmoff, N.D. Shinn, and T.E. Madey
"Radiation-induced decomposition of PF3 on Ru(0001)"
Journal of Vacuum Science and Technology A 13 (5) (1995) 2553-2557

29. U. Diebold and N.D. Shinn
"Adsorption and Thermal Stability of Mn/TiO2(110): 2p X-ray Absorption Spectroscopy and Soft X-ray Photoemission"
Surface Science, Volume 343 (1995) 53-60

(Invited) 28. U. Diebold, J.-M. Pan, and T.E. Madey
"Ultrathin Metal Films on TiO2(110): An Overview"
Surface Science, Volume 331-333 (1995) 845

27. J. Mayer, E. Garfunkel, T.E. Madey, and U. Diebold
"Titanium and reduced titania overlayers on titanium dioxide (110)"
Journal of Electron Spectroscopy and Related Phenomena 73 (1995) 1-11

26. C. Dong, L. Zhang, U. Diebold, and T.E. Madey
"A Search For Surface Alloy Formation in Faceting Induced by Monolayer Metal Films: Pd/W(111) and Ni/W(111)"
Surface Science, Volume 322 (1995) 221 - 229

25. U. Diebold, H.-S. Tao, N.D. Shinn, and T.E. Madey,
"Electronic Structure of Ultrathin Fe films on TiO2(110) Studied with Soft X-ray Photoelectron Spectroscopy and Resonant Photoemission."
Physical Review B, Volume 50, No. 19 (1994) 14474 - 14480

24. J.-M. Pan, B.L. Maschhoff, U. Diebold, and T.E. Madey
"Local Structural Study of Ultrathin Metal Films on TiO2(110) using ARXPS and MEED"
in: "The Structure of Surfaces IV", p. 328
editors: X. Xie, S. Y. Tong, M.A. van Hove
(World Scientific, Singapore 1994)

23. V. Chakarian, D.K. Shuh, J.A. Yarmoff, H.-S. Tao, U. Diebold, B. Maschhoff, T.E. Madey, and N.D. Shinn
"The Influence of Pre-adsorbed K on the Adsorption of PF3 on Ru(0001) Studied by Soft X-ray Photoelectron Spectroscopy"
Journal of Chemical Physics 100 (7) (1994) 5301 - 5313

22. H.S. Tao, U. Diebold, T.E. Madey, and N.D. Shinn
"Surface chemistry of PH3, PF3 and PCl3 on Ru(0001)"
Surface Science 312 (1994) 323 - 344

(Invited) 21. P.Varga and U.Diebold
"Sputtering of Metals and Insulators with Hyperthermal Singly and Doubly Charged Rare Gas Ions"
in "Low Energy Ion-Surface Interactions" ed. J.W. Rabalais,
in "Advances in Ion Chemistry and Physics" J. Wiley & Sons Ltd. (1994) 355 - 385

20. U. Diebold and T.E. Madey
"Suppression of Electron Induced Positive Ion Emission by a Molecular Overlayer: Ion-Molecule Charge Exchange at a Surface"
Physical Review Letters 72 (7) (1994) 1116

19. U. Diebold, J.-M. Pan, L. Zhang, and T.E. Madey
"Growth of ultrathin transition metal oxide films on a reducible oxide surface"
Prodeedings of the Symposium of Surface Science, Les Arcs, Savoie, Francs 1994

18. J.-M. Pan, U. Diebold, L. Zhang, and T.E. Madey
"Ultrathin reactive metal films on TiO2(110): growth, interfacial reaction and electronic structure of chromium films"
Surface Science 295 (1993) 411- 426

17. T.E. Madey, U. Diebold, and J.-M. Pan
"The growth and structure of ultrathin metal films on TiO2(110)"
in "Adsorption on Ordered Surfaces on Ionic Solids and Thin Films",
E. Umbach and J.-J. Freund (eds.),
Springer Series in Surface Sciences Vol. 33 (1993),p. 147 - 155

16. J-M. Pan, B.L. Maschhoff, U. Diebold, and T.E. Madey
"Structural study of ultrathin metal films on TiO2 using LEED, ARXPS and MEED"
Surface Science, 291 (1993) 381 - 394

15. U. Diebold, J.-M. Pan, and T.E. Madey
"Ultrathin metal films on TiO2(110): Metal overlayer spreading and surface reactivity"
Surface Science 287/288 (1993) 896 - 900

14. U. Diebold, J.-M. Pan, and T.E. Madey
"Growth mode of ultrathin copper overlayers on TiO2(110)"
Physical Review B 47 (7) (1993) 3868 - 3876

13. T.E. Madey, H.S. Tao, L. Nair, U. Diebold, S.M. Shivaprasad, A.L. Johnson, A. Poradzsiz, N.D. Shinn, J.A. Yarmoff, V. Chakarian, and D. Shuh
"Structure and kinetics of electron beam damage in a chemisorbed monolayer:
PF3 on Ru(0001)"
In: "Desorption Induced By Electronic Transitions, DIET V",
Springer Series in Surface Science, Vol. 31 (1993), p. 182 - 188

12. U. Diebold and T.E. Madey

"Electron stimulated desorption (ESD) of ammonia on TiO2(110): The influence of substrate defect structure"
In: "Desorption Induced By Electronic Transitions, DIET V", Springer Series in Surface Science, Vol. 31 (1993), p. 284 - 288

11. J.-M. Pan, B.L. Maschhoff, U. Diebold, and T.E. Madey
"The interaction of water, oxygen and hydrogen with TiO2(110) surfaces having different defect densities"
Journal of Vacuum Science and Technology A 10 (1992) 2470 - 2476

10. U. Diebold and T. E. Madey
"Adsorption and electron stimulated desorption of NH3/TiO_2(110)"
Journal of Vacuum Science and Technology A 10 (1992) 2327 - 2335

9. D. Wutte, U. Diebold, M. Schmid, and P. Varga
"Sputtering of LiF(100) with low energetic Ne+ and Ne2+ ions"
Nuclear Instruments and Methods in Physics Research B65 (1992) 167 - 172

8. U. Diebold, D. Wutte, and P. Varga
"Electronic Effect in Low Energy Sputtering of Metals and Insulators"
Proceedings of the 6th International Symposium on Surface Science, Obertraun, Austria, 1991

7. U. Diebold and P. Varga
"Desorption and secondary ion production during bombardment of CO/Ni(111) with Ne+ and Ne++ ions at very low impact energies"
in: "Desorption Induced by Electronic Transitions, DIET IV", Springer Series in Surface Science, Vol. 19, Springer Verlag, Berlin 1991

6. U. Diebold , D. Wutte, and P. Varga
"Sputtering with low energy rare gas ions (10 - 500 eV)"
Proceedings of the 5th International Symposium of Surface Science, La Plagne/Savoie, France, 1990, p.177 - 180

5. U. Diebold, W. Möller, and P. Varga
"Low-energy ion impact desorption cross sections of carbon monoxide from Ni(111)"
Surface Science 248 (1991) 147 - 157

4. P. Varga, U. Diebold, and D. Wutte
"Electronic effects in low-energy ion sputtering of LiF"
Nuclear Instruments and Methods in Physics Research B58 (1991) 417 – 421

3. U. Diebold and P. Varga
"Influence of the primary ion charge state on secondary ion production: bombardment of CO/Ni(111) with Ne+, Ne2+, Kr+ and Kr2+ at low impact energies"
Surface Science Letters 241 (1991) L6 - L10

2. U. Diebold and P.Varga
"Determination of cross sections for CO desorption from Ni(111) induced by Ar ions at very low impact energy"
Vacuum 41 (1990) 210 - 212

1. U. Diebold, A. Preisinger, P. Schattschneider, and P. Varga
"Angle resolved electron energy loss spectroscopy on graphite"
Surface Science 197 (1988) 430 - 443

INVITED TALKS

A) Invited and Plenary Talks at Conferences:

104. Falko Netzer's Birthday Bash, Schladming, January 20 – 23, 2012
'TBA'
(upcoming)

103. Fall 2012 Materials Research Society Meeting, Symposium 'Oxide Semiconductors', organized by Tim Veal, Steve Durbin, Martin Allen, and Andre Schleife
'Surfaces of Sn-Doped and Undoped In_2O_3'
(upcoming)

102. American Ceramic Society 2012, Sosman Award Symposium honoring Prof. Dawn Bonnell, Pittsburgh, PA, October 10, 2012
'TBD'
(upcoming)

101. 244th Meeting of the American Chemical Society, Philadelphia, August 19-23 2012, Symposium 'Progress in electronic and vibrational spectroscopy of catalytic materials and catalytic reactions" (Catalysis Division)
'TBA'
(upcoming)

100. *Plenary Talk*, 2012 Brazilian Meeting in Condensed Matter Physics, Aguas de Lindoia, SP Brazil, May 14 – 18
'Defects, Molecules, and Nanostructures at Metal Oxide Surfaces'
(upcoming)

99. *Keynote Talk,* German Physics Society Meeting, Berlin, Germany, March 25 – 29, 2012
'TBD'
(upcoming)

98. American Chemical Society Spring Meeting, March 25 – 29, 2012, Symposium 'Frontiers in Catalysis', Division of Physical Chemistry
"Structural, Electronic, and Adsorption Properties of the Fe3O4(001) Surface"
(Talk will be given by Gareth Parkinson, upcoming)

97. Workshop on Novel Materials and Superconductors, Planneralm, February 11 – 18, 20112
'TBD'
(upcoming)

96. International Workshop on Oxide Surfaces, Baqueira-Beret, Spain, January 15 – 20, 2012
"STM investigations of pure and Sn-doped In_2O_3 surfaces"
(upcoming)

95. Bunsen Discussions Meeting, 'Photocatalysis', Heidelberg, October 12 – 14, 2011
"The Surfaces of a Prototypical Photocatalyst: TiO_2"

94. *Plenary Talk,* 28th European Conference on Surface Science, Wroclaw, Poland, 28 Aug – 2 Sep 2011,
"The Surface Science of Metal Oxides - Recent Progress, Current Challenges, and Future Directions"

93. Gordon Research Conference, New England University, Maine, July 27 – 22, 2011
'Structure/Function Relationships on Catalytic Crystal Surfaces', Discussion Leader, Catalysis

92. CECAM Workshop on Understanding Structure and Functions of Reducible Oxide Systems-a Challenge for Theory and Experiment, Zaragoza (Spain), June 20-23, 2011
"Structural, Electronic, and Adsorption Properties of the Fe_3O_4(001) Surface"

91. *Keynote speaker,* Joint Annual Meeting of Swiss and Austrian Physics Society, Lausanne, Switzerland, June 15 – 17, 2011
'Surface Structure and Adsorption at the Magnetite Fe_3O_4(001) Surface'

90. Workshop on Gas Sensors, Tübingen, June 6-7, 2011
"The surface structure and reactivity of transparent conducting oxides"

89. Materials Research Society Meeting, San Francisco, April 22 – 29, 2011
'Organic Molecules on TiO_2'

88. *Plenary talk,* Finnish Physics Society's Physics Days, Helsinki, Finnland, March 29 – 31, 2011
"Surfaces and the Nanoworld: Watching with the Scanning Tunneling Microscope, and Understanding with Density Functional Theory"

87. PCSI 2011, San Diego, CA January 16 – 20, 2011
"Adsorption of Dye Molecules on a Rutile TiO_2(110) Surface
(Speaker: Shaochun Li)

86. TiO_2-15, Town & Country Resort in San Diego, California, November 15-18, 2010,
"Surface Science Studies of TiO_2 Anatase"
(Speaker: Shaochun Li)

84-5. DoE-EFRC Director's Meeting, Baton Rouge, LA, November 2-3, 2010
'Designing Nanocatalysts via Atomically Controlled Metal Clusters and their Supports'
and: Shortcourse on Scanning Tunneling Microscopy

83. EMRS Meeting 13th-17th September 2010: Warsaw: Symposium on Semiconducting Oxides
"The Surface Structure of Epitaxial ITO(111) and (100) Thin Films"

82. TiO_2 CECAM Meeting, Bremen, Germany, Sept 6 – 10, 2010
"Adsorption and Reactions at the Anatase (101) Surface"

81. ECOSS-27, Groningen, August 29 – Sept 3, 2010
"Organic Molecules on TiO_2 surfaces"

80. NSOS Workshop, Matrei St. Michael, Tirol, Austria, June 20 – 22, 2010
"Surface Science Investigations of Metal Oxides: An Overview"

78-9. Telluride Workshop, Telluride, CO, July 26 -30, 2010
A. Surface Studies of TiO_2 Anatase"
B. Adsorbate-driven Metallization of the Fe_3O_4(100) Surface"

*77. NIST Workshop on EUV Optics Contamination, Gaithersburg, MD, June 2, 2009
"Carbon removal from EUV mirror cap layers; model studies"
Speaker: Chundao Wang

76. 56th International AVS Meeting, San Jose, Ca, Nov 8 – 13, 2009
"Metal Oxide Surfaces: Defects, Dopants, and Reactivity"

75. Summer school: Reactivity of nanoparticles for more efficient and sustainable energy production",
23-28 August 2009 Sandbjerg Gods, Denmark

"The surfaces of Semiconducting Metal Oxides"

*74. "Physical Chemistry of Interfaces and Nanomaterials" at the SPIE Engineering and Nanoscience Conference, San Diego, CA, August 2 – 6, 2009
"Surface Chemistry of TiO_2: Rutile and Anatase"
(Speaker: Shao-Chun Li)

73. "LASPM-V" Latin American Conference on Scanning Probe Microscopy', Vina del Mar, Chile, May 27 – 29, 2009
"STM Studies of Metal Oxide Surfaces: Structure, Defects and Water Adsorption on Titania"

72. Workshop on "Desorption Induced by Electronic Transitions – DIET XII", Callaway Gardens, Pine Mountain GA, USA, April 19 -24, 2009
"Radiation-induced Defects and Surface Chemistry on TiO2"

71. Workshop on Functional Oxides for Renewable Energy Sciences and Technologies (FOREST), Harvard University Center for Environment (HUCE), March 5-6, 2009
"The Surfaces of TiO_2: (Defect) Structure, Electronic Structure, and Adsorption"

70. 55th International AVS Meeting, Boston, MA, Oct 23, 2008
"Defects on TiO_2 Anatase (101) are located Subsurface" (Post-deadline talk)

69. Ted Madey Memorial Symposium, 55th International AVS Meeting, Boston, MA, Oct 23, 2008
"The surface science of oxides: starting with, and going beyond, rutile TiO2(110)"

67. Department of Energy Frontiers of Atomic-Scale Functionality Imaging Workshop, Annapolis, MD, September 28 – 29, 2008
"Imaging of Metal Oxide Surfaces – Structure, Defects, Adsorbates, and Functionality"

66. XXIX CBRAVIC (Brazilian Congress of Vacuum Applications in Industry and Science), 2008, Joinville, SC - Brazil, September, 23 to 26, 2008
"Surface Science of Metal Oxides: From Atoms to Applications"

67. NSF-EPSCoR Workshop on Ferroelectric and Multiferroic Materials and Nanostructures, U. Arkansas Fayetteville, August 18 – 19, 2008
"Surface Science of Metal Oxides"

64. GOSPEL Workshop on Surface/Adsorbed Oxygen on Metal Oxide Surfaces – Role in Gas Sensing and Catalysis, Tübingen, Germany, May 12 – 13, 2008
"STM imaging of clean and adsorbate-covered metal oxide surfaces"

63. Summer School, "Modern Concepts for Creating and Analyzing Surfaces and Nanoscale Materials", May 12-16, 2008 at the Hotel Eden Roc, 17220 Sant Feliu de Guixols, Girona, Spain
a. "Scanning Tunneling Microscopy of Metal Oxides: What one can (and cannot) see with STM
b. "The Surfaces of Transparent Conducting Oxides"

62. Institute of Science and Technology, Vienna, Austria, Symposium: Frontiers in Materials Science, April 25/26, 2008
"Semiconducting Metal Oxides: Surfaces, Interfaces, and Nanostructures"

61. Tulane School of Science and Engineering Research Day, April 10, 2008
Outstanding Researcher Award Presentation
"Surface Science: From Atoms to Applications"

60. American Physical Society March Meeting, New Orleans, LA, March 10 – 14, 2008
"Tailoring Surface Reactivity of Metal Oxides"

59. Spring Meeting of the German Physical Society, Berlin, Feburary 25 – 29, 2008
"The surfaces of bulk semiconducting metal oxides"

58. Annual Laboratory for Surface Modification Symposium, Rutgers University, Piscataway, NJ, February 15, 2008
Highlight Speaker, in Honor of Prof. Theodore E. Madey's 70th Birthday
"The surfaces of titanium dioxide: following the trail blazed by Prof. T.E. Madey"

57. 17th International Vacuum Congress (IVC-17), 13th International Conference on Surface Science (ICSS-13), International Conference on Nanoscience and Technology 2007 (ICN+T 2007), 6th Nordic Conference on Surface Science (NCSS-6), 22nd Nordic Semiconductor Meeting (NSM-22) and 4th Swedish Vacuum and Materials Science Meeting (SVM-4), July 1-6, 2007, Stockholm, Sweden
"Surface Investigations of Oxide Surfaces: One-dimensional Growth of Pd Nanoclusters on SnO2(101)"

56. 1st GOSPEL Workshop "Low dimensional and nanostructured oxides: bridging surface science and sensor science", June 15-17, 2007, Tübingen, Germany
"Surface Science Investigations of (Semi-)Conducting Metal Oxides"

55. ACS National Spring Meeting, Symposium honoring Profs. Freund, Koel, Yates, and Campbell, Chicago, March 25-29, 2007
"Surface Investigations of Semiconducting Metal Oxides"

54. Gordon Research Conference 'Chemical Reactions at Surfaces', Ventura, Ca, Feb 11 – 16, 2007
Session chair and discussion leader – 'Imaging at the nanoscale'

53. ACS National Fall Meeting, Division of Physical Chemistry, Fundamentals of Metal Oxide Catalysis Symposium, San Francisco, September 10 - 14, 2006
"The face-dependent structure and reactivity of TiO2 surfaces"

52. ACS National Fall Meeting, Colloid and Surface Science Division, Symposium on Dynamics and Reactivity of Individual Molecules/Clusters, San Francisco, September 10 – 14, 2006
"Structure, dynamics, and clusters on metal oxide surfaces"

51. European Conference on Surface Science (ECOSS-24), Paris, France, Sept 4 – 8, 2006
"Metal oxide surfaces: Geometric structure, defects, and molecular adsorption viewed with atomic-scale resolution"

50. Water Festival IV, Delaware Biotechnology Institute, University of Delaware, Newark, DE, Nov. 22, 2005
"Water Adsorption on Metal Oxide Surfaces"
(Speaker: Olga Dulub)

49. 52nd Symposium of the American Vacuum Society, Boston, MA, Oct 5 – Nov 30, 2005
"Structure, defects, and adsorption on metal oxide surfaces"

48. Workshop on Opportunities in Nanocatalysis, Brookhaven National Laboratory, October 19 – 21, 2005
"Surface Structure and Reactivity of Titanium Dioxide"

47. European Conference on Surface Science, ECOSS-23, Berlin, Germany, Sept. 4 – 9, 2005
"Surface Structure and Chemistry of TiO2"
(Speaker: Matthias Batzill)

46. ASEVA Summer School, WS-17, on Characterization and Properties of Titanium Dioxide, Avila, Spain, July 25-27, 2005

“Orientation-dependent surface properties of TiO2: the rutile (011) face”

45. 8th International Conference on the Structure of Surfaces, ICSOS-8, Munich, Germany, 18-22 July 2005.
“Structure and Stoichiometry at Metal Oxide Surfaces”

44. 89th International Bunsen Discussion Meeting, "Chemical processes at oxide surfaces: from experiment to theory”, Hennesee, Germany, June 15-17, 2005
“The Adsorption of Water on Single-crystalline Metal Oxide Surfaces”

43. DoE/BES Catalysis Program Contractor’s Meeting, Rockville Maryland, May 18 – 21, 2005
“Surface Science Investigations of Titanium Dioxide: Relevant for Photocatalysis?”

42. Austrian Scientists and Scholars in North America, ACSINA 2005, Vienna, Austria, April 27 – 29, 2005
“Nanoscience and Surfaces: Watching Atoms with Scanning Tunneling Microscopy”

41. Third meeting of the Study of Matter at Extreme Conditions (SMEC), Miami Beach, April 17-21, 2005
“Surface electronic structure and interface properties of the compositional variants of SnO2(101)”
(Presenter: Dr. Matthias Batzill)

40. American Chemical Society Meeting, San Diego, March 22, 2005
“Growth and Properties of Oxide-supported Nanoclusters”

39. Jahrestagung der Österreichischen Physikalische Gesellschaft, Linz, Austria, September 28 –30, 2004
“The surface structure of TiO2(110)-(2x1)”

38. XI Latin American Congress of Surface Science and its Applications (XI CLACSA), Pucón, Chile, December 7 - 12, 2003
"Atomic-scale Studies of Metal Oxide Surfaces"

37. 7th International Conference on Atomically Controlled Surfaces, Interfaces and Nanostructures (ACSIN-7), Nara, Japan, 16-20 November, 2003
"Atomic-scale properties of oxide surfaces"

36. Gordon Conference on Chemical Reactions at Surfaces, Ventura, California, February 16 - 21, 2003
"Scanning Tunneling Microscopy Studies of Semiconducting Metal Oxides"

35. International Workshop on Oxide Surfaces (IWOX-III), Sapporo, Japan, January 27 - 31, 2003
"STM Studies of Tin Oxide Surfaces"
(Speaker: Matthias Batzill)

34. Chemical Physics of Nanostructured Surfaces, Workshop Schloß Ringberg/Tegernsee, Germany, Sept. 29 - Oct. 05, 2002
"Nanostructures and Surface Reactivities of TiO2"

33. Universität Bonn, Festkörpertag, 19. Juli 2002
"Polare Zinkoxidoberflaechen: Rätsel gelöst?"

32. EURESCO Conference on Fundamental Aspects of Surface Science -- Structure and Reactivity of Oxide Surfaces, Acquafredda di Maratea, Italy, 1-6 June 2002
"STM Studies of Clean and Cu-Covered ZnO Surfaces"

31. Louisiana Board of Regents, Sponsored Program Committee Meeting, Baton Rouge, LA, March 20, 2002

"Enhancing Research and Education in Nanoscale Science"

30. Frühjahrstagung der Deutschen Physikalischen Gesellschaft (Spring Meeting of the German Physical Society), Regensburg, Germany, March 11 - 15, 2002
"Struktur und Eigenschaften von TiO2 Oberflächen"

29. EURESCO Conference Computer Simulation of Complex Interfaces: Out of the Vacuum into the Real World", Giens, France, Sept 7 - 12, 2001
"The Interplay between Bulk Defect Structure and Surface Reactions on Reducible Metal Oxides"

28. STM'01, Vancouver, July 16-20, 2001
"Defects and Adsorbates on Metal Oxide Surfaces"

27. American Physical Society, March Meeting, March 12 - 16, 2001, Seattle, Washington
"Growth and Fate of Ultrathin Metal Film Overlayers on TiO2(110)"

26. International Workshop on Oxide Surfaces (IWOX-2), Taos, New Mexico, January 15 - 19, 2001
"Adsorption Mechanisms and Structure on TiO2 surfaces"

25. Materials Research Society Fall Meeting, Boston, December 2000
"Understanding Metal Oxide Surfaces at the Atomic Scale"

24. Louisiana Materials Science Conference, University of New Orleans, New Orleans, LA, Aug. 17-18, 2000
"Surface Science Investigations of Oxide Materials"

23. User's Meeting, Center for Advanced Microstructure and Devices, CAMD, Louisiana State University, Baton Rouge, Louisiana, April 8, 2000
"Atomic and Electronic Structure of Adsorbates of TiO2"
(Presenter: Wilhelm Hebenstreit)

22. US-Japan Seminar on Mesoscopic Processes on Surfaces, Park City, Utah, April 2-8, 2000.
"The Relationship between Bulk and Surface Properties of TiO2(110)"

21. Faraday Discussions 114, Surface Science of Metal Oxides, University College of St. Martin, Ambleside, UK, Sept. 1-3, 1999
"Oxygen-Induced Restructuring of Rutile TiO2(110): Formation Mechanism, Atomic Models, and Influence on Surface Chemistry"

20. Annual EMSL User Meeting, Pacific Northwest National Laboratory, June 21 - 24, 1999
"Surface Preparation of Metal Oxides -- Who Would've Thought Life is THAT Complicated?"

19. International Symposium on Oxide Surfaces, Elmau, Germany, January 1999
"Surface Structure and Reactivity of TiO2(110)"

18. Southeastern Section of the American Physical Society, Miami, Nov. 13-17, 1998
"The Surface Science of Metal Oxides: A Step Towards More 'Realistic' Model Systems"

17. American Vacuum Society Meeting, Baltimore, November 1998
"Strong-metal Support Interaction: The Ultimate Experiment"
Speaker: Wilhelm Hebenstreit
Post-deadline paper

16. American Vacuum Society Meeting, Baltimore, November 1998
Coadsorption Studies with Water: a Small Step Toward Understanding the Surface Chemical and Photochemical Properties of TiO2

(M. A. Henderson (presenter), W.S. Epling, C.H.F. Peden, U. Diebold)

15. 33rd Midwest Regional Meeting of the American Chemical Society, Wichita, Kansas, November 4 - 7, 1998
"Lessons from Atomic-Scale Investigations of Oxide Surfaces: Surface Defects, Adsorption Models, and Surface Restructuring"

14. 1997 Pacific Northwest AVS Symposium
September 15-19, 1997, Troutdale, Oregon
"Scanning Tunneling Microscopy of TiO2(110): Surface Defects and Adsorption of Chlorine"

13. German Physical Society, Fachtagung Festköperphyisk, Münster, Germany, March 17-21, 1997
"Atomic-Scale Pattern formed through Cr-induced Strain Relaxation of Pt(111)"
Post-deadline Paper

12. Symposium on Metal-Ceramic Interfaces, TMS Fall Meeting, Cincinnati, Oct 7-10, 1996
"What can we learn from Surface Science? An atomistic view on metal-oxide surfaces and interfaces"

11. Muddy Quantum Fest, April 1996 Baton Rouge, LA
"An atomic-scale view on surfaces: What can we learn"
(Speaker: J.F. Anderson)

10. Southeastern Section Meeting of the American Physical Society, November 1995, Tallahassee,
"Atomic-Scale Investigations and Modifications of Metal Oxide Surfaces"

9. Society of Engineering Science, 32nd Annual Technical Meeting, Oct. 1995, New Orleans, LA
"Investigating the First Few Atomic Layers of A Solid: Surfaces, Interfaces and Technology

8. Materials Research Society, Fall Meeting, November 1994, Boston, MA
"Growth and Characterization of Metal Films on Metal Oxide Surfaces"

7. European Conference on Surface Science, Sept. 1994, Leipzig, Germany
"Ultrathin Metal Films on Metal Oxides"

6. Symposium on Surface Science, March 1994, Les Arcs, Savoie, France
" Growth of Ultrathin Transition Metal Films on a Reducible Metal Oxide Surface",

5. AVS Symposium on "The Physics and Chemistry of Metal/Oxide Interfaces",
September 23, 1992, Rutgers, New Jersey, USA
"Ultrathin Metal Overlayers on TiO2(110)"

4. International Conference on Sputtering, Sput '92
August 30 - September 4, 1992, Copenhagen, Denmark
"The Influence of Sputter-Created Defects on the Reactivity of TiO2(110)"
3. 5th International Workshop on Desorption Induced By Electronic Transitions,
April 1 - 4, 1992, Taos, New Mexico, USA
"Electron Stimulated Desorption of Ammonia on TiO2(110): The Influence of Substrate Defect Structure on ESD"

2. Symposium on Surface Science,
Feb. 11 -15, 1991, Obertraun, Austria
"Electronic Effects During Sputtering of Metals and Insulators"

1. 8th International Workshop on Inelastic Ion Surface Collisions, Sept. 17 - 21, 1990, Wiener Neustadt, Austria "Interaction of Very Low Energy Rare Gas Ions with Surfaces: Sputtering and Secondary Ion Production from Insulators and Metals"

B) Lectures, Seminars, and Colloquia at Universities and Research Institutions:

100. Colloquium, Nanoscience Institute, University of Modena, Modena, Italy, November 6, 2012
'TBA'
(upcoming)

99. Physics Colloquium, U. of Groningen, Netherlands, March 1, 2012
'Defects, Molecules, and Nanostructures at Metal Oxide Surfaces'
(upcoming)

99. Round Table Discussion with Physics Students, 24. January 2012
"Oberflächenphysik: das Tor zur weiten Welt (und der Weg zurück nach Wien)"

98. KFU/TU Physics Colloquium, Graz, November 29, 2012
'Metal Oxide Surfaces Viewed at the Atomic Scale'

97. Seminar, U. Erlangen, May 5, 2011
'An Atomic-Scale View of Metal Oxide Surfaces'

96. Kolloquium, CPG Society, Universität Wien, February 22, 2020
'Organic Molecules At Oxide Surfaces'

95. Kolloquium, Gesellschaft Österreichischer Chemiker, University of Innsbruck, Austria, January 10, 2011
"Surface Science Investigations of Metal Oxides"

94. Seminar, Charles University in Prague, Czech Republic, December 14, 2010
'The surfaces of Sn-doped In_2O_3 (111) and (100)'

93. Physics Colloquium, University of Linz, Austria, December 9, 2010
'Organic Molecules on Oxide surfaces'
(upcoming)

92. University of Leoben, Austria, December 7, 2010
'Organic Molecules on Oxide surfaces'

91. Max-Planck Institut für Festkörperforschung, Dept Prof. J. Maier, Stuttgart, May 11, 2010
"Surface Processes at Oxides, Resolved with STM, and Explained with DFT"

90. Institute of Solid State Physics, TU Vienna, Austria, April 20, 2010
"Surface Science Investigations of Metal Oxides: Applications, Fundamentals, and Insights"

89. Seminar, University of Darmstadt, Germany, March 18, 2010
"The Surfaces of Epitaxial ITO(100) and (111) Films"

88. Seminar, University of Tübingen, Tübingen, Germany, March 16, 2010
"The Surfaces of Epitaxial ITO(100) and (111) Films"

87. Project Report, Intel Corp., Hillsboro, Oregon, December 10, 2009
"Formation and remediation of model C layers on oxide surfaces"

86. University of Florida, Gainesville, Fl, October 7, 2009
"Atomic-Scale Investigations of Metal Oxide Surfaces"

85. Loyola University of New Orleans, New Orleans, LA, February 2, 2009
"Investigating Surfaces with Scanning Tunneling Microscopy – Atom by Atom and Molecule by Molecule"

84. Project Report, Intel Corp., Hillsboro, Oregon, November 27, 2008
"Adsorption of strongly adsorbing organics on TiO_2 and Al_2O_3 surfaces"

83. Seminar, IFW Dresden, Dresden, Germany, June 17, 2008
"Surfaces of Metal Oxides"

82. Colloquium, Forschungszentrum Rossendorf, Dresden, Germany, June 16, 2008
"Surfaces of Oxide Materials: Linking Atomic-Scale Science with Applications"

81. Seminar, Institut für Allgemeine Physik, TU Wien, Vienna, Austria, May 15, 2008
"Oberflächeneigenschaften oxidischer Materialien"

80. Project Report, Intel Corp., Hillsboro, Oregon, November 27, 2007
"Adsorption and radiation effects on TiO_2 surfaces"

79. Seminar, Sandia National Laboratories, Albuquerque, New Mexico, August 15, 2007
"Nanostructures on TiO_2 Surfaces"

78. Seminar, Max-Planck Insitut für Metallphysik, Stuttgart, Germany, June 15, 2007
"Surface Science Investigations of Semiconducting Metal Oxides"

77. Colloquium, Department of Physics, Louisiana State University, Baton Rouge, LA, Nov 9, 2006
"Surface Investigations of Metal Oxides"

76. Seminar, Department of Physics, University of New Orleans, New Orleans, LA, Nov 8, 2006
"Surface Investigations of Metal Oxides"

75. Colloquium, Department of Physics, University of South Alabama, Mobile, AL, Nov 2, 2006
"Surface Investigations of Metal Oxides"

74. Seminar, Department of Applied Science, UC Davis, Davis, CA, March 21, 2006
"An Atomic-Scale View of Transition Metal Oxide Surfaces"

73. Seminar, Michigan State University, Lansing, Michigan, March 3, 2006
"An Atomic-Scale View of Transition Metal Oxides"

72. Colloquium, Department of Physics and Astronomy, Rutgers, The State University of New Jersey, December 2005
"Atomic Structure and Dynamics at Oxide Surfaces"

71. Department of Chemistry, University of Illinois at Chicago, December 12, 2005
"Oxides, Defects, and Surface Reactivity: What Can We Learn from Atomic-Scale Studies?"

70. Seminar, Center for Functional Nanomaterials, Brookhaven National Laboratory, December 7, 2005
"An Atomic-Scale View of Transition Metal Oxides"

69. Department of Materials Science and Engineering, Rutgers, The State University of New Jersey, November 29, 2005
"An Atomic-Scale View of Transition Metal Oxide Surfaces"

68. Seminar, Department of Applied Physics, Columbia University, New York, November 18, 2005
"An Atomic-Scale View of Transition Metal Oxide Surfaces"

67. Condensed Matter Seminar, Department of Physics, University of Maryland, November 17, 2005
"Surface Investigations of Pure and Doped Transition Metal Oxides"

66. Seminar, Department of Chemistry, Princeton University, Princeton, NJ, November 8, 2005
"An Atomic-Scale View of Transition Metal Oxide Surfaces"

65. Department of Physics, Loyola University, New Orleans, LA, February 24, 2005
"Scanning Tunneling Microscopy on Metal Oxide Surfaces"

64. Medtronic Corp. Minnesota, MN, October 5, 2004
"Oxide films (semiconducting/dielectrics) from surface science perspective"

63. Florida International University, Miami, FL, February 13, 2004
"Scanning Tunneling Microscopy on Metal Oxide Surfaces"

62. University of Tokyo, Tokyo, Japan, November 21, 2003
"Atomic-Scale Investigations of Semiconducting Metal Oxides"

61. Xavier University of Louisiana, October 16, 2003
"How About Seeing Atoms? Scanning Tunneling Microscopy on Metal Oxide Surfaces"

60. Iowa State University, Physical Chemistry Seminar Series, September 26, 2003
"Metal Oxide Surfaces Studied at the Atomic Scale"

59. Technische Universität München, Fakultät für Chemie, Garching, Germany, June 30, 2003
"Oberflächenuntersuchungen an Oxiden und geträgerten Clustern"

58. Technische Universität Wien, Institut für Materialchemie, Vienna, Austria, June 13, 2003
"Rastertunnelmikroskopie an halbleitenden oxidischen Oberflächen"

57. Technische Universität Wien, Institut für Festkörperphysik, Vienna, Austria, May 27, 2003
"Charakterisierung und Wachstum von neuen elektronischen Materialien"

56. Southeastern University of Louisiana, Hammond, LA, March 14, 2003
"What is a polar surface, why should it not be there, and how come it's there anyway?"

55. University of California, Santa Barbara, February 21, 2003
"Nanostructures and Surfaces of TiO_2"

54. Seminar, National Institute of Standards and Technology (NIST), Gaithersburg, Maryland, February 7, 2003
"Polar ZnO surfaces -- Puzzle Solved, Halfway!"

53. Colloquium, Karl-Franzens Universität and Technische Universität Graz, December 10, 2002
"Nanostrukturen und Oberflächen auf Titandioxid"

52. Humboldt Universität zu Berlin, December 2, 2002
"Oberflächenstruktur und Wachstum auf ZnO"

51. Aarhus University, November 26, 2002
"Surface Structures and Growth on ZnO"

50. Insitut für Physikalische Chemie, Universität Bochum, Germany, Nov. 18, 2002
"TiO_2 -- Struktur(en) und Reaktivität"

49. Institute of Ion Beam Physics and Materials Research, Forschungszentrum Rossendorf, Germany, Nov.13, 2002

"Oberflächen von oxidischen Materialien"

48. Freie Universität Berlin, November 12, 2002
"STM Untersuchungen niedrigindizierter ZnO - Oberflächen"

47. University of Ulm, Germany, July 23, 2002
"Titanium Dioxide -- Surface Structure, Chemistry, and Modifications"

46. Fritz-Haber-Institut der Max Planck Gesellschaft, Berlin, June 2002
"Polar ZnO Surfaces: Morphology, Stabilization Mechanisms, and Cluster Growth"

45. Institut für Materialphysik, Universität Wien, May 29, 2002
"Polare ZnO Oberflächen: Oberflächenmorphologie und Stabilisierungsmechanismen"

44. Universität Osnabrück, April 29, 2002
"Rastertunnelmikroskopie an oxidischen Oberflächen"

43. Universität Konstanz, Germany, May 2, 2002
"Oberflächen und Grenzflächen oxidischer Materialien"

42. University of Louisiana at Lafayette, Feburary 27, 2002
"Surface Science Investigations of Metal Oxides"

41. University of South Carolina, Columbia, South Carolina, Feburary 1, 2002
"Surface Investigations of Single Crystalline Oxide Materials"

40. Universite Fribourg, Fribourg, Switzerland, November 21, 2001
"Struktur und Reaktivität von Oxidischen Oberflächen"

39. Technische Universität München, October 22, 2001
"Oberflächenphysik an oxidischen Materialien"

38. Loyola University, New Orleans
"Looking at Atoms at Surfaces"
October 8, 2001

37. Universiteit Leiden
"Electronegative Adsorbates on TiO2(110): Adsorption Mechanisms and Structures"
May 2001

36. Universiteit Amsterdam
"Surface and Interface Processes on Metal Oxides: The Known, the New, and the Unexpected"
May 2001

35. Florida State University, Tallahassee, Fl, March 2, 2001
"Adsorption of molecules on surfaces: Why oxides are different"

34. University of Houston, Texas, December 2000
"Gas adsorption on an Oxide Surface"

33. Solid State Seminar at Yale University, New Haven, CT, Dec. 1, 2000
"Gas adsorption on a reducible metal oxide surface: Why the bulk matters"

32. Seminar at Technische Universiteit Eindoven, Netherlands, May 17, 2000
"The adsorption of chlorine and sulfur on TiO2(110)"

31. Colloquium at Technische Universiteit Eindhoven, Netherlands, May 18, 2000
"Growth and Characterization of Nanostructures"

30. Colloquium at Ludwigs-Maximilians University, Munich, May 24, 2000
"Struktur und Oberflächeneigenschaften von Titandioxid"

29. Colloquium at the University of Ulm, Ulm, Germay, June 8, 1999
"Oberflächenstrukturen und Adsorptionsvorgänge auf Titandioxid"

28. Seminar the University of Houston, April 2, 1999
"Surface Structure(s) and Reactivity of the TiO2(110) Surface"

27. Seminar at Rice University, Houston, April 1, 1999
"Surface Structure(s) and Reactivity of the TiO2(110) Surface"

26. Colloquium at the Technische Universität Graz, Austria, March 25, 1999
"Wachstum und Charakterisierung von Nanostrukturen"

25. Seminar at Dept. of Physics, Tulane University, New Orleans, LA, Nov. 1998
"The Surface Science of Metal Oxides"

24. Seminar at the University of New Orleans, New Orleans, La, October 1998
"Looking at the Atomic Structure of Oxide Surfaces"

23. Seminar at Fritz-Haber Institut, Berlin, Germany, June 11, 1998
"Scanning Tunneling Microscopy Studies of TiO2(110)"

22. Seminar at Universität Clausthal, Germany, June 10, 1998
"The TiO2(110) Surface"

21. Seminar at Max-Planck Institut für Strömungsforschung, Göttingen, Germany, June 9, 1998
"Ultrathin Chromium and Chromium Oxide Films on Pt(111)"

20. Colloquium at Universität Würzburg, June 8, 1998
"Growth of Ultrathin Chromium and Chromium Oxide Films"

19. Colloquium at Institut für Allgemeine Physik, Technische Universität Wien, Vienna, Austria, June 4, 1998
"Interface Phenomena on Oxide Surfaces"

18. Seminar at University of Osnabrück, May 27, 1998
"Ultrathin Film Growth on Pt(111): Interface Phases and Self-Organized Structures"

17. Colloquium at Universität Bremen, Germany, May 26, 1998
"Reconstructions, Adsorption and Film Growth on TiO2(110) surfaces"

16. Seminar at Rutgers, The State University of New Jersey
Dec. 8, 1997
"Scanning Tunneling Microscopy of TiO2(110): Point defects, Reconstructions, and the Adsorption of Chlorine"

15. Seminar at the Pacific Northwest Laboratory, Richland, WA
Sept 23, 1997
"Surface Defects and Chemistry on TiO2(110) Probed with Scanning Tunneling Microscopy"

14. Seminar at the University of Washington, Seattle, WA
Sept 12, 1997
"Scanning Tunneling Microscopy of Oxides: Challenges, Puzzles, and Insights"

13. Seminar at Institut für Allgemeine Physik, Technische Universität Wien
May 27, 1997
"Oberflächenphysikalische Untersuchung von oxidischen Oberflächen"

12. Seminar at the Karl-Franzens Universität Graz
May 14, 1997
"Growth of ultrathin metal and metal oxide films: a comparison"

11. Seminar at the University of New Orleans, New Orleans, La
November 6, 1996
"Ultrathin Film Growth Studies"

10. Seminar at Pacific Northwest Laboratories, Richland, WA
January 8, 1996
"Atomic Scale Investigation and Modification of Metal Oxide Surfaces"

9. Seminar at the University of Washington, Seattle, WA
Janury 5, 1996
"The Electronic Structure of Metal Oxide Surfaces Probed by Resonant Photoemission and Scanning Tunneling Microscopy"

8. Seminar at the Department of Chemical Engineering, Tulane University, New Orleans, Louisiana, Sept. 19, 1994
"Metal Films on Metal Oxide Surfaces"

7. Seminar at the Department of Physics and Astronomy, Tulane University, New Orleans, Louisiana, March 11, 1993
"Ultrathin Metal Overlayers on Oxide Surfaces: Growth, Structure and Interface Formation"

6. Seminar at the National Institute of Standards, Gaithersburg, Maryland
Feb. 3, 1993
"Ultrathin Metal Films on TiO2(110): Growth, Structure and Surface Reactivity"

5. Seminar at the University of Odense,
Oct. 20, 1992, Odense, Denmark
"Interaction of molecules with stoichiometric and non-stoichiometric TiO_2 surfaces"

4. Seminar at the University of Osnabrück
Oct. 19, 1992, Osnabrück, Germany
"Adsorption und elektronenstimulierte Desorption von Molekülen auf Titandioxidoberflächen"

3. Seminar at Institut für Allgemeine Physik, Technische Universität Wien,
Feb. 4, 1992
"Metallische und Molekulare Adsorbate auf einer Oxidoberfläche"

2. Seminar in Rutgers, The State University of New Jersey, Piscataway, N. J., U.S.A.
June 15, 1990,
"Interaction of Very Low Energy Rare Gas Ions with CO/Ni(111)"

1. Seminar at the Institut für Allgemeine Physik, Technische Universität Wien, Vienna, Austria
May 6, 1990
"Ioneninduzierte Desorption von niederenergetischen Edelgasionen mit CO/Ni(111)"

C) Contributed Talks and Poster Presentations by Diebold group: >160 (list available upon request)

TEACHING AND ADVISING:

Regularly Taught Classes:

General Physics I and General Physics II (Calculus Based Introductory Physics), PHYS 131 and PHYS 131
Introductory Physics I (PHYS 121, Algebra-based introductory course)
'Research' PHYS 792, 792, 793, and 794 Graduate Courses
Independent Study for Undergraduate Students
"Surface Science" PHYS 608 (Graduate Course)
"Solid State Physics", PHYS 713 (Graduate Course)
"Nanoscience", PHYS 630 (Graduate Course)
Special Course "Physics and Chemistry of Oxide Surfaces" (in Vienna, Austria), 135.053
Undergraduate Seminar, PHYS 380

Dissertations Directed:

At Tulane:

Lanping Zhang (Graduated: May 1998, went to University of Delaware)
Min Li, now Yale University (Graduated July 2000, went to Yale University)
Eleonore L.D. Hebenstreit, (Graduated December 2000, co-advisor with Peter Varga, U. of Technology, Vienna, Austria, went to U. Berkeley)
Barbara Stanka, (Graduated in March 2000 co-advisor with Peter Varga, U. of Technology, Vienna, Austria, Masters Thesis, now Integrated Logistics Support)
Olga Dulub (Graduated in December 2002, went to Tulane University)
Nancy J. Ruzycki, (Graduated in December 2003, went to Colorado State University)
T.J. Beck (M. Sc., May 2004, went to Georgia Tech)
Peter Vaughan (M. Sc., May 2006, now graduate student at Georgia Tech)
William Shensky, (Master's student, co-advising with Prof. Richard Gonzalez, Chemical Engineering, Spring 2009)
Khabibullakh Katsiev (Graduated October 2008, went to MIT as a post-doc Fall 2007)
Erie Morales (graduated April 2010, went to U. Penn as a post-doc)
Peter Jacobson (5^{th} year graduate student, expected to graduate 2012)
Chuandao Wang (M. Sc. January 2010, went to Northwestern U. as a graduate student)
Yuyan Lin (M. Sc. January 2010, went to Northwestern U. as a graduate student)

At the TU Vienna:

Diploma Thesis: Bernhard Stöger, Growth and Characterization of Graphene Layers on Ni(111) 2010 – 2011
Diploma Thesis: Daniel Hagleitner 'Surface of an In_2O_3 Single Crystal)', 2010 – 2011
Diploma Thesis: Martin Fidler 'Electron-induced defects on anatase (101)', 2010 – 2011
Diploma Thesis: Manfred Menhard 'Surface Properties of Indium Oxide' 2011 – 2012
Philipp Scheiber, Ph.D. Student (2010 -)
Zbynek Novonty, Ph.D. Student (2010 -)
Jiri Pavalec, Ph.D. Student (2011 -)
Bernhard Stöger, Ph.D. Student (2011 -)

Post-doctoral Research Associateds Supervised Directed:

At Tulane:

Pawel Mrozek (Tulane/LEQSF support, went to Surface Science Lab, Micron Technologies)
Markus Kuhn (DoE/NSF support, went to Intel)
Wilhelm Hebenstreit (DoE/NSF support, went to OCLI)
Eleonore L.D. Hebenstreit (DoE support, went to U. California, Berkeley)
John Anderson (LEQSF support, now Faculty a the University of Louisiana at Monroe)
Matthias Batzill (NSF/NASA support, now Faculty at the University of South Florida, Tampa)
Igor Kuyanov (DoE support, Center for Nanotechnology, St. Petersburg Academic University)
Olga Dulub (NSF support, now on maternity leave)
Lynn Koplitz Vogel (Visiting Professor from Loyola University, NSF support)

Andreas Klust (NASA support, now Harvard University)
Alim Alchagirov (NSF support, now post-graduate education at Berkeley Business School)
Yu Wang (Intel support, now Pilkington (Toledo, Ohio))
Robert Combs (Intel support, now Occidental Petroleum Corporation)
Yunbin He (DoE, now faculty at Hubei University)
Jianguo Wang (Tulane/DoE support, now faculty at Hangzhou University, China)
Shao-Chun Wang (DoE Support, now Research Professor at Tulane)
Gareth Parkinson (NSF Support, TU Vienna Support)
Jasim Uddin (Tulane Research Enhancement Grant, now faculty at Shahjalal University of Science and Technology; Bangladesh)
Michael Johnson (Intel Support, now Researcher Tulane)

At the TU Vienna:

Gareth Parkinson (TU Vienna Support)
Zhiming Wang (FWF Support)
Martin Setvin (ERC support)

Short-term Visitors Hosted:

At Tulane:

Lynn Koplitz Vogel (Visiting Professor from Loyola University, NSF support), Academic Year 2002/2003
Prof. Partricio Häberle, Universidad Técnica Federico Santa María, Valparaíso, Chile, March 2004
Paola Lascano, Universidad Técnica Federico Santa María, Valparaíso, Chile, May – June, 2004
Mr. Navid Khorshidi, Max-Planck Institut für Metallphysik, March/April 2007
Ms. Sara Chamberlin, U. Wisconsin-Milwaukee, March 2007

Undergraduate Research Directed:

At Tulane:

Andrew Poynot (Fall 1994), Tim Schuler (1995), Leo Gross (1996) Talib Mahmoud (Louisiana Alliance for Minority Participation in Research Program 1996), William Sargent (Spring 1997), Jeremiah Lehman (1997 – 1998, Senior Honor's Thesis), Daymond E. Lavine (Louisiana Alliance for Minority Participation in Research, Summer 1998) , Nathan Webb (1998 – 2000), Muhammad Mahmoud (2001), Keith Ekstein (2002 – 2003), Laura Linhardt (2005-7), Peter Vaughan, 2005

At TU Vienna:

Bernhard Stöger (2010), Hanna Moser (2010), Sounya Balti-Kmail (2010), Daniel Hagleitner (2011), Manfred Menhard (2011)

Honors and Awards to Diebold's Students:

June 2000	Nora Hebenstreit and Min Li compete as Nottingham Award Finalists at the 60th Annual Conference on Physical Electronics, Baton Rouge, La
June 2001	Nancy Ruzycki is selected by the Department Energy, Basic Energy Sciences, to attend the meeting of Nobel Laureates in Lindau, Germany
Nov. 2001	Nora Hebenstreit is selected as a Mort Traum Award Finalist at 48th American Vacuum Society Meeting, San Francisco, CA
Nov. 2002	Olga Dulub is selected as a Mort Traum Award Finalist at the 49th American Vacuum Society Meeting in Denver, Colorado
Fall 2003	Jimi Burst receives a Graduate Alliance for Education in Louisiana (GAELA) fellowship

June 2005 Jimi Burst is selected by the National Science Foundation Mathematical and Physical Sciences Directorate (NSF MPS) to attend the meeting of Nobel Laureates in Lindau, Germany, in June 2005

Spring 2006 Fellowship for Undergraduate Research from Newcomb College to Laura Linhardt,

April 2006 WAESO Conference Award Scholarship to Laura Linhardt

May 2006 Bulat Katsiev is selected a Finalist for the 'Nottingham Competition' at the Physical Electronics Conference

September 2006 Peter Jacobson is selected to compete for the Best Poster Award at the 5th International Workshop on Oxide Surfaces in Lake Tahoe, CA

May 2007 Laura Linhardt is named a 'Newcomb Scholar'

Thesis Committees:

Snehashish Gosh, Tulane Physics (1994); Shane Stadler, Tulane Physics (1998); Fernando Fondeur, Tulane Chemical Engineering (1999); Robert Winarski, Tulane Physics (1999); Yan Zidan, Tulane Physics (2000); Albert Davis, Tulane Physics (2000); Rachel L. Marcus, Tulane Chemical Engineering (2001); Alim Alchagirov, Tulane Physics (2002); Gina Sorci, Tulane Physics (2002); James Burst (U. of New Orleans, Physics, 2003); Alina Alb, Tulane Physics, 2004; A. Kazghery, Tulane Physics (2004); Joseph Hooper, Tulane Physics (2006); Aaron Peterson (Tulane ChemE, Master's Thesis, 2007); Hunter Sims (Tulane Honor's Thesis, 2007); Lucinda Pringle, Tulane Physics and Chemistry (2007), Jianwei Sun (Tulane Physics, 2010), David Fobes, (Tulane Physics 2010), Rasmus Westerström (Lund University, Sweden, 2010), Praveen Kumar (Indian Institute of Science and Technology, New Delhi, India, 2011), Hongliang Zhang (Oxford University, 2011), Gilbert Hangel (Diploma Thesis, TU Vienna, 2011),

SERVICE:

PROFESSIONAL SERVICE:

Advisory Editorial Board for *Surface Science Reports*
Surface, Interface and Atomic-Scale Science Editorial Board of *Journal of Physics: Condensed Matter* (2006 – 2007)
Advisory Editorial Board, *Open Journal of Physical Chemistry*
Guest Editor (together with A. Selloni and C. Di Valentin), , "*Doping and Functionalization of Semiconducting Metal Oxides*", Special Issue in *Chemical Physics*, 2006 – 2007
Organizer (together with Kieron Burke) of the "Tulane DFT Fest: celebrating the achievements of Prof. John Perdew (New Orleans, March 2008, upcoming)
Organizer (together with A. Selloni and M. Batzill), Focused Session entitled "Photocatalysis and photovoltaic: Excitation, trapping, and transport of charge carriers at surfaces and interfaces", March Meeting of the American Physical Society, March 2008, New Orleans (upcoming)
Executive Committee, Surface Science Division, American Vacuum Society, 1998 – 2001
American Physical Society, Selection Committee for the David Adler Lectureship Award (2006, 2007)
American Physical Society, Nominating Committee for the Division of Material Physics (2006 -)
Local Organizing Committee, 60th Physical Electronic Conference, Baton Rouge, LA, Spring 2000
Co-organizer, 2nd International Workshop on Oxide Surfaces IWOX-2, Taos, New Mexico, January 2001
International Scientific Board, International Workshop on Oxide Surfaces IWOX-3, Japan, 2003; IWOX-4, France/Italy 2005; IWOX-5, Lake Tahoe, U.S.A
International Scientific Board, WS-17, Avila, Spain, 2005
International Advisory Board for 24th European Conference on Surface Science (ECOSS), September 4-8, 2006, Paris, France.
General Committee of the Physical Electronics Conference (2006 – 2009)
Elected member, CAMD (Center for Advanced Microstructures and Devices) User's Committee (2005 – 2007)
Proposal Review Committee (PRC) for the Molecular Foundry (MF) at U.C. Berkeley
Reviewer of the Physics Department at the University of Texas, San Antonio, August 17 – 18, 2006
Referee for: Academic Press,
Advanced Materials,
Angewandte Chemie, International Edition,
Applied Physics B – Lasers and Optics,
Applied Surface Science,
Applied Physics Letters,
Austrian Science Foundation,
Chemical Physics Letters,
Chemical Physics Physical Chemistry,
ChemPhysChem,
Chemistry of Materials
Engineering and Physical Sciences Research Council, U.K.,
European Research Council,
Global Climate and Energy Project (GCEP),
International Materials Reviews,
IEEE Transactions on Magnetics,
Journal of the American Chemical Society
Journal of Chemical Physics,
Journal of Colloid and Interface Science,
Journal of the Electrochemical Society,
Journal of Materials Research,
Journal of Physical Chemistry B,
Journal of Physics and Chemistry of Solids,

Journal of Physics: Condensed Matter,
Journal of Physics D
Journal of the American Chemical Society,
Journal of Vacuum Science and Technology,
Journal of Molecular Catalysis A: Chemical,
Langmuir,
Materials Science and Engineering (B): Solid State Materials for Advanced Technology,
Microporous & Mesoporous Materials
Nanoletters,
Nanotechnology,
National Science Foundation,
Nature Materials,
Nature,
Petroleum Research Fund,
Physics and Chemistry of Minerals,
Physical Review B,
Physical Review Letters,
physica status solid (a),
Semiconductor Science and Technology,
Surface Science,
Science,
Solid State Ionics,
The European Physical Journal (B, section Surfaces and Interfaces),
The Research Corporation,
Thin Solid Films,
Ultramicroscopy,
Vibrational Spectroscopy,
etc.

Reviewer of tenure package for the University of New Orleans, 2002
Reviewer of promotion package for Rutgers University, 2004
NSF Panel Review, University of Maryland, February 2003; MRI/IMR panel May 2005; Margin Panel Analytical and Surface Chemistry, May 2006
Reviewer, User's Proposals - Center for Advanced Microstructures and Devices, CAMD, Baton Rouge
Reviewer, User Proposals – SSRL
Consultant to Duke Energy Technologies, Inc., U.S.A.
Consultant to NovaSic Corporation, France
Consultant to Goodrich Co, U.S.A.
Consultant to Medtronic Inc., Mn, U.S.A.
Consultant to Global Climate and Energy Project (GCEP) (proposal review)
Consultant to the University of San Antonio, Texas (Review of Physics Department)
Consultant to European Research Council (Pre-proposal Review, Proposal Stage I Review)
Consultant to Lyondell Basell

SERVICE TO THE COMMUNITY:

Meeting of the Louisiana Board of Regents' Committee of Sponsored Programs, Baton Rouge, Louisiana, March 20, 2002, Report on the Traditional Enhancement Project "Enhancing Research and Eduction in Nanoscale and Thin-Film Science"

Hosted visit in my research lab by students from a local elementary school (Lusher), (January 2004 and January 2007); Outreach session at Lusher Elementary School – optical instruments (May 2005);

Panelist, Faculty Science Panel, organized by Women in Science, Newcomb College, March 25, 2004

Advisory Board, Newcomb Children's Center (2003 - 2005)