Edward T. Yu

Professor of Electrical & Computer Engineering
Judson S. Swearingen Regents Chair in Engineering
Director, Center for Dynamics and Control of Materials: an NSF MRSEC
The University of Texas at Austin

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https://mrsec.utexas.edu

Citizenship: United States

Research Interests

Edward Yu directs a research laboratory concerned generally with the characterization, understanding, and application of physical phenomena in solid-state materials and device structures at nanometer to atomic length scales. Current research interests in his group include the following:

- solid-state nanostructure physics, materials, and devices
- photovoltaics and other technologies for energy harvesting, generation, and storage
- nanoscale imaging and characterization techniques, particularly based on proximal probes
- dynamic control and reconfigurability of materials functionality

Education

California Institute of Technology, Pasadena, CA ADVISOR: Professor Thomas C. McGill	Ph.D. (Applied Physics)	June 1991
Harvard University, Cambridge, MA	A.M. (Physics)	June 1986
Harvard University, Cambridge, MA	A.B. (Physics, *summa cum laude*)	June 1986

Professional Experience

PROFESSOR and JUDSON S. SWEARINGEN REGENTS CHAIR IN ENGINEERING, The University of Texas at Austin	2009 –
DIRECTOR, Center for Dynamics and Control of Materials: an NSF MRSEC	2017 –
ADJUNCT PROFESSOR, Electrical and Computer Engineering University of California, San Diego	2009 –16
PROFESSOR, Electrical and Computer Engineering University of California, San Diego	1998 – 2009
ASSOCIATE DIRECTOR, Center for Energy Research University of California, San Diego	2008 –09
ASSOCIATE PROFESSOR, Electrical and Computer Engineering University of California, San Diego	1996 –98
ASSISTANT PROFESSOR, Electrical and Computer Engineering University of California, San Diego	1992 –96

VICE-CHAIR, Electrical and Computer Engineering 2000
University of California, San Diego

VISITING PROFESSOR, Electrical Engineering 1999
Stanford University

VISITING ASSOCIATE, Applied Physics 1999
California Institute of Technology

POSTDOCTORAL FELLOW, IBM T. J. Watson Research Center 1991 – 92
ADVISOR: Dr. Jean-Marc Halbout

POSTDOCTORAL FELLOW, California Institute of Technology 1991
ADVISOR: Professor Thomas C. McGill

Academic and Professional Honors

Fellow, IEEE 2012

Fellow, AVS 2009

Outstanding Speaker Award, Tri-Services Workshop on Process Induced Defects in Wide Bandgap Semiconductors 2003

Outstanding Speaker Award, ONR Workshop on Extended Defects in Wide Gap Semiconductors II 2003

Member, Defense Science Study Group 2000 – 01

Office of Naval Research Young Investigator Award 1995 – 98

Alfred P. Sloan Research Fellowship 1995 – 97

National Science Foundation CAREER Award 1995 – 99

ECE Graduate Teaching Award 1997

AT&T Bell Laboratories Ph.D. Scholarship 1989 – 91

National Science Foundation Graduate Fellowship 1986 –89

Phi Beta Kappa, Harvard University 1985

Professional Activities

Member/Chair:

Chair, DARPA Defense Sciences Research Council (DSRC), 2012 – 14

Associate Chair/Chair-elect, DARPA Defense Sciences Research Council (DSRC), 2010 – 12

Member, DARPA Defense Sciences Research Council (DSRC), 2007 – 16

Fellow, DARPA Defense Sciences Research Council (DSRC), 2005-2007

Member, Defense Science Study Group (DSSG), 2000-2001

Program Chair, AVS Nanometer-Scale Science and Technology Division, 2003-04; Division Chair, 2002-03; Vice-Chair/Chair-elect, 2001-02; Member-at-Large, Division Board, 1998-2000

General Chair, TMS Electronic Materials Committee, 2005–07; Vice-Chair/Program Chair, 2003-05; Secretary, 2001–03; Past Chair, 2007-09; Member, 1998-2009; Member-at-Large, 2009 – present

American Physical Society

Fellow, American Vacuum Society (AVS)

Böhmische Physical Society
Fellow, IEEE
Materials Research Society

Conference Chair:

Program Chair, Conference on Physics and Chemistry of Semiconductor Interfaces (PCSI), 2002
Program Chair, Electronic Materials Conference, 2004 and 2005
General Chair, Electronic Materials Conference, 2006 and 2007

Program Committee Member (partial list):

Electronic Materials Conference, 1995-present
Conference on Physics and Chemistry of Semiconductor Interfaces (PCSI), 2001-
CIMTEC 2010, 5th Forum on New Materials (International Advisory Board), 2010
SPIE Optics+Photonics: Solar Energy + Technology, Next Generation (Nano) Photonic and Cell Technologies for Solar Energy Conversion, 2010
International Conference on InP and Related Materials, 2009
International Conference on Nitride Semiconductors (ICNS-7), 2007
Sixth International Conference on Nanometer-Scale Science and Technology, 2000
AVS National Symposium, Nanometer-Scale Science and Technology Division, 1999-2000, 2003-04
SPIE Symposium on Instrumentation and Techniques for Nanoscale Materials and Applications, 1999-2000
IEEE MTT-S International Microwave Symposium, 1994

Symposium Organizer:

1998 Spring Meeting, Materials Research Society
2001 Spring Meeting, Materials Research Society
2002 Fall Meeting, Materials Research Society

Guest Editor:

MRS Bulletin Special Issue on Nanoscale Characterization of Materials (August 1997)
MRS Bulletin Special Issue on Photon Management in Photovoltaics (June 2011)

Editorial Board Member:

International Journal of Modern Physics B/Modern Physics Letters B
Materials Science and Engineering Reports
IEEE Transactions on Nanotechnology

Reviewer:

Applied Physics Letters, *IEEE Transactions on Microwave Theory and Techniques, IEEE Electron Device Letters, IEEE Transactions on Electron Devices, IEEE Transactions on Nanotechnology, Journal of Applied Physics*, *Journal of Vacuum Science and Technology*, *Micron*, *Nano Letters, Nature Communications, Nature Nanotechnology, Physical Review B, Review of Scientific Instruments, etc.*

National Science Foundation, Department of Energy, UC MICRO program, UC SMART program, etc.

Teaching Experience

University of California, San Diego

1992-1993:

ECE 5B: Our Natural and Artificial Environment – Computers (W, introductory/nonmajor level)
ECE 121C: Electromagnetism III (S, senior level)

1993-1994:

ECE 239: Nanometer-Scale Probes and Devices (F, advanced graduate level)
ECE 5B: Our Natural and Artificial Environment – Computers (W, introductory/nonmajor level)
ECE 121C: Electromagnetism III (S, senior level)
ECE 138: Introduction to Semiconductor Devices (S, senior level)

1994-95:

ECE 138: Introduction to Semiconductor Devices (F, senior level)
ECE 5B: Our Natural and Artificial Environment – Computers (W, introductory/nonmajor level)
ECE 121C: Electromagnetism III (S, senior level)

1995-96:

ECE 103: Fundamentals of Devices and Materials (F, junior level)
ECE 5B: Our Natural and Artificial Environment – Computers (W, introductory/nonmajor level)

1996-97:

ECE 103: Fundamentals of Devices and Materials (F, junior level)
ECE 136: Fundamentals of Semiconductor Device Fabrication (W, senior level)
ECE 230C: Solid State Electronics III (S, graduate level)

1997-98:

ECE 103: Fundamentals of Devices and Materials (F, junior level)
ECE 134: Electronic Materials Science of Integrated Circuits (W, senior level)
ECE 230C: Solid State Electronics III (S, graduate level)

1998-99:

ECE 103: Fundamentals of Devices and Materials (F, junior level)
Sabbatical leave (W)
ECE 230C: Solid State Electronics III (S, graduate level)

1999-2000:

ECE 103: Fundamentals of Devices and Materials (F, junior level)
ECE 136: Fundamentals of Semiconductor Device Fabrication (W, senior level)
ECE 230C: Solid State Electronics III (S, graduate level)

2000-2001:

ECE 103: Fundamentals of Devices and Materials (F, junior level)
ECE 134: Electronic Materials Science of Integrated Circuits (W, senior level)
ECE 230C: Solid State Electronics III (S, graduate level)

2001-2002:

ECE 103: Fundamentals of Devices and Materials (F, junior level)
Course relief due to heavy University service (W)
ECE 230C: Solid State Electronics III (S, graduate level)

2002-2003:

ECE 103: Fundamentals of Devices and Materials (F, junior level)
Course relief due to heavy University service (W)
ECE 230C: Solid State Electronics III (S, graduate level)

2003-2004:

ECE 135A: Semiconductor Physics (F, senior level)
ECE 135B: Electronic Devices (W, senior level)
ECE 230C: Solid State Electronics III (S, graduate level)

2004-2005:

ECE 135A: Semiconductor Physics (F, senior level)
ECE 236A: Semiconductor Heterostructure Materials (F, graduate level)
ECE 135B: Electronic Devices (W, senior level)
ECE 230C: Solid State Electronics III (S, graduate level)

2005-2006:

ECE 236A: Semiconductor Heterostructure Materials (F, graduate level)
Sabbatical leave (W)
ECE 230C: Solid State Electronics III (S, graduate level)
ECE 294: Solid-State Electronics Graduate Seminar (S, graduate level)

2006-2007:

ECE 135A: Semiconductor Physics (F, senior level)
ECE 236A: Semiconductor Heterostructure Materials (W, graduate level)
ECE 230C: Solid State Electronics III (S, graduate level)

2007-2008:

ECE 212A: Principles of Nanoscience (F, graduate level)
ECE 236A: Semiconductor Heterostructure Materials (W, graduate level)
ECE 230C: Solid State Electronics III (S, graduate level)

2008-2009:

ECE 212A: Principles of Nanoscience (F, graduate level)
ECE 135B: Electronic Devices (W, senior level)
ECE 230C: Solid State Electronics III (S, graduate level)

The University of Texas at Austin

2009-2010:

EE 396K-23: Semiconductor Heterostructures (F, graduate level)
EE 396V: Advanced Solid-State Materials and Nanostructures (S, graduate level)

2010-2011:

EE 302: Introduction to Electrical Engineering (F, freshman level)
EE 396K-23: Semiconductor Heterostructures (S, graduate level)

2011-2012:

EE 302: Introduction to Electrical Engineering (F, freshman level)
EE 396K-23: Semiconductor Heterostructures (S, graduate level)

2012-2013:

EE 302: Introduction to Electrical Engineering (F, freshman level)
EE 396K-23: Semiconductor Heterostructures (S, graduate level)
Faculty Advisor, ECE Senior Design Project Team (S)

2013-2014:

EE 302: Introduction to Electrical Engineering (F, freshman level)
EE 396K-23: Semiconductor Heterostructures (S, graduate level)
Faculty Advisor, ECE Senior Design Project Team (F)

2014-2015:

EE 302: Introduction to Electrical Engineering (F, freshman level)
EE 396K-23: Semiconductor Heterostructures (S, graduate level)
Faculty Advisor, ECE Senior Design Project Team (F, S)

2015-2016:

EE 302: Introduction to Electrical Engineering (F, freshman level)
EE 396K-23: Semiconductor Heterostructures (S, graduate level)
Faculty Advisor, ECE Senior Design Project Team (F, S)

2016-2017:

Course relief for large extramural proposal development (F)
EE 302: Introduction to Electrical Engineering (S, freshman level)
Faculty Advisor, ECE Senior Design Project Team (F, S)

2017-2018:

EE 302: Introduction to Electrical Engineering (F, freshman level)
EE 396K-23: Semiconductor Heterostructures (S, graduate level)

2018-2019:

EE 302: Introduction to Electrical Engineering (F, freshman level)
Course relief for MRSEC directorship (S)

2019-2020:

EE 302: Introduction to Electrical Engineering (F, freshman level)

EE 396K-23: Semiconductor Heterostructures (S, graduate level)

Departmental and University Service

University of California, San Diego

1992-1993:

Examiner, ECE Graduate Comprehensive Exam (Quantum Theory, Spring 1993)

1993-1994:

Examiner, ECE Graduate Comprehensive Exam (Quantum Theory, Fall 1993, Spring 1994)

Undergraduate Academic Advisor, Engineering Physics Program

1994-1995:

Member, ECE Undergraduate Affairs Committee

Member, ECE Graduate Admissions Committee

Initiator and Coordinator, ECE WWW site

Coordinator, Materials Science Graduate Qualifying Exam, Spring 1995

Undergraduate Academic Advisor, Engineering Physics Program

1995-1996:

Member, Executive Committee, UCSD Materials Science Program

Member and Chair, ECE Web Site Committee

Member, ECE Undergraduate Affairs Committee

Member, ECE Computer Committee

Member, ECE Graduate Admissions Committee

Undergraduate Academic Advisor, Engineering Physics Program

Faculty Advisor, UCSD IEEE Student Chapter

1996-1997:

Member, Executive Committee, UCSD Materials Science Program

Member and Chair, ECE Web Site Committee

Member, ECE Undergraduate Affairs Committee

Member, ECE Computer Committee

Member, ECE Graduate Admissions Committee

Undergraduate Academic Advisor, Engineering Physics Program

Faculty Advisor, UCSD IEEE Student Chapter

1997-1998:

Member, Executive Committee, UCSD Materials Science Program

Member and Chair, ECE Web Site Committee

Member, ECE Undergraduate Affairs Committee

Member, ECE Computer Committee

Member, ECE Graduate Admissions Committee
Undergraduate Academic Advisor, Engineering Physics Program
Faculty Advisor, UCSD IEEE Student Chapter

1998-1999:

Member, Executive Committee, UCSD Materials Science Program
Member and Chair, ECE Web Site Committee
Member, ECE Undergraduate Affairs Committee
Member, ECE Computer Committee
Member, ECE Graduate Admissions Committee
Undergraduate Academic Advisor, Engineering Physics Program
Faculty Advisor, UCSD IEEE Student Chapter

1999-2000:

Vice Chair/Student Affairs, ECE Department (Winter & Spring 2000)
Member, Executive Committee, UCSD Materials Science Program
Search Committee Member, Kazuo Iwama Chair in Materials Science
Search Committee Member, Director of the Center for Magnetic Recording Research
Member, UCSD University Graduate Fellowship Committee
Member and Chair, ECE Graduate Affairs Committee
Member, ECE Graduate Admissions Committee
Undergraduate Academic Advisor, Engineering Physics Program
Faculty Advisor, UCSD IEEE Student Chapter

2000-2001:

Member, Executive Committee, UCSD Materials Science Program
Search Committee Member, Kazuo Iwama Chair in Materials Science
Member, Committee on Ethos and Culture of the Jacobs School of Engineering, UCSD
Member and Chair, ECE Graduate Affairs Committee
Member, ECE Graduate Admissions Committee
Undergraduate Academic Advisor, Engineering Physics Program
Faculty Advisor, UCSD IEEE Student Chapter

2001-2002:

Member, Executive Committee, UCSD Materials Science Program
Member, UCSD Academic Senate Committee on Academic Personnel*
Chair, Sunset Review Committee for UCSD Center for Magnetic Recording Research
Search Committee (observing member), Kazuo Iwama Chair in Materials Science
Search Committee (observing member), ECE Electronic Devices and Materials faculty search
Member (FWS) and Chair (F), ECE Graduate Affairs Committee

* This is the committee that reviews and makes recommendations for personnel actions (appointment, promotion, acceleration, etc.) for all academic personnel at UCSD, including SOM and SIO. Approximately 600 cases/year were considered at that time.

Member, ECE Graduate Admissions Committee
Member, ECE Faculty Council**
Undergraduate Academic Advisor, Engineering Physics Program
Faculty Advisor, UCSD IEEE Student Chapter

2002-03:

Member, Executive Committee, UCSD Materials Science Program
Vice-Chair, UCSD Academic Senate Committee on Academic Personnel*
Member, University of California Committee on Academic Personnel (WS)
Search Committee (observing member), ECE Electronic Devices and Materials faculty search
Member, ECE Graduate Affairs Committee
Member, ECE Graduate Admissions Committee
Undergraduate Academic Advisor, Engineering Physics Program

2003-04:

Member, Executive Committee, UCSD Materials Science and Engineering Program
Member (F), UCSD Academic Senate Committee on Academic Personnel*
Member, ECE Graduate Affairs Committee
Member, ECE Graduate Admissions Committee
Member, ECE Computer Committee
Undergraduate Academic Advisor, Engineering Physics Program

2004-05:

Member, Executive Committee, UCSD Materials Science and Engineering Program
Vice-Chair, UCSD Academic Senate Committee on Admissions
Member, ECE Graduate Affairs Committee
Chair, ECE Graduate Admissions Committee
Member, ECE Departmental Faculty Recruiting Committee
Member, ECE Faculty Search Committee in Micro/Nanotechnology
Member, ECE Faculty Workload Committee
Member, CMRR Endowed Chair Search Committee
Member (1), Chair (1), ECE Department ad hoc faculty review committees
Undergraduate Academic Advisor, Engineering Physics Program and ECE Devices/Materials option

2005-06:

Member, University of California IUCRP Executive Committee on Electronic Manufacturing/New Materials
Member, Executive Committee, UCSD Materials Science and Engineering Program
Chair (F), Member (W,S), ECE Graduate Admissions Committee
Member, ECE Departmental Faculty Recruiting Committee
Member, ECE Faculty Search Committee in Nano Devices/Materials

** This is the ECE faculty advisory committee to the Department Chair.

Member, ECE Faculty Workload Committee
Member, CMRR Endowed Chair Search Committee
Member (2), ECE Department ad hoc faculty review committees
Undergraduate Academic Advisor, Engineering Physics Program and ECE Devices/Materials option

2006-07:

Member, University of California IUCRP Executive Committee on Electronic Manufacturing/New Materials
Member, Executive Committee, UCSD Materials Science and Engineering Program
Member (F), UCSD Academic Senate Committee on Committees
Member, UCSD Ethics Program Work Group
Chair, ECE Graduate Admissions Committee
Chair, ECE Faculty Search Committee in Nanotechnology
Member, ECE Committee on Charting the Course IV (long-range planning)
Member (3), ECE Department ad hoc faculty review committees
Undergraduate Academic Advisor, Engineering Physics Program and ECE Devices/Materials option
Graduate Academic Advisor, Applied Physics/Electronic Devices and Materials area

2007-08:

Member, University of California IUCRP Executive Committee on Electronic Manufacturing/New Materials
Member, Executive Committee, UCSD Materials Science and Engineering Program
Member and Vice Chair, UCSD Academic Senate Committee on Admissions
Chair, ECE Space Committee
Member, ECE Faculty Search Committee in Nanotechnology
Chair (1), Member (1), ECE Department ad hoc faculty review committees
Undergraduate Academic Advisor, Engineering Physics Program and ECE Devices/Materials option
Graduate Academic Advisor, Applied Physics/Electronic Devices and Materials area

2008-09:

Associate Director, UCSD Center for Energy Research
Chair, UCSD Academic Senate Committee on Admissions
Member, UCSD Academic Senate Council
Member, UCSD Academic Senate-Administration Council
Member, UCSD Enrollment Planning Committee
Member, University of California IUCRP Executive Committee on Electronic Manufacturing/New Materials
Member, Executive Committee, UCSD Materials Science and Engineering Program
Member, ECE Faculty Search Committee
Member, Mechanical & Aerospace Engineering Faculty Search Committee in Energy
Chair (1), ECE Department ad hoc faculty review committees
Undergraduate Academic Advisor, Engineering Physics Program and ECE Devices/Materials option
Graduate Academic Advisor, Nanoscale Devices & Systems area

The University of Texas at Austin

2010-11:

Member, Cockrell School Promotion and Tenure Committee
Member, Cockrell School Hocott Award Committee
Member, EERC Space Policy Committee
Member, ECE Faculty Search Committee
Member, ECE Faculty Expectations Committee

2011-12:

Chair, Cockrell School Promotion and Tenure Committee
Member, Cockrell School Awards Committee
Member, EERC Space Policy Committee
Member, ECE Faculty Expectations Committee
Member, ECE Teaching Awards Committee
Member, ECE Faculty Search Committee

2012-13:

Chair, ECE Faculty Search Committee
Member, EERC Space Policy Committee
Member, ECE Faculty Expectations Committee

2013-14:

Member, ECE Faculty Search Committee, Dula Cockrell Centennial Chair in Engineering
Member, EERC Space Policy Committee

2014-15:

Member, ECE Faculty Search Committee, Dula Cockrell Centennial Chair in Engineering
Member, EERC Space Policy Committee
Member, Texas Materials Institute Facilities Committee
Member, University of Texas Faculty Council
Member, University of Texas Faculty Grievance Committee
Member, University of Texas Faculty Building Advisory Committee

2015-16:

Chair, ECE Faculty Search Committee
Member, ECE Search Committee, Dula Cockrell Centennial Chair in Engineering
Member, EERC Space Policy Committee
Member, Texas Materials Institute Facilities Committee
Member, University of Texas Faculty Council
Member, University of Texas Faculty Grievance Committee
Member, University of Texas Faculty Parking and Transportation Services Committee

2016-17:

Chair, ECE Faculty Search Committee

Member, EERC Space Policy Committee
Member, Texas Materials Institute Facilities Committee
Member, University of Texas Faculty Grievance Committee
Member, Ad Hoc Committee for Academic and Research Opportunities in Materials Science & Engineering
Member, Materials Science & Engineering Minor Degree Committee
Member, Ad Hoc Post-Tenure Review Committee for a Chair Professor in Cockrell School of Engineering

2017-18:

Director, Center for Dynamics and Control of Materials: an NSF MRSEC
Member, ECE Senior Faculty Search Committee
Member, EERC Space Policy Committee
Member, Texas Materials Institute Facilities and Executive Committee
Member, Ad Hoc Committee for Academic and Research Opportunities in Materials Science & Engineering
Member, UGS core curriculum assessment committee

2018-19:

Director, Center for Dynamics and Control of Materials: an NSF MRSEC
Member, ECE Department Chair Search Committee
Member, EERC Space Policy Committee
Member, Texas Materials Institute Facilities and Executive Committee
Member, Ad Hoc Committee for Academic and Research Opportunities in Materials Science & Engineering

2018-19:

Director, Center for Dynamics and Control of Materials: an NSF MRSEC
Member, EERC Space Policy Committee
Member, Texas Materials Institute Facilities and Executive Committee
Member, Ad Hoc Committee for Academic and Research Opportunities in Materials Science & Engineering

Personnel Supervised:

Current Graduate Students:

Name	Program/Department	Prior Degree/Institution
Gabriel Cossio	Ph.D. Candidate (Electrical Engineering), 2014 -	B.S., UT Austin (Physics), 2014
Alex De Palma	Ph.D. Candidate (Materials Science & Engineering), 2016 -	B.S., SUNY Albany (Nanoscience), 2016

Claire Ganski	Ph.D. Candidate (Materials Science & Engineering), 2018 -	B.S., UCLA (Materials Science/Chemistry), 2018
Brian Gawlik	Ph.D. Candidate (Mechanical Engineering), 2013 -	B.S., UT Austin (Mechanical Engineering), 2013
Tae-Hyeon Kim	Ph.D. Candidate (Electrical Engineering), 2017 -	B.S., UT Dallas (Electrical Engineering), 2017
Soonil Lee	Ph.D. Candidate (Electrical Engineering), 2015 -	B.S., M.S., Yonsei University
Shang-Hsuan Wu	Ph.D. Candidate (Electrical Engineering), 2018 -	M.S., National Taiwan University of Science & Technology/Academia Sinica

Current Postdoctoral Fellows and Visitors:

Name	Program/Department	Prior Degree/Institution

Current Undergraduate Students:

Name	Program/Department
Royce Hong	B.S. student (Electrical Engineering)
Cassandra Huff	B.S. student (Electrical Engineering)
Rolando Martinez	B.S. student (Electrical Engineering)
Jerry Yang	B.S. student (Electrical Engineering)

Research Group Alumni:

Postdoctoral Fellows/Research Associates:

Name	Position/Degree	First and/or Current Position
Xiaozhong Dang	Postdoctoral Fellow, UCSD, 1998-2000; Ph.D., Peking University	Currently Director at Western Digital
Vaishno Dasika	Postdoctoral Fellow, UT Austin, 2011-14; Ph.D., University of Michigan	Currently Engineer at Texas Instruments
Hsien-Yi ("Sam") Hsu	Research Associate, UT Austin, 2016-17; Ph.D., University of Florida	Currently Assistant Professor, City University of Hong Kong
Ronald X. Hu	Postdoctoral Fellow, UCSD, 1996	Currently Executive Director at TCL Capital, Ltd. (Shenzhen, China)
Xiaolu Kou	Postdoctoral Fellow, UT Austin, 2014-15; Ph.D., UCLA	Currently Principal Failure Analysis Engineer at Western Digital
Li Ji	Research Associate, UT Austin, 2016-19; Ph.D., UT Austin, 2016	Currently Professor of Microelectronics, Fudan University
Cengiz Ozkan	Postdoctoral Fellow, UCSD, 1997-98; Ph.D., Stanford University	Currently Professor at UC Riverside
Daniel M. Schaadt	Postdoctoral Fellow, UCSD, 2003-04; Ph.D., UCSD, 2003	Currently Professor at TU Clausthal/Goslar Energy Center (Germany)
Lei Zhu	Postdoctoral Fellow, UT Austin, 2009-11; Ph.D., UCSD, 2009	Currently Trading Analyst at Metacapital (New York, NY)

Ph.D. Students:

Name	Position/Degree	First and/or Current Position
Christopher Brennan	Graduate Student, UT Austin, 2013-18; Ph.D., UT Austin, 2018	Currently Research Staff Member at MIT Lincoln Laboratory
Shadi Dayeh	Graduate Student, UCSD, 2004-08; Ph.D., UCSD, 2008	Currently Professor, ECE, at UCSD
Daniel Derkacs	Graduate Student, UCSD, 2004-09; Ph.D., UCSD, 2009	Currently Senior Scientist at SolAero Corporation

Chengqing Hu	Graduate Student, UT Austin, 2010-15; Ph.D., UT Austin, 2015	Currently Senior R&D Engineer at Intel Corporation
Li Ji	Graduate Student, UT Austin, 2011-16; Ph.D., UT Austin, 2016	Currently Professor of Microelectronics at Fudan University
Jeremy Law	Graduate Student, UCSD, 2005-09; Ph.D., UCSD, 2009	Currently Senior Systems Engineer at Gener8
Albert Lew	Graduate Student, UCSD, 1992-97; Ph.D., UCSD, 1997	Currently Validation Engineer at Texas Instruments
Ping-Chun Li	Graduate Student, UT Austin, 2010-15; Ph.D., UT Austin, 2015	Currently RET Design Engineer at Intel Corporation
Xiaohan Li	Graduate Student, UT Austin, 2009-14; Ph.D., UT Austin, 2014	Currently Product Development Engineer at Finisar Corporation
Swee Hoe Lim	Graduate Student, UCSD, 2004-09; Ph.D., UCSD, 2009	Currently Hardware Development Engineer at Apple Corporation
Claiborne McPheeters	Graduate Student, UCSD, 2007-09; Graduate Student, UT Austin, 2009-12; Ph.D., UT Austin, 2012	Currently Senior Principal Engineer at SolAero Corporation
Eric Miller	Graduate Student, UCSD, 1997-2003; Ph.D., UCSD, 2003	Currently Chief Engineer, Technology Insertion at Boeing Satellite Systems (El Segundo, CA)
Keunwoo Park	Graduate Student, UCSD, 2008-09; Graduate Student, UT Austin, 2009-13; Ph.D., UT Austin, 2013	Currently Senior Front End Device Reliability Engineer at Intel Corporation
Sourobh Raychaudhuri	Graduate Student, UCSD, 2003-09; Ph.D., UCSD, 2009	Currently Scientist at PARC (Palo Alto, CA)
Paul A. Rosenthal	Graduate Student, UCSD, 1997-2002; Ph.D., UCSD, 2002	Currently Senior Principal Engineer at Raytheon (Los Angeles, CA)
Daniel M. Schaadt	Graduate Student, UCSD, 1997-2003; Ph.D., UCSD, 2003	Currently Professor at TU Clausthal/Goslar Energy Center (Germany)
Blake Simpkins	Graduate Student, UCSD, 1999-2004; Ph.D., UCSD, 2004	Currently Research Scientist at U.S. Naval Research Laboratory
Kurt V. Smith	Graduate Student, UCSD, 1995-2000; Ph.D., UCSD, 2000	Currently Vice President of Quality/Reliability at VisIC Technologies (Santa Barbara, CA)

Brett L. Stein	Graduate Student, UCSD, 1993-98; Ph.D., UCSD, 1998	Currently Director, Web Engineering and Analytics at ENSO Financial Analytics
Hongtao Zhang	Graduate Student, UCSD, 2001-06; Ph.D., UCSD, 2006	Currently Senior Staff Design Engineer at Xilinx
Zhongjian Zhang	Graduate Student, UT Austin, 2012-18; Ph.D., UT Austin, 2018	Currently Research Engineer at Exponent, Inc.
Xiaotian Zhou	Graduate Student, UCSD, 2002-07; Ph.D., UCSD, 2007	Currently Investment Director at BOE Ventures
Lei Zhu	Graduate Student, UCSD, 2002-09; Ph.D., UCSD, 2009	Currently Trading Analyst at Metacapital (New York, NY)
Songlin Zuo	Graduate Student, UCSD, 1997-2002; Ph.D., UCSD, 2002	Currently Engineer at Ampere Corporation (Sunnyvale, CA)

M.S./Other Graduate Students:

Name	**Position/Degree**	**First and/or Current Position**
Heng-Lu ("Henry") Chang	Graduate Student, UT Austin, 2014-17; M.S., UT Austin, 2017	Currently at AI/ML startup, Los Angeles area
Bin Feng	Graduate Student, UCSD, 2003-05; M.S., UCSD, 2005	Currently Founder/CEO, Microduino, Inc.
Jennifer Kim	Graduate Student, UCSD, 1993-95; M.S., UCSD, 1995	Subsequently at Qualcomm Corporation
Mo Li	Graduate Student, UCSD, 2001-03; M.S., UCSD, 2003	Currently Associate Professor, ECE, at U. of Washington
Mark Llorente	Graduate Student, UCSD, 2008-09	Subsequently Graduate Student at UCSD
Peter Matheu	Graduate Student, UCSD, 2005-07; M.S., UCSD, 2007	Ph.D., UC Berkeley, 2012; currently at Xockets, Inc.
Christopher McKinney	Graduate Student, UCSD, 1997-2002; C.Phil., UCSD, 2002	Currently engineer at City of San Diego, CA
Wesley T. Salzillo	Graduate Student, UCSD, 1998-2001; M.S., UCSD, 2001	Subsequently Catholic priest at U. of Washington Newman Center

Ruifeng Sun	Graduate Student, UCSD, 2001-03; M.S., UCSD, 2003	Subsequently Graduate Student at University of Oregon
Song Sun	Graduate Student, UCSD, 2006-09; M.Eng., UCSD, 2009	
Jonathan Talcott	Graduate Student, UCSD, 2003-04; M.S., UCSD, 2004	Subsequently at Rockwell Collins (Des Moines, IA)
Raymond Yakura	Graduate Student, UCSD, 1996-98; M.S., UCSD, 1998	Subsequently at Teradyne (Agoura Hills, CA)

Undergraduate Students:

Name	Position/Degree	First and/or Current Position
Anton Arriagada	Summer Research Student, UCSD, 2005, 2006; B.S. (EE), Cal Poly Pomona, 2006	Subequently Graduate Student at UCSD
Ronald Ballouz	Undergraduate Researcher, UT Austin, 2017-18; B.S. (EE), UT Austin, 2018	Currently Graduate Student at UC Santa Barbara
Ariel Barr	Undergraduate Researcher, UT Austin, 2018-19; B.S. (Physics/Mathematics), UT Austin, 2019	Currently Graduate Student at University of Cambridge
Mark Blei	Summer REU Student, UT Austin, 2016; B.S. (Physics), Arizona State University	Currently Graduate Student at Arizona State University
Sara G. Bodde	Undergraduate Researcher, UCSD, 2001-02; B.S. (ChE), UCSD, 2002	Subsequently Graduate Student at UCSD
Bryan Brasile	Summer REU Student, UT Austin, 2015; B.S. (ChE), Ohio State University, 2016	Currently Graduate Student at Penn State University
Mark Cerutti	Undergraduate Researcher, UCSD, 2003-04; B.S. (EE), UCSD, 2004	Subsequently Graduate Student at UCSD
Michael Clovis	Undergraduate Researcher, UCSD, 1996-97; B.S. (EE), UCSD, 1997	Subsequently at Intel Corporation
Jennie Lou De Quinto	Undergraduate Researcher, UCSD, 2002-03; B.S. (EE), UCSD, 2003	Subsequently Graduate Student at University of Southern California
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Natalie Goddard	Summer REU Student, UT Austin, 2019	Currently Undergraduate Student at Rice University
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Alexander Mo	Undergraduate Researcher, UT Austin, 2014-16; B.S. (EE), UT Austin, 2017	Currently at Texas Instruments
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Name	Position/Degree	First and/or Current Position
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Joshua Dunning	Laboratory Intern, UT Austin, 2017; graduate of Westlake High School, 2018	Currently Undergraduate Student at Rice University
Marzella Goerig	Visiting Graduate Student, UT Austin, 2013	Subsequently Graduate Student at TU Clausthal (Germany)
Kai Huang	Visiting Researcher/Professor, UT Austin, 2014-15	Professor of Physics, Xiamen University
Dara Reeder	Summer RET Researcher, 2018	5th Grade Teacher, Callison Elementary School (Round Rock, TX)
Rebecca Spillers	Summer RET Researcher, 2019	4th Grade Teacher, Purple Sage Elementary School (Round Rock, TX)
Cunda Wang	Visiting Researcher/Professor, UCSD, 1997-98	Professor of Applied Physics, Tianjin University
Evan Yu	Summer Laboratory Intern, UT Austin, 2018	High School Student at Westlake High School (Austin, TX)

Archival Journal Publications:

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Silver Cations to $Ch_3NH_3PbBr_3$ Produces Crystallographically Oriented Perovskite Thin Films," *ACS Appl. Energy Mater.* DOI:10.1021/acsaem.9b01298 (2019).

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Conference and Book Publications (Partial List):

1. • G. Cossio, A. Wibowo, S. R. Tatavarti, K. Sablon, and E. T. Yu, "Large-area nanostructure integration for broad-spectrum, omnidirectional antireflection improvements on polymer packaged, mechanically flexible, epitaxial lift-off III-V solar arrays," Proc. 2018 IEEE Photovoltaics Specialists Conference (2018).

2. • L. Ji, X. Zou, J. Ge, A. Bard, and E. T. Yu, "Production of low-cost silicon films via molten salt electrodeposition," Proc. 2018 IEEE Photovoltaics Specialists Conference (2018).

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5. • S. Lee, L. Mathew, R. Rao, J. H. Kim, and E. T. Yu, "Improvement in surface passivation of c-Si using gradient-layered a-Si:H film for high efficiency silicon heterojunction solar cells," Proc. 2017 IEEE Photovoltaics Specialists Conference (2017).

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8. • E. T. Yu, Z. J. Zhang, D. C. Dillen, B. W. Brasile, and E. Tutuc, "Strain and Phonon-Carrier Interactions in Ge-Si0.5Ge0.5 Core-Shell Nanowires Probed Using Tip-Enhanced Raman Spectroscopy," *ECS Transactions* **69**, 47 (2015).

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51. D. H. Chow, J. R. Soderstrom, D. A. Collins, D. Z.-Y. Ting, E. T. Yu, and T. C. McGill, "Novel InAs/GaSb/AlSb Tunnel Structures," in *Quantum-Well and Superlattice Physics III*, SPIE Vol. 1283 (Society of Photo-Optical Instrumentation Engineers, Bellingham, Washington, 1990), p. 2.

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53. • E. T. Yu, E. T. Croke, T. C. McGill, and R. H. Miles, "Measurement of the Strain Dependence of the Si/Ge (100) Valence Band Offset," in *Growth of Semiconductor Structures and High T_c Thin Films on Semiconductors,* SPIE Vol. 1285 (Society of Photo-Optical Instrumentation Engineers, Bellingham, Washington, 1990), p. 212.

Research Presentations of Edward T. Yu and Group (Partial List)

1. E. T. Yu, "Dielectric Polarization in Old and New Settings," presentation at Harry H. Wieder Memorial Symposium, La Jolla, CA, August 2019. (Invited)

2. E. T. Yu, "Using Strain to Control Electronic Behavior in Atomically Thin Materials," presentation at Jackson State University-UCSB PREM Materials Science Conference, Jackson, MS, July 2019. (Invited)

3. A. C. De Palma, G. Cossio, K. Jones, Q. Jiamin, X. Li, and E. T. Yu, "Photoluminescence Properties of MoS_2 Under Large Strain Gradients," presentation at 61st Electronic Materials Conference, Ann Arbor, MI, June 2019.

4. E. T. Yu, "Center for Dynamics and Control of Materials: an NSF MRSEC at UT Austin," presentation/panel discussion at NSF Nanoscale Science and Engineering Grantees Conference, Alexandria, VA, December 2018. (Invited)

5. A. Yuksel, E. T. Yu, M. Cullinan, and J. Murthy, "Heat Transfer Modeling of Nanoparticle Packings on a Substrate," presentation at ASME 2018 International Mechanical Engineering Congress and Exposition, Pittsburgh, PA, November 2018.

6. E. T. Yu, "Creating an Environment for Large-Scale, Interdisciplinary Research and Education – The Center for Dynamics and Control of Materials: an NSF MRSEC at UT Austin," ECE Colloquium, University of Texas at Dallas, November 2018. (Invited)

7. E. T. Yu, "Center for Dynamics and Control of Materials: an NSF MRSEC at UT Austin," presentation/panel discussion at Iberian Nanotechnology Laboratory (INL) Directors Forum, Braga, Portugal, October 2018. (Invited)

8. E. T. Yu, Z. J. Zhang, C. J. Brennan, A. C. De Palma, G. Cossio, and K. Koul, "Strain and electromechanical coupling at the nanoscale in atomically thin transition metal dichalcogenides," presentation at Meeting of the Electrochemical Society, Cancun, Mexico, October 2018. (Invited)

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9. A. Yuksel, E. T. Yu, M. Cullinan, and J. Murthy, "Effect of Interfacial Thermal Conductance Between the Nanoparticles," presentation at ASME 2018 International Technical Conference and Exhibition on Packaging and Integration of Electronic and Photonic Microsystems, San Francisco, CA, August 2018.

10. A. C. De Palma, Z. J. Zhang, C. J. Brennan, K. Tran, Z. Dai, X. Li, N. Lu, and E. T. Yu, "Evolution of Raman modes of monolayer and multilayer WSe2 with strain," presentation at 60th Electronic Materials Conference, Santa Barbara, CA, June 2018.

11. S. Muschinske, E. S. Walker, C. J. Brennan, Y. Sun, A. Yau, T. Trivedi, A. Roy, S. D. March, A. F. Briggs, E. M. Krivoy, D. Akinwande, M. L. Lee, E. T. Yu, and S. R. Bank, "Epitaxial growth and characterization of 2D Bi1-xSbx alloys on Si (111)," presentation at 60th Electronic Materials Conference, Santa Barbara, CA, June 2018.

12. G. Cossio, A. Wibowo, S. R. Tatavarti, K. Sablon, and E. T. Yu, "Large-area nanostructure integration for broad-spectrum, omnidirectional antireflection improvements on polymer packaged, mechanically flexible, epitaxial lift-off III-V solar arrays," presentation at IEEE Photovoltaic Specialists Conference, Waikoloa, HI, June 2018.

13. L. Ji, X. Zou, J. Ge, A. Bard, and E. T. Yu, "Production of low-cost silicon films via molten salt electrodeposition," presentation at IEEE Photovoltaic Specialists Conference, Waikoloa, HI, June 2018.

14. A. Yuksel, E. T. Yu, M. Cullinan, and J. Murthy, "Uncertainty Analysis of Near-Field Thermal Energy Transfer within Nanoparticle Packing," presentation at 17th IEEE Intersociety Conference on Thermal and Thermomechanical Phenomena in Electronic Systems, San Diego, CA, May 2018.

15. D. A. Sanchez, Z. Dai, P. Wang, A. Cantu-Chavez, C. J. Brennan, E. T. Yu, R. Huang, and N. Lu, "Measuring and modeling liquid-filled nanobubbles trapped by 2D materials," presentation at Conference on Physics and Chemistry of Semiconductor Interfaces (PCSI), Kona, HI, January 2018.

16. C. J. Brennan, K. Koul, N. Lu, and E. T. Yu, "Out-of-plane electromechanical response of transition metal dichalcogenides," presentation at Conference on Physics and Chemistry of Semiconductor Interfaces (PCSI), Kona, HI, January 2018.

17. E. T. Yu, "Materials and Device Engineering at Small Spatial and Temporal Scales," University of Texas ECE Colloquium, Austin, TX, October 2017. (Invited)

18. E. T. Yu, "Tip enhanced Raman spectroscopy of semiconductor nanostructures," presentation at 2017 SPIE Optics and Photonics Conference, San Diego, CA, August 2017. (Invited)

19. A. Yuksel, M. Cullinan, E. T. Yu, and J. Y. Murthy, "Analysis of near-field thermal energy transfer within nanoparticles," presentation at 2017 SPIE Optics and Photonics Conference, San Diego, CA, August 2017.

20. S. Lee, L. Mathew, R. Rao, J. H. Kim, and E. T. Yu, "Improvement in surface passivation of c-Si using gradient-layered a-Si:H film for high efficiency silicon heterojunction solar cells," presentation at IEEE Photovoltaic Specialists Conference, Washington, DC, June 2017.

21. G. Cossio, J. Lee, G. Ragunathan, A. Wibowo, C. Stender, S. R. Tatavarti, K. A. Sablon, and E. T. Yu, "Large area nanostructure integration for broad-spectrum, omnidirectional antireflection

improvements on polymer packaged, mechanically flexible, epitaxial liftoff III-V solar cells," presentation at IEEE Photovoltaic Specialists Conference, Washington, DC, June 2017.

22. Z. J. Zhang, C. J. Brennan, R. Ghosh, S. K. Banerjee, and E. T. Yu, "Tip-enhanced Raman spectroscopy of monolayer and bilayer MoS2," presentation at 59th Electronic Materials Conference, South Bend, IN, June 2017.

23. C. J. Brennan, R. Ghosh, K. Koul, S. K. Banerjee, N. Lu, and E. T. Yu, "Probing out-of-plane electromechanical response and flexoelectricity of monolayer MoS2 using piezoresponse force microscopy," presentation at 59th Electronic Materials Conference, South Bend, IN, June 2017.

24. E. S. Walker, C. J. Brennan, A. Roy, J. Damasco, S. D. March, A. F. Briggs, E. Davis, W. Zhu, D. Akinwande, N. Mason, E. T. Yu, and S. R. Bank, "Growth optimization of epitaxial bismuth thin films towards the 2D limit," presentation at 59th Electronic Materials Conference, South Bend, IN, June 2017.

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26. C. Brennan, R. Ghosh, K. Koul, S. Banerjee, N. Lu, and E. T. Yu, "Electromechanical Response of Single and Few Layer MoS2 Using Piezoresponse Force Microscopy," presentation at Fall Meeting of the Materials Research Society, Boston, MA, December 2016.

27. E. T. Yu, "Bandgap and conductivity engineering in metal-oxide-semiconductor water-splitting photoelectrodes," presentation at ACS Symposium on Applications of Photonics in Energy and Life Sciences, Galveston, TX, November 2016. (Invited)

28. Z. J. Zhang, D. Dillen, E. Tutuc, and E. T. Yu, "Tip-enhanced Raman spectroscopy of electrically contacted Ge-SixGe1-x core-shell nanowires," presentation at 58th Electronic Materials Conference, Newark, DE, June 2016.

29. L. Ji, H.-Y. Hsu, A. J. Bard, and E. T. Yu, "Photoelectrochemical characterization of p-type CH3NH3PbI3 perovskite," presentation at IEEE Photovoltaic Specialists Conference, Portland, OR, June 2016.

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32. E. T. Yu, Z. J. Zhang, D. C. Dillen, and E. Tutuc, "Strain and phonon-carrier interactions in Ge-SixGe1-x core-shell nanowires probed using tip-enhanced Raman spectroscopy," presentation at 228th Meeting of the Electrochemical Society, Phoenix, October 2015. (Invited)

33. E. T. Yu, C. Hu, M. D. McDaniel, A. B. Posadas, A. A. Demkov, and J. G. Ekerdt, "Epitaxial Oxides on Silicon for Resistive Switching Memories with Controllable Conductance Quantization," presentation at CMOS Emerging Technologies Research Conference, Vancouver, Canada, May 2015. (Invited)

34. E. T. Yu, C. Hu, L. Ji, M. D. McDaniel, S. J. Wang, X. H. Li, H. Huang, A. B. Posadas, A. J. Bard, A. A. Demkov, J. G. Ekerdt, and J. C. Lee, "Exploiting nanoscale phenomena in epitaxial oxides grown on silicon," presentation at KAUST Workshop on Functional Nanomaterials, Jeddah, Saudi Arabia, March 2015. (Invited)

35. L. Ji, M. McDaniel, L. Tao, X. Li, A. Posadas, Y.-F. Chang, A. Demkov, J. Ekerdt, D. Akinwande, R. Ruoff, J. Lee, and E. Yu, "Atomic Scale Engineering of Metal-Oxide-Semiconductor Photoelectrodes for Energy Harvesting Application Integrated with Graphene and Epitaxial SrTiO3," presentation at 2014 IEEE International Electron Devices Meeting (IEDM), San Francisco, CA, December 2014.

36. C. Hu, M. D. McDaniel, A. B. Posadas, A. A. Demkov, J. G. Ekerdt, and E. T. Yu, "Resistive switching mechanism and controllable quantized conductance in single crystal TiO2 epitaxial oxides on Si (001)," presentation at Fall Meeting of the Materials Research Society, Boston, MA, December 2014.

37. X. Li, V. D. Dasika, P.-C. Li, L. Ji, S. R. Bank, and E. T. Yu, "Minimized reduction in open-circuit voltage for GaAs/InGaAs quantum well solar cells with bandgap-engineered graded quantum well depths," presentation at 6th World Conference on Photovoltaic Energy Conversion, Kyoto, Japan, November 2014.

38. X. Li, P.-C. Li, C. Stender, R. Tatavarti, K. Sablon, and E. T. Yu, "Integrated optical nanostructures for wide angle antireflection and light trapping in III/V solar cells," presentation at 6th World Conference on Photovoltaic Energy Conversion, Kyoto, Japan, November 2014.

39. E. T. Yu, C. Hu, M. D. McDaniel, A. B. Posadas, A. A. Demkov, and J. G. Ekerdt, "Resistive switching characteristics and controllable quantized conductance in single-crystal anatase TiO2 on Si (001)," presentation at 226th Meeting of the Electrochemical Society, Cancun, Mexico, October 2014. (Invited)

40. E. T. Yu, "Seeing (and using) the very small: imaging and solid-state device engineering at the nanoscale," Materials Science & Engineering seminar, University of Texas at Austin, September 2014.

41. Z. Zhang, D. Dillen, E. Tutuc, and E. T. Yu, "Strain and hole gas induced Raman shifts in Ge-SixGe1-x core-shell nanowires using tip-enhanced Raman spectroscopy," presentation at 56th Electronic Materials Conference, Santa Barbara, CA, June 2014.

42. V. D. Dasika, H. P. Nair, S. R. Bank, and E. T. Yu, "Raman spectroscopy investigation of nitrogen incorporation in GaSbN," presentation at 56th Electronic Materials Conference, Santa Barbara, CA, June 2014.

43. L. Ji, Y.-F. Chang, B. Fowler, Y.-C. Chen, T.-M. Tsai, K.-C. Chang, M.-C. Chen, T.-C. Chang, S. M. Sze, E. T. Yu, and J. C. Lee, "Resistive Switching of SiOx with One Diode-One Resistor Nanopillar Architecture Fabricated via Nanosphere Lithography," presentation at 72nd Device Research Conference, Santa Barbara, CA, June 2014.

44. X. Li, P.-C. Li, D. Hu, D. M. Schaadt, C. Stender, C. McPheeters, R. Tatavarti, K. Sablon, and E. T. Yu, "Integrated Optical Nanostructures for Wide-angle Antireflection and Light Trapping in III/V Solar Cells," presentation at IEEE Photovoltaic Specialists Conference, Denver, CO, June 2014.

45. P. C. Li and E. T. Yu, "Large-Area, Flexible, Wavelength-Selective Three-Dimensional Optical Metasurface," presentation at Spring Meeting of the Materials Research Society, San Francisco, CA, April 2014.

46. L. Ji, Y.-F. Chang, F. Zhou, F. Xue, B. Fowler, T.-M. Tsai, K.-C. Chang, T.-C. Chang, J. C. Lee, and E. T. Yu, "Study of SiOx-based resistive switching memory by nanosphere lithography," presentation at Spring Meeting of the Materials Research Society, San Francisco, CA, April 2014.

47. Y.-F. Chang, L. Ji, F. Zhou, B. Fowler, E. T. Yu, and J. C. Lee, "High-density nano-pillar SiOx-based resistive switching memory using nano-sphere lithography to fabricate a one diode - one resistor 1D-1R architecture," presentation at 21st International Symposium on VLSI Technology, Systems, and Applications, Hsinchu, Taiwan, April 2014.

48. L. Ji, M. D. McDaniel, S. Wang, A. Posadas, J. G. Ekerdt, A. A. Demkov, A. J. Bard, and E. T. Yu, "Efficient and stable photoelectrochemical water splitting with metal-insulator-semiconductor photoelectrodes grown by molecular beam epitaxy," presentation at 41st Conference on Physics and Chemistry of Semiconductor Interfaces, Santa Fe, NM, January 2014.

49. Y.-F. Chang, L. Ji, P.-Y. Chen, F. Zhou, F. Xue, B. Fowler, E. T. Yu, and J. C. Lee, "Study of SiOx-based resistive switching memory by nanosphere lithography," presentation at IEEE Semiconductor Interface Specialists Conference, Arlington, VA, December 2013.

50. K.W. Park, H.P. Nair, E.M. Krivoy, S.R. Bank, and E.T. Yu, "Thermal characterization of rare earth/III-V superlattice and nanocomposite structures using scanned probe microscopy," presentation at 2013 Electronic Materials Conference, South Bend, IN, June 2013.

51. V.D. Dasika, E.M. Krivoy, H.P. Nair, S.J. Maddox, K.W. Park, D. Jung, M.L. Lee, E.T. Yu, and S.R. Bank, "InAs Quantum Dot Growth using Bismuth as a Surfactant for Optoelectronic Applications," presentation at Conf. on Lasers and Electro Optics (CLEO), San Jose, CA, June 2013.

52. J. C. Chang, M. de Messieres, P. C. Li, O. I. Kulaeva, V. M. Studitsky, E. T. Yu, and A. La Porta, "Mechanical stability of mononucleosome revealed by optical torque wrench," presentation at 57th Annual Meeting of the Biophysical Society, Philadelphia, PA, February 2013.

53. K. W. Park, H. P. Nair, S. R. Band, and E. T. Yu, "Proximal probe characterization of thermal conductivity in ErAs/GaAs superlattice grown by molecular beam epitaxy," presentation at 40th Conference on Physics and Chemistry of Semiconductor Interfaces, Waikoloa, HI, January 2013.

54. D. Wang, B. Washom, E. T. Yu, and P. K. L. Yu, "A Green Campus project and advances in semiconductor nanostructures for photovoltaic applications," presentation at IEEE International Conference on Solid-State and Integrated Circuit Technology," Xian, China, October 2012. (Invited)

55. E. T. Yu, "Light trapping and quantum semiconductor structures for high efficiency photovoltaics," presentation at IEEE Colloquium on Energy Harvesting Devices, College Park, MD, September 2012. (Invited)

56. E. T. Yu, "Photonic control and plasmonics for photovoltaics," presentations at 2012 Inter-Continental Advanced Materials for Photonics Summer School on Renewable & Sustainable Energy, Boulder, CO, August 2012. (Invited)

57. V. D. Dasika, H. P. Nair, E. M. Krivoy, K. W. Park, E. T. Yu, and S. R. Bank, "InAs quantum dot growth using Bi as a surfactant," presentation at 2012 Electronic Materials Conference, State College, PA, June 2012.

58. K. W. Park, V. D. Dasika, H. P. Nair, A. M. Crook, S. R. Bank, and E. T. Yu, "Scanned probe characterization of ErAs/GaAs nanostructures below the resolution limit via statistical analysis," presentation at 2012 Electronic Materials Conference, State College, PA, June 2012.

59. P. C. Li and E. T. Yu, "Wide-angle wavelength selective optical metasurfaces," presentation at 2012 Electronic Materials Conference, State College, PA, June 2012.

60. C. O. McPheeters, D. Hu, X. Li, D. M. Schaadt, and E. T. Yu, "Performance benefits for thin film solar cells incorporating semiconductor heterostructures and light trapping," presentation at IEEE Photovoltaic Specialists Conference, Austin, TX, June 2012.

61. P. C. Li, Y. Zhao, A. Alu, and E. T. Yu, "Wide angle, wavelength-selective plasmonic multilayer metasurfaces," presentation at 2012 Spring Meeting of the Materials Research Society, San Francisco, CA, April 2012.

62. E. T. Yu, C. O. McPheeters, X. Li, D. Hu, and D. M. Schaadt, "Quantum-well and quantum-dot structures for high-efficiency photovoltaics," presentation at American Physical Society March Meeting, Boston, MA, February 2012. (Invited)

63. E. T. Yu, "Seeing the very small: imaging and solid-state device engineering at the nanoscale," Electrical & Computer Engineering Department Colloquium, Texas Tech University, February 2012.

64. C. Hu, K. W. Park, A. Posadas, A. A. Demkov, and E. T. Yu, "Voltage-controlled magnetoresistance in a LaCoO3/SrTiO3 heterostructure," presentation at 39th Conference on Physics and Chemistry of Semiconductor Interfaces, Santa Fe, NM, January 2012.

65. E. T. Yu, C. O. McPheeters, X. Li, D. Hu, and D. M. Schaadt, "Nanostructured III-V solar cells: light trapping and quantum semiconductor structures for high-efficiency photovoltaics," presentation at NNIN Workshop on Materials and Manufacturing for Energy and Electronics, Austin, TX, January 2012. (Invited)

66. P. K. L. Yu, E. T. Yu, and D. Wang, "Advances in semiconductor nanostructures for photonic applications," presentation at 20th International Symposium on Processing and Fabrication of Advanced Materials, Hong Kong, China, December 2011. (Invited)

67. E. T. Yu, "Light trapping and quantum semiconductor structures for high-efficiency photovoltaics," presentation at OSA Conference on Optics for Solar Energy, Austin, TX, November 2011. (Invited)

68. H. Tang, P. Rannou, R. A. Mesch, L. Zhu, E. T. Yu, J. C. Lee, and C. G. Willson, "Mobility enhancement in mesophases of liquid crystalline organic semiconductors," presentation at Organic Microelectronics and Optoelectronics Workshop VII, San Francisco, CA, July 2011.

69. E. T. Yu, C. O. McPheeters, D. Derkacs, and S. H. Lim, "Exploiting Nanostructure-based Scattering Effects in High-efficiency Photovoltaic Devices," presentation at 2011 Spring Meeting of the Materials Research Society, San Francisco, CA, April 2011. (Invited)

70. E. T. Yu, C. O. McPheeters, and P. C. Li, "Exploiting interactions among metal, dielectric, and semiconductor nanostructures for photovoltaic devices," presentation at 2011 Villa Conference on Interaction Among Nanostructures, Las Vegas, NV, April 2011. (Invited)

71. E. T. Yu, "Seeing the very small: imaging and solid-state device engineering at the nanoscale," Materials Science & Engineering Department Colloquium, University of Texas at Dallas, April 2011.

72. E. T. Yu, "Exploiting plasmonic and nanostructure-based scattering effects for photovoltaic devices," presentation at Lawrence Workshop on Epitaxy, Tempe, AZ, February 2011. (Invited)

73. K. W. Park, H. P. Nair, A. M. Crook, V. Dasika, S. R. Bank, and E. T. Yu, "Scanning probe microscopy studies of GaAs pn junctions with embedded ErAs nanoparticles," presentation at 38th Conference on Physics and Chemistry of Semiconductor Interfaces, San Diego, CA, January 2011.

74. E. T. Yu, "Solid-state nanostructures for high-efficiency photovoltaics," IEEE Distinguished Lecture, El Paso, TX, September 2010.

75. A. M. Crook, H. P. Nair, K. W. Park, E. T. Yu, and S. R. Bank, "Investigating the MBE overgrowth of semimetallic nanoparticles for nanophotonics," presentation at 2010 North American Molecular-Beam Epitaxy Conference, Breckenridge, CO, September 2010.

76. H. P. Nair, A. M. Crook, K. W. Park, D. A. Ferrer, S. K. Banerjee, E. T. Yu, and S. R. Bank, "Investigation of MBE-grown ErAs nanoparticle morphology for high-performance optical and electronic devices," presentation at 2010 North American Molecular-Beam Epitaxy Conference, Breckenridge, CO, September 2010.

77. C. O. McPheeters, C. J. Hill, D. Hu, S. H. Lim, D. Derkacs, D. Z. Ting, D. M. Schaadt, S. D. Gunapala, and E. T. Yu, "Toward high-efficiency quantum dot solar cells: optimized gratings for ultrathin waveguide devices," presentation at 2010 SPIE Optics+Photonics Conference, San Diego, CA, August 2010.

78. A. Crook, H. Nair, K. W. Park, E. T. Yu, and S. R. Bank, "Overgrowth investigation of epitaxial semimetallic nanoparticles for photonic devices," presentation at 52nd Electronic Materials Conference, Notre Dame, IN, June 2010.

79. K. W. Park, A. Crook, H. Nair, S. R. Bank, and E. T. Yu, "Scanned probe characterization of self-assembled ErAs/GaAs semimetal/semiconductor nanostructures grown by molecular-beam epitaxy," presentation at 52nd Electronic Materials Conference, Notre Dame, IN, June 2010.

80. D. Z. Hu, C. O. McPheeters, E. T. Yu, and D. M. Schaadt, "Influence of monolayer AlAs on solar cells with InAs quantum dots embedded in InGaAs/GaAs matrix," presentation at International Conference on Superlattices, Nanostructures, and Nanodevices (ICSNN-2010), Beijing, China, 2010.

81. P. Asbeck, L. Wang, S. Gu, Y. Taur, and E. T. Yu, "Tunneling MOSFET's based on III-V staggered heterojunctions," presentation at 2010 Spring MRS Meeting, San Francisco, CA, April 2010. (Invited)

82. E. T. Yu, "Engineering of plasmonic effects in photodetectors and high-efficiency photovoltaics," presentation at 2010 IEEE International Nanoelectronics Conference, Hong Kong, China, January 2010. (Invited)

83. E. T. Yu, "Plasmonic and nanoparticle scattering effects in high-efficiency photovoltaics," presentation at 2009 International Workshop on Physics of Semiconductor Devices, Delhi, India, December 2009. (Invited)

84. E. T. Yu, "Seeing the very small: imaging and solid-state device engineering at the nanoscale," Department of Physics/IGERT seminar, University of Texas at Austin, Austin, TX, September 2009.

85. E. T. Yu, "New approaches for high-efficiency photovoltaics: solid-state device engineering at the nanoscale," presentation at Applied Materials, Santa Clara, CA, July 2009.

86. J. J. M. Law, G. Koblmuller, F. Wu, J. S. Speck, and E. T. Yu, "Low dislocation-mediated reverse bias leakage in (0001) GaN via novel high-temperature MBE growth," presentation at 51st Electronic Materials Conference, University Park, PA, June 2009.

87. E. T. Yu, "Seeing the very small: imaging and solid-state device engineering at the nanoscale," Department of Electrical and Computer Engineering Distinguished Lecture Series, University of Texas, Austin, TX, April 2009.

88. E. T. Yu, "New technologies for solar energy harvesting: current reality and future potential," presentation at La Jolla Research and Innovation Summit, La Jolla, CA, April 2009. (Invited)

89. E. T. Yu, "Exploiting nanoscale phenomena in solid-state devices: New concepts for energy and electronics," Department of Physics seminar, University of California, Davis, CA, February 2009.

90. E. T. Yu, "Exploiting nanowires and nanoparticles for photovoltaics," presentation at Workshop on Research Frontiers and Capability Gaps for Controlling and Designing Functional Materials, Los Alamos, NM, January 2009. (Invited)

91. L. Zhu and E. T. Yu, "Magnetoresistance amplification in a three-terminal ferromagnet/semiconductor spintronic device," presentation at 36th Conference on Physics and Chemistry of Semiconductor Interfaces, Santa Barbara, CA, January 2009.

92. E. T. Yu, "Seeing the very small: imaging and solid-state device engineering at the nanoscale," Department of Electrical and Computer Engineering seminar, University of Texas, Austin, TX, December 2008.

93. D. Derkacs, W. V. Chen, P. K. L. Yu, and E. T. Yu, "Improved performance of quantum well solar cells via nanoparticle light scattering," presentation at Fall MRS Conference, Boston, MA, December 2008.

94. E. T. Yu, D. Derkacs, W. V. Chen, and P. K. L. Yu, "Plasmonic scattering enhancement of quantum-well solar cells," presentation at 2008 OSA Frontiers in Optics Conference, Rochester, NY, October 2008. (Invited)

95. E. T. Yu, "Seeing the very small: imaging and solid-state device engineering at the nanoscale," presentation at Korea University workshop on materials science and engineering, Seoul, Korea, August 2008. (Invited)

96. E. T. Yu, D. Derkacs, W. V. Chen, and P. K. L. Yu, "Quantum well and plasmonic nanostructures for high-efficiency photovoltaics," presentation at 2008 SPIE Optics+Photonics Conference, San Diego, CA, August 2008. (Invited)

97. E. T. Yu, D. Derkacs, S. H. Lim, P. Matheu, D. M. Schaadt, W. V. Chen, and P. K. L. Yu, "Plasmonic nanoparticle scattering for enhanced performance of photovoltaic and photodetector devices," presentation at 2008 SPIE Optics+Photonics Conference, San Diego, CA, August 2008. (Invited)

98. S. A. Dayeh, D. Susac, P. Chen, Y. Jing, K. Kavanagh, E. T. Yu, and D. Wang, "Optimal control over the InAs nanowire growth for system integration and their structural and transport properties," presentation at 8th International Conference on Nanotechnology (2008 IEEE NANO), Arlington, TX, August 2008.

99. J. Law, S. Dayeh, D. Wang, and E. T. Yu, "Scanning capacitance characterization of potential screening in InAs nanowire devices," presentation at 8th International Conference on Nanotechnology (2008 IEEE NANO), Arlington, TX, August 2008.

100. D. Z. Hu, C. McPheeters, E. T. Yu, and D. M. Schaadt, "Enhanced optical absorption via excitation of surface plasmon resonances in metal nanoparticles placed on a semiconductor device," presentation at Summer School on Plasmonics, Porquorolles Island, France, 2008.

101. S. Dayeh, D. Susac, K. Kavanagh, E. T. Yu, and D. Wang, "Structural and electronic properties of zincblende and wurtzite InAs nanowires," presentation at 2008 Electronic Materials Conference, Santa Barbara, CA, June 2008.

102. J. Law, S. Dayeh, D. Wang, and E. T. Yu, "Scanning capacitance characterization of potential screening in InAs nanowires," presentation at 2008 Electronic Materials Conference, Santa Barbara, CA, June 2008.

103. S. A. Dayeh, Y. Jing, P. Chen, E. T. Yu, D. Wang, and S. S. Lau, "Integration of vertically and electrically isolated III-V nanowires on silicon," presentation at 2008 Spring MRS Meeting, San Francisco, CA, April 2008.

104. S. A. Dayeh, S. M. Eichfeld, Y. Jing, P. Chen, E. T. Yu, D. Wang, J. M. Redwing, and S. S. Lau, "Vertically-aligned Si nanowires on silicon on insulator," presentation at 2008 Spring MRS Meeting, San Francisco, CA, April 2008.

105. E. T. Yu, "Exploiting nanoscale phenomena in solid-state devices: New concepts for energy and electronics," presentation at UCSD Jacobs School of Engineering Corporate Affiliates Program Board Meeting, La Jolla, CA, February 2008.

106. S. A. Dayeh, D. Wang, and E. T. Yu, "Mechanistic studies and precise control of III-V nanowire growth," presentation at 35th Conference on Physics and Chemistry of Semiconductor Interfaces, Santa Fe, NM, January 2008.

107. S. A. Dayeh, E. T. Yu, and D. Wang, "Room temperature electron transport properties in InAs nanowires," presentation at 2007 MRS Fall Meeting, Boston, MA, November 2007.

108. S. A. Dayeh, E. T. Yu, and D. Wang, "Optimum control over the Vapor-Liquid-Solid nanowire morphology through surface kinetics," presentation at 2007 MRS Fall Meeting, Boston, MA, November 2007.

109. S. A. Dayeh, P. K. L. Yu, E. T. Yu, and D. Wang, "III-V nanowire growth mechanisms: VLS or VSS," presentation at 49th Electronic Materials Conference, Notre Dame, IN, June 2007.

110. E. T. Yu, D. Derkacs, S. H. Lim, W. Mar, P. Matheu, and D. M. Schaadt, "Increasing efficiency of photovoltaics via surface plasmon polariton scattering effects in metal nanoparticles," presentation at Nanotech 2007 Conference, Santa Clara, CA, May 2007. (Invited)

111. S. A. Dayeh, P. K. L. Yu, E. T. Yu, and D. Wang, "Field-, diameter-, and surface state-dependent transport behavior in semiconductor nanowires," presentation at 2007 MRS Spring Meeting, San Francisco, CA, April 2007.

112. E. T. Yu, "Seeing the very small: nanoscience and nanotechnology in electronic devices," Department Colloquium, Department of Physics, Arizona State University, Tempe, AZ, March 2007.

113. E. T. Yu, "Seeing the very small: nanoscience and nanotechnology in electronic devices," seminar presentation, Department of Materials Science & Engineering, UCLA, January 2007.

114. S. A. Dayeh, C. Soci, P. K. L. Yu, D. Wang, and E. T. Yu, "Interface state effects on the transport properties of InAs nanowire field-effect transistors," presentation at 34th Conference on Physics and Chemistry of Semiconductor Interfaces, Salt Lake City, UT, January 2007.

115. X. Zhou, S. A. Dayeh, D. Wang, and E. T. Yu, "Scanning gate microscopy characterization of InAs nanowires," presentation at 34th Conference on Physics and Chemistry of Semiconductor Interfaces, Salt Lake City, UT, January 2007.

116. E. T. Yu, "Seeing the very small: nanoscience and nanotechnology in electronic devices," seminar presentation, Department of Mechanical Engineering, Northwestern University, Evanston, IL, September 2006.

117. E. T. Yu, "Prospects for realization of electrically pumped Si lasers," presentation at DSRC Summer Conference, San Diego, CA, July 2006.

118. R. D. Yang, X. Zhou, E. T. Yu, and A. C. Kummel, "Trap energy determination by analysis of isothermal gated space-charge-limited current in organic thin-film transistors," presentation at 48th Electronic Materials Conference, University Park, PA, June 2006.

119. S. A. Dayeh, D. Aplin, E. T. Yu, P. K. L. Yu, and D. L. Wang, "Growth mechanism and optimization of InAs nanowires synthesized by OMVPE," presentation at 48th Electronic Materials Conference, University Park, PA, June 2006.

120. E. T. Yu, "Batteries and portable communications – some perspectives from the 'field'," presentation at DSRC Workshop II on 100% Efficient Electronics, Arlington, VA, March 2006.

121. E. T. Yu, "Seeing the very small: nanoscience and nanotechnology in electronic devices," seminar presentation, San Diego Chapter of IEEE, San Diego, CA, March 2006.

122. S. Raychaudhuri and E. T. Yu, "Calculation of critical dimensions in coherently strained coaxial nanowire heterostructures," presentation at 33rd Conference on Physics and Chemistry of Semiconductor Interfaces, Cocoa Beach, FL, January 2006.

123. X. Zhou, S. A. Dayeh, D. Aplin, D. Wang, and E. T. Yu, "Scanned electrical probe characterization of carrier transport behavior in InAs nanowires," presentation at 33rd Conference on Physics and Chemistry of Semiconductor Interfaces, Cocoa Beach, FL, January 2006.

124. R. D. Yang, X. Zhou, A. Sharoni, C. Colesniuc, J. Park, E. T. Yu, I. K. Schuller, and A. C. Kummel, "Impedance spectroscopy and scanning Kelvin probe microscopy studies of charge injection and transport in phthallocyanine thin films," presentation at 2005 Fall Meeting of the Materials Research Society, Boston, MA, November 2005.

125. E. T. Yu, B. S. Simpkins, X. Zhou, H. Zhang, E. J. Miller, and D. M. Schaadt, "Nanoscale electronic structure of defects in nitride semiconductors imaged by scanned probe microscopy," presentation at 11th International Conference on Defects – Recognition, Imaging, and Physics in Semiconductors (DRIP XI), Beijing, China, September 2005. (Invited)

126. E. T. Yu, "Research prospects in wide band gap semiconductors," presentation at 2005 Defense Sciences Research Council Summer Conference, San Diego, CA, July 2005.

127. S. A. Dayeh, D. Aplin, X. Zhou, P. K. L. Yu, E. T. Yu, and D. Wang, "Synthesis and characterization of InAs nanowires," presentation at 47th Electronic Materials Conference, Santa Barbara, CA, June 2005.

128. H. Zhang, E. J. Miller, and E. T. Yu, "Analysis of leakage current mechanisms in GaN and AlGaN/GaN Schottky diodes," presentation at 47th Electronic Materials Conference, Santa Barbara, CA, June 2005.

129. E. T. Yu and X. Zhou, "Nanoscale imaging of electronic structure in InGaN/GaN quantum wells," presentation at International Conference on Metallurgical Coatings and Thin Films, San Diego, CA, May 2005. (Invited)

130. X. Zhou, E. T. Yu, D. I. Florescu, J. C. Ramer, D. S. Lee, S. M. Ting, and E. A. Armour, and W. E. Quinn, "Imaging of monolayer fluctuations and In clustering in InGaN/GaN quantum wells by scanning capacitance microscopy," presentation at 32nd Conference on Physics and Chemistry of Semiconductor Interfaces, Bozeman, MT, January 2005.

131. E. T. Yu, "Probing electronic materials and devices at the nanometer scale," colloquium presentation at Department of Materials Science and Engineering, University of California at Irvine, December 2004.

132. X. Zhou, E. T. Yu, D. I. Florescu, J. C. Ramer, D. S. Lee, S. M. Ting, and E. A. Armour, "Nanoscale imaging of InGaN thickness fluctuations and In clustering in InGaN/GaN quantum-well structures using SCM," presentation at 2004 Fall Meeting of the Materials Research Society, Boston, MA, November 2004.

133. E. T. Yu, "Characterization for next-generation electronics," presentation at Next Generation Electronics Workshop, Adelphi, MD, November 2004. (Invited)

134. E. T. Yu, X. Zhou, D. I. Florescu, J. C. Ramer, D. S. Lee, and E. A. Armour, "Scanned probe characterization of nanoscale structure in InGaN/GaN quantum wells," presentation at AFOSR Workshop on Nanoscale Issues in Nitride Semiconductors, Anchorage, AK, August 2004. (Invited)

135. X. Zhou, E. T. Yu, D. I. Florescu, J. C. Ramer, D. S. Lee, and E. A. Armour, "Capacitance-voltage and scanning probe studies of InGaN/GaN quantum-well structures," presentation at 46th Electronic Materials Conference, Notre Dame, IN, June 2004.

136. E. T. Yu, B. S. Simpkins, P. Waltereit, and J. S. Speck, "Electrical properties of dislocations in MBE-grown n-GaN," presentation at 2004 Workshop on Compound Semiconductor Materials and Devices (WOCSEMMAD), Pasadena, CA, February 2004.

137. E. T. Yu, "Probing electronic materials and devices at the nanometer scale," colloquium presentation at Department of Electrical and Computer Engineering, University of California at Riverside, January 2004.

138. D. M. Schaadt, E. T. Yu, V. Vaithyanathan, and D. G. Schlom, "Nanoscale current transport in epitaxial SrTiO3 on n+-Si imaged with conductive atomic force microscopy," presentation at 31st Conference on Physics and Chemistry of Semiconductor Interfaces, Kona, HI, January 2004.

139. H. Zhang, E. J. Miller, E. T. Yu, C. Poblenz, and J. S. Speck, "Capacitance-voltage measurement of polarization charge and conduction-band offset at the InxGa1-xN/GaN heterojunction interface," presentation at 31st Conference on Physics and Chemistry of Semiconductor Interfaces, Kona, HI, January 2004.

140. E. T. Yu, "Defects and nanoscale electronic structure in nitride semiconductors," seminar presentation at Raytheon RF Components, Andover, MA, December 2003.

141. E. T. Yu, E. J. Miller, D. M. Schaadt, and B. S. Simpkins, "Nanoscale characterization and mitigation of defects in nitride semiconductors," presentation at 2003 International Symposium on Compound Semiconductors, San Diego, August 2003. (Invited)

142. E. T. Yu, E. J. Miller, D. M. Schaadt, and B. S. Simpkins, "From microscopic characterization to processes for defect mitigation in nitride semiconductors," Tri-Services Workshop on Process Induced Defects in Wide Bandgap Semiconductors, Grants Pass, OR, August 2003. (Invited, received Outstanding Speaker Award)

143. E. T. Yu, B. S. Simpkins, E. J. Miller, and D. M. Schaadt, "Influence of dislocations on charge distributions and carrier transport in nitride semiconductors," ONR Workshop on Extended Defects in Wide Gap Semiconductors II, Irvington, VA, July 2003. (Invited, received Outstanding Speaker Award)

144. B. S. Simpkins, E. T. Yu, U. Chowdhury, M. M. Wong, T. G. Zhu, D. W. Yoo, and R. D. Dupuis, "Local conductivity and surface potential measurements of Mg-doped p-GaN," presentation at 45th Electronic Materials Conference, Salt Lake City, UT, June 2003.

145. E. T. Yu, "Probing electronic materials and devices at the nanometer scale," seminar presentation at SPAWAR Systems Center, San Diego, May 2003.

146. J. P. McGuire, C. Ciuti, L. J. Sham, and E. T. Yu, "Spintronics of an InAs surface layer with ferromagnetic gates," presentation at 2003 March Meeting of the American Physical Society, Austin, TX, March 2003.

147. E. T. Yu, E. J. Miller, D. M. Schaadt, and B. S. Simpkins, "Electronic properties of defects in GaN characterized by scanning probe microscopy," ONR Workshop on Characterization of Defects in Wide Bandgap Semiconductors, Hawaii, March 2003. (Invited)

148. E. T. Yu, "Probing electronic materials and devices at the nanometer scale," Materials Research Lecture at California Institute of Technology, Pasadena, CA, February 19, 2003.

149. B. S. Simpkins and E. T. Yu, "Influence of AlN buffer on electronic properties and dislocation microstructure of AlGaN/GaN grown by molecular-beam epitaxy on SiC," presentation at 30th Conference on Physics and Chemistry of Semiconductor Interfaces, Salt Lake City, UT, January 2003.

150. B. S. Simpkins, E. T. Yu, P. Waltereit, and J. S. Speck, "Correlated scanning Kelvin probe and conducting atomic force microscopy studies of dislocations in gallium nitride," presentation at 2002 Fall MRS Meeting, Boston, MA, December 2002.

151. E. T. Yu, "Probing electronic materials and devices at the nanometer scale," seminar presentation at Department of Materials Science and Engineering, Carnegie Mellon University, September 13, 2002.

152. E. T. Yu, "Probing electronic materials and devices at the nanometer scale," seminar presentation at National Renewable Energy Laboratory, Golden, CO, August 23, 2002.

153. E. J. Miller, D. M. Schaadt, C. W. McKinney, E. T. Yu, P. Waltereit, C. Poblenz, and J. S. Speck, "Reverse-bias leakage current reduction in GaN Schottky diodes by surface modification with an atomic force microscope," presentation at the 44th Electronic Materials Conference, Santa Barbara, CA, June 27, 2002.

154. E. T. Yu, "Probing electronic materials and devices at the nanometer scale," seminar presentation at Department of Materials Science and Engineering, Stanford University, May 17, 2002.

155. B. S. Simpkins and E. T. Yu, "Polarization effects and local electronic properties in nitride heterostructures," seminar presentation at Raytheon RF Components, Andover, MA, April 29, 2002.

156. E. T. Yu, "Probing electronic materials and devices at the nanometer scale," seminar presentation at Department of Electrical Engineering, Ohio State University, Columbus, OH, April 9, 2002.

157. E. T. Yu, E. J. Miller, and D. M. Schaadt, "Scanning probe characterization of nanoscale charge transport," Workshop on Induced Collective Phenomena in Semiconductors, Indianapolis, IN, March 2002.

158. P. M. Asbeck, E. T. Yu, S. S. Lau, L. Jia, and L. S. Yu, "Leakage currents through potential barriers in nitride materials and influence of polarization effects," presentation at ONR Workshop on Extended Defects in Wide Gap Semiconductors: Electrical and Optical Effects, Belize, January 2002. (Invited)

159. E. T. Yu, E. J. Miller, D. M. Schaadt, C. Poblenz, C. Elsass, and J. S. Speck, "Electrical properties of extended defects in nitride semiconductors characterized by scanning probe microscopy," presentation at ONR Workshop on Extended Defects in Wide Gap Semiconductors: Electrical and Optical Effects, Belize, January 2002. (Invited)

160. E. J. Miller, E. T. Yu, C. Poblenz, C. R. Elsass, and J. S. Speck, "Direct measurement of the polarization charge in AlGaN/GaN heterostructures using capacitance-voltage carrier profiling," presentation at 29th Conference on Physics and Chemistry of Semiconductor Interfaces, Santa Fe, NM, January 2002.

161. D. M. Schaadt and E. T. Yu, "Scanning capacitance spectroscopy of an AlxGa1-xN/GaN heterostructure field-effect transistor structure: analysis of probe tip effects," presentation at 29th Conference on Physics and Chemistry of Semiconductor Interfaces, Santa Fe, NM, January 2002.

162. E. T. Yu, "Nanoscale engineered photonic structures as strategic materials for defense applications," presentation at Institute for Defense Analyses, Arlington, VA, December 2001.

163. E. J. Miller, D. M. Schaadt, E. T. Yu, C. Poblenz, C. R. Elsass, P. Waltereit, and J. S. Speck, "Characterization and local passivation of reverse-bias leakage paths in an AlGaN/GaN heterostructure," presentation at 2001 MRS Fall Meeting, Boston, December 2001.

164. E. T. Yu, D. M. Schaadt, and K. V. Smith, "Nanoscale characterization of nitride heterostructures by scanning capacitance microscopy," presentation at ONR Workshop on Near-Surface Effects in Semiconductor Substrates, Kodiak, AK, August 2001. (Invited)

165. E. T. Yu, D. M. Schaadt, K. V. Smith, and E. J. Miller, "Scanning capacitance characterization of AlGaN/GaN heterostructures," presentation at 2001 GaN Electronics Workshop, Santa Barbara, CA, May 2001. (Invited)

166. E. T. Yu, "Probing electronic materials and devices at the nanoscale," seminar presentation at UCSD Department of Physics, La Jolla, CA, May 2001.

167. P. M. Asbeck, E. T. Yu, S. S. Lau, L. Jia, D. Keogh, D. Qiao, E. Miller, P. Miraglia, A. Roskowski, and R. F. Davis, "Polarization-induced energy barriers in electronic devices," presentation at 2001 MRS Spring Meeting, San Francisco, April 2001. (Invited)

168. D. M. Schaadt, E. T. Yu, and J. M. Redwing, "Frequency response of trap states in an AlxGa1-xN/GaN heterostructure field-effect transistor measured at the nanoscale by dC/dV spectroscopy," presentation at 2001 MRS Spring Meeting, San Francisco, April 2001.

169. E. J. Miller and E. T. Yu, "Influence of the dipole interaction energy on clustering in InGaN," presentation at 2001 MRS Spring Meeting, San Francisco, April 2001.

170. D. M. Schaadt, E. J. Miller, E. T. Yu, and J. M. Redwing, "Quantitative analysis of nanoscale electronic properties in an AlxGa1-xN/GaN heterostructure field-effect transistor structure," presentation at the 28th Conference on Physics and Chemistry of Semiconductor Interfaces, Orlando, FL, January 2001.

171. E. T. Yu et al., "Nanoscale electronic properties in nitride semiconductor heterostructures," presentation at 2000 AVS National Symposium, Boston, MA (2000). (Invited)

172. E. T. Yu, "Characterization of local electronic properties in nitride semiconductors," presentation at ONR Workshop on Polarization Effects on Semiconductors, Glacier National Park, MT (2000). (Invited)

173. E. T. Yu, K. V. Smith, D. M. Schaadt, E. J. Miller, and B. S. Simpkins, "Characterization of nanoscale electronic properties in nitride semiconductors," presentation at 27th International Symposium on Compound Semiconductors, Monterey, CA (2000). (Invited)

174. E. T. Yu, "Polarization effects and nanoscale electronic properties in nitride semiconductors," seminar presentation at Lucent Technologies Bell Laboratories, Murray Hill, NJ, July 2000.

175. D. M. Schaadt, E. T. Yu, S. Sankar, and A. E. Berkowitz, "Hybrid magnetoelectronic device for magnetic field sensing," presentation at 2000 Symposium on Spin Electronics, Halle, Germany (2000).

176. E. T. Yu, "Polarization effects and nanoscale electronic properties in nitride semiconductors," seminar presentation at Wright-Patterson Air Force Base, OH, June 2000.

177. E. T. Yu et al., "Charge trapping effects in AlGaN/GaN HEMT structures," presentation at ONR/NRL Workshop on Traps in AlGaN/GaN HEMT's, Washington, DC (2000). (Invited)

178. P. A. Rosenthal, E. T. Yu, and P. J. Zampardi, "Structural and electronic properties of AlGaAs/GaAs heterojunction bipolar transistors characterized using cross-sectional scanning force microscopy," presentation at 2000 Electronic Materials Conference, Denver, CO (2000).

179. K. V. Smith, X. Z. Dang, E. T. Yu, J. M. Redwing, D. A. Keough, C. Elsass, B. Heying, and J. S. Speck, "Comparison of charge trapping effects in AlGaN/GaN heterostructures based on Al composition, doping and growth technique," presentation at 2000 Electronic Materials Conference, Denver, CO (2000).

180. X. Z. Dang, P. M. Asbeck, E. T. Yu, G. J. Sullivan, K. S. Boutros, and J. M. Redwing, "Long time constant trap effects in AlGaN/GaN HFET's," presentation at 2000 MRS Spring Meeting, San Francisco (2000).

181. B. B. Maranville, A. Shapiro, F. Hellman, D. M. Schaadt, and E. T. Yu, "Perpendicular magnetic anisotropy of CoPt3 on vicinal substrates," presentation G26.011 at 2000 March Meeting of the American Physical Society, Minneapolis, MN (2000).

182. K. V. Smith, E. T. Yu, K. S. Boutros, and J. M. Redwing, "Charging effects in AlGaN/GaN heterostructures probed using scanning capacitance microscopy," presentation at the 27th Conference on Physics and Chemistry of Semiconductor Interfaces, Salt Lake City, January 2000.

183. E. T. Yu and S. L. Zuo, "STM studies of semiconductor alloy layer and interface structure at the atomic scale", presentation at 1999 MRS Fall Meeting, Boston (1999). (Invited)

184. E. T. Yu, K. V. Smith, X. Dang, P. M. Asbeck, and S. S. Lau, "Polarization effects and nanoscale electronic properties in nitride semiconductor heterostructures," presentation at 1999 MRS Fall Meeting, Boston (1999). (Invited)

185. D. M. Schaadt, E. T. Yu, S. Sankar, and A. E. Berkowitz, "Novel hybrid magnetoelectronic device for magnetic field sensing," presentation at 1999 National Symposium of the American Vacuum Society, Seattle, October 1999.

186. E. T. Yu, "Probing materials and devices at the atomic scale," seminar presentation at VTT Electronics Laboratory, Espoo, Finland, Spetember 1999.

187. E. T. Yu, "Probing materials and devices at the atomic scale," presentation at the TEKES Nanotechnology Workshop, Helsinki, Finland, September 1999. (Invited)

188. P. M. Asbeck, E. T. Yu, S. S. Lau, and W. Sun, "Vertical Transistors Implemented with GaN-Based Materials: Prospects and Progress," presentation at XXVIth General Assembly of the International Union of Radio Science, Toronto, Canada, August 1999. (Invited)

189. K. V. Smith, E. T. Yu, J. M. Redwing, and K. S. Boutros, "Local electronic structure of AlGaN/GaN heterostructures probed by scanning capacitance microscopy," presentation at 1999 Electronic Materials Conference, Santa Barbara, CA, July 1999.

190. D. M. Schaadt, E. T. Yu, S. Sankar, and A. E. Berkowitz, "Nanoscale charge transport properties of Co/SiO2 multilayer structures and their application in a novel magnetic field sensor," presentation at 1999 Electronic Materials Conference, Santa Barbara, CA, July 1999.

191. C. C. Shi, P. M. Asbeck, and E. T. Yu, "Surface potential effects due to the piezoelectric charge associated with dislocations in GaN," presentation at 1999 Electronic Materials Conference, Santa Barbara, CA, July 1999.

192. D. M. Schaadt, E. T. Yu, S. Sankar, and A. E. Berkowitz, "Charging and discharging of Co/SiO2 multilayer structures investigated by scanning force microscopy," presentation at 1999 Spring MRS Meeting, San Francisco, April 1999.

193. Y. Zheng, Z. F. Guan, R. J. Welty, K. V. Smith, P. M. Asbeck, E. T. Yu, S. S. Lau, T. Hoechbauer, R. D. Verda, M. Nastasi, T. E. Haynes, C. H. Yun, A. B. Wengrow, and N. W. Cheung, "Patterned ion-cut techniques for semiconductors," presentation at 1999 Spring MRS Meeting, San Francisco, April 1999.

194. E. T. Yu, "Probing electronic materials and device structures at the nanometer scale," seminar presentation at California Institute of Technology, 14 April 1999.

195. E. T. Yu, "Probing electronic materials and device structures at the atomic scale," seminar presentation at Stanford University, 18 March 1999.

196. E. T. Yu, "Polarization effects in III-V nitride heterostructure materials and device engineering," seminar presentation at HP Labs, Palo Alto, CA, 19 March 1999.

197. E. T. Yu, "Probing electronic materials and device structures at the atomic scale," seminar presentation at University of California at Berkeley, 5 March 1999.

198. E. T. Yu, "Polarization effects in III-V nitride heterostructure materials and device engineering," seminar presentation at Stanford University, 4 March 1999.

199. E. T. Yu, "Spontaneous and piezoelectric polarization effects in III-V nitride heterostructures," seminar presentation at Xerox Palo Alto Research Center (PARC), 26 February 1999.

200. E. T. Yu, "Probing electronic materials and device structures at the atomic slale," seminar presentation at Jet Propulsion Laboratory, Pasadena, CA, 2 February 1999.

201. E. T. Yu, "Probing electronic materials and device structures at the atomic scale," Laboratory Colloquium at HRL Laboratories, Malibu, CA, 28 January 1999.

202. P. M. Asbeck, E. T. Yu, S. S. Lau, and W. Sun, "Enhancement of base conductivity via the piezoelectric effect in AlGaN/GaN heterostructure bipolar transistors," presentation at the Workshop on Wide Bandgap Bipolar Devices, Panama City Beach, FL, January 1999.

203. E. T. Yu, "Spontaneous and piezoelectric polarization effects in III-V nitride heterostructures," presented at 1999 Conference on Physics and Chemistry of Semiconductor Interfaces, San Diego, January 1999. (Invited)

204. S. L. Zuo, E. T. Yu, A. A. Allerman, and R. M. Biefeld, "Cross-sectional scanning tunneling microscopy of InAsSb/InAsP superlattices," presented at the 1999 Conference on Physics and Chemistry of Semiconductor Interfaces, San Diego, January 1999.

205. E. T. Yu, "Probing electronic materials and device structures at the atomic scale," Department of Materials Science and Engineering Colloquium, UCLA, November 1998.

206. E. T. Yu, "Probing electronic materials and device structures at the atomic scale," Department of Physics Condensed Matter Seminar, UCSD, November 1998.

207. X. Z. Dang, P. M. Asbeck, E. T. Yu, G. J. Sullivan, M. Y. Chen, B. T. McDermott, and K. S. Boutros, "Drift mobility in AlGaN/GaN heterostructure field-effect transistors," presentation at the 1998 Materials Research Society Fall Meeting, Boston, December 1998.

208. E. T. Yu, "Cross-sectional scanning tunneling microscopy of InAs/GaInSb and InAsP/InAsSb superlattices for infrared applications," presented at the Second Workshop on Characterization, Future Opportunities and Applications of 6.1Å III-V Semiconductors, Washington, DC, August 1998. (Invited)

209. E. T. Yu, "Nanoscale characterization of materials and devices by scanning probe techniques," presented at US-Finland Workshop on Microstructuring Science and Technology, Espoo, Finland, August 1998. (Invited)

210. E. T. Yu, X. Z. Dang, L. S. Yu, D. Qiao, P. M. Asbeck, S. S. Lau, G. J. Sullivan, K. S. Boutros, and J. M. Redwing, "Piezoelectric enhancement of Schottky barrier heights in GaN/AlGaN HFET structures," presented at the 1998 Device Research Conference, Charlottesville, VA, June 1998.

211. X. Z. Dang, E. T. Yu, K. S. Boutros, and J. M. Redwing, "Characterization of defect levels in n-type Al0.15Ga0.85N/GaN heterostructures," presented at the Electronic Materials Conference, Charlottesville, VA, June 1998.

212. P. A. Rosenthal, E. T. Yu, R. L. Pierson, and P. J. Zampardi, "Cross-sectional Kelvin probe force microscopy of epitaxial layers for heterojunction bipolar transistors," presented at Electronic Materials Conference, Charlottesville, VA, June 1998.

213. E. T. Yu, "Atomic-Scale Characterization of Semiconductor Heterostructures," presented at 1998 National Symposium of the American Vacuum Society, Baltimore, November 1998. (Invited)

214. E. T. Yu, "STM Studies of Atomic-Scale Properties of Semiconductor Heterostructures," presented at ICSICT '98, Beijing, China, October 1998. (Invited)

215. E. T. Yu, "Cross-Sectional Scanning Tunneling Microscopy of Semiconductor Heterostructures," presented at the 1998 Workshop on New Trends and Developments in Surface Science and Scanning Probe Microscopy, San Francisco, CA, May 29, 1998. (Invited)

216. S. L. Zuo, W. G. Bi, C. W. Tu, E. T. Yu, A. A. Allerman, and R. M. Biefeld, "Scanning tunneling microscopy of InAsP/InP and InAsP/InAsSb heterostructures," presented at the 1998 Spring Meeting of the Materials Research Society, San Francisco, CA (1998).

217. E. T. Yu, P. M. Asbeck, X. Z. Dang, L. S. Yu, D. Qiao, S. S. Lau, and G. J. Sullivan, "Piezoelectric effects in GaN/AlGaN heterostructure field effect transistors," presented at the 28th State-of-the-Art Program on Compound Semiconductors, San Diego, CA (1998). (Invited)

218. S. L. Zuo, W. G. Bi, C. W. Tu, and E. T. Yu, "Atomic Scale Compositional Structure of InAsP/InP Heterostructures Grown by Molecular-Beam Epitaxy," presented at the 1998 Conference on Physics and Chemistry of Semiconductor Interfaces (1998).

219. E. T. Yu, "Atomic Scale Characterization of Semiconductor Heterostructures and Devices," seminar presentation at Sandia National Laboratories, 14 January 1998.

220. E. T. Yu, "Atomic Scale Characterization of Semiconductor Heterostructures and Devices," Materials Research Lecture seminar presentation at California Institute of Technology, 19 November 1997.

221. E. T. Yu, S. L. Zuo, A. Y. Lew, R. H. Miles, W. G. Bi, and C. W. Tu, "Atomic-Scale Properties of Semiconductor Heterostructures Probed by Scanning Tunneling Microscopy," presented at 9th CIMTEC – World Ceramics Congress and Forum on New Materials, Florence, Italy, June 1998. (Invited)

222. E. T. Yu, S. L. Zuo, A. Y. Lew, W. G. Bi, and C. W. Tu, "Atomic-Scale Characterization by Cross-Sectional Scanning Tunneling Microscopy," presented at 1998 ICMCTF, San Diego, CA, Spring 1998. (Invited)

223. B. L. Stein, E. T. Yu, E. T. Croke, A. T. Hunter, T. Laursen, A. E. Bair, J. W. Mayer, and C. C. Ahn, "Electronic Properties of Si/Si1–x–yGexCy Heterojunctions," presented at the 2nd International Symposium on Silicon Heterostructures: from Physics to Devices, Barga, Italy, September 1997 (1997).

224. Q. Z. Liu, L. S. Yu, K. V. Smith, D. Qiao, C. D. Wang, C. W. Tu, P. M. Asbeck, E. T. Yu, and S. S. Lau, "Metal-GaN Contact Technology," presented at 1997 International Meeting of The Electrochemical Society, Paris, France, September 1997 (1997). (Invited)

225. P. M. Asbeck, G. J. Sullivan, E. T. Yu, S. S. Lau, and B. McDermott, "Role of the Piezoelectric Effect in AlGaN/GaN HFET Behavior," presented at the 1997 Device Research Conference, Ft. Collins, CO (1997).

226. E. T. Yu, "Cross-Sectional Scanning Tunneling Microscopy for Nanoscale Characterization of ULSI Devices," presented at 1997 Conference on Challenges in Predictive Process Simulation, Wandlitz, Germany, August 1997 (1997). (Invited)

227. E. T. Yu, "Electronic Properties of Si/SiGeC Heterostructures," presented at the Bohmische Physical Society Symposium, Tempe, AZ, June 1997 (1997). (Invited)

228. E. T. Yu, A. Y. Lew, S. L. Zuo, D. H. Chow, R. H. Miles, and Y.-H. Zhang, "Atomic-Scale Structure of Semiconductor Interfaces and Alloy Layers Studied by Scanning Tunneling Microscopy," presented at the 1997 Scanning Microscopy Conference, Chicago, IL (1997). (Invited)

229. E. T. Yu, "Band Offsets in Si/SiGeC Heterojunctions," invited presentation/discussion leader, Workshop on Growth and Device Applications of SiGeC Alloys, Austin, TX, April 1997 (1997). (Invited)

230. E. T. Yu, "Cross-Sectional Scanning Tunneling Microscopy of Semiconductor Heterostructures and Devices," seminar presentation at University of Texas at Austin, April 1997 (1997).

231. B. L. Stein, E. T. Yu, E. T. Croke, A. T. Hunter, T. Laursen, A. E. Bair, J. W. Mayer, and C. C. Ahn, "Measurement of Band Offsets in Si/Si1–xGex and Si/Si1–x–yGexCy Heterojunctions," presented at the 1997 Conference on Physics and Chemistry of Semiconductor Interfaces, Research Triangle Park, NC, (1997).

232. Q. Z. Liu, K. V. Smith, E. T. Yu, S. S. Lau, N. R. Perkins, and T. F. Kuech, "On the Epitaxy of Metal Films on GaN," presented at the 1996 Materials Research Society Fall Meeting, Boston, MA (1996).

233. A. Y. Lew, S. L. Zuo, E. T. Yu, and R. H. Miles, "Anisotropy in Atomic-Scale Interface Structure and Mobility in InAs/GaInSb Superlattices," presented at the 1996 Materials Research Society Fall Meeting, Boston, MA (1996).

234. Y.-H. Zhang, A. Y. Lew, E. T. Yu, and Y. Chen, "Microstructure Properties of InAs/InAs1–xSbx Superlattices and InAs1–xSbx Ordered Alloys Grown by Modulated Molecular Beam Epitaxy," presented at the 1996 International Conference on Molecular-Beam Epitaxy, Malibu, CA (1996).

235. E. T. Yu, "Atomic-Scale Characterization of Semiconductor Heterostructures and Devices," presented at 1996 Defense Sciences Research Council Summer Conference, La Jolla, CA, July 1996 (1996). (Invited)

236. B. L. Stein, E. T. Yu, E. T. Croke, A. T. Hunter, T. Laursen, A. E. Bair, J. W. Mayer, and C. C. Ahn, "Band Offsets in Si/Si1–x–yGexCy Heterojunctions Measured by Admittance Spectroscopy," presented at the 1996 Electronic Materials Conference, Santa Barbara, CA (1996).

237. A. Y. Lew, E. T. Yu, and Y.-H. Zhang, "Atomic-Scale Structure of InAs/InAsSb Superlattices Grown by Modulated Molecular-Beam Epitaxy," presented at the 1996 Conference on Physics and Chemistry of Semiconductor Interfaces, La Jolla, CA (1996).

238. E. T. Yu, "Cross-Sectional Scanning Tunneling Microscopy of Semiconductor Heterostructures and Devices," seminar presentation at Stanford University, Stanford, CA, April 1996 (1996).

239. E. T. Yu, A. Y. Lew, R. B. Welstand, C. H. Yan, J. T. Zhu, C. W. Tu, P. K. L. Yu, D. H. Chow, R. H. Miles, and Y.-H. Zhang, "Cross-Sectional Scanning Tunneling Microscopy of Arsenide/Antimonide and Arsenide/Phosphide Semiconductor Heterostructures," presented at the 1996 Materials Research Society Spring Meeting, San Francisco, CA (1996). (Invited)

240. C. H. Yan, A. Y. Lew, E. T. Yu, and C. W. Tu, "P2 Induced P/As Exchange on GaAs During Gas-Source Molecular-Beam Epitaxy Growth Interruption," presented at the 1995 Conference on Chemical Beam Epitaxy, La Jolla, CA (1995).

241. E. T. Yu, "Cross-Sectional Scanning Tunneling Microscopy of Semiconductor Heterostructures and Devices," seminar presentation at Hughes Research Laboratories, Malibu, CA, July 1995 (1995).

242. A. Y. Lew, C. H. Yan, C. W. Tu, and E. T. Yu, "Characterization of Arsenide/Phosphide Heterostructure Interfaces by Scanning Tunneling Microscopy," presented at the 1995 International Conference on Formation of Semiconductor Interfaces, Princeton, NJ (1995).

243. A. Y. Lew, C. H. Yan, R. B. Welstand, J. T. Zhu, C. W. Tu, E. T. Yu, and P. K. L. Yu, "Interface Structure in Arsenide/Phosphide Heterostructures Grown by Gas-Source MBE and Low-Pressure MOVPE," presented at the 1995 Electronic Materials Conference, Charlottesville, VA (1995).

244. A. Y. Lew, C. H. Yan, C. W. Tu, and E. T. Yu, "Investigation of Arsenide/Phosphide Heterostructures by Scanning Tunneling Microscopy," presented at the 1995 American Physical Society March Meeting, San Jose, CA (1995).

245. E. T. Yu, "Cross-Sectional Scanning Tunneling Microscopy of Semiconductor Materials and Devices," seminar presentation at University of California at Berkeley, February 1995 (1995).

246. E. T. Yu, "Cross-Sectional Scanning Tunneling Microscopy of Semiconductor Materials and Devices," seminar presentation at Arizona State University, Tempe, AZ, November 1994 (1994).

247. A. Y. Lew, E. T. Yu, D. H. Chow, and R. H. Miles, "Cross-Sectional Scanning Tunneling Microscopy of InAs/GaInSb Superlattices," presentation at 27th Annual Symposium of the Southern California Chapter of the American Vacuum Society, Pasadena, CA, September 1994 (1994).

248. E. T. Yu, "Atomic-Scale Imaging of Electronic and Optoelectronic Devices," seminar presentation, Photonics Society of Chinese-Americans, San Diego, CA, July 1994 (1994).

249. E. T. Yu, "Cross-Sectional Scanning Tunneling Microscopy of Semiconductor Materials and Devices," seminar presentation at University of California at Los Angeles, June 1994 (1994).

250. E. T. Yu, A. Y. Lew, D. H. Chow, R. H. Miles, and J. N. Schulman, "Interfacial Properties of InAs/GaInSb Superlattices Studied by Cross-Sectional STM," presentation at the Engineering Foundation Conference on Surfaces and Interfaces in Mesoscopic Devices, Kona, HI, April 1994 (1994).

251. E. T. Yu, "Cross-Sectional Scanning Tunneling Microscopy of Semiconductor Materials and Devices," seminar presentation at University of California at Santa Barbara, April 1994 (1994).

252. A. Y. Lew, E. T. Yu, D. H. Chow, and R. H. Miles, "Cross-Sectional Scanning Tunneling Microscopy of III-V Heterostructures Grown by Molecular-Beam Epitaxy," presented at the 1994 Materials Research Society Spring Meeting, San Francisco, CA (1994).

253. M. W. Wang, J. F. Swenberg, R. J. Miles, M. C. Phillips, E. T. Yu, J. O. McCaldin, R. W. Grant, and T. C. McGill, "Measurement of the MgSe/Cd0.54Zn0.46Se Valence Band Offset by X-ray Photoelectron Spectroscopy," presented at 6th International Conference on II-VI Compounds and Related Optoelectronic Materials, Newport, RI (1993).

254. E. T. Yu, A. Y. Lew, D. H. Chow, and R. H. Miles, "Cross-Sectional Scanning Tunneling Microscopy of InAs/GaInSb Infrared Superlattices," presentation at 6.1Å Workshop, Santa Barbara, CA, December 1993 (1993).

255. E. T. Yu, "Electronic Profiling of Semiconductor Materials and Devices by Scanning Tunneling Microscopy," seminar presentation at Naval Command, Control and Ocean Surveillance Center, San Diego, CA, April 1993 (1993).

256. E. T. Yu, "Electronic Profiling of Semiconductor Materials and Devices by Scanning Tunneling Microscopy," seminar presentation at Hughes Technology Center, Carlsbad, CA, January 1993 (1993).

257. E. T. Yu, "Electronic Profiling of Semiconductor Devices by Scanning Tunneling Microscopy," seminar presented at Department of Electrical and Computer Engineering, University of California, San Diego January 1993 (1993).

258. M. B. Johnson, U. Maier, H. P. Meier, H. Salemink, E. T. Yu, and S. S. Iyer, "Atomic-Scale View of Epitaxial Layers with Cross-Sectional STM," presented at the NATO Advanced Research Workshop on Physical Properties of Semiconductor Interfaces at Sub-Nanometer Scale, Riva del Garda, Italy (1992).

259. R. M. Feenstra, A. Vaterlaus, E. T. Yu, P. D. Kirchner, C. L. Lin, J. M. Woodall, and G. D. Pettit, "Cross-Sectional Scanning Tunneling Microscopy of GaAs Doping Superlattices: Pinned vs. Unpinned Surfaces," presented at the NATO Advanced Research Workshop on Physical Properties of Semiconductor Interfaces at Sub-Nanometer Scale, Riva del Garda, Italy (1992).

260. E. T. Yu, M. B. Johnson, A. R. Powell, J.-M. Halbout, and S. S. Iyer, "Scanning Tunneling Microscopy and Spectroscopy of Si-Based Heterostructures," presented at the 1992 Symposium of the American Vacuum Society, Chicago, IL (1992).

261. E. T. Yu, M. B. Johnson, V. P. Kesan, J.-M. Halbout, and S. S. Iyer, "Cross-Sectional Scanning Tunneling Microscopy of MBE-Grown Si p-n Junctions and Si/SiGe Superlattices," presented at the 1992 International Conference on Molecular-Beam Epitaxy, Schwäbisch Gmünd, Germany (1992).

262. E. T. Yu, "Electronic Profiling of Semiconductor Materials and Devices by Scanning Tunneling Microscopy," seminar presented at California Institute of Technology, Pasadena, CA, July 1992 (1992).

263. E. T. Yu, "Electronic Profiling of Semiconductor Devices by Scanning Tunneling Microscopy," seminar presented at Hughes Research Laboratories, Malibu, CA, June 1992 (1992).

264. M. B. Johnson, H. W. M. Salemink, O. Albrektsen, and E. T. Yu, "Atomic Scale View of Epitaxial Layers with Cross-Sectional STM," presented at the Seventh International Winter School, Mauterndorf, Austria (1992).

265. E. T. Yu, M. C. Phillips, M. W. Wang, D. H. Chow, J. O. McCaldin, and T. C. McGill, "Measurement of the AlSb/ZnTe Valence Band Offset by X-Ray Photoelectron Spectroscopy," presented at the 1991 Electronic Materials Conference, Boulder, CO (1991).

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