PCSI 37 Schedule

Su1400	2:00 p.m.	Registration		
Su1455	2:55 p.m.	Welcome		
Spintronics and Superconductivity				**Session Chair: C.J. Palmstrøm**
Su1500	3:00 p.m.	INVITED: Transport and Control of Spins in Mesoscale Magnetic Semiconductor Devices		N. Samarth, Penn State University
Su1530	3:30 p.m.	Optical Control of Ultrafast Spin-Wave Relaxation by Magnetic Anisotropy in a Ferromagnet		G. Luepke, College of William and Mary
Su1535	3:35 p.m.	Three-Terminal Electrical Detection of Spin Accumulation in FeGaAs Schottky Barrier Heterostructures		Q.O. Hu, C.J. Palmstrom, University of California, Santa Barbara; E.S. Garlid, P.A. Crowell, University of Minnesota
Su1540	3:40 p.m.	Interface structure of electrochemically prepared FeGaAs (110) spin contacts		S. Majumder, A.S. Arrott, K.L. Kavanagh, SFU
Su1545	3:45 p.m.	INVITED: Quantum control of spin qubits in silicon and near a silicon-barrier interface		B. Koiller, UFRJ
Su1615	4:15 p.m.	Atomic structure and electrical properties of Fe_3Ga/GaAs(001) interfaces		M. Hashimoto, University of California, Santa Barbara
Su1620	4:20 p.m.	Thermal stability of Heusler alloy Co_2FeSi films on GaAs(001)		J. Herfort, K. Kumakura, H.-P. Schonherr, Paul-Drude-Institute for Solid State Electronics
Su1625	4:25 p.m.	Magnetotransport properties of ferromagnetic p-(In,Mn)Sbn-InSb heterojunctions		J.A. Peters, N. Rangaraju, C. Feeser, B. W. Wessels, Northwestern University
Su1630	4:30 p.m.	INVITED: Fermi Arcs, Fermi Pockets and Pre-formed Pairs in the High Tc Superconductors		P. Johnson, Brookhaven National Laboratory
Su1700	5:00 p.m.	Poster Setup		
Su1800	6:00 p.m.	Welcome Reception		
Biological Interfaces				**Session Chair: M. Libera**
Su2000	8:00 p.m.	INVITED: Ultra-stable Molecular and Biomolecular Interfaces to Semiconductors		R. Hamers, University of Wisconsin-Madison
Su2030	8:30 p.m.	INVITED: Characterization of Biomolecule Interactions with Surfaces		D.G. Castner, University of Washington
Su2100	9:00 p.m.	Nanopatterned Hydrogels to Control Surface Interactions with Proteins and Cells		M. Libera, Stevens Institute of Technology

Monday Morning:

Mo0745	7:45 a.m.	Registration and Continental Breakfast		
Epitaxial Oxides I				**Session Chair: D. Green**
Mo0845	8:45 a.m.	Spectroscopic Detection of Mixed Valency in $La_{1-x}Sr_xMnO_3$ Crystalline thin Film		G. Lucovsky, K.B. Chung, L. Miotti, K. Bas Pastos, NC State University; C. Amado, Penn Stae University; D. Scholm, Cornell University
Mo0850	8:50 a.m.	Electrically controlled magnetization in a tricolor superlattice		A. Demkov, J.K. Lee, Na Sai, The University of Texas at Austin
Mo0855	8:55 a.m.	The Energetics of Oxide Multilayer Systems: SOFC Cathode and Electrolyte Materials		N. Kemik, University of California, Davis; S. Ushakov, University of California, Davis; N. Schichtel, C. Korte, Pyhsikalisch Chemisches Institut, University of Giessen, Germany.; Y. Takamura, A. Navrotsky, University of California, Davis
Mo0900	9:00 a.m.	Electronic properties of artificially structured strongly correlated electron systems revealed by the thermoelectric response		A. Ruegg, University of Texas at Austin; S. Pilgram, M. Sigrist, ETH Zurich, Zurich, Switzerland
Mo0905	9:05 a.m.	INVITED: Magnetoelectric coupling in oxide heterostructures		C. Ahn, Yale University
Mo0935	9:35 a.m.	Domain dynamics in PZT thin ferroelectric fields studied by piezoelectric force microscopy		L. Klein, C. Dubourdieu, M.M. Frank, V. Narayanan, S. Guha, H. Hamann, IBM Watson Research Center; J. Hoffman, J. Reiner, C. Ahn, Yale University
Mo0940	9:40 a.m.	Probing Complex Oxide Surfaces and Interfaces by Cross-Sectional Scanning Tunneling Microscopy		T.Y. Chien, N.P. Guisinger, J.W. Freeland, Argonne National Laboratory
Mo0945	9:45 a.m.	An insulator to metal transition in a d^0 complex oxide $GdScSO_3$ for substitution of 17% or more % tetravalent Ti (d^1) for trivalent Sc (d^0)		L. Miotti, G. Lucovsky, KB. Chung, K. Bas Pastos, NC State Univesity; C. Amado, Penn State University; D. Schom, Cornell University
Mo0950	9:50 a.m.	RHEED-Total Reflection Angle X-ray Spectroscopy for In-situ Structural and Stoichiometric Characterization of Thin Films		S. Chandril, C. Keenan, West Virginia University; T.H. Myers, Texas State University, San Marcos; D. Lederman, West Virginia University
Mo0955	9:55 a.m.	Ion-induced texturing at nucleation in halite-structure thin films		V. Matias, Los Alamos National Laboratory
Mo1000	10:00 a.m.	Electron accumulation at indium oxide surfaces		P.D.C. King, T.D. Veal, University of Warwick; D.J. Payne, H. Zhang, R.G. Egdell, University of Oxford; C.F. McConville, University of Warwick
Mo1005	10:05 a.m.	Preparation and multiferroic properties of self-assembled $BaTiO_3$-$CoFe_2O_4$ nanocomposite films		C.I. Cheon, Hoseo University
Mo1010	10:10 a.m.	Coffee Break and Poster Viewing		
Scanning Probe				**Session Chair: A. Mikkelsen**
Mo1115	11:15 a.m.	UPGRADED: Atom manipulaltion and quantum state control on a III-V semiconductor surface		J. Yang, Ch. Nacci, Paul Drude Institute for Solid State Electronics; K. Kanisawa, NTT Basic Research Laboratories, NTT Corporation; S. Fölsch, Paul Drude Institute for Solid State Electronics
Mo1135	11:35 a.m.	Imaging Evidence of Scarred Wave Functions in InAs Open Quantum Dots Using Scanning Gate Microscopy		A.M. Burke, R. Akis, T.E. Day, G. Speyer, D.K. Ferry, Arizona State University; B.R. Bennett, Naval Research Laboratory
Mo1140	11:40 a.m.	Nanomechanical properties of free-standing InAs nanowires measured using a Scanning Tunneling Microscope		A. Fian, M. Lexholm, B. Mandl, E. Lundgren, L. Samuelson, A. Mikkelsen, Lund University

Mo1145	11:45 a.m.	Nanoscale electrical characterization of arrowhead defects in GaInP thin films grown on Ge		I. Beinik, M. Kratzer, C. Teichert, Montanuniversität Leoben; B. Galiana, Instituto de Ciencia de Materiales de Madrid; I. Rey-Stolle, C. Algora, Instituto de Energía Solar, IES-UPM, Madrid; P. Tejedor, Instituto de Ciencia de Materiales de Madrid
Mo1150	11:50 a.m.	Surface states and dislocations on GaN (1100) surfaces investigated by scanning tunneling microscopy		Ph. Ebert, Forschungszentrum Jülich; L. Ivanova, Technische Universität Berlin; S. Borisova, Forschungszentrum Jülich; M. Dähne, H. Eisele, Technische Universität Berlin
Mo1155	11:55 a.m.	Structural and Electronic Properties of Cobalt Germanide Islands on Ge(100)		J. Choi, D. K. Lim, Y. Kim, S. Kim, KAIST
Mo1200	12:00 p.m.	Lunch and Poster Viewing		

Monday Afternoon:

Graphene I				Session Chair: C. Baatar
Mo1400	2:00 p.m.	INVITED: Graphene & Its Chemical Derivatives		K. Novoselov, University of Manchester
Mo1430	2:30 p.m.	Kinetics of Graphene Growth on Cu by Chemical Vapor Deposition of Methane		X. Li, B. Han, W. Cai, The University of Texas at Austin; L. Colombo, Texas Instruments Incorporated; R.S. Ruoff, The University of Texas at Austin
Mo1435	2:35 p.m.	Chemical Doping of Epitaxial Graphene by 4-amino-TEMPO radicals		J. Choi, KAIST; H. Lee, Sookmyung Women's University; K.-J. Kim, B. Kim, Pohang Accelerator Laboratory; S. Kim, KAIST
Mo1440	2:40 p.m.	A comparative study of graphene formed on SiC(0001) by vacuum annealing and in the presence of argon		L. Luxmi, N. Srivastava, P. J. Fisher, R. M. Feenstra, Carnegie Mellon University
Mo1445	2:45 p.m.	INVITED: Mapping the Quantum Hall Effect in Real Space in Epitaxial Graphene		J. Stroscio, NIST
Mo1515	3:15 p.m.	Observation of the fractional quantum Hall effect in graphene		K. Bolotin, Vanderbilt University
Mo1520	3:20 p.m.	One-dimensional extended defects in epitaxial graphene: An approach for metallic wires in graphene?		M. Batzill, J. Lahiri, Y. Lin, P. Bozkurt, I. Oleynik, University of South Florida
Mo1525	3:25 p.m.	Graphitic Memristors		Y. Kopelevich, Hewlett-Packard Labs; R.R. da Silva, J.C. Medina Pantoja, University of Campinas, Brasil; A. Bratkovsky, Hewlett-Packard Labs
Mo1530	3:30 p.m.	Coffee Break and Poster Viewing		

Nanowires I				Session Chair: B. Shanabrook
Mo1620	4:20 p.m.	INVITED: Nanoscale phase transitions and nanowire growth		J. Tersoff, IBM Watson Center
Mo1650	4:50 p.m.	Radial and Axial Dopant Gradients in VLS-Grown Semiconductor Nanowires		D. Perea, Northwestern University, Current: Los Alamos National Laboratory; E.R. Hemesath, L.J. Lauhon, Northwestern University
Mo1655	4:55 p.m.	Doped InP nanowire heterostructures studied by X-ray PhotoEmission Electron Microscopy Spectroscopy		M. Hjort, R. Timm, M. Borgström, A.A. Zhakarov, L. Samuelson, J.N. Andersen, A. Mikkelsen, Lund University
Mo1700	5:00 p.m.	INVITED: Phase formation and phase transformation in nanowires of III-V semiconductors		F. Glas, J.C. Harmand, G. Patriarche, CNRS-Laboratoire de Photonique et de Nanostructures
Mo1730	5:30 p.m.	Uniqueness of the Vapor-Liquid-Solid Mechanism for Novel Axial and Radial GeSi Heterostructure Materials and Devices		S.A. Dayeh, I.H. Campbell, Los Alamos National Laboratory; J. Hwang, A. Gin, Sandia National Laboratory; S.T. Picraux, Los Alamos National Laboratory
Mo1735	5:35 p.m.	Metal-Insulator Transition in Si(111)-(4x1)/(8x2)-In Studied by Optical Spectroscopy		N. Esser, ISAS-Institute for Analytical Sciences
Mo1740	5:40 p.m.	Semiconducting nanowire growth with high spatial registry and fabrication of out-of-plane devices.		P. Manandhar, S. T. Picraux, Los Alamos National Laboratory
Mo1745	5:45 p.m.	Fabrication of densely distributed Silver Indium selenide nanorods by Ag+ ion irradiation		D. Pathak, Physics, Gndu Amritsar, India
Mo1750	5:50 p.m.	Characterization of hot-electron trapping in Si nanowires using nanometer resolution ballistic electron emission microscopy		W. Cai, Y. Che, J. P. Pelz, The Ohio State University; E.R. Hemesath, L.J. Lauhon, Northwestern University
Mo1755	5:55 p.m.	ac conductivity and dielectric constant of nanotube polymer composites		Y. Hazama, J. Nakamura, A. Natori, The Univ. of Electro-Communications (UEC-Tokyo)
Mo1800	6:00 p.m.	Dinner		

Monday Evening:

Organics I				Session Chair: N. Ueno
Mo1930	7:30 p.m.	INVITED: Strategies for optimizing organic electronic device interface energetics via molecular orientation control		N. Koch, Humboldt-Universitaet zu Berlin
Mo2000	8:00 p.m.	INVITED: Bridging electronic states and electrical property of organic devices by ultimate use of UPS		N. Ueno, Chiba University
Mo2030	8:30 p.m.	INVITED: Organic Transistors for Gas Sensing – Device Fabrication, Aging, and Sensing Mechanisms		A. Kummel, J.E. Royer, S. Lee, J. Park, C. Colesniuc, S. Jin, I.K. Schuller, W.C. Trogler, University of California, San Diego; J. Kanicki, University of California, San Diego and University of Michigan

Tuesday Morning:

Tu0745	7:45 a.m.	Registration and Continental Breakfast		
Epitaxial Oxides II				**Session Chair: A. Demkov**
Tu0845	8:45 a.m.	INVITED: 2D Superconductivity in $SrTiO_3$ Heterostructures		C. Bell, University of Tokyo, Japan Science and Technology Agency; Y. Kozuka, M. Kim, S. Harashima, University of Tokyo; B.G. Kim, Pusan National University; Y. Hikita, University of Tokyo; H.Y. Hwang, University of Tokyo, Japan Science and Technology Agency
Tu0915	9:15 a.m.	The effect of epitaxial strain between polar perovskites and $SrTiO_3$		M.C. Monti, C.J. Stolle, J.T. Markert, Department of Physics, the University of Texas at Austin
Tu0920	9:20 a.m.	Hybrid molecular beam epitaxy of SrTiO3 thin films		R. Engel-Herbert, B. Jalan, S. Stemmer, University of California, Santa Barbara
Tu0925	9:25 a.m.	INVITED: Coulomb Catastrophe and 2DEG at the Perovskite Oxide Interfaces		S. Satpathy, University of missouri
Tu0955	9:55 a.m.	Spin-polarized 2DEG through electrostatic field doping in $LaAlO_3$-EuO heterostructures		J.K. Lee, N. Sai, A.A. Demkov, The University of Texas at Austin
Tu1000	10:00 a.m.	Low dimensional Mott material: Transport in ultra thin epitaxial LaNiO3		P. Moetakef, J. Son, J.M. Lebeau, D. Ouellette, L. Balents, S.J. Allen, S. Stemmer, University of California
Tu1005	10:05 a.m.	Surface Reconstruction of hexagonal complex-oxide single crystals: $HoMnO_3$, $YMnO_3$, $LuMnO_3$, and h-$Ho_xY_{1-x}MnO_3$ (x=0.2, 0.6)		R. Vasic, M. D. Ulrich, NC State University; J.T. Sadowski, Brrokhaven National Laboratory; J.E. Rowe, NC State University; S.W. Cheoug, Y.J. Choi, Rutgers University; H.D. Zhou, C.R. Wiebe, Florida State University
Tu1010	10:10 a.m.	Polarity compensation mechanisms in $LaAlO_3$ (001)-oriented thin films		H. Seo, A. Demkov, The University of Texas at Austin
Tu1015	10:15 a.m.	Coffee Break and Poster Viewing		
Graphene II				**Session Chair: K. Novoselov**
Tu1115	11:15 a.m.	UPGRADED: Graphene-based Materials and Interfaces		R. Ruoff, The University of Texas at Austin
Tu1135	11:35 a.m.	Structural and electronic properties of carbon nanocylinder consisting of nanoribbon-walls with arrayed-oxygen hinges		Y. Fujii, J. Nakamura, A. Natori, The University of Electro-Communications (UEC-Tokyo)
Tu1140	11:40 a.m.	Thermal Transport in Graphene and Few-Layer Graphene: Crossover between Two-Dimensional and Three-Dimensional Systems		A. Balandin, D.L. Nika, University of California - Riverside; S. Ghosh, Intel Corporation
Tu1145	11:45 a.m.	Selecting a single orientation for millimeter sized graphene sheets		R. van Gastel, University of Twente; A.T. N'Diaye, University of Cologne; D. Wall, University of Duisburg-Essen; J. Coraux, Institut Neel, CNRS; C. Busse, University of Cologne; N.M. Buckanie, F.J. Meyer zu Heringdorf, M. Horn von Hoegen, University of Duisburg-Essen; T. Michely, University of Cologne; B. Poelsema, University of Twente
Tu1150	11:50 a.m.	Interface Studies of Metals on Epitaxial Graphene on SiC(0001)-6H		A. Sandin, A.M. Pronschinske, D.B. Dougherty, J.E. Rowe, NC State University
Tu1155	11:55 a.m.	Engineering of Ferromagnetic Graphite		Y. Kopelevich, Hewlett-Packard Labs; R.R. da Silva, University of Campinas, Brasil; I. Naumov, A. Bratkovsky, Hewlett-Packard Labs
Tu1200	12:00 p.m.	In situ Low-Energy Electron Microscopy Studies of Graphene Growth on Pd(111)		Y. Murata, University of California, Los Angeles; E. Starodub, N.C. Bartelt, K.F. McCarty, Sandia National Laboratories; S. Kodambaka, University of California Los Angeles
Tu1205	12:05 p.m.	Free Afternoon		

Tuesday Evening:

STO/LAO				Session Chair: L. Brillson
Tu1930	7:30 p.m.	INVITED: Two-dimensional Electron Liquid State at Oxide Interfaces		J. Mannhart, University of Augsburg, Germany
Tu2000	8:00 p.m.	INVITED: Electronic Reconstruction and New Electronic Phases in Oxide Nanostructures		W. Pickett, UCDavis; R. Pentcheva, University of Munich; V Pardo, Univ. de Santiago de Compostela
Tu2030	8:30 p.m.	UPGRADED: Instability and Intermixing at the $LaAlO_3SrTiO_3(001)$ Interface		S. Chambers, T. Droubay, L. Qiao, M. Engelhard, W. Jiang, V. Shutthanandan, Pacific Northwest National Laboratory; P.V. Sushko, Univerisity College, London; T. Feng, H. Lee, T. Gustafsson, E. Garfunkel, Rutgers University; H. Sato, Y. Hikita, C. Belle, University of Tokyo

Wednesday Morning:

We0745	7:45 a.m.	Registration and Continental Breakfast		
Organics II				Session Chair: C. Troadec
We0845	8:45 a.m.	INVITED: BEEM Studies of Metal-Organic-Semiconductor Interfaces		C. Troadec, K.E.J. Goh, Institute of Materials Research and Engineering; A. Bannani, Universitat Duisburg-Essen
We0915	9:15 a.m.	In-situ and real-time monitoring of tin phthalocyanine–inorganic semiconductor interface formation using photoelectron spectroscopy		D.A. Evans, A.R. Vearey-Roberts, O.R. Roberts, G.T. Williams, D.P. Langstaff, Aberystwyth University
We0920	9:20 a.m.	Effect of Carbon Nanotube Contacts on the Photoswitching of Diarylethene Derivatives		R. Lake, Md. Khalid Ashraf, N. A. Bruque, G. J. O. Beran, J. Tan, T. R. Helander, University of California Riverside
We0925	9:25 a.m.	INVITED: Probing and Modeling of Interfacial Carrier Motion in Organic Devices by Optical Second Harmonic Generation		M. Iwamoto, Tokyo Institute of Technology
We0955	9:55 a.m.	Visualizing the Initial Stages of Amorphous Organic Semiconductor Growth		Z. Wang, D. Dougherty, NC State University
We1000	10:00 a.m.	Photoemission Study of Single Crystalline Rubrene with Reduced Sample Charge-up Effect		Y. Nakayama, S. Machida, S. Duhm, A. Funakoshi, N. Ogawa, S. Kera, N. Ueno, Y. Noguchi, H. Ishii, Chiba University
We1005	10:05 a.m.	Coffee Break and Poster Viewing		
Oxides on Compound Semiconductors				Session Chair: A. Kummel
We1105	11:05 a.m.	INVITED: MOS Interface Control on III-V High Mobility Channel Materials		H. Hasegawa, M. Akazawa, Hokkaido University; A. Domanowska, B. Adamowicz, Silesian University of Technology
We1135	11:35 a.m.	MBE Growth of Multiferroic $YMnO_3$ on GaN		C. Keenan, S. Chandril, West Virginia University; T.H. Myers, Texas State University, San Marcos; M. Varela, Oak Ridge National Laboratory; D. Lederman, West Virginia University
We1140	11:40 a.m.	Bias Stability of Zinc-Tin-Oxide Thin Film Transistors with Al_2O_3 Gate Dielectrics		J. Triska, Oregon State University
We1145	11:45 a.m.	Analysis of interface trap densities for ZrO_2 gate dielectrics grown on $In_{0.53}Ga_{0.47}As$ channels		R. Engel-Herbert, Y. Hwang, University of California, Santa Barbara; J. Huang, N. Goel, SEMATECH, Susanne Stemmer, University of California, Santa Barbara
We1150	11:50 a.m.	Surface analysis of Ga- and N-polar GaN by angle resolved X-ray photoelectron spectroscopy		T. Honda, K. Noguchi, Kogakuin University; Y. Kumagai, A. Koukitu, Tokyo University of Agriculture and Technology
We1155	11:55 a.m.	Lunch and Poster Viewing		

Wednesday Afternoon:

Nanowires II				Session Chair: J. Tersoff
We1345	1:45 p.m.	INVITED: Dopant mapping and correlated functional imaging of semiconductor nanowires		L. Lauhon, Northwestern University
We1415	2:15 p.m.	Hole thermopower in gated silicon nanoribbons		Z. Aksamija, H. J. Ryu, D. M. Paskiewicz, S. A. Scott, M. G. Lagally, M. A. Eriksson, I. Knezevic, University of Wisconsin-Madison
We1420	2:20 p.m.	Structure and Electronic Properties of Au Induced Nanowires on Ge(001)		Kockmann, D, A. Houselt, Mocking T.F., B. Poelsema, H.J.W. Zandvliet, MESA+ Institute for Nanotechnology, University of Twente
We1425	2:25 p.m.	Direct Observation and Analysis of the Gibbs-Thomson Effect in Germanium Nanowires		S.A. Dayeh, Los Alamos National Laboratory; E. Sutter, Brookhaven National Laboratory; S.T. Picraux, Los Alamos National Laboratory
Surface Phenomena				**Session Chair: H. H. Farrell**
We1430	2:30 p.m.	FIB-Synthesized Surface Nanostructure Arrays for Negative Index Metamaterials		M. Kang, J.H. Wu, R.S. Goldman, University of Michigan
We1435	2:35 p.m.	Challenges in catalysis for renewable energy and greenhouse gas free processes		L.M. Petkovic, D.M. Ginosar, H.W. Rollins, K.C. Burch, S.N. Rashkeev, H.H. Farrell, Idaho National Laboratory
We1440	2:40 p.m.	Temperature-induced changes in diamond surface and interface formation monitored by real-time photoelectron spectroscopy		D.A. Evans, O.R. Roberts, A.R. Vearey-Roberts, A. Bushell, G.T. Williams, S. Evans, D.P. Langstaff, Aberystwyth University
We1445	2:45 p.m.	UPGRADED: Properties of Mechanically Exfoliated Atomically-Thin Films of Bismuth Telluride		A. Balandin, D. Teweldebrhan, V. Goyal, University of California, Riverside
We1505	3:05 p.m.	Sacrificial layer electrophoretic deposition technique to fabricate buckypapers		S.A. Hasan, J.L. Rigueur, J.H. Dickerson, Vanderbilt University
We1510	3:10 p.m.	Low temperature wafer bonding using sulfur-terminated interfaces		M.S. Goorsky, University of California, Los Angeles; J. Ou-Yang, University of California, Los Angeles, Northrop Grumman
We1515	3:15 p.m.	Electrical characterization of a tunneling device formed by bonding a silicon nanomembrane and germanium wafer		A.M. Kiefer, M.G. Lagally, University of Wisconsin-Madison; W.R. Buchwald, R.A. Soref, Air Force Research Laboratory, Hanscom AFB
We1520	3:20 p.m.	Influence of surface preparation conditions on the surface defect structure of boron-covered Si(111): An ultraviolet photoelectron spectroscopy study		J. Kruegener, H.J. Osten, A. Fissel, Leibniz University Hannover
We1525	3:25 p.m.	Control of Surface Topology and Electronic Properties of III-V Semiconductors using Molecular Modification		F. Yamada, S. Arakawa, I. Kamiya, Toyota Technological Institute
We1530	3:30 p.m.	Anisotropy and boundary scattering in the lattice thermal conductivity of silicon-on-insulator nanomembranes		Z. Aksamija, I. Knezevic, University of Wisconsin-Madison
We1535	3:35 p.m.	Coffee Break and Poster Viewing		
Contacts				**Session Chair: R.S. Goldman**
We1635	4:35 p.m.	ZnO Schottky Contacts: A Test Case for Interface Induced Gap State Models		S.M. Durbin, M.W. Allen, University of Canterbury
We1640	4:40 p.m.	Electronic and structural properties of alkali metal films on Si(111)-7x7 studied by STM and SHG (second-harmonic generation)		K. Fujiwara, National Defense Academy; H.Nishioka, Yokohama National University; Y.Oka, National Defense Academy; T.Momose, D.inoue, Y.Karaki, M.Tanaka, Yokohama National University; Takanori Suzuki, National Defence Academy

We1645	4:45 p.m.	Ex-situ Ohmic Contacts to n-InGaAs Prepared by Atomic Hydrogen Cleaning		A. Baraskar, University of California, Santa Barbara; M.A. Wistey, University of Notre Dame, E. Lobisser, V. Jain, U. Singisetti, G. Burek, University of California, Santa Barbara; Y.J. Lee, Intel Corporation; B. Thibeault, A. Gossard, M. Rodwell, University of California, Santa Barbara;
Oxides and Group IV				Session Chair: J. E. Rowe
We1650	4:50 p.m.	INVITED: Epitaxial oxide and germanide films on Ge(001) substrates		Md. Nurul Kabir Bhuiyan, M. Menghini, J.W. Seo, J.P. Locquet, Katholieke Universiteit Leuven
We1720	5:20 p.m.	Nanoscale Depth-Resolved Electronic Properties Inside $SiO_2SiO_xSiO_2$ Gate Dielectrics for Radiant-Tolerant Electronics		E.J. Katz, Z. Zhang, The Ohio State University; H.L. Hughes, U.S. Naval Research Laboratory; K.-B. Chung, G. Lucovsky, NC State University; L. Brillson, The Ohio State University
We1725	5:25 p.m.	Atomic-level Mapping of SrTiO3 on Si (001) Using Surface X-ray Diffraction and Direct Methods		C.M. Schlepuetz, University of Michigan, Ann Arbor, USA; .N.S. Husseini, D. P. Kumah, R. Clarke, University of Michigan, Ann Arbor, USA; Y. Yacoby, Hebrew University, Jerusalem, Israel; P.R. Willmott, M. Bjoerck, S.A. Pauli, Swiss Light Source, Paul Scherrer Institut, Switzerland; M.P. Warusawithana, D.G. Schlom, Cornell University, Ithaca, USA
We1730	5:30 p.m.	Energy Resolved Spin Dependent Trap Assisted Tunneling		J.T. Ryan, P.M. Lenahan, Penn State; A.T. Krishnan, S. Krishnan, Texas Instruments
We1735	5:35 p.m.	Band Alignment of Vanadium Oxide as an Interlayer in a Hafnium Oxide and Silicon Gate Stack Structure		C. ZHU, F. TANG, X. LIU, R.J. NEMANICH, Arizona State University
We1740	5:40 p.m.	Dielectric properties of GeO_2 ultrathin films		M. Tamura, S. Wakui, J. Nakamura, A. Natori, The University of Electro-Communications (UEC-Tokyo)
We1745	5:45 p.m.	Morphology of Epitaxial $SrTiO_3Si$ (001) Determined Using 3D X-ray Diffraction		Y. Segal, J.W. Reiner, Yale University; Z. Zhang, Argonne National Laboratory; C.H. Ahn, F.J. Walker, Yale University
We1750	5:50 p.m.	Thermal Stability of High-Quality ZrO2 Thin Films Prepared by a Sol-Gel Process on Si(100) Substrates		H. Döscher, Helmholtz-Zentrum Berlin für Materialien und Energie; G. Lilienkamp, P. Iskra, M. Kazempoor, W. Daum, Clausthal University of Technology
We1755	5:55 p.m.	Magnetic Resonance Studies of 4H SiC MOS Structures		B.C. Bittel, P.M. Lenahan, Penn State University; J. Fronheiser, K. Matocha, GE Global Research; A.J. Lelis, US Army Research Lab
We1800	6:00 p.m.	Poster Viewing		
We1900	7:00 p.m.	Conference Banquet Dinner and Speaker "If the U.S. has an Energy Roadmap, Where's the On-Ramp?" , Daniel M. Ginosar, Idaho National Laboratory		
Thursday Morning:				
Th0745	7:45 a.m.	Continental Breakfast		
Interfaces				Session Chair: K. Kavenagh
Th0845	8:45 a.m.	Photoluminescence Imaging as a Diagnostic for Compound Semiconductor Thin Films		R. Ahrenkiel, Colorado School of MInes; Nathan Call, Colorado School of Mines, NREL
Th0850	8:50 a.m.	Minority carrier lifetimes in multi junction solar cell absorber materials with low band gaps in dependence of their interface formation		N. Szabó, E. Sagol, M. Kunst, H. Döscher, K. Schwarzburg, T. Hannappel, Helmholtz-Zentrum Berlin für Materialien und Energie
Th0855	8:55 a.m.	Growth and Characterization of Device-Quality InGaN Films Over the Full Alloy Composition Range		T. Williamson, M. Hoffbauer, Los Alamos National Laboratory
Th0900	9:00 a.m.	In situ quantification of GaP on Si(100) anti-phase domains		H. Döscher, Helmholtz-Zentrum Berlin für Materialien und Energie; B. Kunert, A. Beyer, K. Volz, W. Stolz, Philipps University Marburg; T. Hannappel, Helmholtz-Zentrum Berlin für Materialien und Energie
Th0905	9:05 a.m.	INVITED: Ultralow thermal conductivity and the thermal conductance of interfaces		D. Cahill, University of Illinois

Th0935	9:35 a.m.	Origin of Persistent Photoconductivity Effect in GaAsN Alloys		Y. Jin, H. Cheng, R. M. Jock, C. Kurdak, R. S. Goldman, University of Michigan
Th0940	9:40 a.m.	Atomic-scale study of VPE-prepared Si(100) surfaces for subsequent III-V MOVPE hetero-epitaxy		H. Döscher, S. Brückner, A. Dobrich, C. Höhn, P. Kleinschmidt, T. Hannappel, Helmholtz-Zentrum Berlin für Materialien und Energie
Th0945	9:45 a.m.	In situ Investigation of CuPc Thin Films Grown on Vicinal H-Si(111)		L. Ding, M. Friedrich, O. Gordan, D. R. T. Zahn, Semiconductor Physics, Chemnitz University of Technology
Th0950	9:50 a.m.	III-V on silicon: observation of anti-phase domains with low energy electron microscopy		H. Döscher, Helmholtz-Zentrum Berlin für Materialien und Energie; B. Borkenhagen, Clausthal University of Technology; U. Bloeck, Helmholtz-Zentrum Berlin für Materialien und Energie; G. Lilienkamp, W. Daum, Clausthal University of Technology; T. Hannappel, Helmholtz-Zentrum Berlin für Materialien und Energie
Th0955	9:55 a.m.	Coffee Break and Poster Viewing		
Quantum Dots				Session Chair: E. Yu
Th1055	10:55 a.m.	INVITED: Two for the Price of One: New Aspects of Carrier Multiplication in Semiconductor Nanocrystals		V. Klimov, Los Alamos National Laboratory
Th1125	11:25 a.m.	Decomposition of InGaAsP grown on InP(001)		A. Lenz, H. Eisele, F. Genz, L. Ivanova, Technische Universität Berlin, Institut für Festkörperphysik, Germany; R. Timm, Technische Universität Berlin, Current: Lund University; D. Franke, H. Künzel, Fraunhofer-Institut für Nachrichtentechnik, Heinrich-Hertz-Institut, Germany; U.W. Pohl, M. Dähne, Technische Universität Berlin, Institut für Festkörperphysik, Germany
Th1130	11:30 a.m.	Coupling among PbS quantum dots in close-packed films		W. Lu, I. Kamiya, Toyota Technological Institute
Th1135	11:35 a.m.	Evolution of the surface reconstructions during the growth of an InAs wetting layer on GaAs(001)-c(4x4)		H. Eisele, J. Grabowski, C. Prohl, B. Höpfner, M. Dähne, Technische Universität Berlin
Th1140	11:40 a.m.	Nanoparticle Melting and Related Phenomena		H. H. Farrell, D. M. Ginosar, L. M. Petkovic, Idaho National Laboratory
Th1145	11:45 a.m.	Structural studies of quantum dots grown by droplet heteroepitaxy		D.P Kumah, University of Michigan; S. Shusterman, Solid State Physics, Electro-Optics Division,Israel; Y. Patiel, Y. Yacoby, Hebrew University; R Clarke, University of Michigan
Th1150	11:50 a.m.	Optical properties of quantum dots formed by Langmuir-Blodgett technique		A. Milekhin, Institute of Semiconductor Physics
Th1155	11:55 a.m.	Polarized emission from GaN-AlN quantum dots subject to uniaxial interfacial stresses		D. H. Rich, O. Moshe, Ben-Gurion University of the Negev; B. Damilano, J. Massies, Centre National de la Recherche Scientifique
Th1200	12:00 p.m.	Conference Ends		