Schedule of Events

59TH DEVICE RESEARCH CONFERENCE

SUNDAY PM, JUNE 24TH, 2001

Registration **4:00PM–9:00PM**
Location ..... **McKenna Hall**

Welcoming Reception **6:30PM–8:30PM**
Location ..... **McKenna Hall**

MONDAY AM, JUNE 25TH, 2001

Registration **7:30AM–5:00PM**
Location ..... **McKenna Hall**

Plenary Session **8:30AM**
Location ..... **DeBartolo Hall**

MONDAY PM, JUNE 25TH, 2001

Session II.A. Silicon Devices **2:00PM**
Session II.B. III-V Devices and Sources **2:00PM**
Session III. Poster Session **5:30PM**

Poster Session Recption ..... **5:30 PM**
Location ..... **DeBartolo Hall**

TUESDAY AM, JUNE 26TH, 2001

Registration **7:30AM–5:00PM**
Location ..... **McKenna Hall**

Session IV. Emerging Technologies **9:00AM**

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Session V.A. Novel Devices **2:00PM**
Session V.B. Detectors **2:00PM**

Conference Picnic **6:00PM–8:00PM**
Location ..... **St. Mary's Lake**

Rump Session **8:30PM**
Location ..... **Debartolo Hall**

WEDNESDAY AM, JUNE 27TH, 2001

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Location ..... **McKenna Hall**

Joint Plenary Session with EMC **8:20AM**
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Session VI.B. Displays **10:00AM**

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I.-3 **"Low-Noise, High-Speed Avalanche Photodiodes"** *Joe C. Campbell[1]*; [1]The University of Texas at Austin, Microelectronics Research Center, 10100 Burnet Road, Mail Code R9950, Austin, TX 78712 USA

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SESSION VI.A. NANOSTRUCTURE MODELING 161–172

VI.A.-1 **"Spin-Orbit Interaction of 2° in InAlAs/InAs Hetero-structures"** *Kanji Yoh*[1]; Toshihiro Doi[1]; Shin-ichiro Abe[2]; Yoshito Katano[1]; Hiroshi Ohno[2]; Kazuhisa Sueoka[2]; Koichi Mukasa[2]; [1]Hokkaido University, RCIQE, N13, W8, Kita-ku, Sapporo, Hokkaido 060-8628 Japan; [2]Hokkaido University, Grad. Sch. of Eng., N13, W8, Kita-ku, Sapporo, Hokkkaido 060-8628 Japan

VI.A.-2 **"Thermal Conductivity in Semiconductor Thin Films and Nanowires"** *Jie Zou*[1]; Alexander A. Balandin[1]; [1]University of California at Riverside, Dept. of Electl. Eng., Riverside, CA 92521 USA

VI.A.-3 **"Quantum Mechanical Calculation of QCA Molecule Properties"** *Christopher J. Russo*[1]; *Craig S. Lent*[1]; [1]University of Notre Dame, Electl. Eng., 275 Fitzpatrick, Notre Dame, IN 46556 USA

VI.A.-4 **"Nano-Transistor Modeling: Two Dimensional Green's Function Method"** *A. Svizhenko*[1]; M. P. Anantram[1]; T. R. Govindan[1]; B. Biegel[1] [1]NASA, Ames Rsrch. Ctr., MS T27A-1, Moffett Field, CA 94035-1000 USA

VI.A.-5 **"A Coupled Schrödinger/Monte Carlo Technique for Quantum-Corrected Device Simulation"** *Brian Winstead*[1]; Umberto Ravaioli[1] [1]University of Illinois at Urbana–Champaign, Beckman Inst., Urbana, IL 61801 USA

VI.A.-6 **"Quantitative Prediction of Threshold Voltage Fluctuations in Sub-100 nm MOSFETs by a New Dopant Model"** *Hiroyuki Yamamoto*[1]; Yos-himitsu Okada[1]; Nobuyuki Sano[1]; [1]University of Tsukuba, Inst. of Appl. Phys., 1-1-1 Tennoudai, Tsukuba, Ibaraki, 305-8573 Japan

VI.B.-1 "High Gamma Coatings for Plasma Display Panels: A Comparison" *P. K. Bachmann[1]*; V. Van Elsbergen[1]; C. McGrath[1]; [1]Phillips Research Laboratories, Weisshausstrasse 2, D-52066 Aachen, Germany

VI.B.-2 "Rare-Earth Doped GaN Electroluminescent Devices for Robust Flat Panel Displays" *J. Heikenfeld[1]*; A.J. Steckl[1]; [1]University of Cincinnati, Nanoelectronics Lab, Cincinnati, OH 45221-0030 USA

VI.B.-3 "Novel Three-Color Polymer Light-Emitting Devices for Passive-Matrix Flat Panel Displays" *Ke Long[1]*; Min-Hao Lu[1]; Florian Pschenitzka[1]; J. C. Sturm[1]; [1]Princeton University, Department of Electrical Engineering, Center for Photonics and Optoelectronic Materials (POEM), Princeton, NJ 08544 USA

VI.B.-4 "Flexible Liquid Crystal Displays Driven by Organic Thin Film Transistors on Polymeric Substrates: *C. D. Sheraw[1]*; L. Zhou[1]; J. R. Huang[1]; L. Jia[1]; J. A. Nichols[1]; C. C. Kuo[1]; D. J. Gundlach[1]; T. N. Jackson[1]; M. G. Kane[2]; I. G. Hill[2]; M. S. Hammond[2]; J. Campi[2]; B. K. Greening[2]; J. Francl[3]; J. West[3]; [1]The Pennsylvania State University, Center for Thin Film Devices, University Park, PA 16802 USA; [2]Sarnoff Corporation, Solid State Display Laboratory, Princeton, NJ 08543 USA; [3]Kent State University, Liquid Crystal Institute, Kent, OH 44242 USA

SESSION VII.A. TFTs 183–196

VII.A.-1 "Organic-Inorganic Electronic Devices Based on Hybrid Perovskites" *D. B. Mitzi[1]*; C. D. Dimitrakopoulos[1]; L. L. Kosbar[1]; [1]IBM T. J. Watson Research Center, Yorktown Heights, NY 10598 USA

VII.A.-2 "CMOS Polysilicon Circuits on Flexible Steel Substrates" *Ming Wu[1]*; Sigurd Wagner[1]; [1]Princeton University, Department of Electrical Engineering, Princeton, NJ 08544 USA

VII.A.-3 "High-Performance Thin-Film Transistor Fabricated on Poly-Si Films Prepared by Metal Imprint Technology" *Kenji Makihira[1]*; Masahito Yoshii[1]; Tanemasa Asano[1]; [1]Kyushu Institute of Technology, Center for Microelectronic Systems, 680-4 Kawazu, Iizuka, Fukuoka 820-8502, Japan

VII.A.-4 "Excimer Laser Annealed, Poly-Si Thin Film Transistors for Flat Panel Imager Application" *J. P. Lu[1]*; K. Van Schuylenbergh[1]; J. Ho[1]; Y. Wang[1]; P. Nylen[1]; J. B. Boyce[1]; R. A. Street[1]; [1]Xerox Palo Alto Research Center, 3333 Coyote Hill Road, Palo Alto, CA 94304 USA

VII.A.-5 "Amorphous Si TFTs on Plastically-Deformed Substrates with 3-D Shapes" *P. I. Hsu[1]*; H. Gleskova[1]; Z. Suo[1]; S. Wagner[1]; J. C. Sturm[1]; [1]Princeton University, Center for Photonics and Optoelectronic Materials (POEM), Princeton, NJ 08544 USA

VII.A.-6 "Gate Control in Ultra-Short Channel Double-Gate MOSFETs Accounting for 2D and Quantum Confinement Effects" *M. Mouis[2]*; F.-N. Genin[1]; A. Poncet[1]; [1]Laboratoire de Physique de la Matiere, UMR-CNRS n° 5511, INSA-Lyon 20, Avenue Albert Einstein, F-69621 Villeurbanne, France; [2]CEA-Grenoble, LETI/DTS/CPMA, 17 rue des Martyrs, 38054 Grenoble, Cedex 9 France

SESSION VII.B. WIDE BANDGAP SEMICONDUCTORS 197–212

VII.B.-1 "K-Band GaN Power HFET's with 6.6 W/mm CW Saturated Output Power Density and 35% Power Added Efficiency at 20 GHz" *Miro Micovic[1]*; Jeong S. Moon[1]; Ara Kurdoghlian[1]; Paul Hashimoto[1]; Danny Wong[1]; Loren McCray[1]; Tahir Hussain[1]; Paul Janke; [1]HRL Laboratories LLC, 3011 Malibu Canyon Road, Malibu, CA 90265 USA

VII.B.-2 "Linearity of High Al-Content AlGaN/GaN HEMTs" *T. Jenkins[1]*; L. Kehias[1]; P. Parikh[2]; Y.-F. Wu[2]; P. Chavarkar[2]; M. Moore[2]; U. Mishra[2]; [1]Air Force Research laboratory, 2241 Avionics Circle, Wright-Patterson AFB, OH 45433 USA; [1]Cree Lighting Company, 340 Storke Road, Goleta, CA 93117 USA

VII.B.-3 "Demonstration of Push-Pull Operation of AlGaN/GaN HEMTs on SiC" *Jong-Wook Lee[1]*; Sungjae Lee[1]; Keven J. Webb[1]; [1]Purdue University, School of Electrical and Computer Engineering, West Lafayette, IN 47907 USA

VII.B.-5 "An X-Band Silicon Carbide IMPATT Diode" *Luo Yuan[1]*; Michael R. Melloch[1]; James A. Cooper, Jr.[1]; Kevin J. Webb[1]; [1]Purdue University, School of Electrical and Computer Engineering, West Lafayette, IN 47907 USA

VII.B.-6 "The Effect of Emitter Implant and Anneal on High-Voltage 4H-SiC BJTs" *Yi Tang[1]*; Jeffrey B. Fedison[1]; T. Paul Chow[1]; [1]Rensselaer Polytechnic Institute, Center for Integrated Electronics and Electronic Manufacturing, Troy, NY 12180 USA

VII.B.-7 "Diamond Surface Channel FET with f_{max} Above 30 GHz" *A. Aleksov[1]*; A. Denisenko[1]; U. Spitzberg[1]; E. Kohn[1]; [1]University of Ulm, Dept. of Electron Devices and Circuits, Albert-Einstein-Allee 45, D-89081 Ulm, Germany

(DeBartolo Hall, Room 101)

Plenary Session

MONDAY AM, JUNE 25TH, 2001

Session Organizer: Sanjay Banerjee, The University of Texas at Austin

Session Chair: Mark Rodwell, University of California at Santa Barbara

8:30 AM, Welcoming Remarks
Plenary Speakers:

9:00 AM, I.1 Invited
SOI and Nanoscale MOSFETs: *Chenming Hu*[1]; [1]University of California, Department of Electrical Engineering and Computer Sciences, Berkeley, CA 94720 USA

9:40 AM, I.2 Invited
Vertical Cavity Surface Emitting Laser - Exploratory, Emerging, or Disruptive?: *K. Iga*[1]; [1]Tokyo Institute of Technology, 4259 Nagatsuta, Midoriku, Yokohama 226-8502 Japan

10:20 AM Break

10:45 AM, I.3 Invited
Low-Noise, High-Speed Avalanche Photodiodes: *Joe C. Campbell*[1]; [1]The University of Texas at Austin, Microelectronics Research Center, 10100 Burnet Road, Mail Code R9950, Austin, TX 78712 USA

11:25 AM, I.4 Invited
Status, Prospects and Commercialization of SiC Power Devices: *Dietrich Stephani*[1]; [1]SiCED Electronics Development GmbH & Co. KG, Paul-Gossen-Str. 100, D91052 Erlangen, Germany

Session II.A. ***(DeBartolo Hall, Room 102)***

Silicon Devices

MONDAY PM, JUNE 25TH, 2001

Session Organizer: Jeffrey Welser, IBM Technology Group

2:00 PM, II.A.-1, Invited
High-K Gate Dielectrics for Sub-100 nm CMOS Technology: *Dim-Lee Kwong[1];* [1]The University of Texas at Austin, Microelectronics Research Center, 10100 Burnet Road, Bldg. 160, Austin, TX 78758 USA

2:30 PM, II.A.-2
Fast Write Time and Long Retention 1T Memory: *Albert Chin[1]*; M. Y. Yang[1]; S. B. Chen[1]; C. L. Sun[2]; S. Y. Chen[2]; [1]National Chiao Tung University, Dept. of Electronics Engineering, Hsinchu, Taiwan; [2]National Chiao Tung University, Dept. of Materials Science Engineering, Hsinchu, Taiwan

2:50 PM, II.A.-3
Physical Origin of SILC and Noisy Breakdown in Very Thin Silicon Nitride Gate Dielectric: *Igor Polishchuk[1]*; Tsu-Jae King[1]; Chenming Hu[1]; [1]University of California at Berkeley, Department of Electrical Engineering and Computer Sciences, Berkeley, CA 94720 USA

3:10 PM, II.A.-4
Low-Power CMOS at Vdd=4kT/q: *Andres Bryant[1]*; Jeffrey Brown[1]; Peter Cottrell[1]; Mark Ketchen[2]; John Ellis-Monaghan[1]; E. J. Nowak[1]; [1]IBM Microelectronics Division, Essex Junction, VT 05452 USA; [2]IBM T. J. Watson Research Center, Yorktown Heights, NY 10598 USA

3:30 PM Break

3:50 PM, II.A.-5
A Sub-40nm Body Thickness N-Type FinFET: *David M. Fried[1]*; Arthur P. Johnson[1]; Edward J. Nowak[1]; Jed H. Rankin[1]; Christa R. Willets[1]; [1]IBM Microelectronics Division, Essex Junction, VT 05452 USA

4:10 PM, II.A.-6
Quasi-Planar NMOS FinFETs with Sub-100nm Gate Lengths: *Nick Lindert[1]*; Yang-Kyu Choi[1]; Leland Chang[1]; Erik Anderson[2]; Wenchin Lee[3]; Tsu-Jae King[1]; Jeffrey Bokor[1]; Chenming Hu[1]; [1]University of California at Berkeley, Department of Electrical Engineering and Computer Sciences, Berkeley, CA 94709 USA; [2]X-Ray Optics, Lawrence Berkeley National Laboratory, Berkeley, CA USA; [3]Intel Corporation, Logic Technology Development, Hillsboro, OR USA

4:30 PM, II.A.-7
High Performance of Planar Double Gate MOSFETs with Thin Backgate Dielectrics: *Erin C. Jones[1]*; Meikei Ieong[2]; Thomas Kanarsky[2]; Omer Dokumaci[2]; Ronnen A. Roy[1]; Leathen Shi[1]; Toshiharu Furukawa[3]; Robert J. Miller[1]; H-S Philip Wong[1]; [1]IBM T. J. Watson Research Center, Yorktown Heights, NY 10598 USA; [2]IBM SRDC, Hopewell Junction, NY 12533 USA; [3]IBM Microelectronics Division, Essex Junction, VT 05254 USA

4:50 PM, II.A.-8
$Si_{1-x}Ge_x$ Channel Vertical PMOSFET with Asymmetric Ge Profile: *Xiangdong Chen[1]*; Qiqing Ouyang[1]; Sankaran Kartik Jayanarayanan[1]; Freek E. Prins[1]; Sanjay Banerjee[1]; [1]The University of Texas at Austin, Microelectronics Research Center, 10100 Burnet Road, Bldg. 160, Austin, TX 78758 USA

Session II.B. *(DeBartolo Hall, Room 155)*

III-V Devices and Sources

MONDAY PM, JUNE 25TH, 2001

Session Organizer: Colombo Bolognesi, Simon Fraser University

2:00 PM, II.B.-1 Invited
Optical Interconnections to Silicon Integrated Circuits: *David Miller*[1]; [1]Stanford University, Stanford, CA 94305 USA

2:30 PM, II.B.-2
Temperature-Dependent Large Signal Modulation and Auger Recombination in $In_{0.4}Ga_{0.6}As$ Quantum-Dot Lasers: *S. Ghosh*[1]; P. Bhattacharya[1]; E. Stoner[1]; H. Jiang[2]; S. Nuttinck[3]; J. Singh[1]; J. Laskar[3]; [1]University of Michigan, Solid State Electronics Laboratory, Department of Electrical Engineering and Computer Science, Ann Arbor, MI 48109 USA; [2]Broadcom Corporation, 16215 Alton Parkway, Irvine, CA 92619 USA; [3]Georgia Institute of Technology, Microelectronics Research Center, Department of Electrical Engineering, Atlanta, GA 30332 USA

2:50 PM, II.B.-3
ZnSe-Based Laser Diodes for the 560 nm Spectral Region: *M. Klude*[1]; G. Alexe[1]; C. Kruse[1]; T. Passow[1]; D. Hommel[1]; [1]Institut fur Festkorperphysik, Universitat Bremen, 28359 Bremen , Germany

3:10 PM, II.B.-4
***NpN* InGaAsN-Based Heterojunction Bipolar Transistors with f_{max}=60GHz:** *C. Monier*[1]; A. G. Baca[1]; F. Newman[2]; P. C. Chang[1]; N. Y. Li[2]; H. Q. Hou[2]; E. Armour[3]; R. Stall[3]; [1]Sandia National Laboratories, Albuquerque, NM 87185 USA; [2]Emcore Corporation, Emcore Photovoltaics, Albuquerque, NM 87123 USA; [3]Emcore Corporation, Sommerset, NJ 08873 USA

3:30 PM Break

3:50 PM, II.B.-5
Noise Characteristics of Highly Strained InGaP/InGaAs p-HEMTs Grown on Patterned Substrates by Using Compound-Source MBE: *Jeong Hoon Kim*[1]; Sung-June Jo[1]; Jong-In Song[1]; [1]K-JIST, Department of Information and Communications, 1 Oryong-dong Buk-gu, Kwangju, 500-712 Korea

4:10 PM, II.B.-6
A Flip-Flop Based on Monolithic Integration of InAs/AlSb/GaSb RITDs and InAlAs/InGaAs/InP HEMTs: *P. Fay*[1]; Y. Xu[1]; G. H. Bernstein[1]; A. Gonzalez[2]; P. Mazumder[2]; D. H. Chow[3]; J. N. Schulman[3]; [1]University of Notre Dame, Department of Electrical Engineering, Notre Dame, IN 46556 USA; [2]University of Michigan, Department of Electrical Engineering and Computer Science, Ann Arbor, MI 48109 USA; [3]HRL Laboratories, Malibu, CA 90265 USA

4:30 PM, II.B.-7
Monolithic Integration of InAlAs/InGaAs Enhancement and Depletion (E/D)-Mode Metamorphic HEMTs on GaAs Substrate: *D. C. Dumka*[1]; W. E. Hoke[2]; P. J. Lemonias[2]; R. Schwindt[1]; G. Cueva[1]; I. Adesida[1]; [1]University of Illinois at Urbana-Champaign, Microelectronics Laboratory, Department of Electrical and Computer Engineering, 208 Wright Street, Urbana, IL 61801 USA; [2]Raytheon RF Components, 362 Lowell Street, Andover, MA 01810 USA

Poster Session

MONDAY PM, JUNE 25TH, 2001, 5:30 PM–8:00 PM

III.-1–Dual-Channel SOI LIGBT with Improved Latch-Up and Forward Voltage Drop Characteristics: *Woo-Beom Choi[1]*; Woong-Je Sung[1]; Yong-Il Lee[1]; Man Young Sung[1]; [1]Korea University, Dept. of Elect. Eng., 1, 5-ka, Anam-dong, Sungbuk-ku, Seoul 136-701 Korea

III.-2–Chaos Generator MMIC's Using Resonant Tunneling Diodes: *K. Maezawa[1]*; Y. Kawano[1]; Y. Ohno[1]; S. Kishimoto[1]; T. Mizutani[1]; [1]Nagoya University, Graduate Sch. of Eng., Furo-cho, Chikusa-ku, Nagoya-shi, 464-8603 Japan

III.-3–High Detectivity Solar Blind AlGaN Metal-Semiconductor-Metal Detector: *Jean-Luc Reverchon[1]*; Jean-Yves Duboz[1]; Fabrice Semond[2]; Nicolas Grandjean[2]; Jean Massies[2]; [1]Laboratoire Central de Recherches, THALES, 91404 ORSAY, Cedex, France; [2]CRHEA-CNRS, rue Bernard Gregory, Sophia Antipolis 06560 Valbonne, France

III.-4–Characterization of a 0.1 µm MOSFET Using Crosss-Sectional Scanning Tunneling Microscopy: *T. Okui[1]*; S. Hasegawa[1]; H. Nakashima[1]; H. Fukutome[2]; H. Arimoto[2]; [1]Osaka University, The Institute of Scientific and Industrial Research, 8-1 Mihogaoka, ibaraki, Osaka 567-0047 Japan; [2]Fujitsu Laboratories Ltd., 10-1 morinosato-wakamiya, Atsugi, Kanagawa 243-0197 Japan

III.-5–Nanoscale MOSFETs Scaling: *Yehuda Naveh[1]*; Victor Sverdlov[1]; Konstantin Likharev[1]; [1]State University of New York, Stony Brook, NY 11794-3800 USA

III.-6–50 nm Vertical Surround Gate MOSFET with S-Factor of 75mV/dec: *Ruigang Li[1]*; Yaohui Zhang[2]; Yang Lu[2]; Daniel Sung Choi[2]; Marie Luo[3]; Kang L. Wang[2]; [1]University of California at Los Angeles, Elect. Eng. Dept., Rm. 56-125B ENGR IV, Los Angeles, CA 90095-1594 USA; [2]University of California at Los Angeles, Elect. Eng. Dept., Los Angeles, CA 90095-1594 USA; [3]Conexant Systems, Inc., 4311 Jamboree, Newport Beach, CA 92660 USA

III.-7–Hyperspectral Imaging of Breakdown in InAlAs/InGaAs HEMTs: A Comparative Study: *Mark Somerville[1]*; Jon Rameau[1]; Nii Moi Addo[1]; [1]Vassar College, Dept. of Phys. and Astron., 124 Raymond Ave., Poughkeepsie, NY 12604 USA

III.-8–Extension of Safe-Operating-Area by Optimizing Body-Current in Submicron LDMOS Transistors: *S. K. Lee[1]*; Y. C. Choi[1]; J. H. Kim[1]; C. J. Kim[1]; H. S. Kang[1]; C. S. Song[1]; [1]Fairchild Korea Semiconductor Co. New Techn. Devel. Team, 82-3 Dodang-Dong, Wonmi-Ku, Puchon, Kyonggi-Do, Korea

III.-9–Computer Analysis of Geometry and Strain Effects in Silicon Nano-Crystal Floating-Gate Flash Memory Devices: *Aaron Thean[1]*; Jean-Pierre Leburton[1]; [1]University of Illinois, Beckman Institute for Advanced Science & Technology, Dept. of Elec. & Comp. Eng., Urbana, IL 61801 USA

III.-10–An Extension of McKelvey's One-Flux Method to Energy Space: *W. R. McKinnon[1]*; [1]National Research Council, Ottawa, K1A 0R6, Canada

III-11–Characterization of Midgap Tungsten Gate MOSFETs: *Huiling Shang[1]*; Marvin H. White[1]; Kathryn W. Gaurini[2]; Edward Cartier[2]; Paul Solomon[2]; [1]Lehigh University, EECS Dept., Sherman Fairchild Lab., Bethelem, PA 18015 USA; [2]IBM T. J. Watson Research Center, PO Box 218, Yorktown Heights, NY 10598 USA

III.-12–ESD Protection for High Voltage LDMOS with Sense FET: *Y. S. Choi[1]*; J. J. Kim[1]; C. K. Jeon[1]; M. H. Kim[1]; S. L. Kim[1]; H. S. Kang[1]; C. S. Song[1]; [1]Fairchild Semiconductor, Process R&D Group, 82-3 Dodang-Dong, Wonmi-Ku, Puchon, Kyonggi-Do, 420-711, Korea

III.-13–Mixed Mode Double-Gate FET Model: *P. M. Solomon[1]*; [1]IBM T. J. Watson Research Center, Yorktown Heights, NY 10598 USA

III.-14–Low Programming Voltages and Long Retention Time in Metal Nanocrystal EEPROM Devices: *Zengtao Liu[1]*; Venkat Narayanan[1]; Myongseob Kim[1]; Gen Pei[1]; Edwin C. Kan[1]; [1]Cornell University, Elect. and Comp. Eng., Ithaca, NY 14853 USA

III.-15–High Performance AlGaN/GaN HEMTs with Recessed Gate on Sapphire Substrate: *Y. Sano[1]*; T. Yamada[1, 2]; J. Mita[1, 2]; K. Kaifu[1]; H. Ishikawa[3]; T. Egawa[3]; M. Umeno[3]; [1]Oki Electric Industry Co., Ltd., Corp. Res. Lab., 550-5 Higashiawakawa, Hachioji, Tokyo 193-8550 Japan; [2]Ultra-Low-Loss Power Device Technology Research Body; [3]Nagoya Institute of Technology, Gokiso-cho, Showa-ku, Nagoya 466-8555 Japan

III.-16–A Comparison of Bulk and SOI Deep Sub-Micron MOSFET Small-Signal Behavior in the High-Frequency Regime Beyond 10GHz: *D. Goldman[1]*; T. Gafron[1]; C.-S. Kim[1]; Q. Nguyen[1]; F. Burke[1]; B. Cheek[1]; S. Parke[1]; [1]Boise State University, Dept. of Elect. and Comp. Eng., Boise, ID 83725 USA

III.-17–Threshold Voltage Shift by Quantum Confinement in Ultra-Thin Body Device: *Yang-Kyu Choi[1]*; Daewon Ha[1]; Tsu-Jae King[1]; Chenming Hu[1]; [1]University of California at Berkeley, Dept. of Elect. Eng. and Comp. Scis., Berkeley, CA 94720 USA

III.-18–A New and Accurate Quantum Mechanical Compact Model for NMOS Gate Capacitance: *S. Mudanai[1]*; L. F. Register[1]; A. F. Tasch[1]; S. K. Banerjee[1]; [1]The University of Texas at Austin, Microel. Res. Ctr., Mail Code R9950, Austin, TX 78712 USA

III.-19–An Intrinsically Coupled HBT/RTD Device Enabling an Adjustable Peak-Current-Density: *P. Velling[1]*; M. Agethen[1]; W. Prost[1]; G. Janssen[2]; R. M. Bertenburg[2]; F. J. Tegude[1]; [1]Gerhard-Mercator University, Solid State Electr. Dept., 47057 Duisburg, Germany; [2]IPAG-Innovative Processing AG, Lotharstrasse 55 (ZHO), 47057 Duisburg, Germany

III.-20–Excellent DC Characteristics of HEMTs on Semi-Insulating Silicon Carbide Substrate: *S. Arulkumaran[1]*; T. Egawa[1]; G. Zhao[1]; H. Ishikawa[1]; M. Umeno[1]; [1]Nagoya Institute of Technology, Research Center for Micro-Struction Devices, Gokiso-cho, Showa-ku, Nagoya 466-8555 Japan

III.-21–A Quantum Dot FET–A Future Playground of Quantum State Manipulation: *Kanji Yoh[1]*; Hironobu Kazama[1]; Yoshito Katano[1]; [1]Hokkaido University, Res. Center for Interface Quant. Elect., N 13, W8, Kita-ku, Sapporo, Hokkaido 060-8628 Japan

III.-22–Sub-40nm V-Groove MOSFETs: *J. Appenzeller[1]*; R. Martel[1]; Ph. Avouris[1]; J. Knoch[2]; Y. Lu[3]; K. L. Wang[3]; J. Scholvin[4]; J. A. del Alamo[4]; P. Rice[5]; P. Solomon[1]; [1]IBM T. J. Watson Research Center, Yorktown Heights, NY 10598 USA; [2]II. Physikanlisches Institut, RWTH Aachen, Templergraben 55, 52056 Aachen, Germany; [3]University of California at Los Angeles, Los Angeles, CA 90095 USA; [4]Massachusetts Institute of Technology, 77 Massachusetts Ave., Cambridge, MA 02139 USA; [5]IBM Almaden Research Center, San Jose, CA 95120 USA

III.-23–Terahertz Plasma-Wave Excitation in 80-nm Gate-Length GaAs MESFET by Photomixing Long-Wavelength CW Laser Sources: *Taiichi Otsuji[1]*; Yoshihiro Kanamaru[1]; Hajime Kitamura[1]; Shin Nakae[1]; [1]Kyushu Institute of Technology, Dept. of Control Sci. and Eng., Iizuka, Fukuoka, 820-8502 Japan

III.-24–Fabrication of InP DHBTs with 0.1µm Wide Emitter: *T. Arai[1]*; H. Nagatsuka[1]; Y. Miyamoto[1]; K. Furuya[1]; [1]Tokyo Institute of Technology, Dept. of Phys. Electr., 2-12-1 O-okayama, Meguro-ku, Tokyo 152-8552 Japan

III.-25–Characteristics of Submicron HBTs in the 140-220 GHz Band: *M. Urteaga[1]*; D. Scott[1]; T. Matthew[1]; S. Krishnan[1]; Y. Wei[1]; M. Dahlstrom[1]; M. Rodwell[1]; [1]University of California at Santa Barbara, Dept. of ECE, Santa Barbara, CA 93106 USA

III.-26–A Quantum-Dot Cellular Automata Shift Register: *Ravi Kummamaru[1]*; Aexei O. Orlov[1]; John P. Timler[1]; R. Ramasubramaniam[1]; Craig S. Lent[1]; Gary H. Bernstein[1]; Gregary L. Snider[1]; [1]University of Notre Dame, Dept. of Elect. Eng., Notre Dame, IN 46556 USA

Session IV. *(DeBartolo Hall, Room 101)*

Emerging Technologies

TUESDAY AM, JUNE 26TH, 2001

Session Organizer: Sanjay Banerjee, The University of Texas at Austin

9:00 AM, IV.-1 Invited
Nanotube Nanoelectronics: *Paul L. McEuen[1, 2]*; J. Park[2, 3]; A. Bachtold[2,3]; M. Woodside[2, 3]; M. S. Fuhrer[2, 3]; M. Bockrath[2, 3]; L. Shi[4]; A. Majumdar[4]; P Kim[2, 3]; [1]Corrnell University, Laboratory of Atomic and Solid State Physics, Ithaca, NY 14853 USA; [2]University of California, Department of Physics, Berkeley, CA 94720 USA; [3]University of California, Materials Sciences Division, Lawrence Berkeley National Laboratory, Berkeley, CA 94720 USA; [4]University of California, Department of Mechanical Engineering, Berkeley, CA 94720 USA

9:30 AM, IV.-2 Invited
Molecule/Metal and Molecule/Semiconductor Heterostructures for Electronic Devices: *David B. Janes[1]*; Purdue University, School of Electrical and Computer Engineering, W. Lafayette, IN 47907 USA

10:00 AM, IV.-3 Invited
Integrated RF Passive Components - Discrete vs. Distributed: *J. N. Burghartz[1]*; K. T. Ng[1]; N. P. Pham[1]; B. Rejaei[1]; P. Sarro[1]; [1]Delft University of Technology, EC TM-DIMES, Feldmannweg 17, 2600 GB Delft, The Netherlands

10:30 AM Break

10:50 AM, IV.-4 Invited
Photonic Crystal Cavities and Waveguides: *A. Scherer[1]*; O. Painter[1]; J. Vuckovic[1]; M. Loncar[1]; D. Dapkus[2]; I. Kim[2]; T. Pearsall[3]; [1]Caltech, MC 200-36, Pasadena, CA 91125 USA; [2]University of Southern California; [3]CERF Corning, Avon France

11:20 AM, IV.-5 Invited
Electronic Detection of DNA: Robust Platform for Integrated Devices: *Robert H. Terbrueggen[1]*; Yin-Peng Chen[1]; Hau Duong[1]; Dan Farkas[1]; K. M. Millan[1]; Gary T., Olsen[1]; Nathan Swami[1]; Hai Wang[1]; Handy Yowanto[1]; C. J. Yu[1]; Gary F. Blackburn[1]; Jon Faiz Kayyem[1]; [1]Motorola Clinical Micro Sensors, 757 South Raymond Avenue, Pasadena, CA 91105 USA

Novel Devices

TUESDAY PM, JUNE 26TH, 2001

Session Organizers: Rick Kiehl, University of Minnesota

2:00 PM, V.A.-1 Invited
Tunable Two-Electron Spin States in Quantum Dot Structures and the Applicability for Making Spin Qubits: *S. Tarucha[1, 3]*; K. Ono[2]; D. G. Austing[3]; S. Sasaki[3]; T. Fujisawa[3]; Y Tokura[3]; L. P. Kouwenhoven[4]; [1]ERATO Mesoscopic Correlation Project & [2]Department of Physics, University of Tokyo, 7-3-1 Bunkyo-ku, Hongo, 7-3-1 Tokyo 113-0033, Japan; [3]NTT Basic Research Laboratories, Morinosato Wakamiya, Atugi-shi, Kanagawa 243-0198, Japan; [4]ERATO Mesoscopic Correlation Project, & Department of Applied Physics, Delft University of Technology, P.O. Box 5046, 2600 GA Delft, The Netherlands

2:30 PM, V.A.-2
A Multiple-Valued SRAM with Combined Single-Electron and MOS Transistors: *Hiroshi Inokawa[1]*; Akira Fujiwara[1]; Yasuo Takahashi[1]; [1]NTT Basic Research Laboratories, 3-1 Morinosato Wakamiya, Atsugi-shi, Kanagawa Pref., 243-0198 Japan

2:50 PM, V.A.-3
Binary-Decision-Diagram Quantum Circuits Based on Schottky Wrap Gate Control of GaAs Honeycomb Nanowires: *Seiya Kasai[1]*; Hideki Hasegawa[1]; [1]Hokkaido University, Research Center for Interface Quantum Electonics and Graduate School of Electronics and Information Engineering, N-13, W-8, Kita-ku, Sapporo 060-8628 Japan

3:10 PM, V.A.-4
Single Electron Transistors with Sidewall Depletion Gates on a Silicon-On-Insulator Quantum Wire: *D. H. Kim[1]*; K. R. Kim[1]; S.-K. Sung[1]; B. H. Choi[2 &3]; S. W. Hwang[2 & 3]; D. Ahn[2]; J. D. Lee[1]; B.-G. Park[1]; [1]Seoul National University, Inter-University Semiconductor Research Center (ISRC) and School of Electrical Engineering, San 56-1, Shinlim-dong, Kwanak-gu, Seoul 151-742, Korea; [2]University of Seoul, Institute of Quantum Information Processing and Systems (iQUIPS), Seoul 130-743, Korea; [3]Korea University, School of Electrical Engineering, Anamdong, Sungbukku, Seoul 136-701 Korea

3:30 PM Break

3:50 PM, V.A.-5
A Semiconductor GMR Device: *Kanji Yoh[1]*; T. Doi[1]; Y. Katano[1]; S. Abe[2]; H. Ohno[2]; K. Sueoka[2]; K. Mukasa[2]; [1]Hokkaido University, Research Center for Interface Quantum Electronics, N 13, W8, Kita-ku, Sapporo, Hokkaido 060-8628 Japan; [2]Hokkaido University, Graduate School of Electronics and Information Technology, N 13, W8, Kita-ku, Sapporo, Hokkaido 060-8628 Japan

4:10 PM, V.A.-6
Digital Thin Film Non-Volatile Optical Memory: *Robert C. J. Chi[1]*; A. J. Steckl[1]; [1]University of Cincinnati, Nanoelectronics Laboratory, Cincinnati, OH 45221-0030 USA

4:30 PM, V.A.-7
Modeling and Design Study of Nanocrystal Membory Devices: *Min-She[1]*; Ya-Chin King[2]; Tsu-Jae King[1]; Chenming Hu[1]; [1]University of California at Berkeley, Department of Electrical Engineering and Computer Sciences, Berkeley, CA 94720 USA; [2]National Tsing-Hua University, Department of Electrical Engineering, Hsinchu, Taiwan

4:50 PM, V.A.-8
Quasi-Magnetic Fields Revisited: Second-Order Transport Effects in Graded Semiconductors: *William R. Frensley[1]*; [1]University of Texas at Dallas, Richardson, TX 75083 USA

Session V.B. ***(DeBartolo Hall, Room 155)***

Detectors

TUESDAY PM, JUNE 26TH, 2001

Session Organizer: Pallab Bhattacharya, University of Michigan

2:00 PM, V.B.-1 Invited
Single Electron Transistors as Far-Infrared Photon Detectors: *O. Astafiev*[1]; V. Antonov[1]; T. Kutsuwa[1]; S. Komiyama[2]; [1]Department of Basic Science, University of Tokyo, Komaba 3-8-1, Meguro-ku,Tokyo 153-8902, Japan; [2]Japan Science and Technology Corporation (JST)
Kawaguchi-shi, Saitama 332-0012, Japan

2:30 PM, V.B.-2
High-Speed Waveguide Avalanche Photodetectors: *Geoffrey Kinsey*[1]; R. Sidhu[1]; A. L. Holmes, Jr.[1]; J. C. Campbell[1]; [1]The University of Texas at Austin, Microelectronics Research Center, MER 1.608B/ R9900, Austin, TX 78712 USA

2:50 PM, V.B.-3
200-Gbit/s Monolithic Photodiode-Electroabsorption Modulator (PD-EAM) Optical Gate: *S. Kodama*[1]; T. Ito[1]; N. Watanabe[1]; S. Kondo[1]; H. Takeuchi[1]; H. Ito[1]; T. Ishibashi[1]; [1]NTT Photonics Laboratories, Morinsato-Wakamiya 3-1, Atsugi-shi, Kanagawa 243-0198, Japan

3:10 PM, V.B.-4
A CMOS-Compatible High-Speed Silicon Lateral Trench Photodetector: *Min Yang*[2]; Ken Rim[1]; Dennis Rogers[1]; Jeremy Schaub[1]; Jeffrey Welser[1]; Daniel Kuchta[1]; Diane Boyd[2]; [1]IBM T. J. Watson Research Center, P. O. Box 218, Yorktown Heights, NY 10598 USA; [2]IBM Microelectronics, Hopewell Junction, NY 12533 USA

3:30 PM Break

3:50 PM, V.B.-5
High-Temperature Operation of Mid-Infrared (l=4-5µm) Vertical and Lateral InAs/GaAs/AlGaAs" Quantum Dot Infrared Photodetectors: *A. D. Stiff*[1]; S. Krishna[1]; P. Bhattacharya[1]; S. Kennerly[1]; [1]Univerisity of Michigan, Solid State Electronics Laboratory, Department of Electrical Engineering and Computer Science, Ann Arbor, MI 48109-2122 USA; [2]Army Research Laboratory, Sensors and Electron Devices Directorate, Adelphi, MD 20783 USA

4:10 PM, V.B.-6
Normal-incident $In_{0.2}Ga_{0.8}As$/GaAs Quantum Well Infrared Photodetector Employing a p-i-n-i-p Camel Diode Structure: *Heesoo Son*[1]; Jinsung Park[1]; Songcheol Hong[1]; Sung-June Jo[2]; Jong-In Song[2]; [1]KAIST, Department of Electrical Engineering and Computer Science, Taejon 305-701, Korea; [2]K-JIST, Department of Information and Communications, Kwangju 500-712, Korea

4:30 PM, V.B.-7
High Efficiency, Large Area, InGaAs/InPAs Thermophotovoltaic Cells: *R. R. Siergiej*[1]; B. Wernsman[1]; S. A. Derry[1]; R. J. Wehrer[1]; S. D. Link[1]; M. N. Palmisiano[1]; D. R. Riley[1]; C. S. Murray[2]; F. Newman[2]; J. Hills[2]; [1]Bechtel Bettis, Inc., 814 Pittsburgh-McKeesport Blvd, West Mifflin, Pennsylvania 15122; [2]Emcore Photovoltaics, Albuquerque, NM 87123 USA

Session VI.A. *(DeBartolo Hall, Room 136)*

Nanostructure Modeling

WEDNESDAY AM, JUNE 27TH, 2001

Session Organizers: Frank Register, The University of Texas at Austin; Supriyo Bandyopadhayay, University of Nebraska

10:00 AM, VI.A.-1
Spin-Orbit Interaction of 2° in InAlAs/InAs Hetero-structures: *Kanji Yoh*[1]; Toshihiro Doi[1]; Shin-ichiro Abe[2]; Yoshito Katano[1]; Hiroshi Ohno[2]; Kazuhisa Sueoka[2]; Koichi Mukasa[2]; [1]Hokkaido University, RCIQE, N13, W8, Kita-ku, Sapporo, Hokkaido 060-8628 Japan; [2]Hokkaido University, Grad. Sch. of Eng., N13, W8, Kita-ku, Sapporo, Hokkkaido 060-8628 Japan

10:20 AM (Student), VI.A.-2
Thermal Conductivity in Semiconductor Thin Films and Nanowires: *Jie Zou*[1]; Alexander A. Balandin[1]; [1]University of California at Riverside, Dept. of Electl. Eng., Riverside, CA 92521 USA

10:40 AM (Student), VI.A.-3
Quantum Mechanical Calculation of QCA Molecule Properties: *Christopher J. Russo*[1]; *Craig S. Lent*[1]; [1]University of Notre Dame, Electl. Eng., 275 Fitzpatrick, Notre Dame, IN 46556 USA

11:00 AM, VI.A.-4
Nano-Transistor Modeling: Two Dimensional Green's Function Method: *A. Svizhenko*[1]; M. P. Anantram[1]; T. R. Govindan[1]; B. Biegel[1] [1]NASA, Ames Rsrch. Ctr., MS T27A-1, Moffett Field, CA 94035-1000 USA

11:20 AM, VI.A.-5
A Coupled Schrödinger/Monte Carlo Technique for Quantum-Corrected Device Simulation: *Brian Winstead*[1]; Umberto Ravaioli[1] [1]University of Illinois at Urbana–Champaign, Beckman Inst., Urbana, IL 61801 USA

11:40 AM, VI.A.-6
Quantitative Prediction of Threshold Voltage Fluctuations in Sub-100 nm MOSFETs by a New Dopant Model: *Hiroyuki Yamamoto*[1]; Yos-himitsu Okada[1]; Nobuyuki Sano[1]; [1]University of Tsukuba, Inst. of Appl. Phys., 1-1-1 Tennoudai, Tsukuba, Ibaraki, 305-8573 Japan

Session VI.B. *(DeBartolo Hall, Room 126)*

Displays

WEDNESDAY AM, JUNE 27TH, 2001

Session Organizer: Tayo Akinwande, MIT

10:10 AM, VI.B.-1 Invited
High Gamma Coatings for Plasma Display Panels: A Comparison: *P. K. Bachmann[1]*; V. Van Elsbergen[1]; C. McGrath[1]; [1]Phillips Research Laboratories, Weisshausstrasse 2, D-52066 Aachen, Germany

10:40 AM, VI.B.-2
Rare-Earth Doped GaN Electroluminescent Devices for Robust Flat Panel Displays: *J. Heikenfeld[1]*; A.J. Steckl[1]; [1]University of Cincinnati, Nanoelectronics Lab, Cincinnati, OH 45221-0030 USA

11:00 AM, VI.B.-3
Novel Three-Color Polymer Light-Emitting Devices for Passive-Matrix Flat Panel Displays: *Ke Long[1]*; Min-Hao Lu[1]; Florian Pschenitzka[1]; J. C. Sturm[1]; [1]Princeton University, Department of Electrical Engineering, Center for Photonics and Optoelectronic Materials (POEM), Princeton, NJ 08544 USA

11:20 AM, VI.B.-4
Flexible Liquid Crystal Displays Driven by Organic Thin Film Transistors on Polymeric Substrates: *C. D. Sheraw[1]*; L. Zhou[1]; J. R. Huang[1]; L. Jia[1]; J. A. Nichols[1]; C. C. Kuo[1]; D. J. Gundlach[1]; T. N. Jackson[1]; M. G. Kane[2]; I. G. Hill[2]; M. S. Hammond[2]; J. Campi[2]; B. K. Greening[2]; J. Francl[3]; J. West[3]; [1]The Pennsylvania State University, Center for Thin Film Devices, University Park, PA 16802 USA; [2]Sarnoff Corporation, Solid State Display Laboratory, Princeton, NJ 08543 USA; [3]Kent State University, Liquid Crystal Institute, Kent, OH 44242 USA

TFTs

WEDNESDAY PM, JUNE 27TH, 2001

Session Organizer: Hagen Klauk, Infineon Technologies

2:00 PM, VII.A.-1 Invited
Organic-Inorganic Electronic Devices Based on Hybrid Perovskites: *D. B. Mitzi*[1]; C. D. Dimitrakopoulos[1]; L. L. Kosbar[1]; [1]IBM T. J. Watson Research Center, Yorktown Heights, NY 10598 USA

2:30 PM, VII.A.-2
CMOS Polysilicon Circuits on Flexible Steel Substrates: *Ming Wu*[1]; Sigurd Wagner[1]; [1]Princeton University, Department of Electrical Engineering, Princeton, NJ 08544 USA

2:50 PM, VII.A.-3
High-Performance Thin-Film Transistor Fabricated on Poly-Si Films Prepared by Metal Imprint Technology: *Kenji Makihira*[1]; Masahito Yoshii[1]; Tanemasa Asano[1]; [1]Kyushu Institute of Technology, Center for Microelectronic Systems, 680-4 Kawazu, Iizuka, Fukuoka 820-8502, Japan

3:10 PM, VII.A.-4
Excimer Laser Annealed, Poly-Si Thin Film Transistors for Flat Panel Imager Application: *J. P. Lu*[1]; K. Van Schuylenbergh[1]; J. Ho[1]; Y. Wang[1]; P. Nylen[1]; J. B. Boyce[1]; R. A. Street[1]; [1]Xerox Palo Alto Research Center, 3333 Coyote Hill Road, Palo Alto, CA 94304 USA

3:30 PM Break

3:50 PM, VII.A.-5
Amorphous Si TFTs on Plastically-Deformed Substrates with 3-D Shapes: *P. I. Hsu*[1]; H. Gleskova[1]; Z. Suo[1]; S. Wagner[1]; J. C. Sturm[1]; [1]Princeton University, Center for Photonics and Optoelectronic Materials (POEM), Princeton, NJ 08544 USA

4:10 PM, VII.A.-6
Gate Control in Ultra-Short Channel Double-Gate MOSFETs Accounting for 2D and Quantum Confinement Effects: *M. Mouis*[2]; F.-N. Genin[1]; A. Poncet[1]; [1]Laboratoire de Physique de la Matiere, UMR-CNRS n° 5511, INSA-Lyon 20, Avenue Albert Einstein, F-69621 Villeurbanne, France; [2]CEA-Grenoble, LETI/DTS/CPMA, 17 rue des Martyrs, 38054 Grenoble Cedex 9 France

Session VII.B. *(DeBartolo Hall, Room 126)*

Wide Bandgap Semiconductors

WEDNESDAY PM, JUNE 27TH, 2001

Session Organizer: Anant Agarwal, CREE

2:00 PM, VII.B.-1 Invited
K-Band GaN Power HFET's with 6.6 W/mm CW Saturated Output Power Density and 35% Power Added Efficiency at 20 GHz: *Miro Micovic*[1]; Jeong S. Moon[1]; Ara Kurdoghlian[1]; Paul Hashimoto[1]; Danny Wong[1]; Loren McCray[1]; Tahir Hussain[1]; Paul Janke; [1]HRL Laboratories LLC, 3011 Malibu Canyon Road, Malibu, CA 90265 USA

2:30 PM, VII.B.-2
Linearity of High Al-Content AlGaN/GaN HEMTs: *T. Jenkins*[1]; L. Kehias[1]; P. Parikh[2]; Y.-F. Wu[2]; P. Chavarkar[2]; M. Moore[2]; U. Mishra[2]; [1]Air Force Research laboratory, 2241 Avionics Circle, Wright-Patterson AFB, OH 45433 USA; [1]Cree Lighting Company, 340 Storke Road, Goleta, CA 93117 USA

2:50 PM, VII.B.-3
Demonstration of Push-Pull Operation of AlGaN/GaN HEMTs on SiC: *Jong-Wook Lee*[1]; Sungjae Lee[1]; Keven J. Webb[1]; [1]Purdue University, School of Electrical and Computer Engineering, West Lafayette, IN 47907 USA

3:10 PM, VII.B.-4
On Development of 600-850 V 6H-SiC LDMOS Transistors Using Silane-Ambient Implant Anneal: *I. Sankin*[1]; J. B. Casady[1]; J. B. Dufrene[1]; W. A. Draper[1]; J. Kretchmer[2]; J. Vandersand[1]; V. Kumar[1]; M. S. Mazzola[1]; S. E. Saddow[1]; [1]Mississippi State University, Electrical & Computer Engineering Department, Box 9571, Mississippi State, MS 39762-9571 USA; [2]General Electric Corporate Research & Development Center, Schenectedy, NY USA

3:30 Break

3:50 PM, VII.B.-5
An X-Band Silicon Carbide IMPATT Diode: *Luo Yuan*[1]; Michael R. Melloch[1]; James A. Cooper, Jr.[1]; Kevin J. Webb[1]; [1]Purdue University, School of Electrical and Computer Engineering, West Lafayette, IN 47907 USA

4:10 PM, VII.B.-6
The Effect of Emitter Implant and Anneal on High-Voltage 4H-SiC BJTs: *Yi Tang*[1]; Jeffrey B. Fedison[1]; T. Paul Chow[1]; [1]Rensselaer Polytechnic Institute, Center for Integrated Electronics and Electronic Manufacturing, Troy, NY 12180 USA

4:30 PM, VII.B.-7
Diamond Surface Channel FET with f_{max} Above 30 GHz: *A. Aleksov*[1]; A. Denisenko[1]; U. Spitzberg[1]; E. Kohn[1]; [1]University of Ulm, Dept. of Electron Devices and Circuits, Albert-Einstein-Allee 45, D-89081 Ulm, Germany

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