



Jim Plummer

John M. Fluke Professor of Electrical Engineering, Emeritus

Bio

BIO

Jim Plummer was born in Toronto, Canada. He obtained his BS degree from UCLA and his MS and PhD degrees in Electrical Engineering from Stanford University. He joined the Stanford faculty in 1978 as an associate professor. He became professor of electrical engineering in 1983.

His career at Stanford has included serving as director of the IC Laboratory, senior associate dean in the School of Engineering, and chair of the Electrical Engineering Department. He was the Frederick Emmons Terman Dean of the School of Engineering from 1999 until 2014. He also holds the John Fluke Professorship in Electrical Engineering. During his tenure as dean, the school renewed or replaced much of its laboratory and classroom space, dramatically increased the number of undergraduate students majoring in engineering and created interdisciplinary programs like the Bioengineering Department, which is jointly operated with the medical school, ICME, the Institute For Computational and Mathematical Engineering, and the Hasso Plattner Institute of Design (d.school) that changed the nature of engineering education. Plummer was a strong advocate as dean, for ensuring that engineering majors take advantage of the full set of opportunities at a liberal arts institution like Stanford.

Plummer has worked in a variety of areas in the broad field of silicon devices and technology. Much of his early work focused on high-voltage ICs and on high-voltage device structures. He and his group made important contributions to integrating CMOS logic and high-voltage lateral DMOS devices on the same chip and demonstrated circuits operating at several hundred volts. This work also led to several power MOS device concepts such as the IGBT which have become important power switching devices.

Throughout the 1980s and '90s, a major focus of his work was on silicon process modeling. This work involved many students and other faculty, particularly Professor Bob Dutton, and resulted in the development of several generations of SUPREM, which has become the standard process modeling tool used worldwide today. His recent work has focused on nanoscale silicon devices for logic and memory and power devices using wide bandgap semiconductor materials.

Plummer is a member of the National Academy of Engineering, the American Academy of Arts and Sciences and a fellow of the IEEE. He has received many awards for his research, including the 1991 Gordon Moore medal for Solid State Science and Technology from the Electrochemical Society, the 2001 Semiconductor Industry Association University Research Award, the 2003 IEEE J. J. Ebers Award, the 2003 IEEE Van der Ziel Award, the 2007 IEEE Andrew Grove award and the 2015 IEEE Founders Medal. He has been elected to the Silicon Valley and ISPSD Halls of Fame.

He has graduated more than 90 PhD students with whom he has published more than 500 journal papers and conference presentations. These papers have won eight conference and student best paper awards including two at IEDM and three at ISSCC. His textbooks, "Integrated Circuit Fabrication: Science and Technology" and "Silicon VLSI Technology: Fundamentals, Practice and Modeling," are used by many universities around the world (<https://plummergriffinbook.stanford.edu>). The link on this page provides information on how to download copies of these books for personal use. He has also received three teaching awards at Stanford. He has served and currently serves on the Board of Directors of several public companies including Intel and Cadence.

Plummer directed the Stanford Nanofabrication Facility from 1994 to 2000 and received an NSF commendation in 2000 for national leadership in building the NNUN, a consortium of universities who opened their nanofabrication facilities as national resources for industry and for students from around the nation.

ACADEMIC APPOINTMENTS

- Professor Emeritus, Electrical Engineering
- Member, Bio-X
- Affiliate, Precourt Institute for Energy

ADMINISTRATIVE APPOINTMENTS

- Frederick Emmons Terman Dean, Stanford School of Engineering, (1999-2014)
- Chair, Electrical Engineering Dept., (1996-1999)
- Senior Associate Dean, School of Engineering, (1993-1996)

HONORS AND AWARDS

- Best Paper Awards, ISSCC (1970, 1976, 1978)
- ASSU Award for Teaching Excellence, ASSU (1991)
- Solid State Science & Technology Award, Society (1991)
- Stanford Tau Beta Pi Award for Excellence in Undergraduate Teaching, Tau Beta Pi (1992)
- Best Paper Awards, IEDM (1993, 1995)
- Best Teacher Award, Society of Women Engineers (1995)
- Best Paper Award, ISPSD (1996)
- Elected Member, National Academy of Engineering (1996)
- Best Paper Award, MRS (2000)
- Best Paper Award, ICDS (2000)
- Third Millennium Medal, IEEE (2000)
- University Research Award, Semiconductor Industry Association (2001)
- Aldert Van der Ziel Award, IEEE (2003)
- J.J. Ebers Award, IEEE (2003)
- Laurels Award - Electronics, Aviation Week & Space Technology (2003)
- Jacob Millman Award, McGraw-Hill (2004)
- Paul Rappaport Award, IEDM (2006)
- UCLA Engineering Academic Alumnus of the Year, UCLA (2006)
- Andrew S. Grove Award, IEEE (2007)

- Elected Member, American Academy of Arts & Sciences (2008)
- Elected to Silicon Valley Engineering Hall of Fame, Silicon Valley Engineering Council (2014)
- IEEE Founders Medal, IEEE (2015)
- Elected to ISPSD Hall of Fame, International Symposium on Power Semiconductor Devices (2018)

BOARDS, ADVISORY COMMITTEES, PROFESSIONAL ORGANIZATIONS

- Board of Directors, Cadence Corp (2011 - present)
- Board of Trustees, Olin College of Engineering (2015 - 2022)
- Board of Directors, Intel Corp (2005 - 2017)
- Board of Directors, Leadis Corp (2001 - 2010)
- Board of Directors, International Rectifier Corp (1995 - 2015)

PROFESSIONAL EDUCATION

- PhD, Stanford , Electrical Engineering (1971)
- MS, Stanford , Electrical Engineering (1967)
- BS, UCLA , Electrical Engineering (1966)

LINKS

- Published textbooks Information: <https://plummergriffinbook.stanford.edu>

Research & Scholarship

CURRENT RESEARCH AND SCHOLARLY INTERESTS

Dr. Plummer's early work focused on high voltage ICs and on high voltage device structures. He and his group made important contributions to integrating CMOS logic and high voltage lateral DMOS devices on the same chip and demonstrated circuits operating at several hundred volts. This work also led to several power MOS device concepts such as the IGBT which have become important power switching devices.

Throughout the 1980s and 90s, a major focus of his work was on silicon process modeling. This work involved many students and other faculty, particularly Professor Bob Dutton, and resulted in the development of several generations of SUPREM, which has become the standard process modeling tool used worldwide today. Dr. Plummer's contributions were principally in the areas of physical understanding and modeling of oxidation, diffusion, ion implantation and annealing. His recent work has focused on nanoscale silicon devices for logic and memory and has demonstrated new device concepts including vertical MOSFETs, the TRAM thyristor memory cell and the IMOS device which achieves $< kT/q$ subthreshold slopes. Recent work has also focused on wide bandgap semiconductor materials, particularly SiC and GaN, for power control devices.

Teaching

COURSES

2025-26

- Integrated Circuit Fabrication Processes: EE 212 (Aut)

2024-25

- Integrated Circuit Fabrication Processes: EE 212 (Aut)

2023-24

- Integrated Circuit Fabrication Processes: EE 212 (Aut)

- Power Semiconductor Devices and Technology: EE 218 (Win)

2022-23

- Integrated Circuit Fabrication Processes: EE 212 (Aut)
- Power Semiconductor Devices and Technology: EE 218 (Spr)

STANFORD ADVISEES

Doctoral Dissertation Reader (AC)

Nish Sinha

Master's Program Advisor

Yulin Deng, Ryan Tran

Publications

PUBLICATIONS

- **Rapid Melt Growth of Single Crystal InGaAs on Si Substrates** *ADVANCES IN MATERIALS SCIENCE AND ENGINEERING*
Bai, X., Chen, C., Mukherjee, N., Griffin, P. B., Plummer, J. D.
2016
- **Si incorporation from the seed into Ge stripes crystallized using rapid melt growth** *APPLIED PHYSICS LETTERS*
Bai, X., Chen, C., Griffin, P. B., Plummer, J. D.
2014; 104 (5)
- **Low-Temperature Monolithic Three-Layer 3-D Process for FPGA** *IEEE ELECTRON DEVICE LETTERS*
Zhang, Z., Chen, C., Crnogorac, F., Chen, S., Griffin, P. B., Pease, R. F., Plummer, J. D., Wong, S. S.
2013; 34 (8): 1044-1046
- **Low-Temperature Monolithic 3-Layer 3-D Process for FPGA** *IEEE Elec. Dev. Letters*
Zhang, Z., Chen, C., Y, Crnogorac, F., Chen, S., L., Griffin, P., B., Pease, R., F., Plummer, J.
2013; 34 (8): 1044-1046
- **Optimal Device Architecture and Hetero-Integration Scheme for III-V CMOS**
Yuan, Z., Kumar, A., Chen, C., Y., Nainani, A., Griffin, P., Plummer, J.
2013
- **Si Incorporation From the Seed Into Ge Stripes Crystallized Using Rapid Melt Growth** *submitted to APL*
Bai, X., Chen, C., Y., Griffin, P., B., Plummer, J., D.
2013
- **The Future of the Semiconductor Industry and What Does This Imply for Universities?**
Plummer, J., D.
2012
- **Statistical Retardation Delay of I-MOS and Its Measurement Using TDR** *IEEE ELECTRON DEVICE LETTERS*
Cho, H., Onal, C., Griffin, P. B., Plummer, J. D.
2011; 32 (2): 206-208
- **A High-Resolution Low-Power Incremental Sigma Delta ADC With Extended Range for Biosensor Arrays** *IEEE JOURNAL OF SOLID-STATE CIRCUITS*
Agah, A., Vleugels, K., Griffin, P. B., Ronaghi, M., Plummer, J. D., Wooley, B. A.
2010; 45 (6): 1099-1110
- **Single-Crystal GaAs and GaSb on Insulator on Bulk Si Substrates Based on Rapid Melt Growth** *IEEE ELECTRON DEVICE LETTERS*
Chen, S., Griffin, P. B., Plummer, J. D.
2010; 31 (6): 597-599

- **High Quality Single-Crystal Laterally Graded SiGe on Insulator by Rapid Melt Growth** *ELECTROCHEMICAL AND SOLID STATE LETTERS*
Koh, H. S., Chen, S., Griffin, P. B., Plummer, J. D.
2010; 13 (8): H281-H283
- **Si CMOS – What happens When Scaling Isn't An Option?**
Plummer, J., D.
2010
- **High-Resolution Low-Power Incremental ADC With Extended Range for Biosensor Arrays** *IEEE Journal of Solid State Circuits*
Agah, A., Vleugels, K., Griffin, P., B., Ronaghi, M., Plummer, J., D., Wooley, B., A.A
2010; 45 (6): 1099-1110
- **High-quality single-crystal laterally graded SiGe on insulator by rapid melt growth** *Electrochem. Soc. Solid-State Lett*
Koh, H., Y. Serene, Chen, S., Griffin, Peter, B., Plummer, James, D.
2010; 13 (8): 281-283
- **Second generation monolithic full-depletion radiation sensor with integrated CMOS circuitry** *IEEE Nuclear Science Symposium (NSS)/ Medical Imaging Conference (MIC)/17th International Workshop on Room-Temperature Semiconductor X-ray and Gamma-ray Detectors*
Segal, J. D., Kenney, C. J., Parker, S. I., Aw, C. H., Snoeys, W. J., Wooley, B., Plummer, J. D.
IEEE.2010: 1896–1900
- **Negative Differential Resistance Circuit Design and Memory Applications** *IEEE TRANSACTIONS ON ELECTRON DEVICES*
Chen, S., Griffin, P. B., Plummer, J. D.
2009; 56 (4): 634-640
- **A Novel Depletion-IMOS (DIMOS) Device With Improved Reliability and Reduced Operating Voltage** *IEEE ELECTRON DEVICE LETTERS*
Onal, C., Woo, R., Koh, H. S., Griffin, P. B., Plummer, J. D.
2009; 30 (1): 64-67
- **High-performance gate-all-around GeOI p-MOSFETs fabricated by rapid melt growth using plasma nitridation and ALD Al₂O₃ gate dielectric and self-aligned NiGe contacts** *IEEE ELECTRON DEVICE LETTERS*
Feng, J., Thareja, G., Kobayashi, M., Chen, S., Poon, A., Bai, Y., Griffin, P. B., Wong, S. S., Nishi, Y., Plummer, J. D.
2008; 29 (7): 805-807
- **Opportunities and Challenges in the Semiconductor Industry**
Plummer, J., D.
2008
- **BTBT Transistor Scaling: Can they be Competitive with MOSFETs? 2008 DRC**
Woo, R., Koh, H., Y. Serene, Onal, C., Griffin, P., B., Plummer, James, D.
2008
- **P-channel germanium FinFET based on rapid melt growth** *IEEE ELECTRON DEVICE LETTERS*
Feng, J., Woo, R., Chen, S., Liu, Y., Griffin, P. B., Plummer, J. D.
2007; 28 (7): 637-639
- **Mechanism of solid phase crystallization of prepatterned nanoscale alpha-Si pillars** *JOURNAL OF APPLIED PHYSICS*
Cho, H., Greene, B. J., Hoyt, J. L., Plummer, J. D.
2007; 101 (10)
- **Modeling of surrounding gate MOSFETs with bulk trap states** *IEEE TRANSACTIONS ON ELECTRON DEVICES*
Cho, H., Plummer, J. D.
2007; 54 (1): 166-169
- **A High-Resolution Low-Power Oversampling ADC with Extended-Range for Bio-Sensor Arrays**
Agah, A., Vleugels, K., Griffin, P., B., Ronaghi, M., Plummer, J., D., Wooley, B., A.
2007
- **A high-resolution low-power oversampling ADC with extended-range for bio-sensor Arrays** *20th Symposium on VLSI Circuits*
Agah, A., Vleugels, K., Griffin, P. B., Rodaghi, M., Plummer, J. D., Wooley, B. A.

JAPAN SOCIETY APPLIED PHYSICS.2007: 244–245

- **Monolithic 3D integrated circuits** *International Symposium on VLSI Technology, Systems and Applications*
Wong, S., El-Gamal, A., Griffin, P., Nishi, Y., Pease, F., Plummer, J.
IEEE.2007: 66–69
- **A semiclassical model of dielectric relaxation in glasses** *JOURNAL OF APPLIED PHYSICS*
Jameson, J. R., Harrison, W., Griffin, P. B., Plummer, J. D., Nishi, Y.
2006; 100 (12)
- **Integration of germanium-on-insulator and silicon MOSFETs on a silicon substrate** *IEEE ELECTRON DEVICE LETTERS*
Feng, J., Liu, Y., Griffin, P. B., Plummer, J. D.
2006; 27 (11): 911-913
- **Charge trapping in high-k gate stacks due to the bilayer structure itself** *IEEE TRANSACTIONS ON ELECTRON DEVICES*
Jameson, J. R., Griffin, P. B., Plummer, J. D., Nishi, Y.
2006; 53 (8): 1858-1867
- **Novel Methods for Ultrashallow Low Resistance Junction Formation**
Jain, S., Griffin, P., B., Plummer, J., D.
2006
- **Novel Methods for Ultrashallow Low Resistance Junction Formation**
Jain, S., H., Griffin, P., B., Plummer, J., D.
2006
- **Novel Methods for Ultrashallow Low Resistance Junction Formation**
Jain, S., Griffin, P., B., Plummer, J., D.
2006
- **Low resistance, low-leakage ultrashallow p(+)-junction formation using millisecond flash anneals** *IEEE TRANSACTIONS ON ELECTRON DEVICES*
Jain, S. H., Griffin, P. B., Plummer, J. D., McCoy, S., Gelpey, J., Selinger, T., Downey, D. F.
2005; 52 (7): 1610-1615
- **Novel very high IE structures based on the directed BBHE mechanism for ultralow-power flash memories** *IEEE ELECTRON DEVICE LETTERS*
Gopalakrishnan, K., Woo, R., Shenoy, R., Jono, Y., Griffin, P. B., Plummer, J. D.
2005; 26 (3): 212-215
- **Critical thickness enhancement of epitaxial SiGe films grown on small structures** *JOURNAL OF APPLIED PHYSICS*
Liang, Y., Nix, W. D., Griffin, P. B., Plummer, J. D.
2005; 97 (4)
- **Impact ionization MOS (I-MOS) - Part I: Device and circuit simulations** *IEEE TRANSACTIONS ON ELECTRON DEVICES*
Gopalakrishnan, K., Griffin, P. B., Plummer, J. D.
2005; 52 (1): 69-76
- **Ni₂Si and NiSi formation by low temperature soak and spike RTPs** *13th IEEE International Conference on Advanced Thermal Processing of Semiconductor*
Kim, E. H., Forstner, H., Foad, M., Tam, N., Ramamurthy, S., Griffin, P. B., Plummer, J. D.
IEEE.2005: 177–181
- **Ni₂ and NiSi Formation by Low Temperature Soak and Spike RTPs**
Kim, E., Forstner, H., Foad, M., Tam, N., Ramamurthy, S., Griffin, P., B., Plummer, J.
2005
- **A Novel SiGe-based Negative Differential Resistance (NDR) Device**
Liang, Y., Gopalakrishnan, K., Griffin, P., B., Plummer, J., D.
2005

- **From DRAM to SRAM with a novel SiGe-based negative differential resistance (NDR) device** *IEEE International Electron Devices Meeting*
Liang, Y., Gopalakrishnan, K., Griffin, P. B., Plummer, J. D.
IEEE.2005: 979–982
- **Design requirements for integrated biosensor arrays** *Conference on Imaging, Manipulation, and Analysis of Biomolecules and Cells - Fundamentals and Applications III*
Agah, A., Hassibi, A., Plummer, J. D., Griffin, P. B.
SPIE-INT SOC OPTICAL ENGINEERING.2005: 403–413
- **Rapid melt growth of germanium crystals with self-aligned microcrucibles on Si substrates** *JOURNAL OF THE ELECTROCHEMICAL SOCIETY*
Liu, Y. C., Deal, M. D., Plummer, J. D.
2005; 152 (8): G688-G693
- **Impact ionization MOS (I-MOS) - Part II: Experimental results** *IEEE TRANSACTIONS ON ELECTRON DEVICES*
Gopalakrishnan, K., Woo, R., Jungemann, C., Griffin, P. B., Plummer, J. D.
2005; 52 (1): 77-84
- **Metastable boron active concentrations in Si using flash assisted solid phase epitaxy** *JOURNAL OF APPLIED PHYSICS*
Jain, S. H., Griffin, P. B., Plummer, J. D., McCoy, S., Gelpey, J., Selinger, T., Downey, D. F.
2004; 96 (12): 7357-7360
- **Double-well model of dielectric relaxation current** *APPLIED PHYSICS LETTERS*
Jameson, J. R., Harrison, W., Griffin, P. B., Plummer, J. D.
2004; 84 (18): 3489-3491
- **Diffuse x-ray scattering and transmission electron microscopy study of defects in antimony-implanted silicon** *JOURNAL OF APPLIED PHYSICS*
Takamura, Y., Marshall, A. F., Mehta, A., ARTHUR, J., Griffin, P. B., Plummer, J. D., Patel, J. R.
2004; 95 (8): 3968-3976
- **High-quality single-crystal Ge on insulator by liquid-phase epitaxy on Si substrates** *APPLIED PHYSICS LETTERS*
Liu, Y. C., Deal, M. D., Plummer, J. D.
2004; 84 (14): 2563-2565
- **Carrier profiling via scanning tunneling spectroscopy: Comparison with scanning capacitance microscopy** *7th International Workshop on the Fabrication, Characterization and Modeling of Ultra-Shallow Doping Profiles in Semiconductors*
Liu, F. Y., Griffin, P. B., Plummer, J. D., Lyding, J. W., Moran, J. M., Richards, J. F., Kulig, L.
A V S AMER INST PHYSICS.2004: 422–26
- **MOSFETs and high-speed photodetectors on Ge-on-insulator substrates fabricated using rapid melt growth** *50th IEEE International Electron Devices Meeting*
Liu, Y. C., Gopalakrishnan, K., Griffin, P. B., Ma, K., Deal, M. D., Plummer, J. D.
IEEE.2004: 1001–1004
- **A multi-enzyme model for pyrosequencing** *NUCLEIC ACIDS RESEARCH*
Agah, A., Aghajan, M., Mashayekhi, F., Amini, S., Davis, R. W., Plummer, J. D., Ronaghi, M., Griffin, P. B.
2004; 32 (21)
- **Silicon-based Devices and Technology for the Nanoscale Era**
Plummer, J., D.
2004
- **Low Resistant Contacts to Laser Annealed Junctions**
Kim, E., Griffin, P., B., Plummer, J., D.
2004
- **Critical Thickness Enhancement of Epitaxial SiGe Films Grown on Small Structures**
Liang, Y., Nix, W., D., Griffin, P., B., Plummer, J., D.
2004

- **CMOS Compatible Liquid-Phase Epitaxial Growth of Ge on Si Substrates**
Liu, Y., Deal, M., D., Plummer, J., D.
2004
- **Metastable Active Concentrations in Si Using Flash Assisted Solid Phase Epitaxy** *J. Appl. Phys.*
Jain, S., H., Griffin, P., B., Plummer, J., D., McCoy, S., Gelpy, J., Selinger, T.
2004; 96 (12): 7357-7360
- **MOSFETs and high-speed photodetectors on Ge-on-insulator substrates fabricated using rapid melt growth** *50th IEEE International Electron Devices Meeting*
Liu, Y. C., Gopalakrishnan, K., Griffin, P. B., Ma, K., Deal, M. D., Plummer, J. D.
IEEE.2004: 1001–1004
- **A multi-enzyme model for pyrosequencing** *NUCLEIC ACIDS RESEARCH*
Agah, A., Aghajan, M., Mashayekhi, F., Amini, S., Davis, R. W., Plummer, J. D., Ronaghi, M., Griffin, P. B.
2004; 32 (21)
- **Atomistic modeling of deactivation and reactivation mechanisms in high-concentration boron profiles** *APPLIED PHYSICS LETTERS*
Aboy, M., Pelaz, L., Marques, L. A., Barbolla, J., Mokhberi, A., Takamura, Y., Griffin, P. B., Plummer, J. D.
2003; 83 (20): 4166-4168
- **Activation and diffusion studies of ion-implanted p and n dopants in germanium** *APPLIED PHYSICS LETTERS*
Chui, C. O., Gopalakrishnan, K., Griffin, P. B., Plummer, J. D., Saraswat, K. C.
2003; 83 (16): 3275-3277
- **Hall measurements of bilayer structures** *JOURNAL OF APPLIED PHYSICS*
Jain, S. H., Griffin, P. B., Plummer, J. D.
2003; 93 (2): 1060-1063
- **Atomistic modeling of B activation and deactivation for ultra-shallow junction formation** *IEEE International Conference on Simulation of Semiconductor Processes and Devices*
Aboy, M., Pelaz, L., Marques, L. A., Barbolla, J., Mokhberi, A., Takamura, Y., Griffin, P. B., Plummer, J. D.
IEEE.2003: 151–154
- **Carrier Profiling via STM/STS; Comparison with SCM and SIMS**
Liu, F., Y., Griffin, P., B., Plummer, J., D., Lyding, J., W, Morse, J., M., Richards, J., F.
2003
- **School of Engineering Strategic Initiatives** *E-DAY Keynote*
Plummer, J., D.
2003
- **Stress effects on nanocrystal formation by Ni-induced crystallization of amorphous Si** *Symposium on Amorphous and Nanocrystalline Silicon-Based Films held at the 2003 MRS Spring Meeting*
Liu, Y. C., Deal, M. D., Sultana, M., Plummer, J. D.
MATERIALS RESEARCH SOCIETY.2003: 669–673
- **Problems with metal-oxide high-K dielectrics due to 1/t dielectric relaxation current in amorphous materials** *IEEE International Electron Devices Meeting*
Jameson, J. R., Griffin, P. B., Agah, A., Plummer, J. D., Kim, H. S., Taylor, D. V., McIntyre, P. C., Harrison, W. A.
IEEE.2003: 91–94
- **The use of laser annealing to reduce parasitic series resistances in MOS devices** *14th International Conference on Ion Implantation Technology*
Takamura, Y., Kim, E. H., Jain, S. H., Griffin, P. B., Plummer, J. D.
IEEE.2003: 56–59
- **Single-crystalline Si on insulator in confined structures fabricated by two-step metal-induced crystallization of amorphous Si** *APPLIED PHYSICS LETTERS*
Liu, Y. C., Deal, M. D., Saraswat, K. C., Plummer, J. D.

2002; 81 (24): 4634-4636

- **Impact of lateral source/drain abruptness on device performance** *IEEE TRANSACTIONS ON ELECTRON DEVICES*
Kwong, M. Y., Kasnavi, R., Griffin, P., Plummer, J. D., DUTTON, R. W.
2002; 49 (11): 1882-1890
- **Dopant deactivation in heavily Sb doped Si (001): A high-resolution x-ray diffraction and transmission electron microscopy study** *JOURNAL OF APPLIED PHYSICS*
Takamura, Y., Vailionis, A., Marshall, A. F., Griffin, P. B., Plummer, J. D.
2002; 92 (9): 5503-5507
- **Silicon orientation effects in the initial regime of wet oxidation** *JOURNAL OF THE ELECTROCHEMICAL SOCIETY*
Ngau, J. L., Griffin, P. B., Plummer, J. D.
2002; 149 (8): F98-F101
- **Physical processes associated with the deactivation of dopants in laser annealed silicon** *JOURNAL OF APPLIED PHYSICS*
Takamura, Y., Griffin, P. B., Plummer, J. D.
2002; 92 (1): 235-244
- **A comparative study of dopant activation in boron, BF₂, arsenic, and phosphorus implanted silicon** *IEEE TRANSACTIONS ON ELECTRON DEVICES*
Mokhberi, A., Griffin, P. B., Plummer, J. D., Paton, E., McCoy, S., Elliott, K.
2002; 49 (7): 1183-1191
- **Thermal stability of dopants in laser annealed silicon** *JOURNAL OF APPLIED PHYSICS*
Takamura, Y., Jain, S. H., Griffin, P. B., Plummer, J. D.
2002; 92 (1): 230-234
- **Fluorine interaction with point defects, boron, and arsenic in ion-implanted Si** *APPLIED PHYSICS LETTERS*
Mokhberi, A., Kasnavi, R., Griffin, P. B., Plummer, J. D.
2002; 80 (19): 3530-3532
- **Atomic-scale diffusion mechanisms via intermediate species** *PHYSICAL REVIEW B*
Ural, A., Griffin, P. B., Plummer, J. D.
2002; 65 (13)
- **A physics based approach to ultra-shallow p(+) -junction formation at the 32nm node** *IEEE International Electron Devices Meeting*
Mokhberi, A., Pelaz, L., Aboy, M., Marves, L., Barbolla, J., Paton, E., McCoy, S., Ross, J., Elliott, K., Gelpy, J., Griffin, P. B., Plummer, J. D.
IEEE.2002: 879-882
- **Thermal Stability of Laser Annealed Dopants in Silicon** *J. Appl. Physics*
Takamura, Y., Jain, S., Griffin, P., B., Plummer, J., D.
2002; 92: 230
- **Miniaturized DNA Analysis Devices**
Griffin, P., Agah, A., Plummer, J., D., Eltoukhy, P., H., Salama, K., Gamal, A., El
2002
- **Dopant Deactivation in Heavily Sb Doped Si (001): High Resolution X-ray Diffraction Study**
Takamura, Y., Vailionis, A., Griffin, P., B., Plummer, J., D.
2002
- **A Study of the Deactivation of High Concentration, Laser Annealed Dopant Profiles in Silicon**
Ngau, J., L., Griffin, P., B., Plummer, J., D.
2002
- **The local structure of antimony in high dose antimony implants in silicon by XAFS and SIMS** *Symposium on Silicon Front-End Junction Formation Technologies held at the MRS Spring Meeting*
Sahiner, M. A., Novak, S. W., Woicik, J. C., Takamura, Y., Griffin, P. B., Plummer, J. D.
MATERIALS RESEARCH SOCIETY.2002: 121-127

- **I-MOS: A novel semiconductor device with a subthreshold slope lower than kT/q** *IEEE International Electron Devices Meeting*
Gopalakrishnan, K., Griffin, P. B., Plummer, J. D.
IEEE.2002: 289–292
- **Silicon self-diffusion under extrinsic conditions** *APPLIED PHYSICS LETTERS*
Ural, A., Griffin, P. B., Plummer, J. D.
2001; 79 (26): 4328-4330
- **Increased hot-carrier effects using SiGe layers in vertical surrounding-gate MOSFETs** *IEEE TRANSACTIONS ON ELECTRON DEVICES*
Date, C. K., Plummer, J. D.
2001; 48 (12): 2690-2694
- **Suppression of the floating-body effect using SiGe layers in vertical surrounding-gate MOSFETs** *IEEE TRANSACTIONS ON ELECTRON DEVICES*
Date, C. K., Plummer, J. D.
2001; 48 (12): 2684-2689
- **Modeling the suppression of boron transient enhanced diffusion in silicon by substitutional carbon incorporation** *JOURNAL OF APPLIED PHYSICS*
Ngau, J. L., Griffin, P. B., Plummer, J. D.
2001; 90 (4): 1768-1778
- **Study of the effect of grain boundary migration on hillock formation in Al thin films** *JOURNAL OF APPLIED PHYSICS*
Kim, D. K., Nix, W. D., Vinci, R. P., Deal, M. D., Plummer, J. D.
2001; 90 (2): 781-788
- **Material and process limits in silicon VLSI technology** *PROCEEDINGS OF THE IEEE*
Plummer, J. D., Griffin, P. B.
2001; 89 (3): 240-258
- **Characterization of profiling techniques for ultralow energy arsenic implants** *ELECTROCHEMICAL AND SOLID STATE LETTERS*
Kasnavi, R., Sun, Y., Mount, G., Pianetta, P., Griffin, P. B., Plummer, J. D.
2001; 4 (1): G1-G3
- **Ultrashallow, Low Resistivity Junctions in MOS Devices**
Takamura, Y., Jain, S., Griffin, P., B., Plummer, J., D.
2001
- **Electronic Structure and Properties of Tetrahedral Hafnium and Zirconium Silicates**
Jameson, J., R, Harrison, W., A., Griffin, P., B., Plummer, J., D.
2001
- **Perspectives on the Past, Present and Future of the Semiconductor Industry**
Plummer, J., D.
2001
- **Issues In Ultra Shallow Junction Fabrication: Dopant Activation and Defect Kinetics**
Plummer, J., D.
2001
- **Challenges in Characterization and Formation of Ultra Shallow Junctions Using Arsenic Implants**
Kasnavi, R., Griffin, P., B., Plummer, J., D.
2001
- **Complete Model for Carbon Suppression of Boron Transient Enhanced Diffusion in Silicon**
Ngau, J., L., Griffin, P., B., Plummer, J., D.
2001
- **Material and Process Limits in Silicon VLSI Technology**
Plummer, J., D., Griffin, P., B.

2001

- **Modeling of the Time Evolution of Carbon Diffusion and Suppression of Boron Transient Enhanced Diffusion in SiGeC and SiC** *J. Appl. Physics*
Ngau, J., L., Griffin, P., B., Plummer, J., D.
2001; 90 (4): 1768–1779
- **Transparent probe test structure for electrical and physical characterization of defects in thin films** *JOURNAL OF THE ELECTROCHEMICAL SOCIETY*
Tringe, J. W., Deal, M. D., Plummer, J. D.
2000; 147 (12): 4633-4638
- **Ural, griffin, and plummer reply:** *Physical review letters*
Ural, Griffin, PLUMMER
2000; 85 (22): 4836-?
- **Comment on "Self-diffusion in silicon: Similarity between the properties of native point defects" - Ural, Griffin, and Plummer reply** *PHYSICAL REVIEW LETTERS*
Ural, A., Griffin, P. B., Plummer, J. D.
2000; 85 (22): 4836-4836
- **Hydrogen passivation in plasma-etched polycrystalline silicon resistors** *ELECTROCHEMICAL AND SOLID STATE LETTERS*
Tringe, J. W., Deal, M. D., Plummer, J. D.
2000; 3 (11): 517-519
- **A diffraction-based transmission electron microscope technique for measuring average grain size** *ELECTROCHEMICAL AND SOLID STATE LETTERS*
Tringe, J. W., Deal, M. D., Plummer, J. D.
2000; 3 (11): 520-523
- **Microstructure of thermal hillocks on blanket Al thin films** *THIN SOLID FILMS*
Kim, D., Heiland, B., Nix, W. D., Arzt, E., Deal, M. D., Plummer, J. D.
2000; 371 (1-2): 278-282
- **Creep-controlled diffusional hillock formation in blanket aluminum thin films as a mechanism of stress relaxation** *JOURNAL OF MATERIALS RESEARCH*
Kim, D., Nix, W. D., Deal, M. D., Plummer, J. D.
2000; 15 (8): 1709-1718
- **Electrical and structural properties of polycrystalline silicon** *JOURNAL OF APPLIED PHYSICS*
Tringe, J. W., Plummer, J. D.
2000; 87 (11): 7913-7926
- **Characterization of arsenic dose loss at the Si/SiO₂ interface** *JOURNAL OF APPLIED PHYSICS*
Kasnavi, R., Sun, Y., Mo, R., Pianetta, P., Griffin, P. B., Plummer, J. D.
2000; 87 (5): 2255-2260
- **Ultra low energy arsenic implant limits on sheet resistance and junction depth** *20th Symposium on VLSI Technology*
Kasnavi, R., Griffin, P. B., Plummer, J. D.
IEEE.2000: 112–113
- **On a Novel Technique for the Electrical Characterization of Polycrystalline Silicon**
Ionescu, A., M., Tringe, J., Chovet, A., Plummer, J., D.
2000
- **Limits of Scaling Shallow Junctions Using Ultra Low Energy Arsenic Implants**
Kasnavi, R., Griffin, P., B., Plummer, J., D.
2000
- **A Comparative Study of Dose Loss for B11 and BF₂ Implants**
Kasnavi, R., Griffin, P., B., Plummer, J., D.

2000

- **50-nm Vertical Replacement-Gate (VRG) pMOSFETs**
Oh, S., H., Authors, 2., Plummer, J., D.
2000
- **What Does Silicon Self-diffusion Tell Us About Ultra-shallow Junctions**
Ural, A., Koh, S., H., Griffin, P., B., Plummer, J., D.
2000
- **Silicon VLSI Technology – Fundamentals, Practice and Modeling**
Plummer, J., D., Deal, M., D., Griffin, P., B.
Prentice Hall, Upper Saddle River, NJ.2000
- **Pseudo-Mos Operation of Ultra-Narrow Polysilicon Wires: Electrical Characterization and Memory Effects**
Anghel, C., Hefyene, N., Ionescu, A., M., Tringe, J., Plummer, J., D.
2000
- **Coupled Diffusion of Dopants**
Ural, A., Griffin, P., B., Plummer, J., D.
2000
- **Silicon MOSFETs (Conventional and Non-Traditional) at the Scaling Limit**
Plummer, J., D.
2000
- **Modeling and Fabrication of Vertical Pillar MOSFETs made in Recrystallized Si**
Cho, H., J., Plummer, J., D.
2000
- **Kinetics of boron activation** *International Conference on Simulation of Semiconductor Processes and Devices*
Mokhberi, A., Griffin, P. B., Plummer, J. D.
IEEE.2000: 163–166
- **Diffusional hillock formation in Al thin films controlled by creep** *Symposium V on Thin Films-Stresses and Mechanical Properties VIII held at the 1999 MRS Fall Meeting*
Kim, D. K., Nix, W. D., Arzt, E., Deal, M. D., Plummer, J. D.
MATERIALS RESEARCH SOCIETY.2000: 129–134
- **SiGe heterojunctions in epitaxial vertical surrounding-gate MOSFETs** *20th Symposium on VLSI Technology*
Date, C. K., Plummer, J. D.
IEEE.2000: 36–37
- **Nonequilibrium experiments on self-diffusion in silicon at low temperatures using isotopically enriched structures** *20th International Conference on Defects in Semiconductors (ICDS-20)*
Ural, A., Griffin, P. B., Plummer, J. D.
ELSEVIER SCIENCE BV.1999: 512–515
- **Self-diffusion in silicon: Similarity between the properties of native point defects** *PHYSICAL REVIEW LETTERS*
Ural, A., Griffin, P. B., Plummer, J. D.
1999; 83 (17): 3454-3457
- **Fractional contributions of microscopic diffusion mechanisms for common dopants and self-diffusion in silicon** *JOURNAL OF APPLIED PHYSICS*
Ural, A., Griffin, P. B., Plummer, J. D.
1999; 85 (9): 6440-6446
- **Lattice compression of Si crystals and crystallographic position of As impurities measured with x-ray standing wave spectroscopy** *JOURNAL OF APPLIED PHYSICS*
Herrera-Gomez, A., Rousseau, P. M., Woicik, J. C., Kendelewicz, T., Plummer, J., SPICER, W. E.
1999; 85 (3): 1429-1437

- **A Self-Aligned Split-Gate Pillar Flash EEPROM Cell**
Hayashi, F., Plummer, J., D.
1999
- **Two-dimensional dopant diffusion study using scanning capacitance microscopy** *Symposium on Si Front-End Processing-Physics and Technology of Dopant-Defect Interactions*
Yu, G. Y., Griffin, P. B., Plummer, J. D.
MATERIALS RESEARCH SOCIETY.1999: 233-237
- **Diffusional Hillock Formation in Al Thin Films Controlled by Creep**
Kim, D., K., Nix, W., D, Arzi, E., Deal, M., Plummer, J., D.
1999
- **Thermal Conduction in Doped Single-Crystal Silicon Films**
Asheghi, M., Kurabayashi, K., Goodson, K., E., Kasnavi, R., Plummer, J., D.
1999
- **A Novel Thyristor-based SRAM Cell (T-RAM) for High-Speed, Low Voltage Giga-scale Memories**
Nemati, F., Plummer, J., D.
1999
- **High Performance Fully and Partially Depleted Poly-Si Surround Gate Transistors**
Cho, H., J., Plummer, J., D.
1999
- **Two-Dimensional Dopant Diffusion and Activation Study Using Scanning Capacitance Microscopy**
Yu, G., M., Griffin, P., B., Plummer, J., D.
1999
- **Interdisciplinary Research - Examples From the Silicon Chip World**
Plummer, J., D.
1999
- **Biomedical Applications of MEMS and Nanotechnologies**
Plummer, J., D.
1999
- **A simple model for threshold voltage of surrounding-gate MOSFET's** *IEEE TRANSACTIONS ON ELECTRON DEVICES*
Auth, C. P., Plummer, J. D.
1998; 45 (11): 2381-2383
- **Arsenic deactivation enhanced diffusion: A time, temperature, and concentration study** *JOURNAL OF APPLIED PHYSICS*
Rousseau, P. M., Griffin, P. B., Fang, W. T., Plummer, J. D.
1998; 84 (7): 3593-3601
- **Lateral IGBT in thin SOI for high voltage, high speed power IC** *IEEE TRANSACTIONS ON ELECTRON DEVICES*
Leung, Y. K., Paul, A. K., Plummer, J. D., Wong, S. S.
1998; 45 (10): 2251-2254
- **Experimental evidence for a dual vacancy interstitial mechanism of self-diffusion in silicon** *APPLIED PHYSICS LETTERS*
Ural, A., Griffin, P. B., Plummer, J. D.
1998; 73 (12): 1706-1708
- **A new structure for controlling dark current due to surface generation in drift detectors** *NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH SECTION A-ACCELERATORS SPECTROMETERS DETECTORS AND ASSOCIATED EQUIPMENT*
Segal, J. D., Patt, B. E., Iwanczyk, J. S., Vilkelis, G., Plummer, J. D., Hedman, B., Hodgson, K. O.
1998; 414 (2-3): 307-316
- **A vertical high voltage termination structure for high-resistivity silicon detectors** *1997 Nuclear Science Symposium*
Segal, J. D., Kenney, C. J., Aw, C. H., Parker, S. I., Vilkelis, G., Iwanczyk, J. S., Patt, B. E., Plummer, J.

IEEE-INST ELECTRICAL ELECTRONICS ENGINEERS INC.1998: 364–69

- **A vertical high voltage termination structure for high-resistivity silicon detectors** *1997 IEEE Nuclear Science Symposium and Medical Imaging Conference*
Segal, J. D., Kenney, C. J., Aw, C. H., Parker, S. I., Vilkelis, G., Iwanczyk, J. S., Patt, B. E., Plummer, J.
IEEE.1998: 299–303
- **Validation of Two-Dimensional Implant and Diffusion Profiles Using Novel Scanning Capacitance Microscope Sample Preparation and Deconvolution Techniques**
Yu, G., M., Griffin, P., B., Plummer, J., D.
1998
- **Dynamics of Arsenic Dose Loss at the SiO₂ Interface During TED**
Kasnavi, R., Griffin, P., B., Plummer, J., D.
1998
- **Semiconductor Industry-University Collaboration and Impacts on Education - A University Perspective**
Plummer, J., D.
1998
- **Dynamics of Arsenic Dose Loss at the SiO₂ Interface**
Kasnavi, R., Griffin, P., B., Plummer, J., D.
1998
- **Effects of PECVD deposition fluxes on the spatial variation of thin film density of as-deposited SiO₂ films in interconnect structures** *International Interconnect Technology Conference*
Lee, K., Deal, M., McVittie, J., Plummer, J., Saraswat, K.
I E E E.1998: 175–177
- **Silicon Technology and Devices for the 21st Century**
Plummer, J., D.
1998
- **Atomic and Molecular Physics Needs for Designing and Manufacturing Silicon Integrated Circuits**
Plummer, J., D.
1998
- **A Novel Pillar DRAM Cell for 4Gbit and Beyond**
Cho, H., J., Nemat, F., Griffin, P., B., Plummer, J., D.
1998
- **Localized intermixing of AIAs and GaAs layers for lithographic control of the lateral oxidation of AIAs** *24th IEEE International Symposium on Compound Semiconductors*
Massengale, A. R., Tai, C. Y., Deal, M. D., Plummer, J. D., Harris, J. S.
IOP PUBLISHING LTD.1998: 329–332
- **Characterization of arsenic dose loss at the Si/SiO₂ interface using high resolution X-ray Photoelectron Spectrometry** *International Electron Devices Meeting (IEDM)*
Kasnavi, R., Pianetta, P., Sun, Y., Mo, R. N., Griffin, P. B., Plummer, J. D.
IEEE.1998: 721–724
- **Effects of PECVD deposition fluxes on the spatial variation of thin film density of as-deposited SiO₂ films in interconnect structures** *International Interconnect Technology Conference*
Lee, K., Deal, M., McVittie, J., Plummer, J., Saraswat, K.
I E E E.1998: 175–177
- **Silicon Technology and Devices for the 21st Century**
Plummer, J., D.
1998
- **Atomic and Molecular Physics Needs for Designing and Manufacturing Silicon Integrated Circuits**

-
- Plummer, J., D.
1998
- **A Novel Pillar DRAM Cell for 4Gbit and Beyond**
Cho, H., J., Nemati, F., Griffin, P., B., Plummer, J., D.
1998
 - **Localized intermixing of AIAs and GaAs layers for lithographic control of the lateral oxidation of AIAs** *24th IEEE International Symposium on Compound Semiconductors*
Massengale, A. R., Tai, C. Y., Deal, M. D., Plummer, J. D., Harris, J. S.
IOP PUBLISHING LTD.1998: 329–332
 - **Characterization of arsenic dose loss at the Si/SiO₂ interface using high resolution X-ray Photoelectron Spectrometry** *International Electron Devices Meeting (IEDM)*
Kasnavi, R., Pianetta, P., Sun, Y., Mo, R. N., Griffin, P. B., Plummer, J. D.
IEEE.1998: 721–724
 - **Heating mechanisms of LDMOS and LIGBT in ultrathin SOI** *IEEE ELECTRON DEVICE LETTERS*
Leung, Y. K., Paul, A. K., Goodson, K. E., Plummer, J. D., Wong, S. S.
1997; 18 (9): 414-416
 - **A test structure advisor and a coupled, library-based test structure layout and testing environment** *IEEE TRANSACTIONS ON SEMICONDUCTOR MANUFACTURING*
Kumar, M. V., Lukaszek, W., Plummer, J. D.
1997; 10 (3): 370-383
 - **Nitrogen-doped poly spacer local oxidation** *IEEE ELECTRON DEVICE LETTERS*
Huang, S. F., Griffin, P. B., RISSMAN, P., Plummer, J. D.
1997; 18 (7): 346-348
 - **Localised impurity induced layer disordering for lithographic control of the lateral oxidation of AIAs** *ELECTRONICS LETTERS*
Massengale, A. R., Ueda, T., Harris, J. S., Tai, C. Y., Deal, M. D., Plummer, J. D., Fernandez, R.
1997; 33 (12): 1087-1089
 - **Applied bias slewing in transient Wigner function simulation of resonant tunneling diodes** *IEEE TRANSACTIONS ON ELECTRON DEVICES*
Biegel, B. A., Plummer, J. D.
1997; 44 (5): 733-737
 - **Diffusion modeling of zinc implanted into GaAs** *JOURNAL OF APPLIED PHYSICS*
Chase, M. P., Deal, M. D., Plummer, J. D.
1997; 81 (4): 1670-1676
 - **Scaling theory for cylindrical, fully-depleted, surrounding-gate MOSFET's** *IEEE ELECTRON DEVICE LETTERS*
Auth, C. P., Plummer, J. D.
1997; 18 (2): 74-76
 - **Arsenic deactivation enhanced diffusion and the reverse short-channel effect** *IEEE ELECTRON DEVICE LETTERS*
Rousseau, P. M., CROWDER, S. W., Griffin, P. B., Plummer, J. D.
1997; 18 (2): 42-44
 - **Spatial temperature profiles due to nonuniform self-heating in LDMOS's in thin SOI** *IEEE ELECTRON DEVICE LETTERS*
Leung, Y. K., Kuehne, S. C., Huang, V. S., Nguyen, C. T., Paul, A. K., Plummer, J. D., Wong, S. S.
1997; 18 (1): 13-15
 - **Cross sectional TEM sample preparation using e-beam lithography and reactive ion etching** *Symposium on Specimen Preparation for Transmission Electron Microscopy of Materials IV*
Cho, H. J., Griffin, P. B., Plummer, J. D.
MATERIALS RESEARCH SOCIETY.1997: 217–224
 - **Silicon TED Process Simulation - What's Possible Today and What Will Be Needed Tomorrow?**
Plummer, J., D.

1997

- **Defects and Diffusion Issues for The Manufacturing of Semiconductors in the 21st Century**
Plummer, J., D.
1997
- **The Influence of Amorphizing Implants on Boron Transient Enhanced Diffusion in Silicon**
Chao, H., S., Griffin, P., B., Plummer, J., D.
1997
- **Cross-sectional TEM Sample Preparation Using E-beam Lithography and Reactive Ion Etching**
Cho, H., J., Griffin, P., B., Plummer, J., D.
1997
- **Process Modeling For 21st Century Silicon Devices**
Plummer, J., D.
1997
- **The influence of amorphizing implants on boron diffusion in silicon** *Symposium on Defects and Diffusion in Silicon Processing*
Chao, H. S., Griffin, P. B., Plummer, J. D.
MATERIALS RESEARCH SOCIETY.1997: 347–352
- **Modeling stress effects on thin oxide growth kinetics** *1997 International Conference on Simulation of Semiconductor Processes and Devices (SISPAD 97)*
Huang, S. F., Griffin, P. B., Plummer, J. D., RISSMAN, P.
I E E E.1997: 49–52
- **Simulation of charge cloud evolution in silicon drift detectors** *1996 IEEE Nuclear Science Symposium and Medical Imaging Conference*
Segal, J., Plummer, J., Kenney, C.
IEEE.1997: 558–562
- **Modeling of Al/Ga interdiffusion in AlAs/GaAs superlattice materials** *26th State of the Art Program on Compound Semiconductors (SOTAPOCS XXVI) at the 191st Meeting of the Electrochemical-Society*
Tai, C. Y., Deal, M. D., Plummer, J. D.
ELECTROCHEMICAL SOCIETY INC.1997: 120–28
- **Diffusion of implanted zinc in GaAs and Al_xGa_{1-x}As modeled with the kick-out mechanism** *26th State of the Art Program on Compound Semiconductors (SOTAPOCS XXVI) at the 191st Meeting of the Electrochemical-Society*
Chase, M. P., Deal, M. D., Plummer, J. D.
ELECTROCHEMICAL SOCIETY INC.1997: 111–19
- **Design and characterization of SiGe TFT devices and process using Stanford's test chip design environment** *1997 IEEE International Conference on Microelectronic Test Structures*
Kumar, M. V., Subramanian, V., Saraswat, K. C., Plummer, J. D., Lukaszek, W.
I E E E.1997: 143–145
- **A model for mobility degradation in highly doped arsenic layers** *IEEE TRANSACTIONS ON ELECTRON DEVICES*
Rousseau, P. M., Griffin, P. B., Luning, S., Plummer, J. D.
1996; 43 (11): 2025-2027
- **Simulation and modelling of a new silicon X-ray drift detector design for synchrotron radiation applications** *9th International Workshop on Room Temperature Semiconductor X-Ray and Gamma-Ray Detectors, Associated Electronics and Applications*
Iwanczyk, J. S., Patt, B. E., Segal, J., Plummer, J., Vilkelis, G., Hedman, B., Hodgson, K. O., Cox, A. D., Rehn, L., Metz, J.
ELSEVIER SCIENCE BV.1996: 288–94
- **The dose, energy, and time dependence of silicon self-implantation induced transient enhanced diffusion at 750 degrees C** *APPLIED PHYSICS LETTERS*
Chao, H. S., Griffin, P. B., Plummer, J. D., Rafferty, C. S.
1996; 69 (14): 2113-2115
- **Comparison of self-consistency iteration options for the Wigner function method of quantum device simulation** *PHYSICAL REVIEW B*

- Biegel, B. A., Plummer, J. D.
1996; 54 (11): 8070-8082
- **Influence of dislocation loops created by amorphizing implants on point defect and boron diffusion in silicon** *APPLIED PHYSICS LETTERS*
Chao, H. S., Griffin, P. B., Plummer, J. D.
1996; 68 (25): 3570-3572
 - **Evolution of the crystallographic position of As impurities in heavily doped Si crystals as their electrical activity changes** *APPLIED PHYSICS LETTERS*
HERRERAGOMEZ, A., Rousseau, P. M., Materlik, G., Kendelewicz, T., Woicik, J. C., Griffin, P. B., Plummer, J., SPICER, W. E.
1996; 68 (22): 3090-3092
 - **Surface and bulk point defect generation in Czochralski and float zone type silicon wafers** *APPLIED PHYSICS LETTERS*
Fang, W. T., Fang, T. T., Griffin, P. B., Plummer, J. D.
1996; 68 (15): 2085-2087
 - **Enhanced diffusion by electrical deactivation of arsenic and its implications for bipolar devices** *IEEE TRANSACTIONS ON ELECTRON DEVICES*
Rousseau, P. M., Griffin, P. B., Kuehne, S. C., Plummer, J. D.
1996; 43 (4): 547-553
 - **Species and dose dependence of ion implantation damage induced transient enhanced diffusion** *JOURNAL OF APPLIED PHYSICS*
Chao, H. S., CROWDER, S. W., Griffin, P. B., Plummer, J. D.
1996; 79 (5): 2352-2363
 - **Calculation of the fractional interstitial component of boron diffusion and segregation coefficient of boron in Si_{0.8}Ge_{0.2}** *APPLIED PHYSICS LETTERS*
Fang, T. T., Fang, W. T., Griffin, P. B., Plummer, J. D.
1996; 68 (6): 791-793
 - **High voltage LDMOS transistors in sub-micron SOI films** *8th International Symposium on Power Semiconductor Devices and PCs (ISPSD 96)*
Paul, A. K., Leung, Y. K., Plummer, J. D., Wong, S. S., Kuehne, S. C., Huang, V. S., Nguyen, C. T.
I E E E.1996: 89-92
 - **0.18 μ m Dual Vt MOSFET Process and Energy-Delay Measurement**
Chen, Z., Diaz, C., Plummer, J., D., Cao, M., Greene, W.
1996
 - **Temperature Ramp Rate Dependence of Transient Enhanced Dopant Diffusion**
Perozziello, E., A., Griffin, P., B., Plummer, J., D.
1996
 - **Short Anneal Time Behavior of Transient Enhanced Diffusion**
Chao, H., S., Rafferty, C., S., Griffin, P., B., Plummer, J., D.
1996
 - **Physical modeling of transient enhanced diffusion in silicon** *4th International Symposium on Process Physics and Modeling in Semiconductor Technology*
Griffin, P. B., Plummer, J. D.
ELECTROCHEMICAL SOCIETY INC.1996: 101-15
 - **The Effects of Source/Drain Processing on the Reverse Short Channel Effect of Deep Submicron Bulk and SOI MOSFETs**
Crowder, S., Rousseau, P., Snyder, J., Scott, J., Plummer, J.
1996
 - **Silicon Oxidation Kinetics - From Deal-Grove to VLSI Process Models**
Plummer, J., D.
1996
 - **Physical Modeling of Transient Enhanced Diffusion in Silicon**
Griffin, P., B., Plummer, J., D.

1996

- **A Test Structure Advisor and a Coupled, Library-Based Test Structure Layout and Testing Environment**
Kumar, M., V., Plummer, J., D., Lukaszek, W.
1996
- **High voltage, high speed lateral IGBT in thin SOI for power IC** *1996 IEEE International SOI Conference*
Leung, Y. K., Kuehne, S. C., Huang, V. S., Nguyen, C. T., Paul, A. K., Plummer, J. D., Wong, S. S.
IEEE.1996: 132–133
- **Nitridation enhanced diffusion of antimony in bulk and silicon-on-insulator material** *4th International Symposium on Process Physics and Modeling in Semiconductor Technology*
CROWDER, S. W., Griffin, P. B., Plummer, J. D.
ELECTROCHEMICAL SOCIETY INC.1996: 54–63
- **Vertical, fully-depleted, surrounding gate MOSFETs on sub-0.1 μm thick silicon pillars** *54th Annual Device Research Conference*
Auth, C. P., Plummer, J. D.
IEEE.1996: 108–109
- **A test structure advisor and a coupled, library-based test structure layout and testing environment** *1996 IEEE International Conference on Microelectronic Test Structures (ICMTS 1996)*
Kumar, M. V., Plummer, J. D., Lukaszek, W.
IEEE.1996: 201–205
- **Nitridation enhanced diffusion of antimony in bulk and silicon-on-insulator material** *4th International Symposium on Process Physics and Modeling in Semiconductor Technology*
CROWDER, S. W., Griffin, P. B., Plummer, J. D.
ELECTROCHEMICAL SOCIETY INC.1996: 54–63
- **Vertical, fully-depleted, surrounding gate MOSFETs on sub-0.1 μm thick silicon pillars** *54th Annual Device Research Conference*
Auth, C. P., Plummer, J. D.
IEEE.1996: 108–109
- **A test structure advisor and a coupled, library-based test structure layout and testing environment** *1996 IEEE International Conference on Microelectronic Test Structures (ICMTS 1996)*
Kumar, M. V., Plummer, J. D., Lukaszek, W.
IEEE.1996: 201–205
- **VACANCY GENERATION RESULTING FROM ELECTRICAL DEACTIVATION OF ARSENIC** *APPLIED PHYSICS LETTERS*
LAWTHER, D. W., Myler, U., Simpson, P. J., Rousseau, P. M., Griffin, P. B., Plummer, J. D.
1995; 67 (24): 3575-3577
- **PERFORMANCE OF THE 3-D PENCIL FLASH EPROM CELL AND MEMORY ARRAY** *IEEE TRANSACTIONS ON ELECTRON DEVICES*
PEIN, H., Plummer, J. D.
1995; 42 (11): 1982-1991
- **MODELING THE DIFFUSION OF IMPLANTED BE IN GAAS** *JOURNAL OF APPLIED PHYSICS*
Hu, J. C., Deal, M. D., Plummer, J. D.
1995; 78 (3): 1606-1613
- **MODELING THE DIFFUSION OF GROWN-IN BE IN MOLECULAR-BEAM EPITAXY GAAS** *JOURNAL OF APPLIED PHYSICS*
Hu, J. C., Deal, M. D., Plummer, J. D.
1995; 78 (3): 1595-1605
- **CHALLENGES FOR PREDICTIVE PROCESS SIMULATION IN SUB 0.1 μm SILICON DEVICES** *2nd International Conference on Computer Simulation of Radiation Effects in Solids*
Plummer, J. D., Griffin, P. B.
ELSEVIER SCIENCE BV.1995: 160–66
- **STUDY ON HYDROGENATION OF POLYSILICON THIN-FILM TRANSISTORS BY ION-IMPLANTATION** *IEEE TRANSACTIONS ON ELECTRON DEVICES*

- Cao, M., Zhao, T. M., Saraswat, K. C., Plummer, J. D.
1995; 42 (6): 1134-1140
- **Optimization of quarter micron MOSFETs for low voltage low power applications** *1995 International Electron Devices Meeting*
Chen, Z. J., Burr, J., Shott, J., Plummer, J. D.
IEEE.1995: 63–66
 - **Incorporating Point-Defect Dynamics into Process Simulation**
Plummer, J., D.
1995
 - **Computational Prototyping For 21st Century Semiconductor Devices**
Plummer, J., D.
1995
 - **Transient Enhanced Diffusion During Implant Damage Annealing**
Plummer, J., D.
1995
 - **Challenges For Predictive Process Simulation in Sub 0.1 Micron Silicon Devices**
Plummer, J., D., Griffin, P., B.
1995
 - **Computational Prototyping for 21st Century Structures** *Invited Talk, Sematech, Austin TX*
Plummer, J., D.
1995
 - **Physically Based Process Simulation for Submicron Silicon Devices**
Plummer, J., D.
1995
 - **Computational Prototyping for Advanced Semiconductor Structures**
Plummer, J., D.
1995
 - **Optimization of Quarter Micron MOSFETs for Low Voltage/Low Power Applications**
Chen, Z., Burr, J., Shott, J., Plummer, J., D.
1995
 - **Computational Prototyping for Advanced Semiconductor Devices**
Plummer, J., D.
1995
 - **Computational Prototyping for 21st Century Structures**
Plummer, J., D.
1995
 - **"The effect of source/drain processing on the reverse short channel effect of deep sub-micron bulk and SOI NMOSFETs"** *1995 International Electron Devices Meeting*
CROWDER, S. W., Rousseau, P. M., Snyder, J. P., Scott, J. A., Griffin, P. B., Plummer, J. D.
IEEE.1995: 427–430
 - **Technology CAD - Status and Future Possibilities**
Plummer, J., D.
1995
 - **Low Threshold Voltage Quarter Micron MOSFETs for Low Power Applications**
Chen, Z., Plummer, J., D.
1995

- **Modeling the Diffusion of Grown-in Be in MBE GaAs** *J. Appl. Physics*
Hu, J., C., Deal, M., D., Plummer, J., D.
1995; 78 (3): 1595-1605
- **Implant enhanced diffusion of boron in silicon germanium** *Symposium on Strained Layer Epitaxy-Materials, Processing, and Device Applications*
Fang, W. T., Griffin, P. B., Plummer, J. D.
MATERIALS RESEARCH SOC.1995: 379-384
- **DISPERSION OF MOS CAPACITANCE-VOLTAGE CHARACTERISTICS RESULTING FROM THE RANDOM CHANNEL DOPANT ION DISTRIBUTION** *IEEE TRANSACTIONS ON ELECTRON DEVICES*
WATT, J. T., Plummer, J. D.
1994; 41 (11): 2222-2232
- **A VERTICAL SUBMICRON POLYSILICON THIN-FILM-TRANSISTOR USING A LOW-TEMPERATURE PROCESS** *IEEE ELECTRON DEVICE LETTERS*
Zhao, T. M., Cao, M., Saraswat, K. C., Plummer, J. D.
1994; 15 (10): 415-417
- **CHARACTERIZATION OF INTERFACE TOPOGRAPHY OF THE BURIED SI-SIO₂ INTERFACE IN SILICON-ON-INSULATOR MATERIAL BY ATOMIC-FORCE MICROSCOPY** *APPLIED PHYSICS LETTERS*
CROWDER, S. W., Griffin, P. B., Plummer, J. D.
1994; 65 (13): 1698-1699
- **EFFECT OF BURIED SI-SIO₂ INTERFACES ON OXIDATION AND IMPLANT-ENHANCED DOPANT DIFFUSION IN THIN SILICON-ON-INSULATOR FILMS** *JOURNAL OF APPLIED PHYSICS*
CROWDER, S. W., Hsieh, C. J., Griffin, P. B., Plummer, J. D.
1994; 76 (5): 2756-2764
- **A SIMPLE EEPROM CELL USING TWIN POLYSILICON THIN-FILM TRANSISTORS** *IEEE ELECTRON DEVICE LETTERS*
Cao, M., Zhao, T. M., Saraswat, K. C., Plummer, J. D.
1994; 15 (8): 304-306
- **ELECTRICAL DEACTIVATION OF ARSENIC AS A SOURCE OF POINT-DEFECTS** *APPLIED PHYSICS LETTERS*
Rousseau, P. M., Griffin, P. B., Plummer, J. D.
1994; 65 (5): 578-580
- **OXIDATION ENHANCED DOPANT DIFFUSION IN SEPARATION BY IMPLANTATION BY OXYGEN SILICON-ON-INSULATOR MATERIAL** *APPLIED PHYSICS LETTERS*
CROWDER, S. W., Griffin, P. B., Hsieh, C. J., Wei, G. Y., Plummer, J. D., Allen, L. P.
1994; 64 (24): 3264-3266
- **PIN DETECTOR ARRAYS AND INTEGRATED READOUT CIRCUITRY ON HIGH-RESISTIVITY FLOAT-ZONE SILICON** *IEEE TRANSACTIONS ON ELECTRON DEVICES*
Snoeys, W., Plummer, J. D., Parker, S., Kenney, C.
1994; 41 (6): 903-912
- **PARASITIC BIPOLAR GAIN IN FULLY DEPLETED N-CHANNEL SOI MOSFETS** *IEEE TRANSACTIONS ON ELECTRON DEVICES*
VERPLOEG, E. P., Nguyen, C. T., Wong, S. S., Plummer, J. D.
1994; 41 (6): 970-977
- **HIGH-MOBILITY SI₁-XGEX PMOS TRANSISTORS TO 5K** *1st European Workshop on Low Temperature Electronics (WOLTE 1)*
Scott, J. A., Croke, E. T., Plummer, J. D.
EDITIONS PHYSIQUE.1994: 69-74
- **MEASUREMENT OF SUBSTRATE CURRENT IN SOI MOSFETS** *IEEE ELECTRON DEVICE LETTERS*
Nguyen, C. T., VERPLOEG, E. P., Kuehne, S. C., Plummer, J. D., Wong, S. S., Renteln, P.
1994; 15 (4): 132-134
- **OXIDATION-ENHANCED DIFFUSION OF BORON AND PHOSPHORUS IN HEAVILY-DOPED LAYERS IN SILICON** *JOURNAL OF THE ELECTROCHEMICAL SOCIETY*

- Roth, D. J., Plummer, J. D.
1994; 141 (4): 1074-1081
- **A PROTOTYPE MONOLITHIC PIXEL DETECTOR** *1st International Symposium on Development and Application of Semiconductor Tracking Detectors (Hiroshima STD Symposium)*
Kenney, C. J., Parker, S. I., Peterson, V. Z., Snoeys, W. J., Plummer, J. D., Aw, C. H.
ELSEVIER SCIENCE BV.1994: 59-77
 - **DOPING AND DAMAGE DOSE DEPENDENCE OF IMPLANT INDUCED TRANSIENT ENHANCED DIFFUSION BELOW THE AMORPHIZATION THRESHOLD** *APPLIED PHYSICS LETTERS*
Griffin, P. B., Lever, R. F., Packan, P. A., Plummer, J. D.
1994; 64 (10): 1242-1244
 - **INVESTIGATION OF BODY EFFECT OF FULLY DEPLETED N-CHANNEL SOI DEVICE AS A FUNCTION OF BODY BIAS** *1994 IEEE International SOI Conference*
Chen, Z. J., PLOEG, E. V., Shott, J., Plummer, J. D.
IEEE.1994: 57-58
 - **A Comparison of Implant Enhanced Dopant Diffusion in Bulk and SOI Material**
Crowder, S., W., Griffin, P., B., Plummer, J., D.
1994
 - **High Mobility Si1-xGex PMOS Transistors to 5K** *1st European Workshop on Low Temperature Electronics, WOLTE 1, Grenoble France, June 1994. Also published Journal de Physique IV, Colloque C6, supplement to Journal de Physique III*
Scott, J., Croke, E., T., Plummer, J., D.
1994; 4
 - **Oxidation Enhanced Diffusion in Separation by Implantation of Oxygen Silicon-on-Insulator Material** *Appl. Phys. Letters*
Crowder, S., W., Griffin, P., B., Hsieh, C., J., Wei, G., Y., Plummer, J., D., Allen, L., P.
1994; 64 (24): 3264-3266
 - **A Twin Polysilicon TFT Planar EEPROM Cell**
Zhao, T., Cao, M., Plummer, J., D., Saraswat, K., C.
1994
 - **SOI - Power ICs, VLSI Devices and Process Technology Issues**
Plummer, J., D.
1994
 - **CMOS Technology Scaling for Low Voltage, Low Power Applications**
Chen, Z., Shott, J., Burr, J., Plummer, J., D.
1994
 - **Challenges For Predictive Process Simulation in Sub 0.1 Micron Silicon Devices**
Plummer, J., D.
1994
 - **Doping and Damage Dependence of Implant Induced Transient Enhanced Diffusion Below the Amorphization Threshold** *Appl. Phys. Lett.*
Griffin, P., B., Lever, R., F., Packan, P., A., Plummer, J., D.
1994; 64: 1242-1244
 - **A TRENCH-GATE LIGHT STRUCTURE AND 2 LMCT STRUCTURES IN SOI SUBSTRATES** *6th International Symposium on Power Semiconductor Devices and ICs (ISPSD 94)*
DISNEY, D. R., PEIN, H. B., Plummer, J. D.
I E E E.1994: 405-410
 - **DEVICE IMPLICATIONS OF ENHANCED DIFFUSION CAUSED BY THE ELECTRICAL DEACTIVATION OF ARSENIC** *1994 IEEE International Electron Devices Meeting*
Rousseau, P. M., Griffin, P. B., Kuehne, S. C., Plummer, J. D.
IEEE.1994: 861-864

- **DEVICE IMPLICATIONS OF ENHANCED DIFFUSION CAUSED BY THE ELECTRICAL DEACTIVATION OF ARSENIC** *1994 IEEE International Electron Devices Meeting*
Rousseau, P. M., Griffin, P. B., Kuehne, S. C., Plummer, J. D.
IEEE.1994: 861–864
- **IIA-5 1ST DIRECT BETA-MEASUREMENT FOR PARASITIC LATERAL BIPOLAR-TRANSISTORS IN FULLY-DEPLETED SOI MOSFETS**
PLOEG, E. V., Nguyen, C., KISTLER, N., Wong, S., Woo, J., Plummer, J.
IEEE-INST ELECTRICAL ELECTRONICS ENGINEERS INC.1993: 2101–2
- **A 3-D SIDEWALL FLASH EPROM CELL AND MEMORY ARRAY**
PEIN, H., Plummer, J. D.
IEEE-INST ELECTRICAL ELECTRONICS ENGINEERS INC.1993: 2126–27
- **A NEW MOSFET OUTPUT CONDUCTANCE MEASUREMENT TECHNIQUE** *IEEE TRANSACTIONS ON INSTRUMENTATION AND MEASUREMENT*
Akram, M. F., Plummer, J. D., SHOTT, J. D.
1993; 42 (5): 893-898
- **A 3-D SIDEWALL FLASH EPROM CELL AND MEMORY ARRAY** *IEEE ELECTRON DEVICE LETTERS*
PEIN, H., Plummer, J. D.
1993; 14 (8): 415-417
- **SILICON INTERSTITIAL ABSORPTION DURING THERMAL-OXIDATION AT 900 DEGREES-C BY EXTENDED DEFECTS FORMED VIA SILICON IMPLANTATION** *APPLIED PHYSICS LETTERS*
Roth, D. J., Huang, R. Y., Plummer, J. D., DUTTON, R. W.
1993; 62 (20): 2498-2500
- **PERFORMANCE OF A MONOLITHIC PIXEL DETECTOR** *3RD INTERNATIONAL CONF ON ADVANCED TECHNOLOGY AND PARTICLE PHYSICS*
Kenney, C., Parker, S., Snoeys, W., Plummer, J., ROSSEEL, G., Aw, C. H.
ELSEVIER SCIENCE BV.1993: 460–467
- **1ST BEAM TEST-RESULTS FROM A MONOLITHIC SILICON PIXEL DETECTOR** *6TH EUROPEAN SYMP ON SEMICONDUCTOR DETECTORS*
Snoeys, W., Plummer, J., ROSSEEL, G., Aw, C. H., Kenney, C., Parker, S.
ELSEVIER SCIENCE BV.1993: 144–49
- **DESIGN AND ANALYSIS OF A NEW CONDUCTIVITY-MODULATED POWER MOSFET** *IEEE TRANSACTIONS ON ELECTRON DEVICES*
Liu, D. K., Plummer, J. D.
1993; 40 (2): 428-438
- **USE OF LOW-TEMPERATURE SI MBE GROWTH TECHNIQUES FOR HIGH-PERFORMANCE SIGE/SI ELECTRONICS** *SYMP ON SEMICONDUCTOR HETEROSTRUCTURES FOR PHOTONIC AND ELECTRONIC APPLICATIONS, AT THE 1992 FALL MEETING OF THE MATERIALS RESEARCH SOC*
Croke, E. T., HARRELL, M. J., MIERZWINSKI, M. E., Plummer, J. D.
MATERIALS RESEARCH SOC.1993: 415–420
- **A Novel Floating Gate Spacer Polysilicon TFT**
Zhao, T., Cao, M., Plummer, J., D., Saraswat, K., C.
1993
- **Hydrogenation of Polycrystalline Si TFTs by Ion Implantation**
Cao, M., Zhao, T., Saraswat, K., C., Plummer, J., D.
1993
- **Evidence for a Kickout Mechanism for Ge Diffusion in Si**
Perozziello, E., A., Griffin, P., B., Plummer, J., D.
1993
- **A Novel Vertical Polysilicon Memory Device**
Zhao, T., Plummer, J., D.

1993

- **The Role of Extended Defects in Dopant Diffusion**

Huang, R., Y. S., Roth, D., J., Plummer, J., D., Dutton, R., W.

1993

- **Simulating Complex Process Sequences in Semiconductors, Particularly Silicon**

Plummer, J., D.

1993

- **Process Simulation in Submicron Silicon Structures**

Plummer, J., D.

1993

- **A Novel Vertical Submicron Polysilicon TFT**

Zhao, T., Plummer, J., D.

1993

- **Performance of the 3-D Sidewall Flash EPROM Cell**

Pein, H., Plummer, J., D.

1993

- **Oxidation Enhanced Diffusion in Thin SOI Films**

Crowder, S., W., Griffin, P., B., Plummer, J., D.

1993

- **Experimental Characterization of Arsenic Segregation Behavior in the Poly/Single-Crystal Silicon System**

Luning, S., Plummer, J., D.

1993

- **First Direct Measurement for Parasitic Lateral Bipolar Transistors in Fully Depleted SOI MOSFETs**

VerPloeg, E., Nguyen, C., Kistler, N., Wong, S., Woo, J., Plummer, J., D.

1993

- **A Parametric Design Tool for Device Space Exploration**

Wong, W., Yang, D., Plummer, J., D., Dutton, R., W.

1993

- **Oxidation Enhanced Diffusion of Boron and Phosphorus in Heavily Doped Layers in Silicon**

Roth, D., J., Plummer, J.

1993

- **Instruction and Prototyping Using the Virtual Factory**

Plummer, J., D.

1993

- **First Beam Test Results from a Monolithic Silicon Pixel Detector**

Snoeys, W., Plummer, J., Rosseel, G., Aw, C., H., Kenney, C., Parker, S.

1993

- **LATERAL DEPLETION-MODE THYRISTORS IN SOI SUBSTRATES** *5th International Symp on Power Semiconductor Devices and IC(S) (ISPSD 93)*

DISNEY, D. R., Plummer, J. D.

I E E E.1993: 269–273

- **SOI LIGHT DEVICES WITH A DUAL P-WELL IMPLANT FOR IMPROVED LATCHING CHARACTERISTICS** *5th International Symp on Power Semiconductor Devices and IC(S) (ISPSD 93)*

DISNEY, D. R., Plummer, J. D.

I E E E.1993: 254–258

- **2-D Current Flow Effects in Bipolar Transistors at Cryogenic Temperature**

- Weybright, M., E., Plummer, J., D.
1993
- **Species, Dose and Energy Dependence of Implant Induced Transient Enhanced Diffusion**
Griffin, P., B., Lever, R., F., Kennel, H., W., Packan, P., A., Plummer, J., D.
1993
 - **Modeling the Diffusion Behavior of Implanted Beryllium in Gallium Arsenide Using SUPREM-IV**
Hu, C., J., Deal, M., D., Robinson, H., G., Plummer, J., D.
1993
 - **Activation and Deactivation of High Concentration Arsenic with Some Evidence of Precipitation**
Rousseau, P., M., Griffin, P., B., Carey, P., G., Plummer, J., D.
1993
 - **A Simple SPICE Level-3 Model For Polysilicon TFT DC ON-Current**
Zhao, T., Plummer, J., D.
1993
 - **A Virtual Factory-Based Environment for Semiconductor Device Development** *Invited Paper, SEMICON/Europa'93, Geneva Switzerland*
Wong, W., Pan, J., Plummer, J.
1993
 - **BREAKDOWN VOLTAGE OF SUBMICRON MOSFETS IN FULLY DEPLETED SOI** *CONF ON MICROELECTRONICS MANUFACTURING AND RELIABILITY*
KISTLER, N., PLOEG, E., Woo, J., Plummer, J.
SPIE - INT SOC OPTICAL ENGINEERING.1993: 202-212
 - **PROGRAMMABLE FACTORY FOR ADAPTABLE IC MANUFACTURING** *1993 SYMP ON VERY-LARGE-SCALE-INTEGRATION (VLSI) TECHNOLOGY*
Saraswat, K. C., Wood, S. C., Plummer, J. D., Losleben, P.
JAPAN SOC APPLIED PHYSICS.1993: 131-132
 - **DEVELOPMENT OF ANIMATED SIMULATION OF SEMICONDUCTOR ELECTRONIC DEVICES FOR CLASSROOM DEMONSTRATION** *International Conference on Simulation in Engineering Education (ICSEE 94)/1994 Western Multiconference*
CHANGHASNAIN, C. J., Plummer, J. D., DUTTON, R. W., Yu, Z. P.
SOC COMPUTER SIMULATION INT.1993: 67-72
 - **A NEW INTEGRATED PIXEL DETECTOR FOR HIGH-ENERGY PHYSICS** *1991 NUCLEAR SCIENCE SYMP AND MEDICAL IMAGING CONF (NSS / MIUC)*
Snoeys, W., Plummer, J., Parker, S., Kenney, C.
IEEE-INST ELECTRICAL ELECTRONICS ENGINEERS INC.1992: 1263-69
 - **GEXSI1-X/SILICON INVERSION-BASE TRANSISTORS - EXPERIMENTAL DEMONSTRATION** *IEEE TRANSACTIONS ON ELECTRON DEVICES*
Taft, R. C., Plummer, J. D., Iyer, S. S.
1992; 39 (9): 2119-2126
 - **GEXSI1-X/SILICON INVERSION-BASE TRANSISTORS - THEORY OF OPERATION** *IEEE TRANSACTIONS ON ELECTRON DEVICES*
Taft, R. C., Plummer, J. D.
1992; 39 (9): 2108-2118
 - **THE FIELD-ASSISTED TURN-OFF THYRISTOR - A REGENERATIVE DEVICE WITH VOLTAGE-CONTROLLED TURN-OFF** *IEEE TRANSACTIONS ON ELECTRON DEVICES*
Petti, C. J., Plummer, J. D.
1992; 39 (8): 1946-1953
 - **RETARDED DIFFUSION OF SB IN A HIGH-CONCENTRATION AS BACKGROUND DURING SILICON OXIDATION** *APPLIED PHYSICS LETTERS*
PEROZZIELLO, E. A., Griffin, P. B., Plummer, J. D.
1992; 61 (3): 303-305

-
- **SUB-QUARTER-MICROMETER CMOS ON ULTRATHIN (400 Å) SOI** *IEEE ELECTRON DEVICE LETTERS*
KISTLER, N., VERPLOEG, E., Woo, J., Plummer, J.
1992; 13 (5): 235-237
 - **MODELING UPHILL DIFFUSION OF MG IMPLANTS IN GAAS USING SUPREM-IV** *JOURNAL OF APPLIED PHYSICS*
Robinson, H. G., Deal, M. D., Amaratunga, G., Griffin, P. B., Stevenson, D. A., Plummer, J. D.
1992; 71 (6): 2615-2623
 - **OXYHEMOGLOBIN SATURATION FOLLOWING ELECTIVE ABDOMINAL-SURGERY IN PATIENTS RECEIVING CONTINUOUS INTRAVENOUS-INFUSION OR INTRAMUSCULAR MORPHINE ANALGESIA** *ANAESTHESIA*
Kluger, M. T., Owen, H., Watson, D., Ilsley, A. H., Baldwin, A. M., FRONSKO, R. R., Plummer, J. L., Brose, W. G.
1992; 47 (3): 256-260
 - **1ST RESULTS FROM AN INTEGRATED PIXEL DETECTOR** *JOINT INTERNATIONAL LEPTON-PHOTON SYMP / EUROPHYSICS CONF ON HIGH ENERGY PHYSICS*
Parker, S., Kenney, C., Snoeys, W., Plummer, J.
WORLD SCIENTIFIC PUBL CO PTE LTD.1992: A232–A235
 - **AC Characterization and Modeling of the GexSi1-x/Si BICFET**
Mierzwinski, M., E., Plummer, J., D., Croke, E., T., Iyer, S., S., Harrell, M., J.
1992
 - **A Virtual Factory-Based Environment for Semiconductor Device Development**
Wong, W., Pan, J., Plummer, J.
1992
 - **TOOL INTEGRATION FOR POWER DEVICE MODELING INCLUDING 3D ASPECTS** *INTERNATIONAL SYMP ON POWER SEMICONDUCTOR DEVICES AND CIRCUITS*
DUTTON, R. W., Plummer, J. D.
PLENUM PRESS DIV PLENUM PUBLISHING CORP.1992: 111–138
 - **THE SUPERLATTICE DIFFUSION PROBE - A TOOL FOR MODELING DIFFUSION IN III-V SEMICONDUCTORS** *SYMP ON ADVANCED III-V-COMPOUND SEMICONDUCTOR GROWTH, PROCESSING AND DEVICE, AT THE 1991 MEETING OF THE MATERIALS RESEARCH SOC*
Allen, E. L., Pass, C. J., Deal, M. D., Plummer, J. D., CHIA, V. F.
MATERIALS RESEARCH SOC.1992: 709–714
 - **Dependence of Fully Depleted SOI MOSFET Breakdown Voltage on Film Thickness and Channel Length**
Kistler, N., VerPloeg, E., Woo, J., Plummer, J., D.
1992
 - **Sub-Quarter Micron CMOS on Ultra-Thin (400Å) SOI** *IEEE Elec. Dev. Letters*
Kistler, N., VerPloeg, E., Woo, J., Plummer, J.
1992; 13 (5): 235-237
 - **Thermal Oxidation Kinetics and LOCOS Isolation in SOI Materials**
Crowder, S., Griffin, P., Plummer, J., D.
1992
 - **AC Characterization and Modeling of the GexSi1-x/Si BICFET**
Mierzwinski, M., E., Plummer, J., D., Croke, E., T., Iyer, S., S., Harrell, M., J.
1992
 - **A Virtual Factory-Based Environment for Semiconductor Device Development**
Wong, W., Pan, J., Plummer, J.
1992
 - **TOOL INTEGRATION FOR POWER DEVICE MODELING INCLUDING 3D ASPECTS** *INTERNATIONAL SYMP ON POWER SEMICONDUCTOR DEVICES AND CIRCUITS*
DUTTON, R. W., Plummer, J. D.
PLENUM PRESS DIV PLENUM PUBLISHING CORP.1992: 111–138

- **THE SUPERLATTICE DIFFUSION PROBE - A TOOL FOR MODELING DIFFUSION IN III-V SEMICONDUCTORS** *SYMP ON ADVANCED III-V-COMPOUND SEMICONDUCTOR GROWTH, PROCESSING AND DEVICE, AT THE 1991 MEETING OF THE MATERIALS RESEARCH SOC*
Allen, E. L., Pass, C. J., Deal, M. D., Plummer, J. D., CHIA, V. F.
MATERIALS RESEARCH SOC.1992: 709-714
- **SUPPRESSION OF AL-GA INTERDIFFUSION BY A WNX FILM ON AN ALXGA1-XAS/ALAS SUPERLATTICE STRUCTURE** *APPLIED PHYSICS LETTERS*
Allen, E. L., Pass, C. J., Deal, M. D., Plummer, J. D., CHIA, V. F.
1991; 59 (25): 3252-3254
- **DEVICE PHYSICS AND TECHNOLOGY OF COMPLEMENTARY SILICON MESFETS FOR VLSI APPLICATIONS** *IEEE TRANSACTIONS ON ELECTRON DEVICES*
MACWILLIAMS, K. P., Plummer, J. D.
1991; 38 (12): 2619-2631
- **EXTENDED DEFECTS OF ION-IMPLANTED GAAS** *JOURNAL OF APPLIED PHYSICS*
Jones, K. S., Allen, E. L., Robinson, H. G., Stevenson, D. A., Deal, M. D., Plummer, J. D.
1991; 70 (11): 6790-6795
- **A NEW DEVICE STRUCTURE AND PROCESS FLOW FOR A LOW-LEAKAGE P-I-N DIODE-BASED INTEGRATED DETECTOR ARRAY**
Snoeys, W., Plummer, J., Parker, S., Kenney, C.
IEEE-INST ELECTRICAL ELECTRONICS ENGINEERS INC.1991: 2696-97
- **MERGED BICMOS LOGIC TO EXTEND THE CMOS BICMOS PERFORMANCE CROSSOVER BELOW 2.5-V SUPPLY** *IEEE JOURNAL OF SOLID-STATE CIRCUITS*
RITTS, R. B., RAJE, P. A., Plummer, J. D., Saraswat, K. C., CHAM, K. M.
1991; 26 (11): 1606-1614
- **A COMPARISON OF THE DIFFUSION BEHAVIOR OF ION-IMPLANTED SN, GE, AND SI IN GALLIUM-ARSENIDE** *JOURNAL OF THE ELECTROCHEMICAL SOCIETY*
Allen, E. L., Murray, J. J., Deal, M. D., Plummer, J. D., Jones, K. S., RUBART, W. S.
1991; 138 (11): 3440-3449
- **AN 8-TERMINAL KELVIN-TAPPED BIPOLAR-TRANSISTOR FOR EXTRACTING PARASITIC SERIES RESISTANCES** *IEEE TRANSACTIONS ON ELECTRON DEVICES*
Taft, R. C., Plummer, J. D.
1991; 38 (9): 2139-2154
- **3-AMINO-2,3-DIDEOXY-D-ERYTHRO-FURANOSE DERIVATIVES** *TETRAHEDRON*
Cheng, M. C., Kim, K., Lin, Y. T., Plummer, J. S., Talhouk, J., Wang, Y., You, T. P., Mosher, H. S.
1991; 47 (27): 4861-4868
- **MODELING ACTIVATION OF IMPLANTED SI IN GAAS** *JOURNAL OF THE ELECTROCHEMICAL SOCIETY*
Vanasupa, L. S., Deal, M. D., Plummer, J. D.
1991; 138 (7): 2134-2140
- **ON H-PASSIVATION OF SI DONORS IN GAAS ANNEALED WITH PLASMA-ENHANCED CHEMICAL VAPOR-DEPOSITED SILICON-NITRIDE CAPS** *JOURNAL OF THE ELECTROCHEMICAL SOCIETY*
Vanasupa, L. S., Deal, M. D., Plummer, J. D.
1991; 138 (3): 870-871
- **MBICMOS - COMPLEX LOGIC AND MODIFIED GATES FOR IMPROVED PERFORMANCE** *1991 MEETING ON BIPOLAR CIRCUITS AND TECHNOLOGY*
RITTS, R. B., Plummer, J. D.
I E E E.1991: 210-213
- **Consistent Models for Point Defects in Silicon**
Griffin, P., B., Packan, P., A., Plummer, J., D.
1991
- **A New Integrated Pixel Detector for High Energy Physics**

-
- Snoeys, W., Plummer, J., D., Parker, S., Kenney, C.
1991
- **Process Physics in Submicron VLSI Devices**
Plummer, J., D.
1991
 - **MBiCMOS: A Device and Circuit Technique Scalable to Sub-Micron, Sub-2V Regime**
Raje, P., Ritts, R., Cham, K., Plummer, J., Saraswat, K.
1991
 - **The Superlattice Disordering Probe: A Tool for Modeling Diffusion in III-V Semiconductors**
Allen, E., L., Pass, C., J., Deal, M., D., Plummer, J., D., Chia, V., K. F.
1991
 - **The Superlattice Disordering Probe: A Tool for Modeling Diffusion in GaAs**
Allen, E., L., Pass, C., J., Deal, M., D., Plummer, J., D., Chia, V., K. F.
1991
 - **First Results from an Integrated Pixel Detector**
Parker, S., Kenney, C., Snoeys, W., Plummer, J., D.
1991
 - **Bipolar Transistor Modeling Over Temperature**
Weybright, M., E., Plummer, J., D.
1991
 - **A NEW INTEGRATED PIXEL DETECTOR FOR HIGH-ENERGY PHYSICS** 1991 *IEEE NUCLEAR SCIENCE SYMP AND MEDICAL IMAGING CONF*
Snoeys, W., Plummer, J., Parker, S., Kenney, C.
I E E E.1991: 457-460
 - **TEMPERATURE AND TIME-DEPENDENCE OF B-DIFFUSION AND P-DIFFUSION IN SI DURING SURFACE OXIDATION** *JOURNAL OF APPLIED PHYSICS*
Packan, P. A., Plummer, J. D.
1990; 68 (8): 4327-4329
 - **THE COMPLEMENTARY INSULATED-GATE BIPOLAR-TRANSISTOR (CIGBT) - A NEW POWER SWITCHING DEVICE** *IEEE ELECTRON DEVICE LETTERS*
Boisvert, D. M., Plummer, J. D.
1990; 11 (9): 368-370
 - **TRANSIENT DIFFUSION OF LOW-CONCENTRATION-B IN SI DUE TO SI-29 IMPLANTATION DAMAGE** *APPLIED PHYSICS LETTERS*
Packan, P. A., Plummer, J. D.
1990; 56 (18): 1787-1789
 - **THE EFFECT OF BACKGROUND DOPING AND DOSE ON DIFFUSION OF ION-IMPLANTED TIN IN GALLIUM-ARSENIDE** *JOURNAL OF APPLIED PHYSICS*
Allen, E. L., Deal, M. D., Plummer, J. D.
1990; 67 (7): 3311-3314
 - **REDUCTION OF LATERAL PHOSPHORUS DIFFUSION IN CMOS NORMAL-WELLS** *IEEE TRANSACTIONS ON ELECTRON DEVICES*
Ahn, S. T., Kennel, H. W., Plummer, J. D., Tiller, W. A.
1990; 37 (3): 806-807
 - **DIFFUSION OF ION-IMPLANTED TIN IN GALLIUM-ARSENIDE** *SYMP AT THE 1989 FALL MEETING OF THE MATERIALS RESEARCH SOC : IMPURITIES, DEFECTS, AND DIFFUSION IN SEMICONDUCTORS : BULK AND LAYERED STRUCTURES*
Allen, E. L., Deal, M. D., Plummer, J. D.
MATERIALS RESEARCH SOC.1990: 685-689
 - **Diffusion of Ion-Implanted Group IV Atoms in Gallium Arsenide**
-

-
- Allen, E., L., Murray, J., J., Deal, M., D., Plummer, J., D., Jones, K., S., Rubart, W., S.
1990
- **A Novel DC Measurement Method for the Accurate Extraction of Bipolar Resistive Parasitics**
Taft, R., C., Plummer, J., D.
1990
 - **A Model For Si Activation in GaAs**
Vanasupa, L., S., Deal, M., D., Plummer, J., D.
1990
 - **Variations in Point Defect Concentrations Associated with Oxygen Precipitation in Czochralski Silicon**
Kennel, H., W., Plummer, J., D.
1990
 - **Etching, Deposition, Diffusion and Oxidation Models in SUPREM IV**
Huang, R., Aum, P., Griffin, P., Plummer, J., Dutton, R.
1990
 - **Complementary Merged BiCMOS with Vertical PNP**
Ritts, R., B., Plummer, J., D.
1990
 - **Bipolar Transistor Modeling Over Temperature**
Weybright, M., E., Plummer, J., D.
1990
 - **Transient and Small-Signal Modeling of the GeSi_{1-x}/Si BICFET**
Mierzewski, M., E., Taft, R., C., Plummer, J., D.
1990
 - **Process and Device Modeling**
Plummer, J., D.
1990
 - **Radiation Tolerant Complementary Silicon MESFETs for VLSI Applications** *IEEE Nuclear and Space Radiation Effects Conference, Reno Nevada. Also IEEE Transactions on Nuclear Science*
MacWilliams, K., P., Scott, D., M., Plummer, J., D.
1990
 - **THE EFFECT OF INTERCONNECTION RESISTANCE ON THE PERFORMANCE ENHANCEMENT OF LIQUID-NITROGEN-COOLED CMOS CIRCUITS** *IEEE TRANSACTIONS ON ELECTRON DEVICES*
WATT, J. T., Plummer, J. D.
1989; 36 (8): 1510-1520
 - **EFFECTS OF STRESS ON THE ELECTRICAL ACTIVATION OF IMPLANTED SI IN GAAS** *APPLIED PHYSICS LETTERS*
Vanasupa, L. S., Deal, M. D., Plummer, J. D.
1989; 55 (3): 274-276
 - **VACANCY SUPERSATURATION IN SI UNDER SiO₂ CAUSED BY SiO FORMATION DURING ANNEALING IN AR** *JOURNAL OF APPLIED PHYSICS*
Ahn, S. T., Kennel, H. W., Tiller, W. A., Plummer, J. D.
1989; 65 (8): 2957-2963
 - **POINT-DEFECTS AND DOPANT DIFFUSION IN SILICON** *REVIEWS OF MODERN PHYSICS*
FAHEY, P. M., Griffin, P. B., Plummer, J. D.
1989; 61 (2): 289-384
 - **DEMONSTRATION OF A P-CHANNEL BICFET IN THE GEXSi_{1-x}/SI SYSTEM** *IEEE ELECTRON DEVICE LETTERS*
Taft, R. C., Plummer, J. D., Iyer, S. S.
1989; 10 (1): 14-16

- **ADVANCED HETEROJUNCTION GEXS11-X/SI BIPOLAR-DEVICES** 1989 *INTERNATIONAL ELECTRON DEVICES MEETING*
Taft, R. C., Plummer, J. D., Iyer, S. S.
I E E E, ELECTRON DEVICES SOC & RELIABILITY GROUP.1989: 655–658
- **CHARACTERIZATION OF SURFACE MOBILITY IN MOS STRUCTURES CONTAINING INTERFACIAL CESIUM IONS** *IEEE TRANSACTIONS ON ELECTRON DEVICES*
WATT, J. T., FISHBEIN, B. J., Plummer, J. D.
1989; 36 (1): 96-100
- **Process Simulation for High Performance Bipolar and BiCMOS Devices**
Plummer, J., D., Griffin, P., B.
1989
- **Microelectronics After 30 Years - Is There Still Room for Innovation?**
Plummer, J., D.
1989
- **Hole Mobilities in GexSi1-x/Si Strain-Layer Quantum Wells**
Taft, R., C., Plummer, J., D., Iyer, S., S.
1989
- **A CLOSED-FORM ANALYSIS OF FT FOR THE BIPOLAR-TRANSISTOR DOWN TO LIQUID-NITROGEN TEMPERATURE** 1989
INTERNATIONAL ELECTRON DEVICES MEETING
Tamba, N., WEYBRIGHT, M. E., SHOTT, J. D., Plummer, J. D.
I E E E, ELECTRON DEVICES SOC & RELIABILITY GROUP.1989: 807–810
- **ADVANCED HETEROJUNCTION GEXS11-X/SI BIPOLAR-DEVICES** 1989 *INTERNATIONAL ELECTRON DEVICES MEETING*
Taft, R. C., Plummer, J. D., Iyer, S. S.
I E E E, ELECTRON DEVICES SOC & RELIABILITY GROUP.1989: 655–658
- **CHARACTERIZATION OF SURFACE MOBILITY IN MOS STRUCTURES CONTAINING INTERFACIAL CESIUM IONS** *IEEE TRANSACTIONS ON ELECTRON DEVICES*
WATT, J. T., FISHBEIN, B. J., Plummer, J. D.
1989; 36 (1): 96-100
- **SURFACE-POTENTIAL FLUCTUATIONS IN MOS DEVICES INDUCED BY THE RANDOM DISTRIBUTION OF CHANNEL DOPANT IONS**
WATT, J. T., Plummer, J. D.
IEEE-INST ELECTRICAL ELECTRONICS ENGINEERS INC.1988: 2431–31
- **DEVICE PHYSICS AND OPTIMIZATION OF CONDUCTIVITY-MODULATED POWER MOSFETS**
Liu, D. K., Plummer, J. D.
IEEE-INST ELECTRICAL ELECTRONICS ENGINEERS INC.1988: 2457–58
- **FILM STRESS-RELATED VACANCY SUPERSATURATION IN SILICON UNDER LOW-PRESSURE CHEMICAL VAPOR-DEPOSITED SILICON-NITRIDE FILMS** *JOURNAL OF APPLIED PHYSICS*
Ahn, S. T., Kennel, H. W., Plummer, J. D., Tiller, W. A.
1988; 64 (10): 4914-4919
- **ENHANCED SB DIFFUSION IN SI UNDER THERMAL SI3N4 FILMS DURING ANNEALING IN AR** *APPLIED PHYSICS LETTERS*
Ahn, S. T., Kennel, H. W., Plummer, J. D., Tiller, W. A.
1988; 53 (17): 1593-1595
- **CIRCUIT APPROACHES TO INCREASING IGBT SWITCHING SPEED** *IEEE JOURNAL OF SOLID-STATE CIRCUITS*
Boisvert, D. M., Liu, D. K., Plummer, J. D.
1988; 23 (5): 1276-1279
- **OPTIMIZATION OF SILICON BIPOLAR-TRANSISTORS FOR HIGH-CURRENT GAIN AT LOW-TEMPERATURES** *IEEE TRANSACTIONS ON ELECTRON DEVICES*
Woo, J. C., Plummer, J. D.
1988; 35 (8): 1311-1321

- **VACANCY GENERATION AT THE SI/SIO₂ INTERFACE CAUSED BY SIO FORMATION**
Ahn, S. T., Kennel, H. W., Plummer, J. D., Tiller, W. A.
ELECTROCHEMICAL SOC INC.1988: C362–C362
- **A LOW ION ENERGY TRENCH ETCH PROCESS FOR POWER MOS APPLICATIONS**
Petti, C. J., McVittie, J. P., Plummer, J. D.
ELECTROCHEMICAL SOC INC.1988: C359–C359
- **EFFECT OF OXYGEN PRECIPITATION ON PHOSPHORUS DIFFUSION IN CZOCHRALSKI SILICON** *APPLIED PHYSICS LETTERS*
Ahn, S. T., Kennel, H. W., Plummer, J. D., Tiller, W. A., Rek, Z. U., Stock, S. R.
1988; 53 (1): 34-36
- **A NOVEL TRENCH-INJECTOR POWER DEVICE WITH LOW ON RESISTANCE AND HIGH SWITCHING SPEED** *IEEE ELECTRON DEVICE LETTERS*
Liu, D. K., Plummer, J. D.
1988; 9 (7): 321-323
- **CHEMISTRY OF SI-SIO₂ INTERFACE TRAP ANNEALING** *JOURNAL OF APPLIED PHYSICS*
Reed, M. L., Plummer, J. D.
1988; 63 (12): 5776-5793
- **ADVANCED DIFFUSION-MODELS FOR VLSI** *SOLID STATE TECHNOLOGY*
Griffin, P. B., Plummer, J. D.
1988; 31 (5): 171-176
- **Film Stress-related Vacancy Supersaturation in Silicon under Low-Pressure CVD Si₃N₄ Films** *Journal of Applied Physics*
Ahn, S., T., Kennel, H., W., Plummer, J., D., Tiller, W., A.
1988; 64: 4914
- **Fabrication of a p-Channel BICFET in the GexSi_{1-x}/Si Systems**
Taft, R., C., Plummer, J., D., Iyer, S., S.
1988
- **Enhanced Sb Diffusion under Thermal Si₃N₄ Films During Annealing in Ar** *Applied Physics Letters*
Ahn, S., T., Kennel, H., W., Plummer, J., D., Tiller, W., A.
1988; 17 (53): 1593
- **Characterization of Surface Mobility on the Sidewalls of Dry-Etched Trenches**
Petti, C., J., McVittie, J., P., Plummer, J., D.
1988
- **Advanced Diffusion Models for VLSI**
Griffin, P., B., Plummer, J., D.
1988
- **Effect of Thin Film Stress on Dopant Diffusion in Silicon**
Ahn, S., T., Kennel, H., W., Plummer, J., D., Tiller, W., A.
1988
- **A Physical Model for the Observed Dependence of the Metal-Semiconductor Work Function Difference on Substrate Orientation**
Massoud, H., Z., Plummer, J., D.
1988
- **Range Distribution of Implanted Cesium Ions in Silicon Dioxide Films** *Journal Applied Physics*
Fishbein, B., J., Plummer, J., D.
1988; 12 (63): 5887-5889
- **A STUDY OF SILICON INTERSTITIAL KINETICS USING SILICON MEMBRANES - APPLICATIONS TO 2D DOPANT DIFFUSION** *JOURNAL OF APPLIED PHYSICS*
Ahn, S. T., Griffin, P. B., SHOTT, J. D., Plummer, J. D., Tiller, W. A.

1987; 62 (12): 4745-4755

- **ANALYTICAL RELATIONSHIP FOR THE OXIDATION OF SILICON IN DRY OXYGEN IN THE THIN-FILM REGIME** *JOURNAL OF APPLIED PHYSICS*
Massoud, H. Z., Plummer, J. D.
1987; 62 (8): 3416-3423
- **QUANTITATIVE MODELING OF SI/SIO₂ INTERFACE FIXED CHARGE .2. PHYSICAL MODELING** *JOURNAL OF THE ELECTROCHEMICAL SOCIETY*
Akinwande, A. I., Plummer, J. D.
1987; 134 (10): 2573-2580
- **QUANTITATIVE MODELING OF SI/SIO₂ INTERFACE FIXED CHARGE .1. EXPERIMENTAL RESULTS** *JOURNAL OF THE ELECTROCHEMICAL SOCIETY*
Akinwande, A. I., Plummer, J. D.
1987; 134 (10): 2565-2573
- **PROCESS DEPENDENCE OF THE METAL-SEMICONDUCTOR WORK FUNCTION DIFFERENCE** *JOURNAL OF THE ELECTROCHEMICAL SOCIETY*
Akinwande, A. I., Plummer, J. D.
1987; 134 (9): 2297-2303
- **SI-SIO₂ INTERFACE TRAP PRODUCTION BY LOW-TEMPERATURE THERMAL-PROCESSING** *APPLIED PHYSICS LETTERS*
Reed, M. L., Plummer, J. D.
1987; 51 (7): 514-516
- **MODEL FOR BULK EFFECTS ON SI INTERSTITIAL DIFFUSIVITY IN SILICON** *APPLIED PHYSICS LETTERS*
Griffin, P. B., Ahn, S. T., Tiller, W. A., Plummer, J. D.
1987; 51 (2): 115-117
- **GETTERING OF GOLD IN SILICON - A TOOL FOR UNDERSTANDING THE PROPERTIES OF SILICON INTERSTITIALS** *JOURNAL OF APPLIED PHYSICS*
Bronner, G. B., Plummer, J. D.
1987; 61 (12): 5286-5298
- **CHARACTERIZATION OF CESIUM DIFFUSION IN SILICON DIOXIDE FILMS USING BACKSCATTERING SPECTROMETRY** *APPLIED PHYSICS LETTERS*
FISHBEIN, B. J., Plummer, J. D.
1987; 50 (17): 1200-1202
- **TIME RESOLVED ANNEALING OF INTERFACE TRAPS IN POLYSILICON GATE METAL-OXIDE-SILICON CAPACITORS** *JOURNAL OF THE ELECTROCHEMICAL SOCIETY*
FISHBEIN, B. J., WATT, J. T., Plummer, J. D.
1987; 134 (3): 674-681
- **Efficient Numerical Simulation of the High Frequency MOS Capacitance** *IEEE Transactions on Electron Devices*
Watt, J., T., Plummer, J., D.
1987; ED-34 (10): 2214-2215
- **Process Dependence of the Metal Semiconductor Work Function Difference** *Journal Electrochemical Society*
Akinwande, A., I., Plummer, J., D.
1987; 134 (9): 2297-2303
- **Non-Ideal Base Current in Bipolar Transistors at Low Temperature** *IEEE Transactions on Electron Devices*
Woo, J., C.S., Plummer, J., D., Stork, J., M. C.
1987; ED-34 (1): 130-138
- **Characterization and Cesium Diffusion in Silicon Dioxide Films Using Backscattering Spectrometry** *Applied Physics Letters*
Fishbein, B., J., Plummer, J., D.
1987; 17 (50): 1200-1202

- **Analytical Relationship for the Oxidation of Silicon in Dry Oxygen in the Thin Regime** *Journal Applied Physics*
Massoud, H., Z., Plummer, J., D.
1987; 8 (62): 3416-3423
- **The Field Assisted Turn-Off Thyristor: A Regenerative Device with Voltage Controlled Turn-Off**
Petti, C., J., Plummer, J., D.
1987
- **A Low Temperature NMOS Technology with Cesium Implanted Load Devices** *IEEE Transactions on Electron Devices*
Watt, J., T., Fishbein, B., J., Plummer, J., D.
1987; ED-34 (1): 28-38
- **A Study of Silicon Interstitial Kinetics Using Silicon Membranes - Applications to 2-D Dopant Diffusion** *Journal Applied Physics*
Ahn, S., T., Griffin, P., B., Shott, J., D., Plummer, J., D., Tiller, W., A.
1987; 12 (62): 4745-4755
- **Characterization of Cs Oxide Implants for Use in MOS Devices Operated at 77K**
Fishbein, B., J., Watt, J., T., Plummer, J., D.
1987
- **Prospects for Cooled MOS Devices and Circuits**
Plummer, J., D.
1987
- **Substrate Current at Cryogenic Temperatures: Measurements and a 2-D Model for CMOS Technology** *IEEE Transactions on Electron Devices*
Henning, A., K., Chan, N., N., Watt, J., T., Plummer, J., D.
1987; ED-34 (2): 64-74
- **Si/SiO₂ Interface Trap Production by Low Temperature Thermal Processing** *Applied Physics Letters*
Reed, M., L., Plummer, J., D.
1987; 7 (51): 514-516
- **Quantitative Modeling of Si/SiO₂ Interface Fixed Charge: I. Experimental Results** *Journal Electrochemical Society*
Akinwande, A., I., Plummer, J., D.
1987; 134 (10): 2565-2573
- **Gettering of Gold in Silicon - A Tool for Understanding the Properties of Silicon Interstitials** *Journal Applied Physics*
Bronner, G., B., Plummer, J., D.
1987; 12 (61): 5286-5298
- **Characterization and Cesium Diffusion in Silicon Dioxide Films Using Backscattering Spectrometry** *Applied Physics Letters*
Fishbein, B., J., Plummer, J., D.
1987; 17 (50): 1200-1202
- **Analytical Relationship for the Oxidation of Silicon in Dry Oxygen in the Thin Regime** *Journal Applied Physics*
Massoud, H., Z., Plummer, J., D.
1987; 8 (62): 3416-3423
- **The Field Assisted Turn-Off Thyristor: A Regenerative Device with Voltage Controlled Turn-Off**
Petti, C., J., Plummer, J., D.
1987
- **A Low Temperature NMOS Technology with Cesium Implanted Load Devices** *IEEE Transactions on Electron Devices*
Watt, J., T., Fishbein, B., J., Plummer, J., D.
1987; ED-34 (1): 28-38
- **A Study of Silicon Interstitial Kinetics Using Silicon Membranes - Applications to 2-D Dopant Diffusion** *Journal Applied Physics*
Ahn, S., T., Griffin, P., B., Shott, J., D., Plummer, J., D., Tiller, W., A.
1987; 12 (62): 4745-4755

- **Characterization of Cs Oxide Implants for Use in MOS Devices Operated at 77K**
Fishbein, B., J., Watt, J., T., Plummer, J., D.
1987
- **Prospects for Cooled MOS Devices and Circuits**
Plummer, J., D.
1987
- **Substrate Current at Cryogenic Temperatures: Measurements and a 2-D Model for CMOS Technology** *IEEE Transactions on Electron Devices*
Henning, A., K., Chan, N., N., Watt, J., T., Plummer, J., D.
1987; ED-34 (2): 64-74
- **Si/SiO₂ Interface Trap Production by Low Temperature Thermal Processing** *Applied Physics Letters*
Reed, M., L., Plummer, J., D.
1987; 7 (51): 514-516
- **Quantitative Modeling of Si/SiO₂ Interface Fixed Charge: I. Experimental Results** *Journal Electrochemical Society*
Akinwande, A., I., Plummer, J., D.
1987; 134 (10): 2565-2573
- **Gettering of Gold in Silicon - A Tool for Understanding the Properties of Silicon Interstitials** *Journal Applied Physics*
Bronner, G., B., Plummer, J., D.
1987; 12 (61): 5286-5298
- **2-REACTION MODEL OF INTERFACE TRAP ANNEALING** *IEEE TRANSACTIONS ON NUCLEAR SCIENCE*
Reed, M. L., Plummer, J. D.
1986; 33 (6): 1198-1202
- **A DI/JI-COMPATIBLE MONOLITHIC HIGH-VOLTAGE MULTIPLEXER** *IEEE TRANSACTIONS ON ELECTRON DEVICES*
Williams, R. K., SEVILLA, L. T., RUETZ, E., Plummer, J. D.
1986; 33 (12): 1977-1984
- **PHYSICS, TECHNOLOGY, AND MODELING OF POLYSILICON EMITTER CONTACTS FOR VLSI BIPOLAR-TRANSISTORS** *IEEE TRANSACTIONS ON ELECTRON DEVICES*
PATTON, G. L., Bravman, J. C., Plummer, J. D.
1986; 33 (11): 1754-1768
- **A MODIFIED LIGHTLY DOPED DRAIN STRUCTURE FOR VLSI MOSFETS** *IEEE TRANSACTIONS ON ELECTRON DEVICES*
Bampi, S., Plummer, J. D.
1986; 33 (11): 1769-1779
- **SHORT-CHANNEL EFFECTS IN MOSFETS AT LIQUID-NITROGEN TEMPERATURE** *IEEE TRANSACTIONS ON ELECTRON DEVICES*
Woo, J. C., Plummer, J. D.
1986; 33 (7): 1012-1019
- **THERMAL-INSTABILITY OF SCHOTTKY DIODE BARRIER HEIGHTS MODIFIED BY INERT ION SPUTTER-ETCHING DAMAGE** *IEEE ELECTRON DEVICE LETTERS*
MACWILLIAMS, K. P., Plummer, J. D.
1986; 7 (4): 247-249
- **POINT-DEFECT GENERATION DURING OXIDATION OF SILICON IN DRY OXYGEN .1. THEORY** *JOURNAL OF APPLIED PHYSICS*
Dunham, S. T., Plummer, J. D.
1986; 59 (7): 2541-2550
- **POINT-DEFECT GENERATION DURING OXIDATION OF SILICON IN DRY OXYGEN .2. COMPARISON TO EXPERIMENT** *JOURNAL OF APPLIED PHYSICS*
Dunham, S. T., Plummer, J. D.
1986; 59 (7): 2551-2561
- **PROCESS PHYSICS - IMPLICATIONS FOR MANUFACTURING OF SUBMICRON SILICON DEVICES** *SOLID STATE TECHNOLOGY*

-
- Plummer, J. D.
1986; 29 (3): 61-66
- **Two Reaction Model of Interface Trap Annealing** *IEEE Trans. Nuc. Science*
Reed, M., L., Plummer, J., D.
1986; NS-33 (6): 1198-1202
 - **Kinetic Studies of Silicon-Silicon Dioxide Interface Trap Annealing Using Rapid Thermal Processing**
Reed, L., Plummer, J., D.
1986
 - **Complementary Silicon MESFETs for VLSI**
MacWilliams, K., P., Plummer, J., D.
1986
 - **Thermal Instability of Schottky Diode Barrier Heights Modified by Inert Ion Sputter-Etching Damage** *IEEE Electron Device Letters*
MacWilliams, K., P., Plummer, J., D.
1986; EDL-7 (4): 247-249
 - **Point Defect Generation During Oxidation of Silicon in Dry Oxygen. I. Theory** *Journal Applied Physics*
Dunham, S., T., Plummer, J., D.
1986; 7 (59): 2541-2550
 - **Short Channel Effects in MOSFETs at Liquid Nitrogen Temperature** *IEEE Transactions on Electron Devices*
Woo, J., C.S., Plummer, J., D.
1986; ED-33 (7): 1012-1019
 - **Physics, Technology and Modeling of Polysilicon Emitter Contacts for VLSI Bipolar Transistors** *IEEE Transactions on Electron Devices*
Patton, G., L., Bravman, J., C., Plummer, J., D.
1986; ED-33 (11): 1754-1768
 - **A Modified Lightly Doped Drain Structure for VLSI MOSFETs** *IEEE Transactions on Electron Devices*
Bampi, S., Plummer, J., D.
1986; ED-33 (11): 1769-1779
 - **A DI/JI Compatible Monolithic High-Voltage Multiplexer** *IEEE Transactions on Electron Devices*
Williams, R., K., Sevilla, L., T., Ruetz, E., Plummer, J., D.
1986; ED-33 (12): 1977-1984
 - **Modeling Dopant Redistribution in SiO₂/WSi₂/Si Structures**
Shone, F., C., Hansen, S., E., Kao, D., B., Saraswat, K., C., Plummer, J., D.
1986
 - **Process Physics Determining 2D Impurity Profiles in VLSI Devices**
Griffin, P., B., Plummer, J., D.
1986
 - **Low Temperature CMOS Devices and Technology**
Plummer, J., D.
1986
 - **Kinetic Modeling of <100> and <111> Interface Trap Annealing**
Reed, M., L., Plummer, J., D.
1986
 - **Point Defect Generation During Oxidation of Silicon in Dry Oxygen. II. Comparison to Experiment** *Journal Applied Physics*
Dunham, S., T., Plummer, J., D.
1986; 7 (59): 2551-2561
 - **Process Physics: Implications for Manufacturing of Submicron Silicon Devices**
Plummer, J., D.

1986

- **Morphological Studies of Polysilicon Emitter Contacts** *Proceedings Materials Research Society*
Bravman, J., C., Patton, G., L., Sinclair, R., Plummer, J., D.
1985; 37: 461-466
- **Thermal Oxidation of Silicon in Dry Oxygen: Accurate Determination of the Kinetic Rate Constants** *Journal Electrochemical Society*
Massoud, H., Z., Plummer, J., D., Irene, E., A.
1985; 132 (7): 1745-1752
- **MEASUREMENT OF SILICON INTERSTITIAL DIFFUSIVITY** *APPLIED PHYSICS LETTERS*
Griffin, P. B., FAHEY, P. M., Plummer, J. D., DUTTON, R. W.
1985; 47 (3): 319-321
- **Gettering in Low Temperature VLSI Processes**
Bronner, G., B., Plummer, J., D.
1985
- **A Quantitative Model for Si/SiO₂ Interface Charges in Oxidizing and Dilute Oxidizing Ambients**
Akinwande, A., I., Plummer, J., D.
1985
- **Thermal Oxidation of Silicon in Dry Oxygen: Growth Rate Enhancement in the Thin Regime. I. Experimental Results** *Journal Electrochemical Society*
Massoud, H., Z., Plummer, J., D., Irene, E., A.
1985; 132 (11): 2685-2693
- **Silicon Interstitial Generation by Argon Implantation** *Applied Physics Letters*
Bronner, G., B., Plummer, J., D.
1985; 46 (5): 510-512
- **Measurement and Reduction of Interface States at the Recrystallized Silicon-Underlying Insulator Interface** *Applied Physics Letters*
Sturm, J., C., Plummer, J., D., Gibbons, J., F.
1985; 12 (46): 1171-1172
- **Substrate Current in N-Channel and P-Channel MOSFETs Between 77K and 300K: Characterization and Simulation**
Henning, A., K., Chan, N., Plummer, J., D.
1985
- **Modified LDD Device Structures for VLSI**
Bampi, S., Plummer, J., D.
1985
- **A New Silicided Shallow Junction Technology for CMOS VLSI**
Shone, F., C., Saraswat, K., C., Plummer, J., D.
1985
- **STRUCTURE AND MORPHOLOGY OF POLYCRYSTALLINE SILICON-SINGLE CRYSTAL SILICON INTERFACES** *JOURNAL OF APPLIED PHYSICS*
Bravman, J. C., PATTON, G. L., Plummer, J. D.
1985; 57 (8): 2779-2782
- **A High Voltage Monolithic Multiplexer for Use in Vehicle Tester Applications**
Plummer, J., D., Sevilla, L., T., McCarthy, P., F., Sherman, J., D.
1985
- **Rapid Thermal Annealing of Interface States in Aluminum Gate MOS Capacitors** *Applied Physics Letters*
Reed, M., L., Fishbein, B., Plummer, J., D.
1985; 46 (4): 400-402
- **Power MOS Devices in Discrete and Integrated Circuits** *in Power Integrated Circuits, McGraw Hill*

-
- Plummer, J., D., Blanchard, R., D.
1985
- **Thermal Oxidation of Silicon in Dry Oxygen: Growth Rate Enhancement in the Thin Regime. I. Experimental Results** *Journal Electrochemical Society*
Massoud, H., Z., Plummer, J., D., Irene, E., A.
1985; 132 (11): 2685-2693
 - **Silicon Interstitial Generation by Argon Implantation** *Applied Physics Letters*
Bronner, G., B., Plummer, J., D.
1985; 46 (5): 510-512
 - **Measurement and Reduction of Interface States at the Recrystallized Silicon-Underlying Insulator Interface** *Applied Physics Letters*
Sturm, J., C., Plummer, J., D., Gibbons, J., F.
1985; 12 (46): 1171-1172
 - **Substrate Current in N-Channel and P-Channel MOSFETs Between 77K and 300K: Characterization and Simulation**
Henning, A., K., Chan, N., Plummer, J., D.
1985
 - **Modified LDD Device Structures for VLSI**
Bampi, S., Plummer, J., D.
1985
 - **A New Silicided Shallow Junction Technology for CMOS VLSI**
Shone, F., C., Saraswat, K., C., Plummer, J., D.
1985
 - **STRUCTURE AND MORPHOLOGY OF POLYCRYSTALLINE SILICON-SINGLE CRYSTAL SILICON INTERFACES** *JOURNAL OF APPLIED PHYSICS*
Bravman, J. C., PATTON, G. L., Plummer, J. D.
1985; 57 (8): 2779-2782
 - **A High Voltage Monolithic Multiplexer for Use in Vehicle Tester Applications**
Plummer, J., D., Sevilla, L., T., McCarthy, P., F., Sherman, J., D.
1985
 - **Rapid Thermal Annealing of Interface States in Aluminum Gate MOS Capacitors** *Applied Physics Letters*
Reed, M., L., Fishbein, B., Plummer, J., D.
1985; 46 (4): 400-402
 - **Power MOS Devices in Discrete and Integrated Circuits** *in Power Integrated Circuits, McGraw Hill*
Plummer, J., D., Blanchard, R., D.
1985
 - **Process and Device Modeling for VLSI Structures** *Semiconductor Processing, ASTM, STP 850*
Plummer, J., D.
1984
 - **ELECTRICAL PERFORMANCE AND PHYSICS OF ISOLATION REGION STRUCTURES FOR VLSI** *IEEE TRANSACTIONS ON ELECTRON DEVICES*
GOODWIN, S. H., Plummer, J. D.
1984; 31 (7): 861-872
 - **CHARACTERIZATION OF TRANSIENT PROCESS PHENOMENA USING A TEMPERATURE-TOLERANT METALLURGY** *IEEE ELECTRON DEVICE LETTERS*
Bronner, G. B., Plummer, J. D.
1984; 5 (3): 75-77
 - **EXPERIMENTAL-DETERMINATION OF THE TEMPERATURE-DEPENDENCE OF ARGON ANNEALED FIXED OXIDE CHARGE AT THE SI/SIO₂ INTERFACE** *APPLIED PHYSICS LETTERS*

- Akinwande, A. I., Ho, C. P., Plummer, J. D.
1984; 45 (3): 263-265
- **Structural Aspects of Polysilicon Emitter Contacts**
Bravman, J., C., Patton, G., L., Plummer, J., D.
1984
 - **Simulation of Multilayer Structures for VLSI Using the SUPREM III Process Simulation Program**
Hansen, S., E., Shott, J., D., Fahey, P., M., Plummer, J., D., Dutton, R., W.
1984
 - **Physical Modeling of Backside Gettering**
Bronner, G., B., Plummer, J., D.
1984
 - **Characterization of Bipolar Transistors with Polysilicon Emitter Contacts**
Patton, G., L., Bravman, J., C., Plummer, J., D.
1984
 - **Electrical Performance and Physics of Isolation Region Structures for VLSI** *IEEE Transactions on Electron Devices*
Goodwin, S., H., Plummer, J., D.
1984; ED-31: 861-872
 - **Characterization of Transient Process Phenomena Using a Temperature Tolerant Metallurgy** *IEEE Electron Device Letters*
Bronner, G., Plummer, J., D.
1984; EDL-5 (3): 75-77
 - **Experimental Determination of the Temperature Dependence of Argon Annealed Fixed Oxide Charge at the Si/SiO₂ Interface** *Applied Physics Letters*
Akinwande, A., I., Ho, C., P., Plummer, J., D.
1984; 45 (3): 263-265
 - **Point Defect Generation During Silicon Oxidation**
Dunham, S., Plummer, J.
1984
 - **Physical Modeling of Backside Damage Gettering**
Bronner, G., B., Plummer, J., D.
1984
 - **The Role of Point Defects in VLSI Processing**
Lin, A., Dutton, R., W., Plummer, J., D.
1983
 - **ANALOG MULTIPLEXERS SWITCH HIGH VOLTAGES** *ELECTRONIC DESIGN*
POHLMAN, J. T., Tsang, F., Walker, J. T., Plummer, J. D.
1983; 31 (22): 209-?
 - **VLSI PROCESS MODELING - SUPREM-III** *IEEE TRANSACTIONS ON ELECTRON DEVICES*
Ho, C. P., Plummer, J. D., Hansen, S. E., DUTTON, R. W.
1983; 30 (11): 1438-1453
 - **Current Problems in Silicon Oxidation**
Plummer, J., D.
1983
 - **SUPREM III - Process Simulation Toward VLSI**
Ho, C., P., Plummer, J., D., Hansen, S., E., Dutton, R., W.
1983

- **Kinetics of As-Grown Fixed Oxide Charge Nf at the Si-SiO₂ Interface During Thermal Oxidation of Silicon**
Akinwande, A., I., Ho, C., P., Plummer, J., D.
1983
- **VLSI Process Modeling - SUPREM III** *IEEE Transactions on Electron Devices*
Ho, C., P., Plummer, J., D., Hansen, S., E., Dutton, R., W.
1983; Ed-30: 1438-1453
- **Thermal Oxidation: Kinetics, Charges, Physical Models, and Interaction with Other Processes in VLSI Devices**
Plummer, J., D., Deal, B., E.
1983
- **Trench Isolation Technology and Device Physics**
Goodwin, S., H., Plummer, J., D.
1983
- **A Comparison of Buried Channel and Surface Channel MOSFETs for VLSI**
Nguyen, T., N., Plummer, J., D.
1982
- **Process Dependence of Si/SiO₂ Interface Charges**
Akinwande, A., I., Ho, C., P., Plummer, J., D.
1982
- **Oxide Growth Kinetics and Mechanical Stress Effects in the Thin Regime (<500 Å),**
Massoud, H., Z., Ho, C., P., Irene, E., A., Plummer, J., D.
1982
- **The Use of 2D Effects in LOCOS Structures to Improve Device Isolation**
Goodwin, S., H., Plummer, J., D.
1982
- **An Implantable Ion Sensor Transducer**
Haramé, D., Shott, J., Plummer, J., Meindl, J., D.
1981
- **SMALL GEOMETRY DEPLETED BASE BIPOLAR-TRANSISTORS (BSIT) - VLSI DEVICES** *IEEE TRANSACTIONS ON ELECTRON DEVICES*
Stork, J. M., Plummer, J. D.
1981; 28 (11): 1354-1363
- **The Role of the Si/SiO₂ Interface in Silicon Oxidation Kinetics**
Plummer, J., D.
1981
- **Physical Mechanisms Responsible for Short Channel Effects in MOS Devices**
Nguyen, T., N., Plummer, J., D.
1981
- **Small Geometry Depleted Base Bipolar Transistors (BSIT) - VLSI Devices?** *IEEE Transactions on Electron Devices*
Stork, J., M. C., Plummer, J., D.
1981; ED-28 (11): 1354-1364
- **Measurement of Submicron Potential Barriers in Depleted Base Transistors**
Stork, J., M. C., Plummer, J., D.
1981
- **Thermal Oxidation of Silicon in Dry O₂ in the Thin Regime**
Massoud, H., Z., Plummer, J., D., Irene, E., A.
1981

- **Process Sensitivity of Depleted Base Bipolar Transistors (BSIT)**
Stork, J., M. C., Plummer, J., D.
1981
- **Monolithic MOS High Voltage Integrated Circuits**
Plummer, J., D.
1980
- **Electron Mobility in Inversion and Accumulation Layers on Thermally Oxidized Silicon Surfaces** *IEEE Transactions on Electron Devices*
Sun, S., C., Plummer, J., D.
1980; ED-27 (8): 1497-1508
- **On the Generation of High Frequency Acoustic Energy with Polyvinylidene Fluoride** *IEEE Transactions Sonics and Ultrasonics*
Swartz, R., G., Plummer, J., D.
1980; SU-27 (6): 295-303
- **Insulated Gate Planar Thyristors, Part 2: Quantitative Modeling** *IEEE Transactions on Electron Devices*
Scharf, B., W., Plummer, J., D.
1980; ED-27 (2): 387-394
- **Thermal Oxidation: Kinetics, Charges, Physical Models and Application**
Plummer, J., D.
1980
- **Technology and Device Structures for VLSI**
Plummer, J., D.
1980
- **ON THE GENERATION OF HIGH-FREQUENCY ACOUSTIC ENERGY WITH POLYVINYLIDENE FLUORIDE** *IEEE TRANSACTIONS ON SONICS AND ULTRASONICS*
SWARTZ, R. G., Plummer, J. D.
1980; 27 (6): 295-303
- **Modeling of Depleted Base Bipolar Structures**
Stork, J., M. C., Plummer, J., D.
1980
- **Insulated Gate Planar Thyristors, Part I: Structure and Basic Operation** *IEEE Transactions on Electron Devices*
Plummer, J., D., Scharf, B., W.
1980; ED-27 (2): 380-387
- **Modeling of the On Resistance of LDMOS, VDMOS, and VMOS Power MOS Transistors** *IEEE Transactions on Electron Devices*
Sun, S., C., Plummer, J., D.
1980; ED-27 (2): 356-367
- **Growth Kinetics and Charge Properties of Thin, Thermally Grown SiO₂ Layers on Silicon**
Massoud, H., Z., Ho, C., P., Plummer, J., D.
1980
- **Monolithic Silicon - PVF₂ Piezoelectric Arrays for Ultrasonic Imaging** *8th International Symposium on Acoustical Imaging, May 30-June 2, 1978, Key Biscayne Florida, Acoustical Imaging*
Swartz, R., G., Plummer, J., D.
1980; 8: 69-95
- **Electron Mobility in Inversion and Accumulation Layers on Thermally Oxidized Silicon Surfaces** *IEEE Transactions on Electron Devices*
Sun, S., C., Plummer, J., D.
1980; ED-27 (8): 1497-1508
- **On the Generation of High Frequency Acoustic Energy with Polyvinylidene Fluoride** *IEEE Transactions Sonics and Ultrasonics*
Swartz, R., G., Plummer, J., D.

1980; SU-27 (6): 295-303

- **Insulated Gate Planar Thyristors, Part 2: Quantitative Modeling** *IEEE Transactions on Electron Devices*
Scharf, B., W., Plummer, J., D.
1980; ED-27 (2): 387-394
- **Thermal Oxidation: Kinetics, Charges, Physical Models and Application**
Plummer, J., D.
1980
- **Technology and Device Structures for VLSI**
Plummer, J., D.
1980
- **Integrated Silicon-PVF2 Acoustic Transducer Arrays** *IEEE Transactions on Electron Devices*
Swartz, R., G., Plummer, J., D.
1979; ED-26 (12): 1921-1931
- **SI-SiO₂ INTERFACE OXIDATION-KINETICS - PHYSICAL MODEL FOR THE INFLUENCE OF HIGH SUBSTRATE DOPING LEVELS .2. COMPARISON WITH EXPERIMENT AND DISCUSSION** *JOURNAL OF THE ELECTROCHEMICAL SOCIETY*
Ho, C. P., Plummer, J. D.
1979; 126 (9): 1523-1530
- **SI-SiO₂ INTERFACE OXIDATION-KINETICS - PHYSICAL MODEL FOR THE INFLUENCE OF HIGH SUBSTRATE DOPING LEVELS .1. THEORY** *JOURNAL OF THE ELECTROCHEMICAL SOCIETY*
Ho, C. P., Plummer, J. D.
1979; 126 (9): 1516-1522
- **INTEGRATED SILICON-PVF2 ACOUSTIC TRANSDUCER ARRAYS** *IEEE TRANSACTIONS ON ELECTRON DEVICES*
SWARTZ, R. G., Plummer, J. D.
1979; 26 (12): 1921-1931
- **IMPROVED MOS DEVICE PERFORMANCE THROUGH THE ENHANCED OXIDATION OF HEAVILY DOPED N+ SILICON** *IEEE TRANSACTIONS ON ELECTRON DEVICES*
Ho, C. P., Plummer, J. D.
1979; 26 (4): 623-630
- **An Improved Wedge-Type Backing for Piezoelectric Transducers** *IEEE Transactions Sonics and Ultrasonics*
Swartz, R., G., Plummer, J., D., Meindl, J., D.
1979; SU-26 (2): 140-142
- **Improved MOS Device Performance Through the Enhanced Oxidation of Heavily Doped N++ Silicon** *Special Issue on VLSI, IEEE Transactions on Electron Devices*
Ho, C., P., Plummer, J., D.
1979; ED-26 (4): 623-630
- **An Advanced 34 Element Monolithic Silicon-PVF2 Piezoelectric Array for Ultrasonic Imaging**
Swartz, R., G., Plummer, J., D.
1979
- **An Electronically Addressed Bulk Acoustic Wave Fourier Transform Device**
Auld, B., A., Pettibone, D., W., Plummer, J., D., Swartz, R., G.
1979
- **Si/SiO₂ Interface Oxidation Kinetics: A Physical Model for the Influence of High Substrate Doping Levels. I. Theory** *Journal Electrochemical Society*
Ho, C., P., Plummer, J., D.
1979; 126 (9): 1516-1522
- **Electron Mobility in Inversion and Accumulation Layers on Thermally Oxidized Silicon Surfaces**
Sun, S., C., Plummer, J., D.

1979

- **Si/SiO₂ Interface Oxidation Kinetics: A Physical Model for the Influence of High Substrate Doping Levels. II. Comparison with Experiment and Discussion** *Journal Electrochemical Society*
Ho, C., P., Plummer, J., D.
1979; 126 (9): 1523-1530
- **Thermal Oxidation of Heavily Doped Silicon: Physical Modeling and Device Applications**
Ho, C., P., Plummer, J., D.
1978
- **2-DIMENSIONAL TRANSMIT-RECEIVE CERAMIC PIEZOELECTRIC ARRAYS - CONSTRUCTION AND PERFORMANCE** *IEEE TRANSACTIONS ON SONICS AND ULTRASONICS*
Plummer, J. D., SWARTZ, R. G., MAGINNESS, M. G., BEAUDOUIN, J. R., Meindl, J. D.
1978; 25 (5): 273-280
- **KINETICS OF THERMAL-OXIDATION OF SILICON IN O₂/H₂O AND O₂/CL₂ MIXTURES** *JOURNAL OF THE ELECTROCHEMICAL SOCIETY*
Deal, B. E., Hess, D. W., Plummer, J. D., Ho, C. P.
1978; 125 (2): 339-346
- **THERMAL-OXIDATION OF HEAVILY PHOSPHORUS-DOPED SILICON** *JOURNAL OF THE ELECTROCHEMICAL SOCIETY*
Ho, C. P., Plummer, J. D., Meindl, J. D., Deal, B. E.
1978; 125 (4): 665-671
- **OBSERVATION OF PHOSPHORUS PILE-UP AT SiO₂-Si INTERFACE** *JOURNAL OF APPLIED PHYSICS*
JOHANNESSEN, J. S., SPICER, W. E., Gibbons, J. F., Plummer, J. D., Taylor, N. J.
1978; 49 (8): 4453-4458
- **Trade-Off Between Threshold Voltage and Breakdown in High Voltage Double Diffused MOS Transistors** *IEEE Transactions on Electron Devices*
Pocha, M., D., Plummer, J., D., Meindl, J., D.
1978; Ed-25 (11): 1325-1327
- **Kinetics of the Thermal Oxidation of Silicon in O₂/H₂O and O₂/Cl₂ Mixtures** *Journal Electrochemical Society*
Deal, B., E., Hess, D., W., Plummer, J., D., Ho, C., P.
1978; 125 (2): 339-346
- **Observation of Phosphorus Pile-Up at the SiO₂-Si Interface** *Journal Applied Physics*
Johannessen, J., S., Spicer, W., E., Gibbons, J., F., Plummer, J., D., Taylor, N., J.
1978; 8 (49)
- **A MOS-Controlled Triac Device**
Scharf, B., W., Plummer, J., D.
1978
- **Thermal Oxidation of Heavily Phosphorus Doped Silicon** *Journal Electrochemical Society*
Ho, C., P., Plummer, J., D., Deal, B., E., Meindl, J., D.
1978; 125 (4): 665-671
- **Thermal Oxides**
Plummer, J., D.
1978
- **Two Dimensional Transmit/Receive Piezoelectric Arrays - Construction and Performance** *IEEE Journal Sonics and Ultrasonics*
Plummer, J., D., Swartz, R., G., Maginness, M., G., Beaudouin, J., R., Meindl, J., D.
1978; SU-25 (5): 273-280
- **Process Phenomena - Silicon Oxidation**
Plummer, J., D.
1977

- **Silicon Epitaxy and Oxidation** *Process and Device Modeling for Integrated Circuit Design*
Meindl, J., D., Dutton, R., W., Saraswat, K., C., Plummer, J., D., Kamins, T., I., Dea, B., E.
edited by Wiele, V., Engl, Jespers
Noordhoff-Leyden.1977: 57-113
- **The Need for Process Models in a Ubiquitous Technology**
Meindl, J., D., Saraswat, K., C., Plummer, J., D.
1977
- **State-of-the-art in two-dimensional ultrasonic transducer array technology.** *Medical physics*
MAGINNESS, M. G., Plummer, J. D., Beaver, W. L., Meindl, J. D.
1976; 3 (5): 312-318
- **Avalanche Breakdown in High Voltage D-MOS Devices** *IEEE Transactions on Electron Devices, ED-23*
Declercq, M., J., Plummer, J., D.
1976: 1-4
- **AVALANCHE BREAKDOWN IN HIGH-VOLTAGE D-MOS DEVICES** *IEEE TRANSACTIONS ON ELECTRON DEVICES*
Declercq, M. J., Plummer, J. D.
1976; 23 (1): 1-4
- **MONOLITHIC 200-V CMOS ANALOG SWITCH** *IEEE JOURNAL OF SOLID-STATE CIRCUITS*
Plummer, J. D., Meindl, J. D.
1976; 11 (6): 809-817
- **Filter Bank Approach for Volume and Mean Flow Estimation in an Ultrasonic Blood Flowmeter** *Bulletin Electrochemical Laboratory, Japan*
Hayashi, Y., Plummer, J., D., Allen, H., V., Gill, R., W., Meindl, J., D.
1976; 40 (4, 5): 392-408
- **A Monolithic 200 Volt CMOS Analog Switch**
Plummer, J., D., Meindl, J., D.
1976
- **A Monolithic 200 Volt CMOS Analog Switch** *IEEE Journal of Solid State Circuits*
Plummer, J., D., Meindl, J., D.
1976; SC-11: 809-817
- **Silicon Through-Hole Substrate** *Bulletin Electrochemical Laboratory, Japan*
Hayashi, Y., Hayashi, F., Plummer, J., D., Meindl, J., D.
1976; 40 (4, 5): 409-416
- **Ultrasonic Imaging Using Two-Dimensional Transducer Arrays** *Cardiovascular Imaging and Image Processing, Theory and Practice*
Beaver, W., L., Maginness, M., G., Plummer, J., D., Meindl, J., D.
1975; 72
- **State-of-the-art in Two Dimensional Ultrasonic Transducer Array Technology**
Magainness, M., G., Plummer, J., D., Beaver, W., L., Meindl, J., D.
1975
- **A New Ultrasonic Imaging System for Real Time Cardiac Imaging**
Plummer, J., D., Meindl, J., D., Maginness, M., G.
1974
- **Ultrasonic Imaging System for Real Time Cardiac Imaging**
Susal, A., L., Plummer, J., D., Maginness, M., G., Meindl, J., D.
1974
- **A Real Time 3-D Ultrasonic Imaging System**
Meindl, J., D., Plummer, J., D., Maginness, M., G.
1974

- **Ultrasonic Imaging System for Real Time Cardiac Imaging**
Susal, A., L., Plummer, J., D., Maginness, M., G., Meindl, J., D.
1974
- **An Acoustic-Image Sensor Using a Transmit-Receive Array**
Plummer, J., D., Meindl, J., D., Maginness, M., G.
1973
- **Real Time Imaging Using a Transmit-Receive Transducer Array**
Maginness, M., G., Plummer, J., D., Meindl, J., D., Susal, A., L.
1973
- **A Cardiac Dynamics Visualization System**
Maginness, M., G., Plummer, J., D., Meindl, J., D., Susal, A., L.
1973
- **Solid-State Image Sensors for Biomedical Applications**
Melen, R., D., Garland, H., T., Linvill, J., G., Maginness, M., G., Plummer, J., D., Meindl, J., D.
1973
- **MOS Electronics for a Portable Reading Aid for the Blind** *IEEE Journal of Solid-State Circuits, SC-7*
Plummer, J., D., Meindl, J., D.
1972: 111-120
- **MOS ELECTRONICS FOR A PORTABLE READING AID FOR BLIND** *IEEE JOURNAL OF SOLID-STATE CIRCUITS*
Plummer, J. D., Meindl, J. D.
1972; SC 7 (2): 111-?
- **A Low-Light Self-Scanned MOS Image Sensor**
Plummer, J., D., Meindl, J., D.
1972
- **High Voltage Monolithic MOS Driver Arrays**
Plummer, J., D., Berger, J., Meindl, J., D.
1971
- **A Reading Aid for the Blind Using MOS Electronics**
Plummer, J., D., Meindl, J., D.
1970
- **Integrated Electronics for a Reading Aid for the Blind**
Meindl, J., D., Plummer, J., D., Salisbury, P., J., Brugler, J., S.
1969
- **Integrated Electronics for a Reading Aid for the Blind** *IEEE Journal of Solid-State Circuits, SC-4*
Brugler, J., S., Meindl, J., D., Plummer, J., D., Salisbury, P., J., Young, W., T.
1969: 304-312