Prof. Ohmi's Paper

January – December, 1996

E617(P)

1996.

January – December, 1996	
E610(C)	Tadashi Shibata, Tsutomu Nakai, Ning Mei Yu, Yuichiro Yamashita, Masahiro Konda, and Tadahiro Ohmi, "Advances in Neuron-MOS Applications," Digest of Technical Papers, 1996 IEEE International Solid-State Circuits Conference, pp. 304-305, 463, San Francisco, February 1996.
E611(C)	Tadashi SHIBATA, Masahiro KONDA, Yuichiro YAMASHITA, Tsutomu NAKAI, and Tadahiro OHMI, "Neuron-MOS-Based Association Hardware for Real-Time Event Recognition," <u>Proceedings of the Fifth International Conference on Microelectronics for Neural Networks and Fuzzy Systems (MicroNeuro '96</u>), pp. 94-101, Lausanne, Switzerland, February 1996.
E612(F)	Mikihiro KIMURA and Tadahiro OHMI, "Time-Dependent Dielectric Degradation (TDDD) Influenced by Ultrathin Film Oxidation Process," <u>Jpn. J. Appl. Phys.</u> , Vol. 35, Part. 1, No. 2B, pp. 1478-1483, February 1996.
E613(F)	Kazuyuki OHMI, Toshiyuki IWAMOTO, Tatuhiro YABUNE, Toshiki MIYAKE, and Tadahiro OHMI, "Formation Process of Highly Reliable Ultra-Thin Gate Oxide," <u>Jpn.J.Appl.Phys.</u> , Vol. 35, Part 1, No. 2B, pp. 1531-1534, February 1996.
E614(P)	Tadahiro Ohmi, "Total Room Temperature Wet Cleaning for Si Substrate Surface," 1996 Semiconductor Pure Water and Chemicals Conference, Edited by Marjorie K. Balas, UPW & Chemical Proceedings, Santa Clara, pp. 157-177, Invited, March 1996.
E615(E)	Masayuki Kato, Masayuki Toda, Kazuki Kubo, Senri Ojima, Yo Sakata and Tadahiro Ohmi, "The Effect of Sonication on Ultra Pure Water," 1996 Semiconductor Pure Water and Chemicals Conference, Edited by Marjorie K. Balas, UPW & Chemical Proceedings, Santa Clara, pp. 179-195, March 1996.
E616 (P)	K. Kubo, S. Ojima, Y. Sakata, M. Kato, M. Toda, and T. Ohmi, "The Impact of Radical Activated Ultra Pure Water," 1996 Semiconductor Pure Water and Chemicals Conference, Edited by Marjorie K. Balas, UPW & Chemical Proceedings, Santa Clara, pp. 196-214, March 1996.

Hiroshi Morita, Jong-Soo Kim, and Tadahiro Ohmi, "Cleaning of Noble Metals on Silicon Wafer Surface by Ozonized Ultra Pure Water," 1996

Semiconductor Pure Water and Chemicals Conference, Edited by Marjorie K. Balas, UPW & Chemical Proceedings, Santa Clara, pp. 215-229, March

- E618(P) Takanobu Kujime, Yasushi Nishiyama, and Tadahiro Ohmi, "The Cleaning of Particles from Si Wafer Surface by Fluorine Solution Excited by Megasonic," 1996 Semiconductor Pure Water and Chemicals Conference, Edited by Marjorie K. Balas, UPW & Chemical Proceedings, Santa Clara, pp. 245-256, March 1996.
- E619 (P) M. Itano, T. Kezuka, M. Kubo and T. Ohmi, "Particle Deposition and Removal in Wet Cleaning Processes for Semiconductor Manufacturing,"

 1996 Semiconductor Pure Water and Chemicals Conference, UPW & Chemical Proceedings, Santa Clara, pp. 257-287, March 1996.
- E620(F) Wataru Shindo and Tadahiro Ohmi, "Ion Energy, Ion Flux, and Ion Mass Effects on Low-Temperature Silicon Epitaxy Using Low-Energy Ion Bombardment Process," <u>J. Appl. Phys.</u>, Vol. 79, No. 5, pp.2347-2351, March 1996.
- E621(F) Tadahiro Ohmi, "FOREWORD Special Issue on Scientific ULSI Manufacturing Technology," <u>IEICE Trans. Electron.</u>, Vol. E79-C, No. 3, pp. 255, March 1996.
- E622(F) Hitoshi INABA, Tadahiro OHMI, Takanori YOSHIDA, and Takao OKADA, "Neutralization of Static Electricity by Soft X-Ray and Vacuum Ultraviolet (UV)-Ray Irradiation," <u>IEICE Trans.Electron.</u>, Vol. E79-C, No. 3, pp. 328-336, March 1996.
- E623(F) Hitoshi MORINAGA, Makoto SUYANA, Masashi NOSE, Steven VERHAVERBEKE, and Tadahiro OHMI, "A Model for the Electrochemical Deposition and Removal of Metallic Impurities on Si Surfaces," <u>IEICE Trans. Electron.</u>, Vol. E79-C, No. 3, pp. 343-362, March 1996.
- E624(F) Nobuhiro MIKI, Matagoro MAENO, Toshiro FUKUDOME, and Tadahiro OHMI, "Advanced Fluorite Regeneration Technology to Recover Spent Fluoride Chemicals Drained from Semiconductor Manufacturing Process," IEICE Trans. Electron., Vol. E79-C, No. 3, pp. 363-374, March 1996.
- E625(F) Yasuyuki SHIRAI, Masaki NARAZAKI, and Tadahiro OHMI, "Cr₂O₃ Passivated Gas Tubing System for Specialty Gases," <u>IEICE Trans. Electron.</u>, Vol. E79-C, No. 3, pp. 385-391, March 1996.
- E626(F) Yasuhiko KASAMA, Tadahiro OHMI, Koichi FUKUDA, Hirobumi FUKUI, Chisato IWASAKI, and Shoichi ONO, "Improvement of PECVD-SiN_x for TFT Gate Insulator by Controlling Ion Bombardment Energy," <u>IEICE Trans.</u> Electron., Vol. E79-C, No. 3, pp. 398-406, March 1996.
- E627(F) Koji KOTANI, Tadashi SHIBATA, and Tadahiro OHMI, "Impact of High-Precision Processing on the Functional Enhancement of Neuron-MOS Integrated Circuits," <u>IEICE Trans. Electron.</u>, Vol. E79-C, No. 3, pp. 407-414, March 1996.
- E628(F) Hisayuki Shimada and Tadahiro Ohmi, "Current Drive Enhancement by Using High-Permittivity Gate Insulator in SOI MOSFET's and Its Limitation," <u>IEEE Trans. on Electron Devices</u>, Vol.43, No. 3, pp. 431-435, March 1996.

- E629(P) MASASHI NOSE, MITSUSHI ITANO, and TADAHIRO OHMI, "Particle Deposition Control for Various Wafer Surfaces in Acidic Solution with Surfactant," Particulate Science and Technology (Taylor & Francis), Editor-in-Chief by Malay K. Mazumder, Vol. 14, No. 1, pp. 27-41, January-March 1996.
- E630(F) Rochdi MESSOUSSI, Steven VERHAVERBEKE, Tatsuhiro YABUNE, Masashi NOSE, and Tadahiro OHMI, "Improvement of Rinsing Efficiency after Sulfuric Acid Hydrogen Peroxide Mixture (H₂SO₄/H₂O₂) by HF Addition," <u>Jpn. J. Appl. Phys.</u>, Vol. 35, Part. 1, No. 4A, pp. 1989-1992, April 1996.
- Yasuhiro MITSUI, Tadahiro OHMI and Atsushi OHKI and Shigeki HAYASHI, "Quick External Leakage Inspection Method for Gas Supplying System in Semiconductor Facility Using Atmospheric Pressure Ionization Mass Spectrometer," J. Mass Spectrom. Soc. Jpn., Vol. 44, No. 2, pp. 165-174, April 1996.
- E632(C) Yasushi Nishiyama, Takanobu Kujime, and Tadahiro Ohmi, "Mechanism of Particle Contamination Removal by Megasonic," 1996 Proceedings, <u>42nd Annual Technical Meeting, Institute of Environmental Sciences,</u> Orlando, Florida, pp. 100-105, May 1996.
- E633(C) Hiroshi MORITA, Jong-Soo KIM, and Tadahiro OHMI, "Cleaning of Noble Metals on Si Wafer by O3-UPW and EPM," 1996 Proceedings, <u>42nd Annual Technical Meeting</u>, <u>Institute of Environmental Sciences</u>, Orlando, Florida, pp. 106-111, May 1996.
- E634-1(C) Masayuki Toda, Tadahiro Ohmi, Takahisa Nitta, Yoshio Saito, Yoh-ichi Kanno, Masaru Umeda, Michio Yagai, and Hajime Kidokoro, "N2 Tunnel Wafer Transport System," 1996 Proceedings, <u>42nd Annual Technical Meeting, Institute of Environmental Sciences</u>, Orlando, Florida, pp. 493-499, May 1996.
- E634-2(F) Masayuki Toda, Tadahiro Ohmi, Takahisa Nitta, Yoshio Saito, Yoh-ichi Kanno, Masaru Umeda, Michio Yagai, and Hajime Kidokoro, "N₂ Tunnel Wafer Transport System," <u>Journal of the Institute of Environmental Sciences</u>, Vol. XI, No.1, pp.23-28, January-February 1997.
- E635(C) Koji Kotani, Tadashi Shibata, and Tadahiro Ohmi, "DC-Current-Free Low-Power A/D Converter Circuitry Using Dynamic Latch Comparators with Divided-Capacitance Voltage Reference," 1996 IEEE International Symposium on Circuits and Systems (ISCAS 96), Vol. 4, Atlanta, pp. 205-208, May 1996.
- E636(C) Masahiro KONDA, Tadashi SHIBATA, and Tadahiro OHMI, "Neuron-MOS Correlator Based on Manhattan Distance Computation for Event Recognition Hardware," 1996 IEEE International Symposium on Circuits and Systems (ISCAS 96), Vol. 4, Atlanta, pp. 217-220, May 1996.
- E637(C) Yuichiro YAMASHITA, Tadashi SHIBATA, and Tadahiro OHMI, "Write/Verify Free Analog Non-Volatile Memory Using a Neuron-MOS Comparator," <u>IEEE International Symposium on Circuits and Systems</u> (ISCAS 96), Vol. 4, Atlanta, pp. 229-232, May 1996.

- E638 (F) Kazuhide Ino, Iwao Natori, Akihiro Ichikawa, Raymond N. Vrtis, and Tadahiro Ohmi, "Plasma Enhanced In Situ Chamber Cleaning Evaluated by Extracted-Plasma-Parameter Analysis," <u>IEEE Trans. on Semiconductor Manufacturing</u>, Vol. 9, No. 2, pp. 230-240, May 1996.
- E639(P) Tadahiro Ohmi, "Total Room Temperature Wet Cleaning of Silicon Surface," Proceedings of the 3rd Workshop on Semiconductor Wafer Cleaning and Surface Characterization (RIST), Edited by K. Ryoo and S. Kang, pp. 3-22, Invited, Korea, June 1996.
- E640(C) Tadahiro Ohmi, "Surface Contamination from Clean Room Air -Clean N₂ Gas Ambient Wafer Transportation-," <u>INDOOR AIR '96 (The 7th International Conference on Indoor Air Quality and Climate)</u>, Vol. 1, pp. 51-60, Plenary, Nagoya, July 1996.
- E641(C) K. Nakano, K. Ino, A. Ichikawa, and T.Ohmi, "Hydrogen Damage Analysis by TDS-APIMS after CF₄/H₂ Reactive Ion Etching," Digest of Papers, MicroProcess '96 (The 9th International MocroProcess Conference), Kitakyushu, pp. 140-142, July 1996.
- E642(M) Tadahiro Ohmi, "Total Room Temperature Wet Cleaning of Silicon Surfaces," <u>Semiconductor International</u>, pp. 323-338, July 1996.
- E643(F) Tadahiro Ohmi, Yoshinori Nakagawa, Masakazu Nakamura, Atushi Ohki, and Tomoyuki Koyama, "Formation of Chromium Oxide on 316L Austenitic Stainless Steel," <u>Journal of Vacuum Science & Technology A</u>, Vol. 14, No. 4, pp. 2505-2510, Jul/Aug 1996.
- E644(P) Tadashi SHIBATA, Tsutomu NAKAI, Tatsuo MORIMOTO, Ryu KAIHARA, Takeo YAMASHITA, and Tadahiro OHMI, "Neuron-MOS Temporal Winner Search Hardware for Fully-Parallel Data Processing," Advances in Neural Information Processing Systems 8, Proceedings of the 1995 Conference, Edited by David S. Touretzky, Michael C. Mozer, and Michael E. Hasselmo, pp. 685-691, 1996.
- E645(F) Akira Nakada, Mauricio Massazumi Oka, Yukio Tamai, Tadashi Shibata, and Tadahiro Ohmi, "Influence of Substrate-Boron Concentration on the Residual End-Of-Range Defects in 450°C Annealed As⁺-Implanted Junctions," J. Appl. Phys., Vol. 80, No. 3, pp. 1594-1599, August 1996.
- E646(C) Katsuyuki SEKINE, Geun-Min CHOI, Mizuho MORITA, and Tadahiro OHMI, "Native Oxide Growing Behavior on Si Crystal Structure and Resistivity," Extended Abstract, 1996 International Conference on Solid State Devices and Materials, Yokohama, pp. 166-168, August 1996.
- E647(C) Takayuki JIZAIMARU, Senri OJIMA, Syunkichi OMAE, and Tadahiro OHMI, "Contamination-Free Physical Resist Stripping by Megasonic/IPA/Fluoride Enhanced Lift-Off Processing," Extended Abstract, 1996 International Conference on Solid State Devices and Materials, Yokohama, pp. 242-244, August 1996.
- E648(C) Geun-Min CHOI, Katsuyuki SEKINE, Hiroshi MORITA, and Tadahiro OHMI, "Metallic Impurity Growing Behavior on Surface Crystal Structure," Extended Abstract, 1996 International Conference on Solid State Devices and Materials, Yokohama, pp. 371-373, August 1996.

- E649(C) Akira NAKADA, Kei KANEMOTO, Mauricio Massazumi OKA, Yukio TAMAI, and Tadahiro OHMI "Formation of Ultra-Shallow and Low-Leakage p⁺n Junctions by Low-Temperature Post-Implantation Annealing," Extended Abstract, <u>1996 International Conference on Solid State Devices and Materials</u>, Yokohama, pp. 413-415, August 1996.
- E650(C) Tadahiro Ohmi, "Very Stable Gas Supply System Without Corrosion and Catalytic Behavior," <u>SEMICON Taiwan 96</u>, Gas Distribution System Workshop, Taipei International Convention Center, Taiwan, pp.5-49, Keynote Speech, September 1996.
- E651(C) Hiroshi MORITA, Geun-Min CHOI, Katsuyuki SEKINE, and Tadahiro OHMI, "Study of Cu Particle Growth with Deposition Condition of Amorphous Silicon," <u>Third International Symposium on Ultra Clean Processing of Silicon Surfaces(UCPSS '96)</u>, Antwerp, Belgium, (2 pages), September 1996.
- E652(C) Taiji Hashimoto, Yasuyuki Shirai, Masaki Narazaki, and Tadahiro Ohmi, "Fluoride Gas Distribution System," <u>Third International Symposium on Ultra Clean Processing of Silicon Surfaces(UCPSS '96)</u>, Antwerp, Belgium, (2 pages), September 1996.
- E653(C) R. Messoussi, S. Verhaverbeke, and T. Ohmi, "Rinsing Efficiency of a SPM added HF Solution," <u>Third International Symposium on Ultra Clean Processing of Silicon Surfaces(UCPSS '96)</u>, Antwerp, Belgium, (2 pages), September 1996.
- E654(C) Masayuki Toda, Masayuki Kato, and Tadahiro Ohmi, "The Effect of Megasonic Irradiation on Ultra Pure Water," <u>Third International Symposium on Ultra Clean Processing of Silicon Surfaces(UCPSS '96)</u>, Antwerp, Belgium, (2 pages), September 1996.
- E655(C) T. Kujime, Y. Nishiyama, S. Okano, and T. Ohmi, "The Particle Cleaning for FPMS with Megasonics Irradiation Combined with Spin Cleaning," <u>Third International Symposium on Ultra Clean Processing of Silicon Surfaces(UCPSS '96)</u>, Antwerp, Belgium, (2 pages), September 1996.
- E656(C) H. Izumi, M. Miyashita, K. Yamane, H. Kikuyama, and T. Ohmi, "The Optimization of Buffered Hydrogen Fluoride Composition to Control Wet Process," <u>Third International Symposium on Ultra Clean Processing of Silicon Surfaces(UCPSS '96)</u>, Antwerp, Belgium, (2 pages), September 1996.
- Herzl AHARONI, Tadahiro OHMI, Tadashi SHIBATA, Mauricio Massazumi OKA, Akira NAKADA, and Yukio TAMAI, "A Comparative Examination of Ion Implanted n⁺p Junctions Annealed at 1000°C and 450°C," <u>Jpn. J. Appl. Phys.</u>, Vol. 35, Part 1, No. 9A, pp. 4606-4617, September 1996.
- E658(F) TADAHIRO OHMI, "Total Room Temperature Wet Cleaning for Si Substrate Surface," <u>Journal of Electrochemical Society</u>, Vol. 143, No. 9, pp. 2957-2964, September 1996.

- E659(C) Tadahiro Ohmi, Tadashi Shibata, and Koji Kotani, "Four-Terminal Device Concept for Intelligent Soft Computing on Silicon Integrated Circuits," Methodologies for the Conception, Design, and Application of Intelligent System, Proceedings of the 4th International Conference on Soft Computing (IIZUKA'96), Vol. 1, pp. 49-58, Plenary Lecture, Iizuka, September-October 1996.
- E660(C) Tadashi SHIBATA, Yuichiro YAMASHITA, Masahiro KONDA, Tatsuo MORIMOTO, and Tadahiro OHMI, "Event Recognition Hardware Based on Neuron-MOS Soft-Computing Circuits," Methodologies for the Conception, Design, and Application of Intelligent System, Proceedings of https://doi.org/10.103/journal.com/erence-on-Soft Computing (IIZUKA'96), Vol. 1, pp. 125-130, Iizuka, September-October 1996.
- E661(C) Tsutomu NAKAI, Tadashi SHIBATA, and Tadahiro OHMI, "Neuron MOS Quasi-Two-Dimensional Image Processor for Real-Time Motion Vector Detection," Methodologies for the Conception, Design, and Application of Intelligent System, Proceedings of the 4th International Conference on Soft Computing (IIZUKA'96), Vol. 2, pp. 833-836, Iizuka, September-October 1996.
- Ning Mei YU, Tadashi SHIBATA, and Tadahiro OHMI, "A Real-Time Center-Of-Mass Tracker Circuit Implemented by Neuron MOS Technology," Methodologies for the Conception, Design, and Application of Intelligent System, Proceedings of the 4th International Conference on Soft Computing (IIZUKA'96), Vol. 2, pp. 837-840, Iizuka, September-October 1996.
- E663(F) Nobuhiro Konishi, Tadashi Shibata, and Tadahiro Ohmi, "Impurity Back Diffusion through an Ultrahigh Vacuum Turbomolecular Pump under Large Gas Throughput," <u>J. Vac. Sci, Technol. A</u>, Vol. 14, No. 5, pp. 2958-2962, September-October 1996.
- E664(C) Tadahiro Ohmi, "Ultra Clean Technology Contributing to the Fast Progress of Asian Semiconductor Industries", <u>The Fifth International Symposium on Semiconductor Manufacturing</u>, Proceedings of ISSM'96, pp. 377-388, Invited, Tokyo, October 1996.
- E665(C) Senri Ojima, Takayuki Jizaimaru, Shunkiti Omae, and Tadahiro Ohmi, "Room Temperature Photoresist Physical Stripper," <u>The Fifth International Symposium on Semiconductor Manufacturing</u>, Proceedings of ISSM'96, pp. 121-124, Tokyo, October 1996.
- E666(C) Yasuyuki Shirai, Taiji Hashimoto, Masaki Narazaki, Yoshinori Nakagawa, and Tadahiro Ohmi, "Fluorine Passivation Technology for Fluoride Gas Distribution System," <u>The Fifth International Symposium on Semiconductor Manufacturing</u>, Proceedings of ISSM'96, pp. 333-336, Tokyo, October 1996.
- E667(C) Hiroshi Morita, Kazuhiko Kawada, Shouichi Okano, Takahisa Nitta, and Tadahiro Ohmi, "Development of an Advanced Wet Cleaning Equipment with Megasonic Efficiency Enhancing System," The Fifth International Symposium on Semiconductor Manufacturing, Proceedings of ISSM'96, pp. 337-340, Tokyo, October 1996.
- E668(C) Tadahiro Ohmi, "Electromigration in Copper Interconnections," Extended Abstracts, 190th Electrochemical Society Meeting, San Antonio, Texas, Abstract No. 264, pp. 346, October 1996.

- E669(C) R. Messoussi, S. Verhaverbeke, and T. Ohmi, "Modified SPM Clean for Reducing Sulfur Contamination," Extended Abstracts, <u>190th Electrochemical Society Meeting</u>, San Antonio, Texas, Abstract No. 804, pp. 981-982, October 1996.
- E670(C) Kazuhiko Kawada, Hiroshi Morita, Takahiro Hori, Noboru Kubota, and Tadahiro Ohmi, "Reduction of Metallic Impurity in Ultrapure Water by Using Anion Exchange and Chelating Membranes," 190th Electrochemical Society Meeting, San Antonio, Texas, Abstract No. 806, pp. 985-986, October 1996.
- E671(C) J. S. Kim, H. Morita, and Tadahiro Ohmi, "The Role of Metal Induced Oxidation for Cu Deposition on Silicon Surface," 190th Electrochemical Society Meeting, San Antonio, Texas, Abstract No. 813, pp. 995-996, October 1996.
- E672(C) Tadahiro Ohmi, "Contamination Identification and Control for Wet and Dry Processes in the Semiconductor Manufacturing," <u>SEMICON Southwest 96</u>, Keynote Address, (32pages), October 1996.
- E673(C) M. Hirayama, T. Ohmi, T. Yamamoto, M. Ando, and N. Goto, "8.3 GHz Microwave Plasma Excitation using a Radical Line Slot Antenna," <u>AVS 43rd National Symposium</u>, Philadelphia, pp. 134, October 1996.
- E674(C) K. Ino, T. Shinohara, T. Ushiki, and T. Ohmi, "Crystallographic and Electrical Properties of Sputter-deposited Ta Thin Films formed under Various Ion Bombardment Conditions," <u>AVS 43rd National Symposium</u>, Philadelphia, pp. 189, October 1996.
- E675(C) G. S. Jong, S. W. Woo, W. S. Park, M. Takeya, Y. H. Jang, and T. Ohmi, "Low Temperature Polycrystalline Silicon Film Formation Technology by a Harmonization with Sputtering and Plasma CVD using a Low Kinetic Energy Particle Process," <u>AVS 43rd National Symposium</u>, Philadelphia, pp. 194, October 1996.
- E676(C) Takeo USHIKI, Yuichi HIRANO, Hisayuki SHIMADA, and Tadahiro OHMI, "High-Performance, Metal-Gate SOI CMOS Fabricated by Ultraclean, Low-Temperature Process Technologies," Proceedings, SPIE, Microelectronic Device and Multilevel Interconnection Technology II, Vol. 2875, pp. 28-38, Austin, Texas, October 1996.
- E677(C) Toshiyuki Iwamoto, Toshiki Miyake, and Tadahiro Ohmi, "Influence of Carbon Contamination on Ultra Thin Gate Oxide Reliability," Proceedings, SPIE, Microelectronic Device and Multilevel Interconnection Technology II, Vol. 2875, pp. 207-215, Austin, Texas, October 1996.
- E678(C) Yasuyuki Shirai, Taiji Hashimoto, Yoshinori Nakagawa, and Tadahiro Ohmi, "Fluorine Passivation of Metal Surface," Special Program, <u>CLEANROOMS</u>

 '96 WEST, The Conference on Advanced Microcontamination Control and Ultrapure Manufacturing, pp. 68-77, Santa Clara, CA, October 1996.
- E679-1(C) Hiroshi Morita, Jong-Soo Kim, and Tadahiro Ohmi, "Adsorption and Deposition Properties of Cu and Ag Contaminants on Si Substrate," Abstracts, Second International Symposium on Control of Semiconductor Interfaces, pp. 11, Karuizawa, Japan, October-November 1996.

- E679-2 (F) Hiroshi Morita, Jong-Soo Kim, and Tadahiro Ohmi, "Adsorption and desorption properties of Cu and Ag Contaminants on Si substrate", <u>Applied Surface Science</u>, Vol.117/118, pp99-102, June 1997.
- E680-1(C) Toshiyuki Iwamoto and Tadahiro Ohmi, "Ultra Thin Gate Oxide Reliability Enhanced by Carbon Contamination Free Process," Abstracts, <u>Second International Symposium on Control of Semiconductor Interfaces</u>, pp. 33, Karuizawa, Japan, October-November 1996.
- E680-2 (F) Toshiyuki Iwamoto and Tadahiro Ohmi, "Ultra thin gate oxide reliability enhanced by carbon contamination free process", <u>Applied Surface Science</u>, Vol.117/118, pp.237-340, June 1997.
- E681(C) Mizuho Morita, Katsuyuki Sekine, and Tadahiro Ohmi, "Charging Control in X-Ray Photoelectron Spectroscopy by Xe Lamp Light Irradiation to Very Thin SiO₂/Si Interfaces," Abstracts, <u>Second International Symposium on Control of Semiconductor Interfaces</u>, pp. 67, Karuizawa, Japan, October-November 1996.
- E682(C) Tadahiro Ohmi, "Surface Chemical Electronics at the Semiconductor Surface," <u>International Symposium on Surface Nano-Control of Environmental Catalysis and Related Materials</u>, (6th Iketani Conference), Plenary, pp. 142, Tokyo, Japan, November 1996.
- E683(C) Toshiyuki Iwamoto and Tadahiro Ohmi, "Highly-Reliable Ultra Thin Gate Oxide Formation Technology," Proceedings, the 2nd International Symposium on Advanced Science and Technology of Silicon Materials, An Industry-University Cooperative International Symposium of JSPS, pp. 396-401, Kona, Hawaii, November 1996.
- E684 (F) Mikihiro Kimura and Tadahiro Ohmi, "Conduction Mechanism and Origin of Stree-Induced Leakage Current in Thin Silicon Dioxide Films," <u>J. Appl.</u> Phys., Vol. 80, No. 11, pp. 6360-6369, December 1996.
- E685-1(C) Mauricio Massazumi Oka, Tadahiro Ohmi, Akira Nakada, Yukio Tamai, Kei Kanemoto, and Tadashi Shibata, "Depth Profile of Point Defects in Ion Implanted n⁺p and p⁺n Junctions Formed by 450°C Post-Implantation Annealing and Impact of Defects on Junction Characteristics," Abstracts, MRS 1996 Fall Meeting, Materials Research Society, pp. 180, Boston, MA, December 1996.
- E685-2 (P) M. Massazumi Oka, A. Nakada, Y. Tamai, K. Kanemoto, T. Shibata, and T. Ohmi, "Depth Profile of Point Defects in Ion Implanted n⁺p and p⁺n Junctions Formed by 450°C Post-Implanting Annealing and Impact of Defects on Junction Characteristics," MRS Symposium Proceeding Defects in Electronic Materials II, Edited by J.Michel, T. Kennedy, K. Wada, K. Thonke, Vol.442, Materials Research Society, pp. 163-168, Pittsburgh, PV, June 1997.
- E686-1(C) Toshiyuki Iwamoto, Tadahiro Ohmi, Jun Takano, and Koji Makihara, "Influence of Si Substrate Crystallinity on Device Performance," Abstracts, MRS 1996 Fall Meeting, Materials Research Society, pp. 182, Boston, MA, December 1996.

- E686-2 (P)

 T. Iwamoto, K. Makihara, J. Takano, and T. Ohmi, "Influence of Si Substrate Crystallinity on Device Performance," MRS Symposium Proceeding Defects in Electronic Materials II, Edited by J.Michel, T. Kennedy, K. Wada, K. Thonke, Vol.442, Materials Research Society, pp. 193-198, Pittsburgh, PV, June 1997.
- E687(C) Takeo Ushiki, Mo Chium Yu, Yuichi Hirano, Hisayuki Shimada, Mizuho Morita, and Tadahiro Ohmi, "Reliable Tantalum Gate Fully-Depleted-SOI MOSFET's with 0.15μm Gate Length by Low-Temperature Processing below 500°C," International Electron Devices Meeting 1996, pp. 117-120, San Francisco, CA, December 1996.
- E688(C) Toshiyuki Iwamoto, Mizuho Morita, and Tadahiro Ohmi, "Highly-Reliable Ultra Thin Gate Oxide Formation Process," <u>International Electron Devices Meeting 1996</u>, pp. 751-754, San Francisco, CA, December 1996.
- E689 (F) Tadashi Shibata and Tadahiro Ohmi, "Implementing Intelligence in Silicon Integrated Circuits Using Neuron-Like High-Functionality Transistors," <u>Journal of Robotics and Mechatronics</u>, Vol. 8, No. 6, pp.508-515, 1996.