

## *Prof. Ohmi's Paper*

### *January–December, 1994*

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- E442 (F) Mizuho Morita and Tadahiro Ohmi, "Characterization and Control of Native Oxide on Silicon," Jpn. J. Appl. Phys., Vol. 33, No. 1B, pp. 370-374, January 1994.
- E443 (F) Hiroshi Suzuki, Yuuji Maeda, Kenji Morita, Mizuho Morita and Tadahiro Ohmi, "Selective Tungsten Chemical Vapor Deposition with High Deposition Rate for ULSI Application," Jpn. J. Appl. Phys., Vol. 33, No. 1B, pp. 451-454, January 1994.
- E444 (F) Toshiyuki Iwamoto, Hisayuki Shimada, Shigeki Shimomura, Masanobu Onodera and Tadahiro Ohmi, "High-Reliability Lithography Performed by Ultrasonic and Surfactant-Added Developing System," Jpn. J. Appl. Phys., Vol. 33, No. 1B, pp. 491-495, January 1994.
- E445 (F) Kou Nakamura, Kazuyuki Ohmi, Kazuma Yamamoto, Koji Makihara and Tadahiro Ohmi, "Silicon Wafer Orientation Dependence of Metal Oxide Semiconductor Device Reliability," Jpn. J. Appl. Phys., Vol. 33, No. 1B, pp. 500-504, January 1994.
- E446 (F) Kazuhide Ino, Iwao Natori, Akihiro Ichikawa and Tadahiro Ohmi, "In Situ Chamber Cleaning Using Halogenated-Gas Plasmas Evaluated by Plasma-Parameter Extraction," Jpn. J. Appl. Phys., Vol. 33, No. 1B, pp. 505-509, January 1994.
- E447 (F) Kouichi Hirose, Hisayuki Shimada, Shigeki Shimomura, Masanobu Onodera and Tadahiro Ohmi, "Ion-Implanted Photoresist and Damage-Free Stripping," Journal of Electrochemical Society, Vol. 141, No. 1, pp. 192-205, January 1994.
- E448 (F) Yoshio Ishihara, Tadahiro Ohmi, Hideharu Hasegawa, Takuya Ikeda, Toshimichi Takasaki, Sumiyo Yamane and Ryousuke Fukushima, "Electrical Conductivity Measurement in Liquified Hydrogen Chloride," Journal of Electrochemical Society, Vol. 141, No. 1, pp. 246-250, January 1994.
- E449 (F) H. Kikuyama, M. Waki, M. Miyashita, T. Yabune, N. Miki, J. Takano and T. Ohmi, "A Study of the Dissociation State and the SiO<sub>2</sub> Etching Reaction for HF Solutions of Extremely Low Concentration," Journal of Electrochemical Society, Vol. 141, No. 2, pp. 366-374, February 1994.
- E450 (F) Y. Maeda, H. Suzuki, T. Sakoh, K. Morita, M. Morita and T. Ohmi, "High-Selectivity and High-Deposition Rate Tungsten CVD Freed from Chamber Cleaning," Journal of Electrochemical Society, Vol. 141, No. 2, pp. 566-571, February 1994.

- E451(C) Rita Au, Takeo Yamashita, Tadashi Shibata and Tadahiro Ohmi, "Neuron-MOS Multiple-Valued Memory Technology for Intelligent Data Processing," 1994 IEEE International Solid-State Circuits Conference, Digest of Technical Papers, San Francisco, pp. 270-271, February 1994.
- E452-1(C) Hisayuki Shimada, Toshiyuki Iwamoto, Shigeki Shimomura, Masanobu Onodera and Tadahiro Ohmi, "High-Accuracy Resist Development Process with Wide Margins by Quick Removal of Reaction Products," Technical Program, SPIE's 1994 Symposium on Microlithography, San Jose, pp. 223, February-March 1994.
- E452-2(C) Hisayuki Shimada, Toshiyuki Iwamoto, Shigeki Shimomura, Masanobu Onodera and Tadahiro Ohmi, "High-Accuracy Resist Development Process with Wide Margins by Quick Removal of Reaction Products," Proceedings, Advances in Resist Technology and Processing XI, Vol. 2195, pp. 813-822, February-March 1994.
- E453(C) Tadahiro Ohmi, "Scientific Semiconductor Manufacturing Based on Ultraclean Processing Concept," International Conference on AMDP(Advanced Microelectronic Devices and Processing), Sendai, pp. 3-22, March 1994.
- E454(C) Takashi Matsuura, Junichi Murota, Tadahiro Ohmi, Yasui Sawada and Shoichi Ono, "Highly Selective and Atomic Layer Controlled Etching by Ultraclean ECR Plasmas," International Conference on AMDP(Advanced Microelectronic Devices and Processing), Sendai, pp. 139-146, March 1994.
- E455(C) Mizuho Morita and Tadahiro Ohmi, "Thin Gate Oxide for Ultra Small Device," International Conference on AMDP(Advanced Microelectronic Devices and Processing), Sendai, pp. 189-196, March 1994.
- E456(C) Hitoshi Morinaga, Makoto Suyama, Naomichi Yonekawa, Masashi Nose and Tadahiro Ohmi, "Advanced Wet Chemical Cleaning," International Conference on AMDP(Advanced Microelectronic Devices and Processing), Sendai, pp. 397-402, March 1994.
- E457(C) T. Futatsuki, K. Ohmi, K. Nakamura and T. Ohmi, "Influence of Atomic-Order Si-SiO<sub>2</sub> Interface Microroughness on the Performance and Reliability of Scaled MOSFET's," International Conference on AMDP(Advanced Microelectronic Devices and Processing), Sendai, pp. 425-430, March 1994.
- E458(C) S. Verhaverbeke, T. Futatsuki and T. Ohmi, "Study of the Surface Topography of Si Wafers after H<sub>2</sub> Annealing, after epi-Si Deposition and after Wet Chemical Cleaning," International Conference on AMDP(Advanced Microelectronic Devices and Processing), Sendai, pp. 435-440, March 1994.
- E459(C) Wataru Shindo, Masaki Hirayama and Tadahiro Ohmi, "Low Temperature Silicon Epitaxy Technology Using a Low-Energy Ion Bombardment Process," International Conference on AMDP(Advanced Microelectronic Devices and Processing), Sendai, pp. 441-444, March 1994.

- E460(C) T. Takewaki, H. Yamada, T. Ohmi, T. Shibata and T. Nitta, "High Performance Giant-Grain Copper Metallization for High Reliability and High Speed ULSI Interconnects," International Conference on AMDP(Advanced Microelectronic Devices and Processing), Sendai, pp. 489-494, March 1994.
- E461(C) K. Yamada, K. Tomita and T. Ohmi, "Silicon-Capping Silicidation Technology for Ultra-Low Contact Resistance Metallization," International Conference on AMDP(Advanced Microelectronic Devices and Processing), Sendai, pp. 501-506, March 1994.
- E462(C) K. Tomita, A. Nakada, M. M. Oka, T. Shibata, T. Ohmi and T. Nitta, "Formation of Ultra Shallow n<sup>+</sup>p Junctions Annealed at 450°C Using an Ultra Clean Ion Implantation Technology," International Conference on AMDP(Advanced Microelectronic Devices and Processing), Sendai, pp. 507-512, March 1994.
- E463(C) N. Konishi, Y. Kawai, J. Watanabe and T. Ohmi, "Application of Dual-Frequency-Excitation Plasma Processing Equipment to High-Integrity ULSI Fabrication Processes," International Conference on AMDP(Advanced Microelectronic Devices and Processing), Sendai, pp. 513-516, March 1994.
- E464(C) Y. Shirai, S. Miyoshi, S. Takahashi, T. Kojima and T. Ohmi, "Ultraclean Gas Distribution Technology," International Conference on AMDP(Advanced Microelectronic Devices and Processing), Sendai, pp. 517-522, March 1994.
- E465(C) Hideki Aomi, Osamu Tanaka, Katsutoshi Yamamoto, Shinji Tamaru and Tadahiro Ohmi, "0.01 um PTFE-Membrance ULPA Filters for Future Clean Rooms," International Conference on AMDP(Advanced Microelectronic Devices and Processing), Sendai, pp. 541-542, March 1994.
- E466(C) Koji Kotani, Tadashi Shibata and Tadahiro Ohmi, "Neuron-MOS Binary-Logic Integrated Circuits," International Conference on AMDP(Advanced Microelectronic Devices and Processing), Sendai, pp. 609-614, March 1994.
- E467(C) Rita Au, Takeo Yamashita, Tadashi Shibata and Tadahiro Ohmi, "Neuron-MOS Multiple-Valued Memory Technology for Intelligent Data Processing," International Conference on AMDP(Advanced Microelectronic Devices and Processing), Sendai, pp. 615-620, March 1994.
- E468(C) Hiroshi Ishii, Tadashi Shibata, Hideo Kosaka and Tadahiro Ohmi, "An Experimental Neuron-MOS Neural Network Chip Featuring On-Chip Self-Learning Circuitry and Low-Power Synapse Cells," International Conference on AMDP(Advanced Microelectronic Devices and Processing), Sendai, pp. 641-646, March 1994.
- E469(C) Tadashi Shibata and Tadahiro Ohmi, "Hardware Implementation of Intelligence on Silicon Using Four-Terminal Devices," International Conference on AMDP(Advanced Microelectronic Devices and Processing), Sendai, pp. 743-750, March 1994.
- E470(C) S. Yasui, N. Yonekawa and T. Ohmi, "Organic Contaminants Removal from Si Wafer Surface with Spin Cleaning Process Using Ozonized Ultrapure Water," 1994 Semiconductor Pure Water and Chemicals Conference, San Jose, pp. 64-74, March 1994.

- E471(C) M. Suyama, H. Morinaga, M. Nose, S. Verhaverbeke and T. Ohmi, "Deposition and Removal Mechanism of Noble Metals in Wet Chemical Processing," 1994 Semiconductor Pure Water and Chemicals Conference, San Jose, pp. 93-109, March 1994.
- E472(C) T. Kezuka, M. Ishii, T. Unemoto, M. Itano, M. Kubo, M. Suyama and T. Ohmi, "Particle Deposition Control for Various Wafer Surfaces in Acidic Solution with Surfactant," 1994 Semiconductor Pure Water and Chemicals Conference, San Jose, pp. 211-225, March 1994.
- E473(C) T. Ohmi, K. Nakamura and K. Makihara, "Highly-Reliable Ultra-Thin Oxide Formation Using Hydrogen-Radical-Balanced Steam Oxidation Technology," 1994 IEEE International Reliability Physics Proceedings, San Jose, pp. 161-166, April 1994.
- E474 (L) Y. Kawai, N. Konishi, J. Watanabe and T. Ohmi, "Ultra-Low-Temperature Growth of High-Integrity Gate Oxide Films by Low-Energy Ion-Assisted Oxidation," Applied Physics Letters, Vol. 64, No. 17, pp. 2223-2225, April 1994.
- E475 (F) Masaki Hirayama, Wataru Shindo and Tadahiro Ohmi, "Impact of High-Precision RF-Plasma Control on Very-Low-Temperature Silicon Epitaxy," Jpn. J. Appl. Phys., Vol. 33, No. 4B, pp. 2272-2275, April 1994.
- E476(C) T. Kezuka, M. Ishii, T. Unemoto, M. Itano, M. Kubo and T. Ohmi, "Particle Deposition Control for Various Wafer Surfaces in Acidic Solutions with Surfactant," 1994 Proceedings, 40th Annual Technical Meeting, Institute of Environmental Sciences, Vol. 1, Chicago, Illinois, pp. 283-288, May 1994.
- E477(C) Hitoshi Morinaga, Makoto Suyama, Masashi Nose, Steven Verhaverbeke and Tadahiro Ohmi, "Metallic Particle Growth on Si Wafer Surfaces in Wet Chemical Processing and Its Prevention," 1994 Proceedings, 40th Annual Technical Meeting, Institute of Environmental Sciences, Vol. 1, Chicago, Illinois, pp. 332-337, May 1994.
- E478(C) N. Yonekawa, S. Yasui and T. Ohmi, "Contamination Removal from Si Wafer Surface by Advanced Spin Cleaning Process," 1994 Proceedings, 40th Annual Technical Meeting, Institute of Environmental Sciences, Vol. 1, Chicago, Illinois, pp. 367-372, May 1994.
- E479(C) T. Yabune, T. Futatsuki, K. Yamada and T. Ohmi, "Isolation Performance of a Wafer Transportation System Having a Continuous N<sub>2</sub> Gas Purge Function," 1994 Proceedings, 40th Annual Technical Meeting, Institute of Environmental Sciences, Vol. 1, Chicago, Illinois, pp. 419-424, May 1994.
- E480-1(C) Y. Kawai, N. Konishi, J. Watanabe and T. Ohmi, "Ultra-Low-Temperature Growth of High-Integrity Gate Oxide Films by Low-Energy Ion-Assisted Oxidation," Extended Abstracts, 185th Electrochemical Society Meeting, San Francisco, Abstract No. 250, pp. 404-405, May 1994.
- E480-2 (P) Y. Kawai, N. Konishi, J. Watanabe and T. Ohmi, "Ultra-Low-Temperature Growth of High-Integrity Gate Oxide Films by Low-Energy Ion-Assisted Oxidation," Proceedings of the Tenth Symposium on Plasma Processing, G. S. Mathad and D. W. Hess Eds., PV94-20, The Electrochemical Society, Pennington NJ, pp. 568-579, 1994.

- E481-1(C) R. N. Virtis, I. Natori, A. Ichikawa, K. Ino and T. Ohmi, "In-Situ Chamber Cleaning: Optimizing Cleaning Gas and Chamber Material," Extended Abstracts, 185th Electrochemical Society Meeting, San Francisco, Abstract No. 385, pp. 610-611, May 1994.
- E481-2 (P) R. N. Virtis, A. Ichikawa, K. Ino and T. Ohmi, "In-Situ Chamber Cleaning: Optimizing Cleaning Gas and Chamber Material," Contamination Control and Defect Reduction in Semiconductor Manufacturing III, Dennis N. Schmidt ed., PV94-9, The Electrochemical Society, Pennington NJ, pp. 418-428, 1994.
- E482-1(C) S. Verhaverbeke, T. Futatsuki and T. Ohmi, "The Effects of H<sub>2</sub> Annealing on the Si Surface and Its Use in the Study of Roughening during Wet Chemical Cleaning," Extended Abstracts, 185th Electrochemical Society Meeting, San Francisco, Abstract No. 505, pp. 808-809, May 1994.
- E482-2 (P) Steven Verhaverbeke, Takashi Futatsuki, R. Messoussi and Tadahiro Ohmi, "The Effects of H<sub>2</sub> Annealing on the Si Surface and Its Use in the Study of Roughening during Wet Chemical Cleaning," H. R. Huff, W. Bergholz and K. Sumino eds., Semiconductor Silicon/1994, PV94-10, The Electrochemical Society, Pennington NJ, pp. 1170-1181, 1994.
- E483(C) K. Yamada, K. Tomita and T. Ohmi, "Ultra-Low Contact Resistance Metallization by A Silicidation Technology Employing A Silicon Capping Layer for Protection against Contamination," Digest of Technical Papers, 1994 Symposium on VLSI Technology, Honolulu, pp. 63-64, June 1994.
- E484(C) K. Ohmi, K. Nakamura, T. Futatsuki and T. Ohmi, "Hydrogen-Radical-Balanced Steam Oxidation for Growing Ultra-Thin High-Reliability Gate Oxide Films," Digest of Technical Papers, 1994 Symposium on VLSI Technology, Honolulu, pp. 109-110, June 1994.
- E485(C) Tadahiro Ohmi, "Process and Device Innovations Based on Ultra Clean Technology," Extended Abstracts of 1994 International Symposium on Semiconductor Manufacturing, Invited, Tokyo, pp. 75-80, June 1994.
- E486(C) H. Izumi, Y. Nakagawa, S. Miyoshi and T. Ohmi, "Measurement of Adsorbed Moisture Concentration on Various Kinds of Solid Surfaces by Using Anhydrous Hydrogen Fluoride," Extended Abstracts of 1994 International Symposium on Semiconductor Manufacturing, Tokyo, pp. 211-212, June 1994.
- E487(C) N. Konishi, T. Shibata and T. Ohmi, "Design Optimization of Gas Pumping System for Ultra Clean Reduced-Gas-Pressure Processing Equipment," Extended Abstracts of 1994 International Symposium on Semiconductor Manufacturing, Tokyo, pp. 213-214, June 1994.
- E488(C) Shinji Miyoshi, Yasuyuki Shirai, Masaki Narazaki and Tadahiro Ohmi, "Corrosion-Free Stainless Steel Tube Welding," Extended Abstracts of 1994 International Symposium on Semiconductor Manufacturing, Tokyo, pp. 215-216, June 1994.
- E489(C) Yasuyuki Shirai, Shinji Miyoshi, Tsutomu Kojima and Tadahiro Ohmi, "Anti-Corrosive and Anti-Catalytic Cr<sub>2</sub>O<sub>3</sub> Treated Gas Tubing System," Extended Abstracts of 1994 International Symposium on Semiconductor Manufacturing, Tokyo, pp. 217-218, June 1994.

- E490(C) N. Yonekawa, S. Yasui, S. Ojima and T. Ohmi, "Carbon Contamination Free Wafer Cleaning," Extended Abstracts of 1994 International Symposium on Semiconductor Manufacturing, Tokyo, pp. 219-220, June 1994.
- E491 (F) H. Inaba, T. Ohmi, T. Yoshida and T. Okada, "Neutralization of Static Electricity by Soft X-Rays and Vacuum UV Radiation," Journal of Electrostatics, Vol. 33, pp. 15-42, 1994.
- E492 (L) Keiichi Yamada, Kazuo Tomita and Tadahiro Ohmi, "Formation of Metal Silicide-Silicon Contact with Ultralow Contact Resistance by Silicon-Capping Silicidation Technique," Applied Physics Letters, Vol. 64, No. 25, pp. 3449-3451, June 1994.
- E493-1(C) Tadahiro Ohmi, "Trend for Future Silicon Technology," Digest of Papers, MicroProcess '94 (The 7th International MicroProcess Conference), pp. 48-49, Taiwan, July 1994.
- E493-2(C) Tadahiro Ohmi, "Trend for Future Silicon Technology," 1994 International Electron Devices and Materials Symposium, pp. 0\_3\_9-0\_3\_12, Taiwan, July 1994.
- E494(C) S. Verhaverbeke, R. Messoussi, H. Morinaga, N. Yonekawa, M. Suyama, S. Yasui, M. Nose and T. Ohmi, "Si Wet Cleaning Technology: Some Aspects of Metallic Impurities, Organic Impurities and Microroughness," Proceedings of the 2nd Workshop on Semiconductor Water Cleaning and Surface Characterization, Korea, pp. 88-95, July 1994.
- E495 (P) Tadashi Shibata, Koji Kotani, Takeo Yamashita, Hiroshi Ishii, Hideo Kosaka and Tadahiro Ohmi, "Implementing Intelligence on Silicon Using Neuron-Like Functional MOS Transistors," Advances in Neural Information Processing Systems 6, Edited by Jack D. Cowan, Gerald Tesauro and Joshua Alspector, pp. 919-926, (Morgan Kaufmann Publishers) 1994.
- E496 (F) Tadahiro Ohmi and Tadashi Shibata, "The Concept of Four-Terminal Devices and Its Significance in the Implementation of Intelligent Integrated Circuits," IEICE Trans. on Electronics, Vol. E77-C, No. 7, pp. 1032-1041, July 1994.
- E497 (F) Mizuho Morita and Tadahiro Ohmi, "Dopant-Free Channel Transistor with Punchthrough Control Region Under Source and Drain," Jpn. J. Appl. Phys., Vol. 33, No. 8A, pp. L1066-L1069, August 1994.
- E498(C) Tadashi Shibata, Hideo Kosaka, Hiroshi Ishii and Tadahiro Ohmi, "A Neuron-MOS Neural Network Using Low-Power Self-Learning-Compatible Synapse Cells," Extended Abstracts, 1994 International Conference on Solid State Devices and Materials, Yokohama, pp. 346-348, August 1994.
- E499(C) Hiroshi Ishii, Tadashi Shibata and Tadahiro Ohmi, "Hardware-Oriented Learning Algorithm Implemented on Silicon Using Neuron MOS Technology," Extended Abstracts, 1994 International Conference on Solid State Devices and Materials, Yokohama, pp. 382-384, August 1994.
- E500(C) Shuhei Kondo, Tadashi Shibata and Tadahiro Ohmi, "Superior Generalization Capabilities of Neuron-MOS Neural Networks in Mirror-Symmetry Problem Learning," Extended Abstracts, 1994 International Conference on Solid State Devices and Materials, Yokohama, pp. 385-387, August 1994.

- E501(C) Naomichi Yonekawa, Sinichi Yasui and Tadahiro Ohmi, "Cleaning Technology and Analysis Technology for Hydrocarbon Contamination on Si Wafer Surface," Extended Abstracts, 1994 International Conference on Solid State Devices and Materials, Yokohama, pp. 428-430, August 1994.
- E502(C) H. Suzuki, G. S. Jong, M. Hirayama and T. Ohmi, "Current Drive Technology for High Speed Field Programmable Devices," Extended Abstracts, 1994 International Conference on Solid State Devices and Materials, Yokohama, pp. 631-633, August 1994.
- E503(C) Jinzo Watanabe, Yasuaki Kawai, Nobuhiro Konishi and Tadahiro Ohmi, "Ultra-Low-Temperature Growth of High-Integrity Thin Gate Oxide Films by Low-Energy Ion-Assisted Oxidation," Extended Abstracts, 1994 International Conference on Solid State Devices and Materials, Yokohama, pp. 649-651, August 1994.
- E504(C) Wataru Shindo, Masaki Hirayama and Tadahiro Ohmi, "Abrupt and Arbitrary Profile Formation in Silicon Using a Low-Kinetic-Energy Ion Bombardment Process," Extended Abstracts, 1994 International Conference on Solid State Devices and Materials, Yokohama, pp. 691-693, August 1994.
- E505(C) Masaki Hirayama and Tadahiro Ohmi, "Advanced Langmuir Probes for RF Discharge Plasmas," Extended Abstracts, 1994 International Conference on Solid State Devices and Materials, Yokohama, pp. 697-699, August 1994.
- E506(C) M. M. Oka, A. Nakada, K. Tomita, T. Shibata, T. Ohmi and T. Nitta, "Reducing the Reverse-Bias Current in 450°C-Annealed n<sup>+</sup>p Junction by Hydrogen Radical Sintering," Extended Abstracts, 1994 International Conference on Solid State Devices and Materials, Yokohama, pp. 742-744, August 1994.
- E507(C) O. Tatsumi, K. Ino, N. Konishi, Y. Kawai and T. Ohmi, "Ion-Assisted Low-Temperature Surface Reflow of BPSG for Highly-Reliable Contact Metallization," Extended Abstracts, 1994 International Conference on Solid State Devices and Materials, Yokohama, pp. 931-933, August 1994.
- E508 (F) Hisayuki Shimada, Shigeki Shimomura, Rita Au, Mamoru Miyawaki and Tadahiro Ohmi, "Enhancement of Resolution and Linearity Control of Contact-Hole Resist Patterns with Surface-Active Developer," IEEE Trans. on Semiconductor Manufacturing, Vol. 7, No. 3, pp. 389-393, August 1994.
- E509-1(C) S. Verhaverbeke, R. Messoussi and T. Ohmi, "Improved Rinsing Efficiency after SPM(H<sub>2</sub>SO<sub>4</sub>/H<sub>2</sub>O<sub>2</sub>) by Adding HF," Second International Symposium on Ultra Clean Processing of Silicon Surfaces(UCPSS '94), Bruges, Belgium, (2pages), September 1994.
- E509-2 (P) S. Verhaverbeke, R. Messoussi and T. Ohmi, "Improved Rinsing Efficiency after SPM(H<sub>2</sub>SO<sub>4</sub>/H<sub>2</sub>O<sub>2</sub>) by Adding HF," Edited by M.Heyns, M.Meuris and P.Mertens, Proceedings of UCPSS '94, pp. 201-204, 1994.
- E510-1(C) H. Morinaga, M. Suyama, M. Nose, S. Verhaverbeke and T. Ohmi, "Metallic Particle Growth and Metal Induced Pitting (MIP) on Silicon Surfaces in Wet Processing and Its Prevention," Second International Symposium on Ultra Clean Processing of Silicon Surfaces(UCPSS '94), Bruges, Belgium, (2pages), September 1994.

- E510-2 (P) H. Morinaga, M. Suyama, M. Nose, S. Verhaverbeke and T. Ohmi, "Metallic Particle Growth and Metal Induced Pitting (MIP) on Silicon Surfaces in Wet Processing and Its Prevention," Edited by M.Heyns, M.Meuris and P.Mertens, Proceedings of UCPSS '94, pp. 217-220, 1994.
- E511-1(C) S. Verhaverbeke, R. Messoussi and T. Ohmi, "Roughening During Wet Processing Studied by AFM of Stepped Surfaces," Second International Symposium on Ultra Clean Processing of Silicon Surfaces(UCPSS '94), Bruges, Belgium, (2pages), September 1994.
- E511-2 (P) S. Verhaverbeke, R. Messoussi and T. Ohmi, "Roughening During Wet Processing Studied by AFM of Stepped Surfaces," Edited by M.Heyns, M.Meuris and P.Mertens, Proceedings of UCPSS '94, pp. 289-292, 1994.
- E512(C) Tadahiro Ohmi, "Very High Quality Thin Oxide Film Formation Based on Ultraclean Wafer Surface," Second International Symposium on Ultra Clean Processing of Silicon Surfaces (UCPSS '94), Bruges, Belgium, (2pages), September 1994.
- E513-1(C) N. Yonekawa, S. Yasui and T. Ohmi, "Perfect Cleaning Technology and Analysis for Organic Contaminations on Si Wafer Surface," Second International Symposium on Ultra Clean Processing of Silicon Surfaces(UCPSS '94), Bruges, Belgium, (2pages), September 1994.
- E513-2 (P) Naomichi Yonekawa, Sinichi Yasui and Tadahiro Ohmi, "Perfect Cleaning Technology and Analysis for Organic Contaminations on Si Wafer Surface," Edited by M.Heyns, M.Meuris and P.Mertens, Proceedings of UCPSS '94, pp. 327-330, 1994.
- E514(C) Shinji Miyoshi, Koji Kawada, Hiroshi Suzuki and Tadahiro Ohmi, "The Reaction Mechanism of WF<sub>6</sub> Selective CVD," Microcontamination '94, San Jose, California, pp. 262-271, October 1994.
- E515(C) Yasuyuki Shirai, Tsutomu Kojima, Shinji Miyoshi, Masaki Narazaki and Tadahiro Ohmi, "Specialty Gas Distribution System Free from Corrosion, Gas Decomposition and Reaction-Perfect Cr<sub>2</sub>O<sub>3</sub> Treated Tubing System-," Microcontamination '94, San Jose, California, pp. 272-281, October 1994.
- E516(C) Osamu Uchizawa, Yohichi Kanno, Kouichi Murakami, Fumiyuki Seino, Takashi Onodera and Tadahiro Ohmi, "Control of Valve Operating Time for Accurate Process Control," Microcontamination '94, San Jose, California, pp. 290-297, October 1994.
- E517(C) Atsushi Ohki, Yasumitsu Mizuguchi and Tadahiro Ohmi, "Quick Inspection Technology of External Leakage for Total Gas Delivery System by APIMS," Microcontamination '94, San Jose, California, pp. 298-307, October 1994.
- E518(C) M. Maeno, H. Izumi, Y. Nakagawa, S. Miyoshi, Y. Shirai and T. Ohmi, "Corrosion Resistant and Catalytic Properties of Fluorine Passivated Surface," Extended Abstracts, 186th Electrochemical Society Meeting, Florida, Abstract No. 179, pp. 278, October 1994.
- E519-1(C) H. Izumi, Y. Nakagawa, S. Miyoshi and T. Ohmi, "Studies of Moisture Adsorption on Various Kinds of Solid Surfaces Using Anhydrous Hydrogen Fluoride," Extended Abstracts, 186th Electrochemical Society Meeting, Florida, Abstract No. 204, pp. 318-319, October 1994.



- E519-2 (P) H. Izumi, Y. Nakagawa, S. Miyoshi and T. Ohmi, "Studies of Moisture Adsorption on Various Kinds of Solid Surfaces Using Anhydrous Hydrogen Fluoride," Oxide Films on Metals and Alloys, Edited by K. R. Hebert and G. E. Thompson, PV94-25, The Electrochemical Society, pp. 246-255, 1995.
- E520(C) Masaki Hirayama, Wataru Shindo and Tadahiro Ohmi, "Formation of Abrupt Carrier Profile in Epitaxial Silicon Film by Low-Energy Bombardment Process," Extended Abstracts, 186th Electrochemical Society Meeting, Florida, Abstract No. 417, pp. 642-643, October 1994.
- E521(C) A. Nakada, M. M. Oka, K. Tomita, T. Shibata, T. Ohmi and T. Nitta, "Lifetime Enhancement in Low-Temperature-Annealed Ion-Implanted Junctions by Hydrogen Radical Sintering," Extended Abstracts, 186th Electrochemical Society Meeting, Florida, Abstract No. 422, pp. 651, October 1994.
- E522(C) Tadahiro Ohmi, "Very High Quality Thin Gate Oxide Film Formation Technology," Final Program, American Vacuum Society 41st National Symposium, Denver, pp. 176-177, October 1994.
- E523 (F) M. Maeno, R. Hirayama, H. Izumi, R. Takahashi, K. Chiba, Raymond N. Vrtis and T. Ohmi, "Fluorine-Passivated Electroless Ni-P Films," Journal of Electrochemical Society, Vol. 141, No. 10, pp. 2649-2654, October 1994.
- E524 (F) Hitoshi Morinaga, Makoto Suyama and Tadahiro Ohmi, "Mechanism of Metallic Particle Growth and Metal-Induced Pitting on Si Wafer Surface in Wet Chemical Processing," Journal of Electrochemical Society, Vol. 141, No. 10, pp. 2834-2841, October 1994.
- E525 (F) Tadahiro Ohmi, Seiji Sudoh and Hiroyuki Mishima, "Static Charge Removal with IPA Solution," IEEE Trans. on Semiconductor Manufacturing, Vol. 7, No. 4, pp. 440-446, November 1994.
- E526(C) Tadahiro Ohmi, "Advanced TFT Processing Based on Ultraclean Processing Concept," Digest of Technical Papers, AM-LCD 94 (1994 International Workshop on Active-Matrix Liquid-Crystal Displays), Invited, pp. 1-7, November-December 1994.
- E527 (F) Tadahiro Ohmi, "Trend for Future Silicon Technology," Jpn. J. Appl. Phys., Vol. 33, Part 1, No. 12B(Special Issue), pp. 6747-6755, December 1994.
- E528 (F) Koji Suzue, Takashi Matsuura, Junichi Murota, Yasuji Sawada and Tadahiro Ohmi, "Substrate Orientation Dependence of Self-Limited Atomic-Layer Etching of Si with Chlorine Adsorption and Low-Energy Ar<sup>+</sup> Irradiation," Applied Surface Science, 82/83, pp. 422-427, (Elsevier Science Publishers B. V., 1994.)