

Prof. Ohmi's Paper

January – December, 2007

- E1230 (W) T. Ohmi, "ULTRA HIGH-PERFORMANCE SILICON TECHNOLOGY REALIZED BY DAMAGE-FREE RADICAL REACTION BASED PROCESS," PROCEEDINGS OF THE JOINT INTERNATIONAL CONFERENCE OF 4TH INTERNATIONAL SYMPOSIUM ON SYSTEM CONSTRUCTION OF GLOBAL-NETWORK-ORIENTED INFORMATION ELECTRONICS AND STUDENT-ORGANIZING INTERNATIONAL MINI-CONFERENCE ON INFORMATION ELECTRONICS SYSTEM, Tohoku University, 21st Century COE Program, pp.90-95, 448, January 2007.
- E1231 (W) T. Tate, H. Kanto, Y. Motohashi, T. Kubo, S. Sugawa, K. Kotani and T. Ohmi, "AN OBJECT EXTRACTION CMOS IMAGE SENSOR WITH 12-BIT COLUMN-PARALLEL ADCS AND ALUS," PROCEEDINGS OF THE JOINT INTERNATIONAL CONFERENCE OF 4TH INTERNATIONAL SYMPOSIUM ON SYSTEM CONSTRUCTION OF GLOBAL-NETWORK-ORIENTED INFORMATION ELECTRONICS AND STUDENT-ORGANIZING INTERNATIONAL MINI-CONFERENCE ON INFORMATION ELECTRONICS SYSTEM, Tohoku University, 21st Century COE Program, pp.274-275, January 2007.
- E1232 (W) Qiu Chen, Koji Kotani, Feifei Lee, and Tadahiro Ohmi, "CODEBOOK DESIGN BY CLASSIFICATION OF CODE PATTERNS FOR HUMAN FACE RECOGNITION," PROCEEDINGS OF THE JOINT INTERNATIONAL CONFERENCE OF 4TH INTERNATIONAL SYMPOSIUM ON SYSTEM CONSTRUCTION OF GLOBAL-NETWORK-ORIENTED INFORMATION ELECTRONICS AND STUDENT-ORGANIZING INTERNATIONAL MINI-CONFERENCE ON INFORMATION ELECTRONICS SYSTEM, Tohoku University, 21st Century COE Program, pp.376-377, January 2007.
- E1233 (W) Feifei Lee, Koji Kotani, Qiu Chen, and Tadahiro Ohmi, "ROBUST SHOT CHANGE DETECTION IN MPEG COMPRESSED VIDEO BASED ON ADJACENT PIXEL INTENSITY DIFFERENCE QUANTIZATION HISTOGRAM METHOD," PROCEEDINGS OF THE JOINT INTERNATIONAL CONFERENCE OF 4TH INTERNATIONAL SYMPOSIUM ON SYSTEM CONSTRUCTION OF GLOBAL-NETWORK-ORIENTED INFORMATION ELECTRONICS AND STUDENT-ORGANIZING INTERNATIONAL MINI-CONFERENCE ON INFORMATION ELECTRONICS SYSTEM, Tohoku University, 21st Century COE Program, pp.378-379, January 2007.
- E1234 (W) H. Wakamatsu, I. Takahashi, A. Teramoto, T. Ohmi, "Preparation and Electrical Properties of Ultrathin Stacked Si₃N₄/High-k Dielectric Pr₃Si₆N₁₁ Films grown in Radical Reaction Based MOCVD Systems," PROCEEDINGS OF THE JOINT INTERNATIONAL CONFERENCE OF 4TH INTERNATIONAL SYMPOSIUM ON SYSTEM CONSTRUCTION OF GLOBAL-NETWORK-ORIENTED INFORMATION ELECTRONICS AND STUDENT-ORGANIZING INTERNATIONAL MINI-CONFERENCE ON INFORMATION ELECTRONICS SYSTEM, Tohoku University, 21st Century COE Program, pp.386-387, January 2007.

- E1235(C) Roel Pantonial, Md. Ashfaquzzaman Khan, Naoto Miyamoto, Koji Kotani, Shigetoshi Sugawa, Tadahiro Ohmi, "Improving Execution Speed of FPGA using Dynamically Reconfigurable Technique," Asia and South Pacific Design Automation Conference 2007(ASP-DAC2007), 1D-9, pp. 108-109, January 2007.
- E1236 (F) Kazufumi Watanabe, Akinobu Teramoto, Rihito Kuroda, Shigetoshi Sugawa, Tadahiro Ohmi, "Examination of degradation mechanism due to negative bias temperature stress from a perspective of hole energy for accurate lifetime prediction," Microelectronics Reliability 47 (2007) 409-418, (2007 Elsevier Ltd.)
- E1237 (F) Koutarou Tanaka, Hiroaki Tanaka, Akinobu Teramoto, Shigetoshi Sugawa, Tadahiro Ohmi, "High quality gate insulator film formation on SiC using by microwave-excited high-density plasma," Microelectronics Reliability 47 (2007) 786-789, (2007 Elsevier Ltd.) February 2007
- E1238 (L) Masaaki Higuchi, Shigetoshi Sugawa, Eiji Ikenaga, Jiro Ushio, Hiroshi Nohira, Takuya Maruizumi, Akinobu Teramoto, Tadahiro Ohmi and Takeo Hattori, "Subnitride and valence band offset at Si₃N₄/Si interface formed using nitrogen-hydrogen radicals," Applied Physics Letters 90 Number 12, 123114-1-123114-3, March 2007.
- E1239 (F) Hiroshi IMAI, Akinobu TERAMOTO, Shigetoshi SUGAWA, and Tadahiro OHMI, "Low leakage Current and Low Resistivity p+n Diodes on Si(110) Fabricated by Ga+ and B+ Dual Ion Implantation for Low Temperature Source-Drain Activation," Japanese Journal of Applied Physics Vol. 46, No. 4B, pp. 1848-1852, April 2007.
- E1240 (F) Masaaki HIGUCHI, Takashi ARATANI, Tatsufumi HAMADA, Seiji SHINAGAWA, Hiroshi NOHIRA, Eiji IKENAGA, Akinobu TERAMOTO, Takeo HATTORI, Shigetoshi SUGAWA and Tadahiro OHMI, "Electric Characteristics of Si₃N₄ Films Formed by Directly Radical Nitridation on Si(110) and Si(100) Surfaces," Japanese Journal of Applied Physics Vol. 46, No. 4B, pp. 1895-1898, April 2007.
- E1241 (F) Syunichi WATABE, Shigetoshi SUGAWA, Akinobu TERAMOTO, and Tadahiro OHMI, "New Statistical Evaluation Method for the Variation of Metal-Oxide-Semiconductor Field Effect Transistors," Japanese Journal of Applied Physics Vol. 46, No. 4B, pp. 2054-2057, April 2007.
- E1242 (F) Tomoyuki Suwa, Hiroto TAKAHASHI, Yuki KUMAGAI, Genya FUJITA, Akinobu TERAMOTO, Shigetoshi SUGAWA and Tadahiro OHMI, "Very Low Bit Error Rate in Flash Memory Using Tunnel Dielectrics Formed by Kr/O₂/NO Plasma Oxynitridation," Japanese Journal of Applied Physics Vol. 46, No. 4B, pp. 2148-2152, April 2007.
- E1243 (F) Ichirou TAKAHASHI, Kiyoshi FUNAIWA, Keita AZUMI, Satoru YAMASHITA, Yasuyuki SHIRAI, Masaki HIRAYAMA, Akinobu TERAMOTO, Shigetoshi SUGAWA and Tadahiro OHMI, "Development of Microwave-Exited Plasma-Enhanced Metal-Organic Chemical Vapor Deposition System for Forming Ferroelectric Sr₂(Ta_{1-x}NB_x)₂O₇ Thin Film on Amorphous SiO₂," Japanese Journal of Applied Physics Vol. 46, No. 4B, pp. 2200-2204, April 2007.
- E1244 (F) Ichirou TAKAHASHI, Masaki HIRAYAMA, Shigetoshi SUGAWA and Tadahiro OHMI, "Technology of Ferroelectric Thin-Film Formation with Large Coercive Field on Amorphous SiO₂ by Ion-Bombardment-Assisted Sputtering and Oxygen Radical Treatment for Future Scaling Down of Ferroelectric Gate Field-Effect Transistor Memory Device," Japanese Journal of Applied Physics Vol. 46, No. 4B, pp. 2205-2210, April 2007.

- E1245(F) Toru TAKEDA, Kouji TANAKA, Hirotada INOUE, Masaki HIRAYAMA, Toshiro TSUMORI, Herzl AHARONI, and Tadahiro OHMI, "Microcrystalline/Amorphous Thin Si Films Deposition by a Newly Developed Dual Injection System Employing Hydrogen Plasma and Silicon Radicals at Low Temperature (300°C) Chemical Vapor Deposition Process," Japanese Journal of Applied Physics Vol. 46, No. 4B, pp. 2542-2553, April 2007.
- E1246 (C) Tetsuya Goto, and Tadahiro Ohmi, "Damage-Free, Uniform and High-Efficiency Novel Magnetron Sputtering Plasma Source for Large Substrate," 211th Meeting of The Electrochemical Society, No.74, CD-ROM, May 2007.
- E1247-1 (C) Akinobu Teramoto, Rihito Kuroda, and Tadahiro Ohmi, "NBTI Mechanism Based on Hole-Injection for Accurate Lifetime Prediction," 211th Meeting of The Electrochemical Society, No.664, CD-ROM, May 2007.
- E1247-2 (P) Akinobu Teramoto, Rihito Kuroda, and Tadahiro Ohmi, "NBTI Mechanism Based on Hole-Injection for Accurate Lifetime Prediction," ECS Transactions Vol.6 No.3 Silicon Nitride, Silicon Dioxide, and Emerging Dielectrics 9, pp.229-243, May 2007.
- E1248-1 (C) W. Cheng, A. Teramoto, C. Tye, P. Gaubert, M. Hirayama, S. Sugawa and T. Ohmi, "Impact of Improved Mobilities and Suppressed 1/f Noise in Fully Depleted SOI MOSFETs Fabricated on Si(110) Surface," 211th Meeting of The Electrochemical Society, No.717, CD-ROM, May 2007.
- E1248-2 (P) W. Cheng, A. Teramoto, C. Tye, P. Gaubert, M. Hirayama, S. Sugawa and T. Ohmi, "Impact of Improved Mobilities and Suppressed 1/f Noise in Fully Depleted SOI MOSFETs Fabricated on Si(110) Surface," ECS Transactions Vol.6 No.4 Silicon-on-Insulator Technology and Devices 13, pp.101-106, May 2007.
- E1249-1 (C) Rihito Kuroda, Akinobu Teramoto, Weitao Cheng, Shigetoshi Sugawa and Tadahiro Ohmi, "Hot Carrier Instability Mechanism in Accumulation-Mode Normally-off SOI nMOSFETs and Their Reliability Advantage," 211th Meeting of The Electrochemical Society, No.719, CD-ROM, May 2007.
- E1249-2 (P) R. Kuroda, A. Teramoto, W. Cheng, S. Sugawa and T. Ohmi, "Hot Carrier Instability Mechanism in Accumulation-Mode Normally-off SOI nMOSFETs and Their Reliability Advantage," ECS Transactions Vol.6 No.4 Silicon-on-Insulator Technology and Devices 13, pp.113-118, May 2007.
- E1250 (C) Ichirou Takahashi, Tomoyuki Suwa, Keita Azumi, Tatsunori Isogai, Yasuyuki Shirai, Masaki Hirayama, Akinobu Teramoto, Shigetoshi Sugawa, and Tadahiro Ohmi, "Formation of Ferroelectric $\text{Sr}_2(\text{Ta}_{1-x}\text{Nb}_x)_2\text{O}_7$ Film (STN) on SiON formed by microwave-excited plasma and $(\text{Ba}_{1-x}\text{Sr}_x)\text{TiO}_3$ (BST) by rf sputtering applied to One-Transistor-Type Ferroelectric Memory Device," The 19th International Symposium of Integrated Ferroelectrics (ISIF 2007), CD-ROM, May 2007.
- E1251 (P) ICHIROU TAKAHASHI, KEITA AZUMI, YASUYUKI SHIRAI, MASAKI HIRAYAMA, AKINOBU TERAMOTO, SHIGETOSHI SUGAWA, and TADAHIRO OHMI, "Fabrication of $\text{Pt}/\text{Sr}_2(\text{Ta}_{1-x}\text{Nb}_x)_2\text{O}_7/\text{SiO}_2/\text{Si}$ Field-Effect Transistor for One-Transistor-Type Ferroelectric Random Access Memory," Proceedings of the 6th WSEAS International Conference on MICROELECTRONICS, NANOELECTRONICS, OPTOELECTRONICS (MINO'07) Istanbul, Turkey, pp.37-43, May 2007.
- E1252 (F) Rihito Kuroda, Akinobu Teramoto, Takanori Komuro, Hiroshi Tatekawa, Shigetoshi Sugawa, and Tadahiro Ohmi, "Accuracy and Applicability of Low-Frequency C-V Measurement Methods for Characterization of Ultrathin Gate Dielectrics with Large Current," IEEE TRANSACTIONS ON ELECTRON DEVICES, VOL.54, NO.5, pp.1115-1124, May 2007.

- E1253 (C) M. Sugimura, H. Imai, M. Nakayama, M. Kawasaki, M. Fujimura, H. Oonuki, O. Kawashima, A. Morimoto, A. Teramoto, S. Sugawa, and T. Ohmi, "The Influence of Interconnect Line Patterns using Flat-Surface and Low-Dielectric-Loss Material under High Speed Signal Propagation," 57th Electronic Components and Technology Conference 2007, pp.1714-1719, May 2007.
- E1254 (F) Akinobu Teramoto, Tatsufumi Hamada, Masashi Yamamoto, Philippe Gaubert, Hiroshi Akahori, Keiichi Nii, Masaki Hirayama, Kenta Arima, Katsuyoshi Endo, Shigetoshi Sugawa, and Tadahiro Ohmi, "Very High Carrier Mobility for High-Performance CMOS on a Si(110) Surface," IEEE TRANSACTIONS ON ELECTRON DEVICES, VOL.54, NO.6, pp.1438-1445, June 2007.
- E1255 (F) Tadahiro Ohmi, Akinobu Teramoto, Rihito Kuroda, and Naoto Miyamoto, "Revolutional Progress of Silicon Technologies Exhibiting Very High Speed Performance Over a 50-GHz Clock Rate," IEEE TRANSACTIONS ON ELECTRON DEVICES, VOL.54, NO.6, pp.1471-1477, June 2007.
- E1256 (W) Kenichi Abe, Shigetoshi Sugawa, Rihito Kuroda, Shunichi Watabe, Naoto, Miyamoto, Akinobu Teramoto, Tadahiro Ohmi, Yutaka Kamata and Katsuhiko Shibusawa, "Analysis of Source Follower Random Telegraph Signal Using nMOS and pMOS Array TEG," 2007 International Image Sensor Workshop, pp.62-65, Ogunquit, Maine, USA, June 2007.
- E1257 (C) K. Abe, S. Sugawa, S.Watabe, N. Miyamoto, A. Teramoto, Y. Kamata, K. Shibusawa, M. Toita and T. Ohmi, "Random Telegraph Signal Statistical Analysis using a Very Large-scale Array TEG with 1M MOSFETs," 2007 Symposium on VLSI Technology Digest of Technical papers, pp.210-211, Kyoto, June 2007.
- E1258 (F) Rihito Kuroda, Akinobu Teramoto, Kazufumi Watanabe, Michihiko Mifuji, Takahisa Yamaha, Shigetoshi Sugawa and Tadahiro Ohmi, "Circuit Level Prediction of Device Performance Degradation Due to Negative Bias Temperature Stress," Microelectronics Reliability 47 (2007), pp.930-936, (2007 Elsevier Ltd.) June 2007
- E1259 (P) Zhibin Pan, Koji Kotani, and Tadahiro Ohmi, "FAST ENCODING METHOD OF VECTOR QUANTIZATION BASED ON OPTIMAL SUBVECTOR PARTITION," Proceeding of the 2007 15th International Conference on Digital Signal Processing (DSP2007), pp.415-418, DVD, July 2007.
- E1260 (C) Ichirou Takahashi, Masaki Hirayama, Akinobu Teramoto, Shigetoshi Sugawa, and Tadahiro Ohmi, "Microwave-Excited Plasma Enhanced Metal-Organic Chemical Vapor Deposition with Ion-Bombardment-Assistance for Forming Ferroelectric $\text{Sr}_2(\text{Ta}_{1-x}\text{Nb}_x)_2\text{O}_7$ (STN) Thin Film," Extended Abstracts of International Conference on Electroceramics (ICE2007), pp.92-93, July 2007.
- E1261 (C) Zhibin Pan, Koji Kotani, Tadahiro Ohmi, "IMPROVED FAST ENCODING METHOD OF VECTOR QUANTIZATION BASED ON DYNAMIC ELEMENT REORDERING FOR CODEWORDS," Proceeding of 2007 European Conference on Circuit Theory and Design (ECCTD2007), pp.404-407, DVD, August 2007.
- E1262-1 (C) W. Cheng, A. Teramoto, R. Kuroda, M. Hirayama and T. Ohmi, "High Performance and highly reliable novel CMOS devices using accumulation mode multi-gate and fully depleted SOI MOSFETs," Infos2007 Proceedings of the 15th Biennial Conference on Insulating Films on Semiconductors, pp.2105-2108, June 2007.
- E1262-2 (F) W. Cheng, A. Teramoto, R. Kuroda, M. Hirayama and T. Ohmi, "High Performance and highly reliable novel CMOS devices using accumulation mode multi-gate and fully depleted SOI MOSFETs," Microelectronic Engineering Vol.84/9-10, pp.2105-2108, September-October 2007.

- E1263 (C) Ichirou Takahashi, Toshikuni Shinohara, Akinobu Teramoto, Masaki Hirayama, Shigetoshi Sugawa, and Tadahiho Ohmi, "13.56 and 100 MHz Coupled Mode Rf-Sputtering for Ferroelectric $\text{Sr}_2(\text{Ta}_{1-x}\text{Nb}_x)_2\text{O}_7$ (STN) Film Applied to One-Transistor-Type Ferroelectric Random Access Memory," Extended Abstracts of 11th European Meeting on Ferroelectricity (EMF-2007), pp. 211, September, 2007.
- E1264 (F) Yasuhiro Kawase, Masafumi Kitano, Fumikazu Mizutani, Masayuki Saeki, Yasuyuki Shirai and Tadahiho Ohmi, "Development of Barrier Anodic Oxide Al_2O_3 Passivations of Aluminum Alloy Surface for LSI/FPD Plasma Process Equipment," Journal of the Electrochemical Society, Vol.154 No.9, pp. C530- C539, September 2007.
- E1265 (P) P. Gaubert, W. Cheng, A. Teramoto and T. Ohmi, "Impact of the channel direction on the 1/f noise in SOI – MOSFETs fabricated on (100) and (110) silicon oriented wafers," AIP Conference Proceedings 19th International Conference on NOISE AND FLUCTUATIONS-ICNF2007, pp.43-46, Tokyo, September 2007.
- E1266 (P) K. Abe, S. Sugawa, S.Watabe, N. Miyamoto, A. Teramoto, M. Toita, Y. Kamata, K. Shibusawa and T. Ohmi, "Statistical Analysis of RTS Noise and Low Frequency Noise in 1M MOSFETs Using an Advanced TEG," AIP Conference Proceedings 19th International Conference on NOISE AND FLUCTUATIONS-ICNF2007, pp.115-118, Tokyo, September, 2007.
- E1267 (C) Hirokazu Asahara, Atsutoshi Inokuchi, Kohei Watanuki, Masaki Hirayama, Akinobu Teramoto and Tadahiho Ohmi, "Characterization of Zinc Oxide Films Grown by a Newly Developed Plasma Enhanced MOCVD Employing Microwave Excited High Density Plasma," Extended Abstracts of the 2007 International Conference on SOLID STATE DEVICES and MATERIALS, pp.136-137, Tsukuba, September 2007.
- E1268 (C) Tatsunori Isogai, Hiroaki Tanaka, Tetsuya Goto, Akinobu Teramoto, Shigetoshi Sugawa and Tadahiho Ohmi, "Low Contact Resistance with Low Schottky Barrier for N-Type Silicon Using Yttrium Silicide," Extended Abstracts of the 2007 International Conference on SOLID STATE DEVICES and MATERIALS, pp.206-207, Tsukuba, September 2007.
- E1269 (C) Azumi Itoh, Atsutoshi Inokuchi, Seiji Yasuda, Akinobu Teramoto, Tetsuya Goto, Masaki Hirayama and Tadahiho Ohmi, "Low Dielectric Constant Non- Porous Fluorocarbon Films for Inter-Layer Dielectric," Extended Abstracts of the 2007 International Conference on SOLID STATE DEVICES and MATERIALS, pp.378-379, Tsukuba, September 2007.
- E1270(C) Hiraku Ishikawa, Toshihisa Nozawa, Takaaki Matsuoka, Akinobu Teramoto, Masaki Hirayama, Takashi Ito and Tadahiho Ohmi, "The Evaluation of New Amorphous Hydrocarbon Film aCHx, for Copper Barrier Dielectric Film in Low-k Copper Metallization," Extended Abstracts of the 2007 International Conference on SOLID STATE DEVICES and MATERIALS, pp.380-381, Tsukuba, September 2007.
- E1271(C) Rihito Kuroda, Akinobu Teramoto, Shigetoshi Sugawa and Tadahiho Ohmi, "Performance Comparison of Ultra-thin FD-SOI Inversion-, Intrinsic-and Accumulation- Mode MOSFETs," Extended Abstracts of the 2007 International Conference on SOLID STATE DEVICES and MATERIALS, pp.412-413, Tsukuba, September 2007.
- E1272 (C) Ichiro Takahashi, Shigetoshi Sugawa, Tadahiho Ohmi, "Imprint properties of $\text{IrO}_2/\text{Sr}_2(\text{Ta}_{1-x}\text{Nb}_x)_2\text{O}_7/\text{SiO}_2/\text{Si}$ structure device formed by rf sputtering and oxygen radical treatment," EMRS 2007 Fall Meeting, European Materials Research Society, pp.306, Warsaw, September 2007.
- E1273 (W) W. Cheng, A. Teramoto, R. Kuroda, C. Tye, T. Suwa, T Goto, F Imaizumi, S, Sugawa and T. Ohmi, "High Performance Accumulation Mode FD-SOI MOSFETs on Si(100) and (110)Surfaces," IEICE Technical Report SDM 2007-187, pp.45-48, October 2007.

- E1274-1 (C) W. Cheng, A. Teramoto and T. Ohmi, "Performance Boost Using a New Device Structure Design for SOI MOSFETs Beyond 25nm Node," 212th Meeting of The Electrochemical Society, No.1309, CD-ROM, October 2007.
- E1274-2 (P) W. Cheng, A. Teramoto and T. Ohmi, "Performance Boost Using a New Device Structure Design for SOI MOSFETs Beyond 25nm Node," Electrochemical Society Transactions Vol.11 No.6 ULSI Process Integration 5, pp.349-355, October 2007.
- E1275 (C) Rihito Kuroda, Akinobu Teramoto, Cheng Weitao, Shigetoshi Sugawa and Tadahiro Ohmi, "Modeling and Implementation of Subthreshold Characteristics of Accumulation-Mode MOSFETs for Various SOI Layer Thickness and Impurity Concentrations," 2007 IEEE International SOI Conference, pp.55-56, Indian Wells, CA., October 2007.
- E1276 (C) Satoshi Uemura, Kazunaki Iijima, Migaku Takahashi, Tadahiro Ohmi, "Estimate on CO₂ Emissions Reduction Effects Achieved by the Adoption of a Water Spray Humidification System to Clean Rooms," International Symposium on Semiconductor Manufacturing 2007 (ISSM 2007), pp.164-167, Santa Clara, CA, October 2007.
- E1277 (C) K. Suzuki, Y. Ishihara, K. Sakoda, Y. Shirai, M. Hirayama, A. Teramoto, T. Ohmi, T. Watanabe, "Development of a high efficiency PFC abatement system utilizing plasma and Ca (OH)₂ / CaO under a decompression atmosphere," International Symposium on Semiconductor Manufacturing 2007 (ISSM 2007), ES-P-111, pp.171-174, Santa Clara, CA, October 2007.
- E1278 (C) M. Yamawaki, T. Urakami, Y. Ishihara, Y. Shirai, A. Teramoto, T. Ohmi, "Development of a Xenon Recycling and Supply System for Plasm Process," International Symposium on Semiconductor Manufacturing 2007 (ISSM 2007), ES-P-135, pp.175-178, Santa Clara, CA, October 2007.
- E1279 (C) Yuji Saito, Katsuyuki Sekine, Ryu Kaihara, Masaki Hirayama, Shigetoshi Sugawa, Herzl Aharoni, Tadahiro Ohmi, "High Growth Rate of SiO₂ Thin Films at Low Temperature (400°C) for Silicon Based Microelectronic Devices Using Plasma Techniques," 26th ISRAEL VACUUM SOCIETY ANNUAL CONFERENCE AND TECHNICAL WORKSHOP, Poster No. P-ED-07, Herzliya, Israel, October 2007.
- E1280 (C) Kouji Tanaka, Hirotada Inoue, Toru Takeda, Masaki Hirayama, Toshiro Tsumori, Herzl Aharoni, Tadahiro Ohmi, "Multipurpose Plasma Assisted Deposition System for the Growth of Thin Silicon-Based Insulating Films and Non- Crystalline Thin Silicon Films at Low Temperatures," 26th ISRAEL VACUUM SOCIETY ANNUAL CONFERENCE AND TECHNICAL WORKSHOP, Poster No. P-VT-03, Herzliya, Israel, October 2007.
- E1281 (W) Tadahiro Ohmi, "Revolutional Progress of Silicon Technologies: Revolutional Progress of Device Performance and Manufacturing Technologies," The 7th Japan-Taiwan Microelectronics International Symposium, pp.5-20, Tokyo, October 2007.
- E1282 (W) Tadahiro Ohmi, "Radical induced very high integrity gate insulator films for 3D transistors on any crystal orientation Si surface," Stanford & Tohoku University Joint Open Workshop on 3D Transistor and its Applications, pp.131-149, November 2007.
- E1283 (W) Shigemi Murakawa, Masashi Takeuchi, Minoru Honda, Shu-ichi Ishizuka, Toshio Nakanishi, Yoshio Hirota, Takuya Sugawara, Yoshitsugu Tanaka, Yasushi Akasaka, Akinobu Teramoto, Shigetoshi Sugawa, Tadahiro Ohmi, "SiON Gate Insulator Formation using RLSA Plasma and Precise Measurement of Nitrogen Profile in Advanced DRAM," The 19th International Micro Electronics Conference Proceeding, pp.11-16, November 2007.

- E1284 (W) Rihito Kuroda, Akinobu Teramoto, Tomoyuki Suwa, Rui Hasebe, Weitao Cheng, Syunichi Watabe, Ching Foa Tye, Shigetoshi Sugawa, and Tadahiro Ohmi, "Technologies for High Performance CMISFETs," The 19th International Micro Electronics Conference Proceeding, pp.50-55, November 2007.
- E1285 (W) Tadahiro Ohmi, "FEOL Technology Perspective," TEL FEOL Seminar ~Gate Stack Enabler for More Moore~, pp.3-22, December 2007.
- E1286 (C) A. Hiroe, M. Hirayama, Y. Shirai, A. Teramoto and T. Ohmi, "High Performance Bottom Gate μ c-Si TFT Fabricated by Low Damage, High Density Plasma Source," Proceedings of The 14th International Display Workshops Volume 2, pp.503-506, December 2007.
- E1287 (P) Naoto Miyamoto, Masahiko Shimakage, Tatsuo Morimoto, Kazuya Kadota, Shigetoshi Sugawa and Tadahiro Ohmi, "A Rapid Prototyping of Real-Time Pattern Generator for Step-and-Scan Lithography Using Digital Micromirror Device," International Conference on Field-Programmable Technology, pp.305-308, Kitakyushu, December 2007.
- E1288 (P) Masahiro Konda, Takahiro Nakayama, Naoto Miyamoto and Tadahiro Ohmi, "A Balanced Vector-Quantization Processor Eliminating Redundant Calculation for Real-Time Motion Picture Compression," International Conference on Field-Programmable Technology, pp.325-328, Kitakyushu, December 2007.
- E1289 (B) A. Teramoto and T. Ohmi, "High Current Drivability MOSFET Fabricated on Si (110) Surface," SPRINGER SERIES IN ADVANCED MICROELECTRONICS, Vol.27, Advanced Gate Stacks for High-Mobility Semiconductors, pp.21-41, December 2007.