

## *Prof. Ohmi's Paper*

*January – December, 2014*

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- E1612 (F) Rihito Kuroda, Yukihiisa Nakao, Akinobu Teramoto, Shigetoshi Sugawa, and Tadahiro Ohmi, "Carrier Mobility Characteristics of (100), (110), and (551) Oriented Atomically Flattened Si Surfaces for Fin Structure Design of Multi-gate Metal-Insulator-Silicon Field-Effect Transistors," Japanese Journal of Applied Physics, Vol.53, 04EC04, February 2014.
- E1613(C) Qiu Chen, Koji Kotani, Feifei Lee, and Tadahiro Ohmi, "Face Recognition Using Histogram-based Features in Spatial and Frequency Domains", Proceeding of the Sixth International Conferences on Advances in Multimedia (MMEDIA 2014), pp. 53-57, Nice, France, February 2014.
- E1614(F) Toshiki Obara, Akihiro Yonezawa, Akinobu Teramoto, Rihito Kuroda, Shigetoshi Sugawa, and Tadahiro Ohmi, "Extraction of Time Constants Ratio over Nine Orders of Magnitude for Understanding Random Telegraph Noise in Metal-Oxide-Semiconductor Field-Effect Transistors," Japanese Journal of Applied Physics, Vol.53, 04EC19, March 2014.
- E1615-1(C) Yukihiisa Nakao, Takatoshi Matsuo, Akinobu Teramoto, Hidetoshi Utsumi, Keiichi Hashimoto, Rihito Kuroda, Yasuyuki Shirai, Shigetoshi Sugawa, and Tadahiro Ohmi, "High Selectivity in a Dry Etching of Silicon Nitride over Si Using a Novel Hydrofluorocarbon Etch Gas in a Microwave Excited Plasma for FinFET," 225th Meeting of The Electrochemical Society, Abs.1441, Orlando, May 2014.
- E1615-2(P) Y. Nakao, T. Matsuo, A. Teramoto, H. Utsumi, K. Hashimoto, R. Kuroda, Y. Shirai, S. Sugawa, and T. Ohmi, "High Selectivity in Dry Etching of Silicon Nitride over Si Using a Novel Hydrofluorocarbon Etch Gas in a Microwave Excited Plasma for FinFET," ECS Transactions, Vol.61, Issue 3, Silicon Compatible Materials, Processes, and Technologies for Advanced Integrated Circuits and Emerging Applications 4, pp.29-37, May 2014.
- E1616-1(C) Tomoyuki Suwa, Akinobu Teramoto, Shigetoshi Sugawa, and Tadahiro Ohmi, "Flattening Technique of (551) Silicon Surface Using Xe/H<sub>2</sub> Plasma," 225th Meeting of The Electrochemical Society, Abs.1394, Orlando, May 2014.
- E1616-2(P) Tomoyuki Suwa, Akinobu Teramoto, Shigetoshi Sugawa, and Tadahiro Ohmi, "Flattening Technique of (551) Silicon Surface Using Xe/H<sub>2</sub> Plasma," ECS Transactions, Vol.61, Issue 2, Dielectrics for Nanosystems 6: Materials Science, Processing, Reliability, and Manufacturing, pp.401-407, May 2014.
- E1617-1(C) Hiroaki Tanaka, Tomoyuki Suwa, Akinobu Teramoto, Tsukasa Motoya, Shigetoshi Sugawa, and Tadahiro Ohmi, "Effect of Composition Ratio on Erbium Silicide Work Function on Different Morphology of Si(100) Surface Changed by Alkaline Etching," 225th Meeting of The Electrochemical Society, Abs.1463, Orlando, May 2014.
- E1617-2(P) Hiroaki Tanaka, Tomoyuki Suwa, Akinobu Teramoto, Tsukasa Motoya, Shigetoshi Sugawa, and Tadahiro Ohmi, "Effect of Composition Ratio on Erbium Silicide Work Function on Different Morphology of Si(100) Surface Changed by Alkaline Etching," Advanced Processes for Front-End-of-Line/Back-End-of-Line Applications," ECS Transactions, Vol.61, Issue 3, Silicon Compatible Materials, Processes, and Technologies for Advanced Integrated Circuits and Emerging Applications 4, pp.47-53, May 2014.
- E1618 (F) Dae-Hee HAN, Shun-ichiro OHMI, Tomoyuki SUWA, Philippe GAUBERT, Tadahiro OHMI, "Influence of Si Surface Roughness on Electrical Characteristics of MOSFET with HfON Gate Insulator Formed by ECR Plasma Sputtering," IEICE Trans. on Electronics, Vol. E97-C, No.5, pp. 413-418, May 2014.
- E1619 (F) Tetsuya Goto, Shigetoshi Sugawa and Tadahiro Ohmi, "Amorphous InGaZnO Thin-Film Transistors Prepared by Magnetron Sputtering Using Kr and Xe Instead of Ar," Journal of the Society for Information Display, Vol.21, Issue 12, pp.517-523, May 2014.

- E1620(C) A. Teramoto, T. Inatsuka, T. Obara, N. Akagawa, R. Kuroda, S. Sugawa and T. Ohmi, "Demonstrating Individual Leakage Path from Random Telegraph Signal of Stress Induced Leakage Current," IEEE International Reliability Physics Symposium 2014, GD.1.1, Hawaii, June 2014.
- E1621(C) Toshiki Obara, Akinobu Teramoto, Akihiro Yonezawa, Rihito Kuroda, Shigetoshi Sugawa, and Tadahiro Ohmi, "Analyzing Correlation between Multiple Traps in RTN Characteristics," IEEE International Reliability Physics Symposium 2014, 4A.6.1, Hawaii, June 2014.
- E1622(C) Tetsuya Goto, Shigetoshi Sugawa, Tadahiro Ohmi, "Application of Rotation Magnet Sputtering Technology to a-IGZO Film Depositions," Society for Information Display, SID International Symposium 2014, 3.2, Invited Paper, San Diego, June 2014.
- E1623(C) Yasutaka Maeda, Shun-ichiro Ohmi, Tetsuya Goto, and Tadahiro Ohmi, "N-type Characteristics of Pentacene Based OFET with N-doped LaB6 Donor Layer," 2014 Asia-Pacific Workshop on Fundamental and Applications of Advanced Semiconductor Devices (AWAD2014), pp. 186-189, July 2014.
- E1624(F) Kazumasa Kawase, Tsukasa Motoya, Yasushi Uehara, Akinobu Teramoto, Tomoyuki Suwa, and Tadahiro Ohmi, "Mass densification and defect restoration in chemical vapor deposition silicon dioxide film using Ar plasma excited by microwave," Journal of Vacuum Science & Technology A: Vacuum, Surfaces and Films, Vol.32, Issue5, 051502, September 2014.
- E1625(C) T. Goto, R. Kuroda, N. Akagawa, T. Suwa, A. Teramoto, X. Li, S. Sugawa, T. Ohmi, Y. Kumagai, Y. Kamata, and K. Sibusawa, "Atomically Flattening of Si Surface of SOI and Isolation-patterned Wafers," Extended Abstracts of the 2014 International Conference on Solid State Devices and Materials, F-1-3, pp.670-671, Tsukuba, September 2014.
- E1626 (W) Tetsuya Goto, Rihito Kuroda, Naoya Akagawa, Tomoyuki Suwa, Akinobu Teramoto, Xiang Li, Toshiki Obara, Daiki Kimoto, Shigetoshi Sugawa, Tadahiro Ohmi, Yuki Kumagai, Yutaka Kamata, and Katsuhiko Shibusawa, "Introduction of Atomically Flattening of Silicon Surface in Shallow Trench Isolation Process Technology," IEICE Technical Report, Vol.114, No.255, (The Institute of Electronics, Information and Communication Engineers), SDM2014-85, pp. 7-12, October 2014.
- E1627(C) Qiu Chen, Koji Kotani, Feifei Lee, and Tadahiro Ohmi, "Face Recognition Using Markov Stationary Features and Vector Quantization Histogram," 2014 IEEE 17th International Conference on Computational Science and Engineering, pp. 1934-1938, Chengdu, December 2014.
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