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Among all the high quality papers to be presented at SSDM2007, the Program Committee particularly selected the twelve papers listed below as The Highly Notable Papers of SSDM2007 and released the list to the media on 29th August 2007.

“nMOSFET Reliability Improvement attributed to the Interfacial Dipole formed by La Incorporation in HfO₂”

C. Y. Kang¹, P.Kirsch², D.Heh¹, C.Yong¹, P.Sivasubramani¹, G.Bersuker¹, S.C.Song¹, R.Choi¹, B.H.Lee², J.Lichtenwalner³, J.S.Jur³, A.I.Kingon³ and R.Jammy²,

¹SEMATECH, ²IBM Assignee, and ³North Carolina State Univ.(USA)

Session No.A-3-4 September 20, Room101, 10:00 start !

“A Small Area, 3-Dimensional On-Chip Inductors for High-Speed Signal Processing under Low Power Supply Voltage”

K. Hijioka, A. Tanabe, Y. Amamiya, and Y. Hayashi,
NEC Corp.(Japan)

Session No.C-7-3 September 21, Room201A, 9:40 start !

“Strained N-channel FinFETs with High-stress Nickel Silicide-Carbon Contacts and Integration with FUSI Metal Gate Technology”

T. Y. Liow^{1,2}, R. T. P. Lee¹, K. M. Tan¹, M. Zhu¹, K. M. Hoe², G. S. Samudra¹, N.Balasubramanian² and Y. C. Yeo¹

¹National Univ. of Singapore, and ²Inst. of Microelectronics(Singapore)

Session No.B-7-5 September 21, Room102, 10:20 start !

“Two-Dimensional Electron Gas Switching in an Ultra Thin Epitaxial ZnO Layer on a Ferroelectric Gate Structure”

Y. Kaneko, H. Tanaka, Y. Kato and Y. Shimada
Matsushita Electric Industrial Co., Ltd.(Japan)

Session No.J-8-2 September 21, Room406, 11:05 start !

“A 0.49-6.50GHz Wideband LC-VCO with High-IRR in a 180nm CMOS Technology”

Y. Kobayashi, K. Ohashi, Y. Ito, H. Ito, K. Okada, K. Masu
Tokyo Tech.(Japan)

Session No.D-3-1 September 20, Room201B, 9:00 start !

“A 7.6-ps Pulse Generator Using 0.13-um InP-based HEMTs for Ultra Wide-Band Impulse Radio Systems”

Y. Nakasha¹, Y. Kawano¹, T. Suzuki¹, T. Ohki², T. Takahashi¹, K. Makiyama¹, T. Hirose² and N. Hara¹,

¹Fujitsu Ltd. and ²Fujitsu Labs. Ltd.(Japan)

Session No.G-5-1 September 20, Room303, 15:15 start !

“First Demonstration of Electrically Driven 1.55um Single-Photon Generator”

T. Miyazawa¹, S. Hirose², S. Okumura², K. Takemoto², M. Takatsu², T. Usuki¹, N. Yokoyama² and Y. Arakawa¹,

¹Univ. of Tokyo and ²Fujitsu Labs. Ltd.(Japan)

Session No.E-1-3 September 19, Room202A, 15:00 start !

“Demonstration of Holes in Strained Ge Quantum Wells with Much Higher

Drift Mobility and Density Than That of Electrons in Strained Si Channels”

M. Myronov¹, K. Sawano¹, K. M. Itoh² and Y. Shiraki¹,

¹*Musashi Inst. of Tech. and* ²*Keio Univ.(Japan)*

Session No.F-3-2 September 20, Room202B, 9:15 start !

“Decoherence of nuclear spins in a GaAs quantum well probed by a submicron scale all-electrical NMR device”

T. Ota^{1,2}, N. Kumada¹, G. Yusa^{1,3,4}, S. Miyashita⁵, T. Fujisawa¹ and Y. Hirayama²,

¹*NTT Corp.,* ^{1,2,4}*SORST-JST,* ³*PRESTO-JST,* ⁴*Tohoku Univ. and* ⁵*NTT-AT.(Japan)*

Session No.I-9-2 September 21, Room405, 14:45 start !

“Highly Reliable Bottom-Contact Pentacene TFTs?with a Poly(chloroxylylene) Layer Selectively Grown on a Gate-Insulator”

R. Yasuda¹, N. Hirai¹, I. Yagi¹, K. Nomoto¹, J. Kasahara¹, T. Minari², K. Tsukagoshi² and Y. Aoyagi^{2,4}, Tohoku Univ. and

¹*Sony Corp. and* ²*RIKEN.(Japan)*

Session No.H-9-2 September 21, Room304, 13:45 start !

“Floating Gate MOS Capacitor with High Density Nanodots Array Produced by Protein Suparmolecule”

K. Yamada², S. Yoshii¹, S. Kumagai¹, A. Miura², Y. Uraoka², T. Fuyuki² and I. Yamashita^{1,2,3},

¹*Matsushita Electric Industrial Co., Ltd.,* ²*NAIST and* ³*CREST-JST(Japan)*

Session No.D-8-2 September 21, Room201B, 11:15 start !

“CMOS Compatible Si-Nanowire Inverter Logic Gate for Low Power Applications”

N. Singh, K.D.Buddharaju, S.C.Rustagi, Selin H.G.Teo, A.Agarwal, L.Y.Wong, L.J.Tang, C.H.Tung, J.Yu, G.Q.Lo, N. Balasubramanian and D.L.Kwong, *Inst. of Microelectronics(Singapore)*

Session No.H-5-3 September 20, Room304, 16:00 start !