List of Papers

Thursday, January 28

Session 1: Opening Session (9:30-10:15)

Chairperson : T. Noguchi (University of the Ryukyus, Japan)

1.1: Welcome Address

N. Matsuo (University of Hyogo, Japan)

1.2: Keynote Address

TFT Technologies for AMOLED Backplane (Invited)

J. Jang (Kyung Hee Uniersity, Korea)

Session 2A: a-Si TFT (10:30-11:40)

Chairpersons : J. Kanicki (University of Michigan, USA)

Y. Uraoka (Nara Institute of Science and Technology, Japan)

2A.1: TFT Electrodes with Cu-Mn Alloys for Flat Panel Displays (Invited)

J. Koike, K. Hirota, Y. Sutou, P. Yun and K. Neishi

Tohoku University, Japan

2A.2: Bootstrap Capacitance Effect on a-Si:H Gate Driver

H. J. Moon[1], S.M. Lim[1], H.G. Lee[1], J.W. Kim[2] and B.S Bae[1]

[1]Hoseo University, Korea, [2] Samsung Advanced Institute of Technology, Korea

2A.3: Reliability of a-Si:H TFT Gate Driver

S.M. Lim, H.J. Moon, H.G. Lee and B.S. Bae

Hoseo University, Korea

Session 2B: Oxide TFT (1) (10:30-11:40)

Chairpersons : E.M.C. Fortunato (FCT, Portugal)

H. Kumomi (Canon, Japan)

2B.1: Effect of Channel/Gate-insulator Interface Treatment on Uniformity of Bottom-Gate Zinc Oxide Thin-Film Transistors (ZnO TFTs) (Invited)

M. Furuta[1], T. Hiramatsu[1], T. Matsuda[1] and T. Hirao[1], T. Nakanishi[2] and M. Kimura[2]

[1]Kochi University of Technology, Japan, [2]Ryukoku University, Japan

2B.2: High Performance Solution-Processed Amorphous Zinc Tin Oxide Thin-Film Transistor with Spin-Coated Indium Tin Oxide Source/Drain Electrodes

Y.-J. Kim[1], J.-S. Lee[1], H.-S. Park[1], Y.-U. Lee[1], Y.-H. Kim[2], S.-K. Park[2], J.-I. Han[2] and M.-K. Han[1]

[1]Seoul National University, Korea, [2]Korea Electronics Technology Institute, Korea

2B.3: Threshold Voltage Control of the D.C. Sputtered Staggered Amorphous Indium-Gallium-Zinc Oxide Thin-Film Transistor

A. Kuo[1], K. Abe[2], H. Kunomi[2] and J. Kanicki[1]

[1]University of Michigan, USA, [2]Canon Inc., Japan

Session 3A: Low-Temperature Crystallization (13:00-15:00)

Chairpersons : S. Higashi (Hiroshima University, Japan)

L. Mariucci (CNR - Istituto per la Microelettronica e Microsistemi, Italy)

3A.1: One-dimensionally Long Silicon Grain Formation by Continuous-Wave Green Laser and Its Applications (Invited)

S. Kuroki, S. Fujii, J. Jun, M. Midorikawa, Koji Kotani, and T. Ito

Tohoku University, Japan

3A.2: High-performance Silicon-TFT Technologies that Achieve Various Functions on Glass Substrate (Invited)

M. Matsumura[1], M. Tai[1], M. Toyota[1], F. Furuta[1], H. Hamamura[1], T. Kaito[2], M. Ohkura[2] and M. Hatano[1]

[1]Hitachi, Ltd., Japan, [2]Hitachi Displays, Japan

3A.3: Opto-Thermal Analysis of Blue Multi Diode Laser Annealing (BLDA)

K. Shirai[1], T. Noguchi[1], Y. Ogino[2] and E. Sahota[2]

[1]University of the Ryukyus, Japan, [2]Hitachi Computer Peripheral Co., Ltd., Japan

3A.4: Location Controls of Crystallization Areas Utilizing Nickel Ferritins

Y. Tojo[1], A. Miura[1,2] I. Yamashita[1,3,4], and Y. Uraoka[1,4]

[1]Nara Institute of Science and Technology, Japan, [2]National Chiao Tung University, Taiwan, [3]CREST, Japan, [4]Panasonic, Japan

3A.5: Growth of Low Temperature Polycrystalline Si Film on Polycarbonate Substrate

N. Kawamoto[1], Y. Ono[2], T. Hanta[1], T. Imamura[2] and T. Miyoshi[1]

[1]Yamaguchi University, Japan, [2]TEIJIN LTD., Japan

Session 3B: Oxide TFT (2) (13:00-14:20)

Chairpersons : J. Jang (Seoul National University, Korea)

M. Furuta (Kochi University of Technology, Japan)

3B.1: Sputtered Amorphous Multicomponent Gate Dielectrics for Oxide TFTs Applications (Invited)

P. Barquinha[1], L. Pereira[1], G. Gonçalves[1], D. Kuščer[2], M. Kosec[2], A. Vilà[3], J. R. Morante[3]R. Martins[1] and E. Fortunato[1]

[1]FCT, Universidade Nova de Lisboa, Portugal, [2]Jožef Stefan Institute, Slovenija, [3]University of Barcelona, Spain

3B.2: Oxide Thin Film Transistor Circuit Application (Invited)

B.S. Bae[1], S.-H. Cho[1], S.W. Kim[1], C.-W. Byun[2], C.-S. Hwang[2] and S.-H.K. Park[2]

[1]Hoseo University, Korea

[2]Electronics and Telecommunications Research Institute, Korea

3B.3: Environmental Stability Improvement of Solution Processed Zinc Oxide Thin Film Transistors by Li-doping

J. Jang, P.K. Nayak, C. Lee and Y. Hong

Seoul National University, Korea

Session 4A: poly-Si TFT (15:15-17:05)

Chairpersons : M.K. Han (Seoul National University, Korea)

M. Matsumura (Hitachi, Japan)

4A.1: Polymorphous Silicon: A Promising Material for Thin-Film Transistors for Low-Cost and High-Performance Active-matrix OLED Displays (Invited)

F. Templier[1], J. Brochet[1], B. Aventurier[1], D. Cooper[1], A. Abramov[2], D. Daineka[2] and P. Roca I Cabarrocas[2]

[1]CEA-LETI Minatec, France, [2]Ecole Polytechnique, France

4A.2: Suspended Polysilicon Gate TFTs as Generic Device for the Detection of Chemical and Biological Species (Invited)

T. Mohammed-Brahim, F. Le-Bihan, A.-C. Salaun, S. Crand, O. De-Sagazan, H. Kotb, F. Bendria, M. Harnois, A. Girard

Universite Rennes 1, France

4A.3: All Sputtering-Processed Poly-Si Thin-Film Transistor CMOS Inverter with Direct Stencil Mask Patterning (Invited)

W.C. Yeh and B. Huang

National Taiwan University of Science and Technology, Taiwan

4A.4: The Center-Offset Bottom-Gated poly-Si TFTs with Non-laser Crystallization of Amorphous Silicon

M.H. Choi, J.I. Kim, J.W. Choi and J. Jang

Kyung Hee University, Korea

Session 4B: Organic TFT (1) (14:35-16:25)

Chairpersons : G. Fortunato (CNR – Istituto per la Microelettronica e Microsistemi, Italy)
Y. Ohmori (Osaka University, Japan)

4B.1: Vertical-Type Organic Thin-Film Transistors (Invited)

K. Kudo

Chiba University, Japan

4B.2: New Approaches for Suppression of Hysteresis in Poly (4-vinylphenol) (PVP) OGI Based Organic Thin Film Transistor with Modification of Backbone Structure

H. Kim[1], D. Kim[1], D. Kim[1], B. Kim[2], W. Kim[2] and M. Hong[1]

[1]Korea University, Korea, [2]Dongjin Semichem, co. ltdi, Korea

4B.3: Stretchable Organic Transistor Active Matrix

T. Sekitani[1], H. Nakajima[2], H.Maeda[2], T. Fukushima[3,4], T. Aida[4,5], K. Hata[6] and T. Someya[1,7]

[1]Department of Electric and Electronic Engineering, The University of Tokyo, Japan

[2]Dai Nippon Printing Co., Ltd. Japan, [3]Advanced Science Institute, Japan

[4]Department of Chemistry and Biotechnology, The University of Tokyo Japan

[5]National Museum of Emerging Science and Innovation, Japan.

[6]National Institute of Advanced Industrial Science and Technology, Japan

[7]Institute for Nano Quantum Information Electronics (INQIE), The University of Tokyo, Japan

4B.4: Top Emission OLED Pixels Driving by Organic Thin Film Transistors

Y.Bonnassieux[1], D. Tondelier[1], O. Yaghmazadeh[1], D. Aldakov[1], B. Almutari[1], C.H. Kim[1], B. Geffroy[2] and G. Horowitz[3]

[1]LPICM, Ecole Polytechnique, France, [2]CEA-Liten / LPICM, Ecole Polytechnique, France,

[3]Université Paris Diderot (Paris 7), France

4B.5: Thermal Stability of Organic Transistors with Self-Assembled Monolayer Dielectrics

K. Kuribara[1], K. Fukuda[1], T. Yokota[1], T. Sekitani[1], U. Zschieschang[2], H. Klauk[2] and T. Someya[1]

[1]The University of Tokyo, Japan, [2]Max Planck Institute for Solid State Research, Germany

Session 5A: SiGe (17:20-18:20)

Chairpersons : T. Asano (Kyushu University, Japan)

W.C. Yeh (National Taiwan University of Science and Technology, Taiwan**)**

5A.1: Effect of Adding Argon in Silane-Hydrogen Mixture during the Deposition of Undoped and Doped μc-Si and μc-SiGe Films: Crystalline Content and TFT Performance

C. Simon, N. Coulon, K. Kandoussi, R. Cherfi, A. Fedala and T. Mohammed-Brahim

Universite Rennes 1, France

5A.2: Improvement in Crystallinity of Polycrystalline SiGe Films Deposited by Reactive Thermal CVD

I. Suzumura[1], Y. Ozaki[2], J. Goto[3] and J. Hanna[4]

[1]Hitachi, Japan, [2]Gasonics Co., Ltd., Japan, [3]Hitachi Displays, Ltd. Japan, [4]Tokyo Institute of Technology, Japan

5A.3: Orientation-Controlled poly-SiGe on Insulator by Aluminum-Induced Crystallization

M. Kurosawa[1,2], N. Kawabata[1], T. Sadoh[1], and M. Miyao[1]

[1]Kyushu University, Japan

[2]JSPS Research Fellow, Japan

Session 5B: Organic TFT (2) (16:40-18:10)

Chairpersons : K. Kudo (Chiba University, Japan)

M. Hong (Korea University, Korea)

5B.1: Electronic transport properties of pentacene thin films and transistor channels (Invited)

T. Someya[1,2], Y. Takamatsu[1] and T. Sekitani[1]

[1]Department of Electric and Electronic Engineering & Department of Applied Physics, The University of Tokyo, Japan

[2]Institute for Nano Quantum Information Electronics (INQIE), The University of Tokyo, Japan

5B.2: All-Inkjet-Printed Organic Thin-Film-Transistor Fabrication with Optimized Gate Dielectric Layer

S. Chung[1], S.-O. Kim[2], S.-K. Kwon[2], C. Lee[1] and Y. Hong[1]

[1]Seoul National University, Korea, [2]Gyeongsang National University, Korea

5B.3: Pentacene Thin Film Transistors with PTFE-Like Encapsulation Layer

M. Rapisarda, D. Simeone, M. Cuscunà, G. Fortunato, L. Maiolo, A. Minotti, A. Pecora, A. Valletta and L. Mariucci

CNR - Istituto per la Microelettronica e Microsistemi, Italy

5B.4: Study of Degradation Mechanism of Organic Thin Film Transistor during Passivation Processes with New Attack-Free Materials

D. Kim[1], D. Kim[1], H. Kim[1], B. Kim[2], W. Kim[2] and M. Hong[1]

[1]Korea University, Korea, [2]Dongjin Semichem, co. ltdi, Korea

Banquet (18:30-20:30)

Friday, January 29

Poster session (10:00-12:00)

P1: Novel Deposition Technology of Nano-crystalline Silicon Thin Film at Low Temperature by Neutral Beam Assisted CVD System for the Flexible AM-OLED Backplane

J.-N. Jang[1], B.C. Song[1], K.S. Oh[2], S.J. Yoo[2], B. Lee[2] and M.P. Hong[1]

[1]Korea University, Korea, [2]National Fusion Research Institute, Korea

P2: Silicon Thin Film Transistor on Quartz Fiber

Y. Sugawara[1], K. Yamazaki[1], T. Nakamura[2], H. Koaizawa[2], A. Mimura[3], K. Suzuki[3] and Y. Uraoka[1]

[1]Nara Institute of Science and Technology, Japan, [2]Furukawa Electric Co., Ltd., Japan

[3]National Institute of Advanced Industrial Science and Technology, Japan

P3: Effect of Hydrogen on Disk-Shaped Grain Growth for Excimer Laser Annealing

K. Yamada, A. Heya, N. Matsuo and N. Kawamoto

University of Hyogo, Japan

P4: Low-Temperature Thermal Crystallization of a-Si Film Irradiated by Laser Plasma Soft X-ray

N. Isoda[1], A. Heya[1], S. Amano[2], S. Miyamoto[2], N. Matsuo[1] and T. Mochizuki[2]

[1]Department of Materials Science and Chemistry, University of Hyogo, Japan

[2]Laboratory of Advanced Science and Technology for Industry(LASTI), University of Hyogo, Japan

P5: Rapid-Thermal Annealing of Amorphous Silicon on Oxide Semiconductors

S. Saxena, S.J. Hong and J. Jang

Kyung Hee University, Korea

P6: Scanning Probe Microscope Analysis for Electron Trapping and Detrapping in Defect Sites of Polycrystalline Silicon Thin Films

E. Machida[1], Y. Uraoka[1,2] and H. Ikenoue[3]

[1]Nara Institute of Science and Technology, Japan, [2]CREST, Japan Science and Technology Agency, Japan

[3]Kochi College of Technology, Japan

P7: Improvement of Current Stress Endurance of Low-Temperature Deposited SiO_2 Films by Thermal Plasma Jet Induced Millisecond Annealing

Y. Hiroshige, S. Higashi, K. Matsumoto and S. Miyazaki

Hiroshima University, Japan

P8: Lowering Resistance of Heavily Boron-Doped Si Films by 2-Step Rapid Thermal Annealing

T. Miyahira, T. Suzuki and T. Noguchi

University of the Ryukyus, Japan

P9: The Stability of Short-Channel a-Si:H TFT under Light Illumination

S.-G. Park, H.-S. Park, S.-J. Kim, S.-H. Kuk and M.-K. Han

Seoul National University, Korea

P10: Microcrystalline Silicon TFTs: VerilogA compact Modeling

O. M. Moustapha and Y. Bonnassieux

Ecole Polytechnique, France

P11: Bias Temperature and Light Instability in Short-Channel (L=1.5μm) p-Type Polycrystalline Silicon Thin Film Transistors

S.-H. Choi[1], S.-H. Kuk[1], S.-G. Park[1], Y.-G Mo[2], H.-D. Kim[2] and M.-K. Han[1]

[1]Seoul National University, Korea, [2]Samsung Mobile Display, Korea

P12: Size Expandability of Low Temperature poly-Si TFT Processed by Field Aided Lateral Crystallization (FALC)

J.S. You[1], K. J. Lee[2], J. H. Seo[2], D.K. Choi[2]

[1]Department of Information Display Engineering, Hanyang University, Korea

[2]Department of Materials Science and Engineering, Hanyang University, Korea

P13: Recent Progress on Bottom Gate Microcrystalline Thin Film Transistors

M. Oudwan, A. Abramov, D. Daineka, Y. Bonnassieux and P. Roca i Cabarrocas

Ecole Polytechnique, France

P14: Self-Heating Related Instability in Polysilicon TFTs

P. Gaucci, A. Valletta, M. Cuscunà, L. Maiolo, L. Mariucci, A. Pecora and G. Fortunato

CNR- Istituto per la Microelettronica e Microsistemi, Italy

P15: Investigation of Low Temperature poly-Si TFT Flash Memory Using 3-Dimentonal Substrate

K. Ichikawa[1], M. Matsue[1], H. Akamatsu[1] and Y. Uraoka[2]

[1]Kobe city college of Technology, Japan, [2]Nara Institute of Science and Technology, Japan

P16: Simulation of Dependency of Photo Current on Light Intensity and on Intrinsic Length in Si Thin-Film PIN Photo Sensor

A. Sakamoto[1], J.D. Mugiraneza[1], T. Noguchi[1] and T. Ohachi[2]

[1]University of the Ryukyu, Japan, [2]Doshisha University, Japan

P17: Fabrication and Characterization of $(Ba_x,Sr_{1-x})Ta_2O_6$ Thin Films by Sol-Gel Method

L. Lu[1], M. Echizen[1], T. Nishida[1], K. Uchiyama[1] and Y. Uraoka[1,2]

[1]Nara Institute of Science and Technology, Japan, [2]CREST, Japan Science and Technology Agency, Japan

P18: Integrated Temperature Sensor for Display Application

H.-S. Jeon, C.-M. Keum, Y.-W. Hu and B.S. Bae

Hoseo University, Korea

P19: a-IGZO Thin Film Transistors on the Polyethersulfone Substrate Employing Parylene-C Substrate Protection Layer

S. Chang, J.-H. Kwon, J.-H. Park, M.-H. Jung, T.-Y. Oh, H.-S. Bae, K.-Y. Dong and B.-K. Ju

Korea University, Korea

P20: Effects of Donor-Like Defect States and Active Layer Thickness on the Performance Variation of a-IGZO TFTs

J. Jeong and Y. Hong

Seoul National University, Korea

P21: Fabrication of Thin Film Transistor Based on Solution Process

J.-H. Park, J.-H. Kwon, S. Chang, M.-H. Chung, T.-Y. Oh, H.S. Bae and B.-K. Ju

Korea University, Korea

P22: Electrical Properties of ZnO Thin Film Transistors Fabricated by Atomic Layer Deposition

Y. Kawamura[1] and Y. Uraoka[1,2]

[1]Nara Institute of Science and Technology, Japan, [2]CREST, Japan Science and Technology Agency, Japan

P23: Ferroelectric Gate Transistors with ZnO Nanowires as a Channel

H. Fujisawa, M. Noda, R. Kuri and M. Shimizu

University of Hyogo, Japan

P24: Aluminum Doped Tin Oxide Based Thin Film Transistors

M.S. Huh[1,2], B.S. Yang[1], S. Oh[1] and H.J. Kim[1]

[1]Samsung Mobile Display, Korea, [2]Seoul National University, Korea

P25: A Study of Annealing Temperature on the Stability of Solution Based a-IGZO Transparent TFTs

C. Avis, S.H. Lee and J. Jang

Kyung Hee University, Korea

P26: Effect of H_2 Flow Rate on Structural Property of Pentacene Film Quality in Hydrogen Chemical Transport Deposition

H. Hasegawa, A. Heya and N. Matsuo

University of Hyogo, Japan

P27: High Soluble and Air Stabile New Polythiophene Derivatives with Alkylthiophene Side Chain

J.-W. Jang[1], D.H. Lee[2], J.W. Park[1], D.S. Chung[2], D.-M. Kang[1] Y.-H. Kim[3], C.E. Park[2] and S.-K. Kwon[1]

[1]Gyeongsang National University, Korea, [2]Pohang University of Science and Technology, Korea,

[3]Gyeongsang National University, Korea

P28: Droplet Generation Behavior in Electrostatic Inkjet Patterning

Y. Ishida, M. Uotani and T. Asano

Kyushu University, Japan

P29: Synthesis of Ethynyl-Linked Alternating Anthracene/Fluorene Copolymer for Organic Thin Film Transistor

H.J. Koh[1], J.U. Ju[1], D.S. Chung[2], S.O. Kim[1], S.O. Jung[1], C.E. Park[2], Y.-H. Kim[3]and S.-K. Kwon[1]

[1]School of Materials Science & Engineering and ERI, Gyeongsang National University, Korea

[2]Pohang University of Science and Technology, Korea

[3]Department of Chemistry and RINS, Gyeongsang National University, Korea

P30: New Polysexithiophene Derivatives for OTFTs

S.-O. Kim[1], J.W. Park[1], D.S. Chung[2], I.-N. Lee[1], Y. Wei[1], D.H Lee[2], Y.-H. Kim[3], C.E. Park[2] and S.-K. Kwon[1]

[1]School of Materials Science and Engineering and ERI, Gyeongsang National University, Korea

[2]Pohang University of Science and Technology, Korea

[3]Department of Chemistry and RINS, Gyeongsang National University, Korea

P31: Investigating the Sub-threshold Regime in Organic Field Effect Transistors; Does Depletion Handel the OFF Current?

O. Yaghmazadeh[1], G. Horowitz[2] and Y. Bonnassieux[1]

[1]Ecole Polytechnique, France, [2]Université Paris Diderot (Paris VII), France

P32: Organic Thin Film Transistors on Photoreactive Dielectrics

T.-Y. Oh[1], J.-H. Kwon[1], M.-H. Chung[1], H.S. Bae[1], S. Chang[1], J.-H. Park[1] and B.-K. Ju[2]

[1]Display and Nanosystem Laboratory, Korea University, Korea , [2]School of Electrical Engineering, Korea University, Korea

P33: Threshold-Voltage Control of Organic Nonvolatile Memory Transistors

T. Nakagawa[1], T. Yokota[1], T. Sekitani[1], K. Takeuchi[1], U. Zschieschang[2], H. Klauk[2] and T. Someya[1]

[1]University of Tokyo, Japan, [2]Max Planck Institute for Solid State Research, Germany

P34: Manufacturing Process of Organic Non-volatile Memory Transistors Using Self-Assembled Monolayer

T. Yokota[1], T. Sekitani[1], T. Nakagawa[1], K. Takeuchi[1], U. Zschieschang[2], H. Klauk[2], M. Takamiya[1],T. Sakurai[1] and T. Someya[1]

[1]The University of Tokyo, Japan, [2]Max Planck Institute for Solid State Research, Germany

P35: 3-V Operation of Organic Transistors with Mobility of 1.8 cm^2/Vs

N. Uchiyama[1], T. Sekitani[1], T. Yamamoto[2], K. Takimiya[2], U. Zschieschang[3], H. Klauk[3] and T. Someya[1]

[1]The University of Tokyo, Japan, [2]Hiroshima University, Japan, [3]Max Planck Institute Germany

P36: High Mobility Organic Single Crystal Transistors Based on Soluble Triisopropyl-silylethynyl Anthracene

P. Kang[2],D.S. Chung[1], J.W. Park[2], D. Moon[4], G.H. Kim[4], H.-S. Lee[4], H.-K. Shim[3], S.-K. Kwon[2] and C.E. Park[1]

[1]Pohang University of Science and Technology, Korea, [2]Gyeongsang National University, Korea

[3]Korea advanced institute of Science and Technology, Korea, [4]Pohang Accelerator Laboratory, Korea

P37: Alternating Copolymers Containing Bithiophene and Dialkoxynaphthalene for Air Stable Organic Thin Film Transistors

M.-G. Shin[1], D.S. Chung[2], J.W. Park[1], S.-O. Kim[1], K. Heo[3], C.E. Park[2], M. Ree[3], Y.-H. Kim[4] and S.-K. Kwon[1]

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[3]Department of Chemistry, Pohang University of Science & Technology, Korea

[4]Department of Chemistry and RINS, Gyeongsang National University, Korea

P38: Organic Thin Film Transistor Circuits with Ink-Jet and Screen Printed Electrodes

J.-M. Kim[1], I. Seo[1], D.-H. Lee[1] and Y.-S. Kim[1,2]

[1]Dept. of Nano Science & Eng., Myongji University, Korea, [2]Dept. of Electrical Eng., Myongji University, Korea

P39: A Specific Physics-Based Spice Model for Organic Thin Film Transistors

O.Yaghmazadeh and Y. Bonnassieux

Ecole Polytechnique, France

P40: 3-Stage Organic Complementary Ring Oscillators Using Inkjet Technologies with Subfemtoliter Accuracy

Y. Noguchi, T. Sekitani, T. Yokota and T. Someya

The University of Tokyo, Japan

P41: Organic Thin Film Transistor for the Application of DNA hybridization Sensor

D.-H. Lee[1], J.-M. Kim[1], I. Seo[1], H.H. Lee[2] and Y.-S. Kim[1,3]

[1]Dept. of Nano Science & Eng., Myongji University, Korea, [2]Dept. of Chemical Eng., Myongji University, Korea

[3]Dept. of Electrical Eng., Myongji University, Korea

Student session (1) (10:00-10:48)

Chairpersons : M. Kurosawa (Kyushu University, Japan)

A. Dhar (Ecole Polytechnique, France)

St1: RTA Effect on Si Film Sputtered on Thermally Durable Glass Substrate

J.D. Mugiraneza[1], T. Miyahira[1], A. Sakamoto[1], Y. Chen[1], T. Okada[1], T. Noguchi[1] and T. Itoh[2]

[1]University of the Ryukyus, Japan, [2]Corning Holding Japan G.K., Japan

St2: Effective Activation of B in poly-Si Using Nickel for High Performance TFT

J.I. Kim, J.W. Choi and J. Jang

Kyung Hee University, Korea

St3: Impact on TFT Performance of Patterning of a-Si Prior to MILC

S. Nagata, G. Nakagawa, S. Kanoh and T. Asano

Kyushu University, Japan

St4: Electrical Characteristic in the Low and High Temperatures for Tunneling-Dielectric TFT

T. Kobayashi[1], N. Matsuo[1], A. Heya[1], T. Tochio[2], Y. Omura[2], K. Ohkura[3], S. Yokoyama[3]

[1]University of Hyogo, Japan, [2]Kansai University, Japan, [3]Hiroshima University, Japan,

Student session (2) (11:00-11:48)

Chairpersons : J.D. Mugiraneza (University of the Ryukyus, Japan)

J. I. Kim (Kyung Hee University, Korea)

St5: The Effect of Active Layer Thickness on Electrical Stability of Amorphous Oxide-based TFTs

S.-J. Kim[1], H.-S. Park[1], S.-Y. Lee[1], H. Im[1], W.-G. Lee[2], K.-S. Yoon[2], Y.-W. Lee[2] and M.-K. Han[1]

[1]Seoul National University, Korea, [2]Samsung Electronics, Korea

St6: The Unique Phenomenon in IGZO TFTs Degradation under Dynamic Stress

M. Fujii[1], T. Maruyama[1], M. Horita[1], K.Uchiyama[1], J.S. Jung[2], J.Y. Kwon[2], Y. Uraoka[1,3]

[1]Nara Institute of Science and Technology, Japan, [2]Samsung Advanced Institute of Technology, Korea

[3]CREST, Japan Science and Technology Agency, Japan

St7: Inkjet-printed Carbon Nanotube Field-Effect Transistor Using Nafion-Based Dispersion on Glass Substrates

A. Dhar[1], L. Gorintin[1, 2], Y. Bonnassieux[1], L. Baraton[1], C.S. Cojocaru[1], S.W. Lee[3], Y.H. Lee[3], P. Bondavalli[2] and D. Pribat[1]

[1]Laboratoire de Physique des Interfaces et Couche Minches, Ecole Polytechnique, France

[2]THALES Research and Technology, France, [3]Sungkyunkwan University, Korea

St8: Alkyl Chain Length Dependence on Organic Transistors with Self-Assembled Monolayers

K. Fukuda[1], K. Kuribara[1], T. Yokota[1], T. Sekitani[1], U. Zschieschang[2], H. Klauk[2] and T. Someya[1]

[1]The University of Tokyo, Japan, [2]Max Planck Institute for Solid State Research, Germany

Session 6: Nanotube (13:00-14:00)

Chairpersons : Y. Bonnassieux (Ecole Polytechnique, France)

T. Sadoh (Kyushu University, Japan)

6.1: High Performance Hybrid CMOS Device Utilizing Single Walled Carbon Nanotube and Zinc Oxide Nanowire Networks

Y. Zhang, H.E. Unalan, P. Hiralal, S. Dalal, M. Mann, G. Amaratunga and W.I. Milne

University of Cambridge, U.K

6.2: Bottom-gate Field Effect Transistor Based on Flexible In-plane Silicon Nanowires

L. Yu[1], M. Oudwan[1], O. Moustapha[1], S. Bouchoule[2] and P. Roca i Cabarrocas[1]

[1]Ecole Polytechnique, France, [2]Laboratoire de Photonique et de Nanostructures (LPN), France

6.3: Large Surface Reproducible CNTFETs Obtained Using Automatic Air-Brush Machine

P. Bondavalli and L. Gorintin

Thales Research and Technology, France

Symposium

Which is the next generation TFT, Si-related, oxide or organic TFTs (1) (14:15-15:45)

Chairpersons : A. Heya (University of Hyogo, Japan)

B.S. Bae (Hosoe University, Korea)

S1: Electrical Stability of Advanced a-Si:H TFT Structures (Invited)

G.Yoo, Hojin L. and J. Kanicki

University of Michigan, USA

S2: Polysilicon Thin Film Transistor Circuits for Integrated Flexible Sensors (Invited)

A. Pecora, A. Bearzotti, M. Cuscuna', A. Macagnano, L. Maiolo, F. Maita, L.Mariucci, A. Minotti, S. Pantalei, D. Simeone, A. Valletta, E. Zampetti and G. Fortunato

CNR - Istituto per la Microelettronica e Microsistemi, Italy

S3: Fabrication and Characteristics of Ambipolar Organic Field Effect Transistors Utilizing Polyfluorene Derivatives (Invited)

Y. Ohmori, H. Kajii, K. Koiwai and Y. Hirose

Osaka University, Japan

Which is the next generation TFT, Si-related, oxide or organic TFTs (2) (16:00-17:30)

Chairpersons : Y. Ohmori (Osaka University, Japan)

M. Mann (University of Cambridge, U.K)

S4: Self-Alignment Thin Film Transistor Technologies for Future Flexible Applications (Invited)

H. Okada and S. Naka

University of Toyama, Japan

S5: Photon Induced Effects on High Performance Oxide-Based TFTs (Invited)

H.-S. Park, S.-J. Kim, S.-Y. Lee and M.-K. Han

Seoul National University, Korea

S6: Required Characteristics of TFTs for Next Generation Flat Panel Display Backplanes (Invited)

Y. Matsueda

Matsueda Consulting, Japan

Closing Session (17:30-17:45)

T. Noguchi (University of the Ryukyus, Japan)