

SYMPOSIUM J

Nanodevices and Nanofabrication

Symposium J: Nanodevices and Nanofabrication

Level 3, Room 325

Mon, 29-Jun-09	Tue, 30-Jun-09	Wed, 1-Jul-09	Thu, 2-Jul-09	Fri, 3-Jul-09
	(08:30 - 09:15) Plenary Lecture 2 Peter Doherty	(08:30 - 09:15) Plenary Lecture 4 John Pendry	(08:30 - 09:15) Plenary Lecture 6 Hartmut Michel	
(09:00 - 09:45) Opening Ceremony	(09:15 - 10:00) Plenary Lecture 3 Andrew Wee	(09:15 - 10:00) Plenary Lecture 5 Chad Mirkin	(09:15 - 10:00) Plenary Lecture 7 Akihisa Inoue	(09:00 - 09:45) Plenary Lecture 8 Jean-Marie Basset
(09:45 - 10:30) Plenary Lecture 1 Peter Gruenberg	(10:00 - 10:30) Coffee Break			(09:45 - 10:30) Plenary Lecture 9 Frederick Lange
(10:30 - 11:00) Coffee Break				(10:30 - 11:00) Coffee Break
(11:00 - 12:30) Session J-S1 Nanodevices & Fabrication	(10:30 - 12:30) Session J-S4 Nanotubes	(10:30 - 12:30) Session J-S6 Nanodevices	(10:30 - 12:30) Session J1-S9 Nano- optoelectronics	(11:00 - 13:00) Session J1-S12 Nano-oxides
(12:30 - 14:00) Lunch (13:00 - 13:45) Theme Lecture James L. Hedrick	(12:30 - 14:00) Lunch (13:00 - 13:45) Theme Lecture Martyn Poliakoff	(12:30 - 14:00) Lunch (13:00 - 13:45) Theme Lecture Karl U. Kainer	(12:30 - 14:00) Lunch (13:00 - 14:30) Panel Discussion	(13:00 - 14:30) Closing & Poster Award Ceremony Lunch
(14:00 - 16:15) Session J-S2 Nanostructures	(14:00 - 16:15) Session J-S5 Nanopatterns	(14:00 - 15:15) Session J-S7 Nanofabrication	(14:30 - 16:00) Session J1-S10 Nano-solar Cells	
(16:15 - 16:30) Break		(15:30 - 17:30) Session J-S8 Nanofabrication	(16:00 - 18:00) Session J-S11 POSTER SESSION	
(16:30 - 18:15) Session J-S3 Nano-modelling	(18:00 - 20:00) Public Lectures @ UCC Peter Doherty Peter Gruenberg	(19:00 - 20:00) Public Lecture @ UCC Hartmut Michel	(19:00 - 22:00) Conference Banquet @ Suntec	

Symposium J(2): Nanodevices and Nanofabrication

Level 3, Room 323

Mon, 29-Jun-09	Tue, 30-Jun-09	Wed, 1-Jul-09	Thu, 2-Jul-09	Fri, 3-Jul-09
	(08:30 - 09:15) Plenary Lecture 2 Peter Doherty	(08:30 - 09:15) Plenary Lecture 4 John Pendry	(08:30 - 09:15) Plenary Lecture 6 Hartmut Michel	
(09:00 - 09:45) Opening Ceremony	(09:15 - 10:00) Plenary Lecture 3 Andrew Wee	(09:15 - 10:00) Plenary Lecture 5 Chad Mirkin	(09:15 - 10:00) Plenary Lecture 7 Akihisa Inoue	(09:00 - 09:45) Plenary Lecture 8 Jean-Marie Basset
(09:45 - 10:30) Plenary Lecture 1 Peter Gruenberg	(10:00 - 10:30) Coffee Break			(09:45 - 10:30) Plenary Lecture 9 Frederick Lange
(10:30 - 11:00) Coffee Break	/	/	/	(10:30 - 11:00) Coffee Break
/	/	/	(10:30 - 12:30) Session J2-S9 Nano-characterization	(11:00 - 12:45) Session J2-S12 Nano-silicon Electronics
(12:30 - 14:00) Lunch (13:00 - 13:45) Theme Lecture James L. Hedrick	(12:30 - 14:00) Lunch (13:00 - 13:45) Theme Lecture Martyn Poliakoff	(12:30 - 14:00) Lunch (13:00 - 13:45) Theme Lecture Karl U. Kainer	(12:30 - 14:00) Lunch (13:00 - 14:30) Panel Discussion	(13:00 - 14:30) Closing & Poster Award Ceremony Lunch
/	/	/	(14:30 - 16:00) Session J2-S10 Nano-sensors	/
(16:15 - 16:30) Break	/	/	(16:00 - 18:00) Session J-S11 POSTER SESSION	/
/	(18:00 - 20:00) Public Lectures @ UCC Peter Doherty Peter Gruenberg	(19:00 - 20:00) Public Lecture @ UCC Hartmut Michel	(19:00 - 22:00) Conference Banquet @ Suntec	/

J-S1: Nanodevices & Fabrication

Monday, 29 June 2009

11:00-12:15

Level 3, Room 325

Chair: Qing Zhang

11:00 J-S1.1-2(IN) A01597-02777 pg J47
Double Walled Carbon Nanotubes: Structure and Optical Property

Morinobu ENDO, Takuya HAYASHI, Yoong Ahm KIM, Hiroyuki MURAMATSU

11:30 J-S1.3-4(IN) A02969-05079 pg J68
Nanofuel Cells and Experimental Nanomechanics

Jing ZHU, Caofeng PAN, Morigen HE

12:00 J-S1.5-6(IN) A01764-03091 pg J52
Solid-State Dewetting of Films as a Route to Ordered Micro- and Nanostructures

C.V. THOMPSON, A.L. GIERMANN, D. KIM, W.K. CHOI, T.H. LIEW, Y. WANG, Y.J. OH, C.A. ROSS

J-S2: Nanostructures

Monday, 29 June 2009

14:00-16:15

Level 3, Room 325

Chair: William Milne

14:00 J-S2.1-2(IN) A02970-05080 pg J69
Chemically Active Plasma-aided Fabrication of Nanoscaled Materials

Shuyan XU, K. OSTRIKOV

14:30 J-S2.3(O) A01104-01909 pg J35
Synthesis and Characterization of Nanoscale Inverted Structures of Cobalt and Nickel Silicides

Tom WU, Huatao WANG

14:45 J-S2.4(O) A00947-02621 pg J31
Formation of Amorphous 1D CuPc Nanostructures and Their Crystallization and Transformation by Heat Treatment

Chia-Yu WANG, Chun-Pei CHO, Tsong-Pyng PERNG

15:00 J-S2.5(O) A01556-02870 pg J46
From Metal Nanocrystalline Film to 1-D Metal Oxide Nanoneedles: Synthesis, Growth Mechanism and Properties

Chunxu PAN, Jun ZHANG, Xiang QI, Yueli LIU, Qiaoliang BAO

15:15 J-S2.6(O) A01976-03429 pg J55
Fabrication and Characterization of Novel Organic Thin Film Transistors with CdSe/ZnS Quantum Dots Embedded in Bilayer Gate Dielectric

Ying-Chih CHEN, Tsung-Syun HUANG, Chun-Yuan HUANG, Yan-Kuin SU

15:30 J-S2.7(O) A01381-02982 pg J41
Synthesis and Characterization of Zn₂SnO₄ Nanowires and the Electrical Properties of Zn₂SnO₄ Nanowire Field Effect Transistor

Christina PANG, Lei LIAO, Bin YAN, Ting YU

15:45 J-S2.8(O) A01482-02570 pg J44
Template-free Growth of NiO Nanowire Array by Metal-etching-oxidation Method

Zhipeng WEI, Haiyang PENG, Zhou ZHANG, Donglai GUO, Lai Mun WONG, Shi Jie WANG, Tom WU

16:00 J-S2.9(O) A00344-00640 pg J16
Atomic Layer Deposition of Al₂O₃ to Bond Free-Standing Nanoporous Alumina Templates onto Substrates

Lee Kheng TAN, Kumar MANIPPADY KRISHNA, Han GAO

J-S3: Nano-modelling

Monday, 29 June 2009

16:30-18:15

Level 3, Room 325

Chair: Jing Zhu

16:30 J-S3.1-2(IN) A02445-04172 pg J62
Carbon Nanotubes for Field Emission Applications

William MILNE, Mark MANN

17:00 J-S3.3(O) A01670-02888 pg J48
Morphology-Dependent Stimulated Emission and Field Emission of Ordered CdS Nanostructure Arrays

Tianyou ZHAI, Xiaosheng FANG, Yoshio BANDO, Qing LIAO, Xijin XU, Ying MA, Jiannian YAO, Dmitri GOLBERG

17:15 J-S3.4(O) A01254-02172 pg J38
Numerical Analysis of Carrier Statistics in Low-Dimensional Nanostructure Devices

Razak M. A LEE, Ismail SAAD, M. Taghi AHMADI, Razali ISMAIL, Vijay. K ARORA

17:30 J-S3.5(O) A02241-04011 pg J59
Simulation of Si Quantum Dot with Ge Core Memory

Yudi DARMA, Rizal KURNIADI, Rena WIDITA

17:45 J-S3.6(O) A01387-02497 pg J41
The Model of Circuit of Single Electron Transistor and Simulation of Its Circuits

Gang LU, Fenfen WEI, Shengchun MAO

18:00 J-S3.7(O) A00748-01324 pg J25
Nonequilibrium Green's Function Based Quantum Transport Simulation for Strained-Engineered Nanoscale Transistors in Presence of Electron-phonon Interactions

T K MAITI, C K MAITI

J-S4: Nanotubes

Tuesday, 30 June 2009
10:30-12:30
Level 3, Room 325
Chair: Ting Yu

J-S5: Nanopatterns

Tuesday, 30 June 2009
14:00-16:30
Level 3, Room 325
Chair: Carl V Thompson

- 10:30 J-S4.1-2(IN) A02697-04637 pg J66**
Separating Carbon Nanotubes: Connecting Single Molecule Electrical Measurements to Ensemble Spectroscopic Properties
Michael STRANO, Woo Jae KIM, Chang Young LEE, Richa SHARMA, Nitish NAIR
- 11:00 J-S4.3(O) A00078-02559 pg J12**
Modulation of Electron Transport in SWCNTs by Biological Macromolecules Conjugation
Toshiaki HIGASHI, Yoshikata NAKAJIMA, Mio KOJIMA, Koji ISHII, Tatsuro HANAJIRI, Akira INOUE, Toru MAEKAWA
- 11:15 J-S4.4(O) A01805-03153 pg J53**
Illumination-Enhanced Hysteresis of Transistors Based on Carbon Nanotube Networks
Chun Wei LEE, Jun WEI
- 11:30 J-S4.5(O) A01160-01979 pg J36**
Fabrication of Carbon Nanotube Field Effect Transistors with OCMC Dispersed Single Wall Carbon Nanotubes
Raj KUMAR, Zhang QING, Yan LIYANGYU, Mary B. Chan PARK
- 11:45 J-S4.6(O) A01904-03388 pg J54**
Conductivity Enhancement of Single Walled Carbon Nanotube Thin Films by means of Oxidation
Hosea TANTANG, Jun WEI
- 12:00 J-S4.7(O) A00761-01911 pg J26**
Nanomechanical Properties of a SnAgCu Solder Reinforced with Ni-coated Carbon Nanotubes
Yongdian HAN, Hongyang JING, Sharon Mui Ling NAI, Yuchan LIU, Cher Ming TAN, Jun WEI, Lianyong XU
- 12:15 J-S4.8(O) A00665-01208 pg J23**
Deposition and Functionalization of Thin Films of Carbon Nanotubes Using Corona Based Electrostatic Charge Technique and Their Applications for Gas Detection
Vasuda BHATIA, Vikesh GAUR, Vinod JAIN
- 14:00 J-S5.1-2(IN) A01867-03226 pg J54**
Creation of Nano Structures with Interference Lithography
WK CHOI, TH LIEW, Y JIA, MK DAWOOD, CV THOMPSON, Y WANG, HI SMITH, MH HONG
- 14:30 J-S5.3(O) A00994-01749 pg J33**
Femtosecond Laser Induced Microexplosion: A New Strategy to Synthesise Super-dense Nanomaterials in Highly Nonequilibrium Conditions
Saulius JUODKAZIS, Hiroaki MISAWA, Eugene GAMALY, Andrei RODE
- 14:45 J-S5.4(O) A01714-02990 pg J50**
Superhydrophobic Flexible Aerogels and Applications
A. Venkateswara RAO, Digambar Y. NADARGI
- 15:00 J-S5.5(O) A00210-00401 pg J14**
Plasma Etching of Proton Exchanged Lithium Niobate
Guangyuan SI, Aaron DANNER, Jinghua TENG, Soo Seng ANG, Ah Bian CHEW
- 15:15 J-S5.6(O) A00515-02688 pg J19**
Optimization of Plasmonic Crystal Profiles in Fabrication by Interference Lithography
Husen Kartasasmita KANG, Xin Rong CHUA, Chee Cheong WONG, Filippo ROMANATO
- 15:30 J-S5.7(O) A00509-00989 pg J19**
Influence of Room Humidity on the Formation of Silicon Oxide Nanopatterns by Using Atomic Force Microscopy (AFM)
Ahmad Makarimi ABDULLAH, Sabar Derita HUTAGALUNG, Zainovia LOCKMAN
- 15:45 J-S5.8(O) A02128-03660 pg J57**
Oriented Crystal Growth of Flower-like Structured InN on Sapphire Substrate by Halide Chemical Vapor Deposition
Naonori SAKAMOTO, Haruka SUGIURA, Naoki WAKIYA, Hisao SUZUKI
- 16:00 J-S5.9(O) A01109-01910 pg J36**
Nano-indentation Patterns for Surface Enhanced Raman Scattering
Ying-Yi LIN, Li-Kai LIN, Jiunn-Der LIAO
- 16:15 J-S5.10(O) A02480-04240 pg J63**
Investigation of the Performance of Pair and Sandwich Superlattice-like Structures
Yew Hua CHUA, Luping SHI, Rong ZHAO, Yee Chia YEO

J-S6: Nanodevices

Wednesday, 1 July 2009

10:30-12:30

Level 3, Room 325

Chair: Michael Strano

- 10:30 J-S6.1-2(IN) A01117-01920 pg J36
High Performance Carbon Nanotube Based Doping Free CMOS and Optoelectronics Devices
Lian-Mao PENG, Zhiyong ZHANG, Sheng WANG, Xuelei LIANG, Qing CHEN
- 11:00 J-S6.3-4(IN) A02137-03680 pg J57
Carbon Nanotube Alignment and Its Applications
Qingwen LI, Hui YANG
- 11:30 J-S6.5(O) A02021-03478 pg J56
Langmuir-Blodgett Assembly of 4-methylbenzenethiol-Functionalized Au Nanoparticles for Non-volatile Memory Applications
R K GUPTA, D Y KUSUMA, P S LEE, D RAJARATHNAM, M P SRINIVASAN
- 11:45 J-S6.6(O) A00447-00837 pg J17
Silicon Nanowires Transistor Fabricated by AFM Nanolithography Followed by Chemical Etching Process
Kam Chung LEW, Sabar D. HUTAGALUNG
- 12:00 J-S6.7(O) A00943-01684 pg J31
Electrostatic Effects in Schottky Contact Modification at the Nano-scale
Justin SONG, Johnson GOH, Natarajan CHANDRASEKHAR, Cedric TROADEC
- 12:15 J-S6.8(O) A01078-01870 pg J35
Schottky Contacts Formed on Silicon Nanowires
Yongshun SUN, RUSLI, Kai Lin FOO, Wen XU

J-S7: Nanofabrication

Wednesday, 1 July 2009

14:00-15:15

Level 3, Room 325

Chair: Wee Kiong Choi & Shuyan Xu

- 14:00 J-S7.1-2(IN) A03012-05141 pg J69
Global NanoTech: The Equalizer Effect of NanoTech
Mohamed ABDEL-MOTTALEB
- 14:30 J-S7.3-4(IN) A02936-05016 pg J67
“Zero Stitching Error” Nanofabrication Strategies for Nanodevice Performance Improvements
Frank NOUVERTNE, Axel RUDZINSKI, Guido PIASZENSKI
- 15:00 J-S7.5-6(IN) A02938-05021 pg J68
Exploring Materials Heterogeneities with Kelvin Force Microscopy
S. MAGONOV, Xiu-Qiang TONG

J-S8: Nanofabrication

Wednesday, 1 July 2009

15:30-17:30

Level 3, Room 325

Chairs: Wee Kiong Choi & Shuyan Xu

- 15:30 J-S8.1(O) A00832-01454 pg J27
Fabrication of a 3D Micro-valve by Two-photon Absorption
Charalampos SCHIZAS, Vassiliki MELISSINAKI, Arune GAIDUKEVICIUTE, Carsten REINHARDT, Christoph OHRT, Maria FARSARI, Dimitris KARALEKAS, Boris CHICHKOV, Vassilis DEDOUSSIS, Costas FOTAKIS
- 15:45 J-S8.2(O) A02508-04298 pg J64
High-Purity Separation of Gold Nanoparticle Dimers and Trimers
Gang CHEN, Yong WANG, Li Huey TAN, Miaoxin YANG, Lee Siew TAN, Yuan CHEN, Hongyu CHEN
- 16:00 J-S8.3(O) A00914-01618 pg J29
Integration of High-k Dielectric with Epitaxial GaAs on Ge Substrate
Goutam Kumar DALAPATI, Ching Kean CHIA, Stephanie Yi Peng PANG, Ghim Wei HO, Han GAO, Krishna Kumar MANIPPADY, Andrew See Weng WONG, Dongzhi CHI
- 16:15 J-S8.4(O) A02308-03943 pg J60
Fabrication of Polythiophene Hybrid Structures on Silicon Surfaces by Covalent Molecular Assembly
Sundaramurthy JAYARAMAN, Rajarathnam D., Srinivasan M. P.
- 16:30 J-S8.5(O) A02189-03959 pg J58
Fabrication of Distributed Feedback Grating from Polymer Hybrid which Showing Photo-pumped Lasing Action
Rahmat HIDAYAT, Sahrul HIDAYAT, Fitrilawati, Herman, Masayoshi OJIMA, Akihiko FUJII, Masanori OZAKI
- 16:45 J-S8.6(O) A02298-04013 pg J60
Development of Transient Phase Change Analysis Method in Phase Change Devices
Eng Guan YEO, Rong ZHAO, Luping SHI, Tow Chong CHONG, Adesida ILESANMI
- 17:00 J-S8.7(O) A02883-04931 pg J66
Ion Assisted Deposition of HfO₂ for CMOS Gate Dielectric Applications
J. BUJJAMMA, K. L. GANAPATHI, S. MOHAN

17:15 J-S8.8(O) A02641-04537 pg J65
Electrical Properties of AlGaIn/GaN Heterostructure Field Effect Transistors (HFETs) with and without Mg-doped Carrier Confinement Layer
Asaad HUSSEIN, Z. HASSAN, H. ABU HASSAN, S. THAHAB

J1-S9: Nano-optoelectronics

Thursday, 2 July 2009
 10:30-12:30

Level 3, Room 325

Chair: Mohamed Abdel-Mottaleb

10:30 J1-S9.1-2(IN) A00778-01368 pg J27
Dilute Nitride-antimonide Semiconductor Alloys for High Speed Micro and Nanosystems: A Review of Recent Progress
Soon YOON

11:00 J1-S9.3-4(IN) A02328-03983 pg J61
In-situ Study on Intrinsic Photoconductivity Properties for Individual CdS Nanobelts
Jin AN, Jian-Bin XU, Kun XUE

11:30 J1-S9.5(O) A01721-03001 pg J50
Towards Photosynthetic Nanoparticles
Hongyu CHEN, Shuangxi XING, Tao CHEN, Miaoxin YANG

11:45 J1-S9.6(O) A02215-03790 pg J59
New Design for Optical Filters Based on Photonic Crystals
Abderrahmane BREZINI, Zou QIN, Peter FULDE

12:00 J1-S9.7(O) A02510-04305 pg J64
Performance on Indium Nitride Nanorods / Polymer Photodiode
Wei-Jung LAI

12:15 J1-S9.8(O) A00053-00767 pg J11
Photovoltaic Application of Sub-band Absorption in Quantum Wells
Partha GOSWAMI

J2-S9: Nano-characterization

Thursday, 2 July 2009
 10:30-12:30

Level 3, Room 323

Chair: Lianmao Peng

10:30 J2-S9.1-2(IN) A01470-02550 pg J43
Symmetric Effect of Spin Transport in a Magnetic Superlattice
Hui YAN, RuZhi WANG

11:00 J2-S9.3-4(IN) A03026-05156 pg J70
Conductive AFM for Photosensitive (Solar) Materials
David BECK

11:30 J2-S9.5(O) A00914-01603 pg J29
Characterization of Alloy Gate Dielectrics on p-GaAs
Goutam Kumar DALAPATI, Nguyen Viet TRUNG, Ghim Wei HO, Hoon-Jung OH, Sungjoo LEE, Aadi SRIDHARA, Andrew See Weng WONG, Ching Kean CHIA, Dongzhi CHI

11:45 J2-S9.6(O) A01000-01752 pg J33
A Study of the Cobalt Phthalocyanine-Ag-Si(111) Interface
Fei SONG, Justin WELLS, Zheshen LI, Karsten HANDRUP, Shining BAO, Edward PERKINS, Karina SCHULTE, Marja AHOLA-TUOM, Lauge GAMMELGAARD, Philip HOFMANN

12:00 J2-S9.7(O) A00891-01552 pg J28
Raman Studies of Electrostatic Doping of a Thin Single-walled Carbon Nanotube Bundle
Pingqi GAO, Qing ZHANG, Shaoning YUAN, Ning PENG, Deyan HE

12:15 J2-S9.8(O) A00925-01629 pg J30
Optical Properties and Visible Room Temperature Photoluminescence of Amorphous Silicon Rich Silicon Nitride in SiO₂/SiN_x Quantum Well Structures
Lobna KAMYAB, RUSLI, Mingbin YU, Lining HE, Manik DUA

J1-S10: Nano-solar Cells

Thursday, 2 July 2009
 14:30-16:00

Level 3, Room 325

Chair: Soon Fatt Yoon

14:30 J1-S10.1(O) A00456-00845 pg J18
Thermal Stability Enhancement of P3HT/PCBM Solar Cells by Controlling the Polymer Regioregularity
Hung-Wei LIU, Kuen-Jang HUANG, Ming-Dao WANG, Tzu-Yu HUANG, Syang-Peng RWEI, Leeyih WANG

14:45 J1-S10.2(O) A00267-00775 pg J16
Quasi-solid-state Dye-sensitized Solar Sells Based on Thermosetting Polymer Gel Electrolyte
Xiaodong LI, Xi Jiang YIN, Dingwen ZHANG, Zhengang WANG, Zhuo SUN, Sumei HUANG

15:00 J1-S10.3(O) A01864-03236 pg J53
Enhancing InGaP/GaAs/Ge Multi-junction Solar Cell Efficiency by Using Quantum Dots Excitation
H. C. LEE, Y. K. SU, C. Y. HUANG, T. C. LI, Y. C. CHEN, W. J. LIN, J. C. LIN, K. J. CHAN

15:15 J1-S10.4(O) A00770-01355 pg J26
Destination of Excitons at Interfaces in Organic Solar Cells
Song QUNLIANG, Li CHANGMING

15:30 J1-S10.5(O) A00932-01647 pg J31
Optically and Electrically Excited Light Emission
from Silicon Nitride Films Implanted with Si Ions
Zhanhong CEN, Tupei CHEN, Liang DING, Yang LIU,
Ming YANG, Jen It WONG, Zhen LIU

15:45 J1-S10.6(O) A01586-02768 pg J47
Photoluminescence Model for Silicon Nanoclusters
Mekuriaw ASHAGRIE, Sib Krishna GHOSHAL

J2-S10: Nano-sensors

Thursday, 2 July 2009

14:30-16:00

Level 3, Room 323

Chair: Hui Yan

14:30 J2-S10.1(O) A00983-01989 pg J32
Ultra-long Indium Oxide (In_2O_3) Layered Nanorods
for NO_x Sensing Application
Nandan SINGH, Pooi See LEE

14:45 J2-S10.2(O) A00336-00625 pg J16
DNA Sensing Using Nanogaps Fabricated by Shadow
Evaporation
Huijuan ZHANG, Francesco STELLACCI,
John THONG, Xiaogang LIU, Manyin LEUNG

15:00 J2-S10.3(O) A01171-02446 pg J37
DNA Sensing and Sensitivity Enhancement by Carbon
Nanotube Based Devices
Dongliang FU, Xiaochen DONG, Jun WEI

15:15 J2-S10.4(O) A01732-03013 pg J51
Oligopeptide-Modified Silicon Nanowire Arrays as
Multichannel Metal Ion Sensors
Xinyan BI, Agarwal AJAY, Kun-Lin YANG

15:30 J2-S10.5(O) A02375-04063 pg J62
Functionalized Polymer Single Nanowires as
Fast-Response High-Selectivity Optical Sensors
Fuxing GU, Lei ZHANG, Xuefeng YIN, Limin TONG

15:45 J2-S10.6(O) A03013-05142 pg J69
Novel Nanoelectronic Switching Devices with Three
Terminal Semiconductor Nanowire Based T-shaped
Hetero-junctions
Lingchao CAO, Yunqi LIU, Dacheng WEI, Lei FU,
Liping HUANG, Gui YU

J-S11: Poster Session

Thursday, 2 July 2009

16:00 - 18:00

Level 3, Gallery

J-S11.01(P) A00090-00387 pg J12
Comparative Study of Humidity Sensing Properties
of n-type ZnO Nanomaterial Synthesized through
Oxalate and Hydroxide Route
Richa SRIVASTAVA, Balchandra YADAV

J-S11.02(P) A00122-01021 pg J12
Fully Analytical Surface Potential Based Drain
Current Model of Short Channel MOSFETs Including
Quantum Mechanical Effects
Jayadeva GOWRAPURA SRIKANTAIHAH,
Amitava DASGUPTA

J-S11.03(P) A00267-00770 pg J15
 TiO_2 Nanotubes as Additive to TiO_2 Film for
Improving Performance of Dye-sensitized Solar Cells
Xiaodong LI, Sumei HUANG, Dingwen ZHANG,
Zhengan WANG, Zhuo SUN, Xi Jiang YIN

J-S11.04(P) A00402-00773 pg J17
Quasi-solid-state Dye Sensitized Solar Cells with a
High Molecular Polymer Electrolyte Based on PEO/
P(VDF-HFP) and MPII
Dingwen ZHANG, Sumei HUANG, Xiaodong LI,
Zheng'an WANG, Jianhua SHI, Zhuo SUN, Xi Jiang YIN

J-S11.05(P) A00532-00969 pg J20
Effect of Lateral Charge Diffusion on the Memory
Characteristics of Device Embedded with Si
Nanocrystals
Jen It WONG, Tu Pei CHEN, Ming YANG, Yang LIU

J-S11.06(P) A00585-01787 pg J22
Effects of Implantation Energy and Dose on
Non-volatile Memory Behaviors of Low-energy
Ion-implantation-synthesized Ge Nanocrystals
Ming YANG, Tupei CHEN, Yang LIU, Jen It WONG

J-S11.07(P) A01351-02359 pg J40
The Effect of Operating Temperatures on H_2 Gas
Sensing Properties of Spin-coated Films of
Flame-spray-made Ru/SnO₂ Nanoparticles
Chaikarn LIEWHIRAN, Anurat WISITSORAAT,
Sukon PHANICHPHANT

J-S11.08(P) A01490-02589 pg J44
Effect of Anchoring Groups on Electron Transport in
Single Molecular Junctions
Aruna Priya P, Preferencial Kala C, John Thiruvadigal D

J-S11.09(P) A01548-03023 pg J45
Carbon Nanotube Based Devices in the Realm of
Macro & Nanoelectronics
Malti BANSAL, Ritu SRIVASTAVA, C. LAL,
M. N. KAMALASANAN, L. S. TANWAR

J-S11.10(P) A01569-02738 pg J46
Fluorescent Detection and Quantification of Total
Proteins in Urine
Bee Jin Michelle LOW, Enyi YE, Ming Yong HAN

- J-S11.11(P) A01676-02898** pg J49
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- J-S11.58(P) A01490-02586** pg J44
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- J-S11.64(P) A02665-04653** pg J65
Structural and Optical Investigations on Nanocrystalline TiO₂ Thin Films by Sol-gel Spin Coating Technique
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J1-S12: Nano-oxides

Friday, 3 July 2009

11:00-13:00

Level 3, Room 325

Chair: Qingwen Li

J2-S12: Nano-silicon Electronics

Friday, 3 July 2009

11:00-12:45

Level 3, Room 323

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11:00 J1-S12.1(O) A01717-02997 pg J50
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Ting YU, Bin YAN, Zexiang SHEN

11:15 J1-S12.2(O) A00422-00806 pg J17
Local Structural and Optical Properties of Ion-Implanted ZnO Nanorods
Sang-Wook HAN, Byung-Hyuk KIM, Chang-In PARK, Changha KWAK, Soo-Young SEO, Sun-Hyo KIM, Sun-Hong PARK

11:30 J1-S12.3(O) A01513-02634 pg J45
Compare the Hydrothermal and VPT Grown ZnO Nanowire Field Effect Transistor
Ye WANG, Xiao Wei SUN, Jun Liang ZHAO, Gregory GOH, Lan Lan CHEN, Laura-Lynn LIEW, Ji Jun QIU

11:45 J1-S12.4(O) A01735-03017 pg J52
UV Light-emitting Diodes Based on ZnO Nanorod Homojunction
Bo LING, Xiao Wei SUN, Jun Liang ZHAO, Yi YANG, Swee Tiam TAN, Xiao Cheng LI

12:00 J1-S12.5(O) A00224-01840 pg J14
Preparation and Optical Properties of 30 and 60 nm Pure Co_3O_4 Nanowires
Yu-Cheng CHEN, Jen-Bin SHI, Chih-Jung CHEN, Ya-Ting LIN, Po-Feng WU

12:15 J1-S12.6(O) A00438-00822 pg J17
Effect of Microstructure of Ti Films on the Formation of TiO_2 Nanotubes by Anodization
Yuxin TANG, Jie TAO, Dangguo GONG, Zhong CHEN

12:30 J1-S12.7(O) A01973-04483 pg J55
Direct Growth of ZnO Nanocrystals onto the Pores of Porous TiO_2 Nanotube Array Films for the Fabrication of Highly Efficient and Recyclable Photocatalyst
Huiying YANG, Siu Fung YU, Xiwang ZHANG

12:45 J1-S12.8(O) A01996-03440 pg J56
Influence of Post O_2 Annealing on the Resistive Switching Behavior of HfO_2 Dielectric
Raymond SIM, Mei Yin CHAN, Pooi See LEE

11:00 J2-S12.1(O) A00151-03970 pg J13
Confirmation of Distribution of High-density Trap States in SOI Layer of SIMOX Wafers by Tunneling Current

Yoshikata NAKAJIMA, Takahiro TODA, Tatsuro HANAJIRI, Toru TOYABE, Takuo SUGANO

11:15 J2-S12.2(O) A00707-01265 pg J24
Drain Induces Barrier Lowering (DIBL) in Short-Channel NMOSFETs at Elevated Temperature
Nopphon PHONGPHANCHANTHRA, Anucha RUANGPHANIT, Nipapan KLUNNGIEN, Wittawat YAMWONG, Surasak NIEMCHAROEN, Sanya KHUNKHAO

11:30 J2-S12.3(O) A01181-02027 pg J37
Characterization of the Electronic Properties of Hydrogen-Terminated Silicon Surface
Yong Kiat YEO, Hiroyo KAWAI, Mark SAEYS, Christian JOACHIM

11:45 J2-S12.4(O) A01252-03207 pg J38
Equation based Method to Model Double-Gate MOSFET Drain Current
Ali FATTAH HESARI, Saeed KHATAMI

12:00 J2-S12.5(O) A01473-02554 pg J43
Advanced Drain-Source-On-Insulator MOSFETs for Suppression of Thermal Effect
Tatsuya YAMADA, Yoshiyasu MIYAZAWA, Yoshikata NAKAJIMA, Tatsuro HANAJIRI, Toru TOYABE, Takuo SUGANO

12:15 J2-S12.6(O) A02481-04241 pg J63
Material Study for Line-type Phase Change Random Access Memory (PCRAM)
Leong Tat LAW, Rong ZHAO, Luping SHI, Yee Chia YEO

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Near-field Raman Analysis of Sub-100 nm Strained MOSFETs
Choun Pei WONG, Johnson KASIM, Jinping LIU, Alex SEE, Zexiang SHEN