

SYMPOSIUM O

Compound Semiconductor Photonics: Materials, Devices and Integration

Symposium O(1): Compound Semiconductor Photonics: Materials, Devices and Integration

Level 3, Room 304

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 O1-S1 Optoelectronic Devices & Integration - I	(10:30 - 12:45) Session O1-S4 III-As/ P Epitaxy & QD/ Wires - I	(10:30 - 12:45) Session O1-S6 III-Nitride - II	(10:30 - 12:45) Session O1-S9 III-As/ P Epitaxy & QD/ Wires - II	(11:00 - 13:00) Session O1-S12 ZnO - III
(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 O1-S2 Photonic Crystals & Metamaterials - I	(14:00 - 16:30) Session O1-S5 Optoelectronic Devices & Integration - II	(14:00 - 15:30) Session O1-S7 ZnO - I	(14:30 - 16:15) Session O1-S10 Optoelectronic Devices & Integration - IV	/
(16:15 - 16:30) Break		(15:30 - 18:00) Session O1-S8 Photonic Crystals & Metamaterials - II	(16:00 - 18:00) Session O-S11 POSTER SESSION	
(16:30 - 18:00) Session O1-S3 III-Nitride - I				
	(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 O(2): Compound Semiconductor Photonics: Materials, Devices and Integration

Level 3, Room 323 (Wed); Level 3, Room 313 (Thu - Fri)

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
		Room 323 (10:30 - 12:45) Session O2-S6 Optoelectronic Devices & Integration - III	(10:30 - 12:45) Session O2-S9 Chalcogenide & Oxide - III	(11:00 - 13:00) Session O2-S12 Optoelectronic Devices & Integration - V
(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
		Room 323 (14:00 - 15:30) Sessions O2-S7 Chalcogenide & Oxide - I	(14:30 - 16:15) Session O2-S10 ZnO - II	
		Room 323 (14:00 - 17:00) Sessions O2-S8 Chalcogenide & Oxide - II	(16:00 - 18:00) Session O-S11 POSTER SESSION	
(16:15 - 16:30) Break				
	(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	

O1-S1: Optoelectronic Devices & Integration - I

Monday, 29 June 2009

11:00 - 12:30

Level 3, Room 304

Chair: Federico Capasso, Teng Jinghua

11:00 O1-S1.1-2(KN) A01858-03321 pg O60
Recent Progress of Terahertz Wave Sensing and Applications
Xi-Cheng ZHANG

11:30 O1-S1.3-4(IN) A02816-04828 pg O81
Terahertz Frequency Quantum Cascade Lasers
Alexander Giles DAVIES

12:00 O1-S1.5-6(IN) A01860-03216 pg O61
Optical Phonon Mediated Photodetector
H. C. LIU

O1-S2: Photonic Crystals & Metamaterials - I

Monday, 29 June 2009

14:00 - 16:15

Level 3, Room 304

Chair: Giles Davis, Zhi-Yuan Li

14:00 O1-S2.1-2(KN) A02546-04355 pg O76
Plasmonic Semiconductor Lasers: A New Class of Light Sources with Engineered Far-field and Near Field
Federico CAPASSO

14:30 O1-S2.3-4(KN) A02239-03820 pg O69
New Trends in Photonic Crystals
Susumu NODA, Takashi ASANO

15:00 O1-S2.5-6(IN) A02904-04963 pg O83
Invisibility Devices
Ulf LEONHARDT, Tomas TYC

15:30 O1-S2.7(O) A00148-00306 pg O16
1D Photonic Crystal with Properties of Multiple Channel Filtering and Huge Optical Amplification
Gao YINGJUN

15:45 O1-S2.8(O) A00298-00545 pg O22
Preparation of Metal Nanoparticle Films through a Chemical Reduction Process at Low Temperature and their Application
Kuan SUN, Benhu FAN, Hui Jing ORE, Jianyong OUYANG

16:00 O1-S2.9(O) A01085-01876 pg O39
High Aspect Ratio Metamaterials for Enhanced Tunability and Sensitivity
Sher-Yi CHIAM, Mohammed BAHOU, Herbert O. MOSER, Ranjan SINGH, Jianqiang GU, Weili ZHANG, Andrew A. BETTIOL

O1-S3: III-Nitride - I

Monday, 29 June 2009

16:30 - 18:00

Level 3, Room 304

Chair: Chua Soo Jin, Liu Wei

16:30 O1-S3.1-2(KN) A02226-04504 pg O68
Progress in the Growth, Characterization and Device Performance for Nonpolar and Semipolar GaN-based Materials
James SPECK

17:00 O1-S3.3(O) A00496-00911 pg O26
Nature of Surface States and Dislocations on Non-Polar GaN(1-100) Surfaces Investigated by Scanning Tunneling Microscopy
Philip EBERT, Holger EISELE, Lena IVANOVA, Svetlana BORISOVA, Mario DÄHNE

17:15 O1-S3.4(O) A01282-02281 pg O45
ZnO Nanorod Reflectors for Enhancing the Light Extraction from GaN Blue LEDs
Chew Beng SOH, Hong Quang LE, Norman Soo Seng ANG, Soo Jin CHUA, Mona SURYANA, Rayson Jen Ngee TAN, Jinghua TENG

17:30 O1-S3.5(O) A00107-00561 pg O14
Complexities in the Interpretation of the Optical Measurements on InGaN/GaN Quantum Wells of High Indium Content
Sanjib KABI, Tapas DAS, Dipankar BISWAS

17:45 O1-S3.6(O) A01215-02070 pg O43
Integration of III-nitride Optoelectronics by Nanoepitaxial Liftoff and Transfer Printing
Keyan ZANG, Jinghua TENG, Hong LIU, Soo Jin CHUA

O1-S4: III-As/P Epitaxy & QD/Wires – I

Tuesday, 30 June 2009

10:30 - 12:45

Level 3, Room 304

Chair: Wang Shu Min, Chia Chin Kean

10:30 O1-S4.1-2(IN) A02881-04929 pg O82
III-V Compound Semiconductor Nanowires Grown by MOCVD
Chennupati JAGADISH

11:00 O1-S4.3-4(IN) A02193-03765 pg O67
Photonic Signal Processing Devices Based on InAs Quantum Dot Materials
Osamu WADA

11:30 O1-S4.5-6(IN) A02778-04747 pg O80
Update on Semiconductor-laser Gain: From Quantum Well to Quantum Dots
Weng CHOW

12:00 O1-S4.7(O) A00107-00560 pg O13
Striking Information from the Photoluminescence of Annealed and Non Annealed III-V Nanostructures
Sanjib KABI, Siddhartha PANDA, Subindu KUMAR, Dipankar BISWAS

12:15 O1-S4.8(O) A00175-02706 pg O18
Methodology for Submicron Study of Effective Lateral Resolution of Quantum Well Intermixing
Chee Wei LEE, Yicheng LAI, Yingyan HUANG, Seng Tiong HO

12:30 O1-S4.9(O) A00081-02146 pg O13
Effects of Interdiffusion on the Band Profiles of InGaAs/ InP Quantum Wells
Tapas DAS, Dipankar BISWAS

O1-S5: Optoelectronic Devices & Integration - II

Tuesday, 30 June 2009

14:00 - 16:30

Level 3, Room 304

Chair: Yoshimasa Sugimoto, Aaron Danner

14:00 O1-S5.1-2(IN) A02997-05119 pg O84
New Functions of VCSEL-related Photonic Devices
Fumio KOYAMA

14:30 O1-S5.3-4(IN) A02272-03879 pg O70
Novel Aberration-Free Broadband High-Resolution Grating for InP/Si Microphotonic DWDM Chip Applications
Seng-Tiong HO, Yingyan HUANG, Qian ZHAO, Yongming TU

15:00 O1-S5.5(O) A00321-00668 pg O23
Solitons Emission from a Semiconductor Circular Ring Resonator
Wei Chun SU, Ming Chang SHIH

15:15 O1-S5.6(O) A01182-02028 pg O42
Thickness Dependence of Optical Properties in Nanostructured Si/SiO₂ Superlattice
Lihong SHI, Gang ZHANG, Baowen LI

15:30 O1-S5.7(O) A01328-02323 pg O48
Temperature-dependent Dynamic Characteristics of Quantum-dash Lasers
Cheng CHEN, Yang WANG, Hery S. DJIE, Boon S. OOI, James C. M. HWANG

15:45 O1-S5.8(O) A01568-03661 pg O54
Development and Fabrication of P-I-N Junction Silicon Nanowires Thin Film Solar Cell and Its Characteristic Study
Chien-Wei LIU, Yen-Hsi LEE, Bau-Tong DAI

16:00 O1-S5.9(O) A01660-02871 pg O55
Electrical and Optical Properties of GaAs/Ge Photodiodes
Ching Kean CHIA, M. SURYANA, G. K. DALAPATI

16:15 O1-S5.10(O) A01174-02512 pg O41
A Novel Triplexer Comprising a Ring Resonator and Directional Couplers
S. C. MAO, S. H. TAO, G. LU, Y. L. XU, X. W. SUN, M. B. YU, G. Q. LO, D. L. KWONG

O1-S6: III-Nitride – II

Wednesday, 1 July 2009

10:30 - 12:45

Level 3, Room 304

Chair: Chua Soo Jin, Zhang Xinhai

10:30 O1-S6.1-2(IN) A02603-04442 pg O77
GaN-on-Si: Present and Future
Alois KROST

11:00 O1-S6.3(O) A01512-02665 pg O52
MOCVD Growth of GaN on Patterned Sapphire Substrates
Wei LIU, Chew Beng SOH, Soo Jin CHUA

11:15 O1-S6.4 (O) A01512-03049 pg O53
Analysis of Novel Phenomenon in Reverse Leakage Current of GaN Blue LEDs
Wei LIU, Jiaxiu YE, Soo Jin CHUA

11:30 O1-S6.5(O) A01782-03125 pg O59
Room Temperature Cathodoluminescence of Aluminum Nitride Nanorods
Yeung Yu HUI, S. P. LAU, X. H. JI

11:45 O1-S6.6(O) A01791-03138 pg O59
Microscopic Correlation of Structural and Optical Properties of Spontaneously Developing Non-polar and Semi-polar GaN Growth Domains on r-plane Sapphire
Barbara BASTEK, Olga AUGUST, Juergen CHRISTEN, Thomas HEMPEL, Peter VEIT, Matthias WIENEKE, Armin DADGAR, Juergen BLÄSING, Alois KROST, Ulrich WENDT

12:00 O1-S6.7(O) A02178-03741 pg O67
First-principles Study of In, Ga, and N Adsorption on In_xGa_{1-x}N (0001) and (000 1-bar) Surfaces
Chee-Kwan GAN, David J. SROLOVITZ

12:15 O1-S6.8(O) A02530-04331 pg O76
Complete Optical Characterization of Multilayered In_xGa_{1-x}N/GaN Structures Grown by MOCVD on Sapphire Substrates
A. GOKARNA, A. STOLZ, E. DOGHECHE,
D. DECOSTER, J. TENG, W. LIU, S. J. CHUA,
E. DUMONT

12:30 O1-S6.9(O) A00866-01503 pg O35
Lab to fab: Towards Process Control of Nitride LED Structures by X-ray Scattering Methods
Joachim WOITOK

O2-S6: Optoelectronic Devices & Integration – III

Wednesday, 1 July 2009

10:30 - 12:45

Level 3, Room 323

Chair: C.Jagadish, D. Decoster

10:30 O2-S6.1-2(IN) O-00002 pg O85
Epitaxial Growth on Nanoscale Patterned Surface
S. R. J. BRUECK, S. C. LEE

11:00 O2-S6.3-4(IN) O-00001 pg O85
Recent Development of Nanophotonic Integrated Devices and Materials
Yoshimasa SUGIMOTO

11:30 O2-S6.5(O) A00715-01274 pg O30
Investigation of White LED Performance with Multi-Layer Phosphors
Yiting ZHU, Nadarajah NARENDRAN

11:45 O2-S6.6(O) A01336-03873 pg O49
Integrated Waveguide Photodetector for DWDM Fiberoptic Communications
Guanghai DING, Cheng CHEN, Boon OOI,
James HWANG, Guoyang XU, Seng-Tiong HO

12:00 O2-S6.7(O) A00496-05042 pg O26
The Role of Strain on the 2D→3D and Quantum Dot→Quantum Ring Phase Transitions during Growth of InAs/GaAs and GaSb/GaAs Nanostructures
Holger EISELE, Rainer TIMM, Andrea LENZ,
Lena IVANOVA, Mario DÄHNE

12:15 O2-S6.8(O) A01934-03496 pg O63
Luminescence Study of Photonic Crystal GaN LED Structure on SOI Substrates
A. FRANKE, J. KRIMMLING, J. CHRISTEN,
A. DADGAR, A. KROST, V. K. X. LIN, S. L. TEO,
S. J. CHUA, S. TRIPATHY

12:30 O2-S6.9(O) A02814-04819 pg O80
Optical and Charged Particle Microscopy in Materials Science and Semiconductor Technology
Giuseppe PAVIA, Jörg STODOLKA,
Heiko STEGMANN, Xiong LIU, Shue Yin CHOW

O1-S7: ZnO – I

Wednesday, 1 July 2009

14:00 - 15:30

Level 3, Room 304

Chair: Kailash Tripathi, S. Tripathi

14:00 O1-S7.1-2(IN) A02941-05036 pg O83
Epitaxial Growth and Optoelectronic Properties of ZnO Thin Films on (111) Si Substrates
Wei GUO, Michael B. KATZ, Christopher T. NELSON,
Tassilo HEEG, Darrell G. SCHLOM, Bing LIU,
Yong CHE, Fei ZHUGE, Xiaoqing PAN

14:30 O1-S7.3(O) A00007-00289 pg O12
The Deposition of ZnO Thin Film on Poly (propylene carbonate) (PPC) Substrate by DC-Sputtering
Nidhal JANDOW, Kamarulazizi IBRAHIM

14:45 O1-S7.4(O) A01076-03488 pg O39
Effects of O₂ Gas Plasma Pretreatment on ZnO Thin Film Grown by Atomic Layer Deposition
Chang-Mi SHIN, Jaeyeop LEE, Joohoi HEO,
Joohyun PARK, Chorong KIM, Hyukhyun RYU,
Ji-Ho CHANG, Won-Jae LEE

15:00 O1-S7.5(O) A00173-01166 pg O17
Structural and Optical Properties of Well-Aligned ZnO Nanowires Grown on Buffer Layer for Photonic Applications
Wei Li ONG, Andrew See Weng WONG, Ghim Wei HO

15:15 O1-S7.6(O) A00330-00610 pg O23
Growth of p-type Zinc Oxide Film in Aqueous Solution
Chuan Beng TAY, Soo Jin CHUA

O2-S7: Chalcogenide & Oxide – I

Wednesday, 1 July 2009

14:00 - 15:30

Level 3, Room 323

Chair: Osamu Wada, A. Ramam

14:00 O2-S7.1(O) A00523-00954 pg O27
Synthesis of New Methanofullerenes and Their Use in Poly(3-hexylthiophene)-based Solar Cells
Kuen-Jang HUANG, Hung-Wei LIU, Ming-Dao WANG,
Tzu-Yu HUANG, Syang-Peng RWEI, Leeyih WANG

14:15 O2-S7.2(O) A01752-03060 pg O59
Study of Third Order Nonlinear Properties of Rhodamine6G Doped in Silica
Sunita SHARMA, Devendra MOHAN, Vandana NASA, S.K. GHOSHAL, Umesh GUPTA

14:30 O2-S7.3(O) A01327-04339 pg O48
Controllable Nanoparticle Size, Optical Properties and Growth Mechanism of ZnS Synthesized by Sonochemical Method
Raghvendra YADAV, Priya MISHRA, Avinash PANDEY, Rupali MISHRA

14:45 O2-S7.4(O) A01288-02246 pg O45
Electron Transport in Highly Ordered Anatase Nanotube Arrays for Dye Sensitized Solar Cells
Kangle LI, Zhibin XIE, Stefan ADAMS

15:00 O2-S7.5(O) A02382-04083 pg O72
Correlation between Band Structure and Magneto-transport Properties in Medium-infrared Detector II-VI Modulated Nanostructure Superlattice
Abdelhakim NAFIDI

15:15 O2-S7.6(O) A01651-03607 pg O54
A Raman Study of Er₂O₃-doping Effect on the Structure of [(80-x)TeO₂+xPbCl_x+10MoO+10Zr₂O₃], with 0 ≤ x ≤ 15 mol% Glasses
Ibrahim SHALTOUT, Shaaban SALEM, Yehia BADR, Elbially SHAISHA, Alaa BAHGAT

O1-S8: Photonic Crystals & Metamaterials – II

Wednesday, 1 July 2009

15:30 - 17:30

Level 3, Room 304

Chair: Kent Choquette, Zhang Dao Hua

15:30 O1-S8.1-2(IN) A02839-04859 pg O81
Plane-Wave Transfer-Matrix Method and Its Application to Photonic Crystals
Zhi-Yuan LI

16:00 O1-S8.3-4(IN) A02130-03666 pg O65
Photonic Crystal Nanolaser and Its Applications
Toshihiko BABA, Shota KITA, Kengo NOZAKI

16:30 O1-S8.5(O) A01138-01974 pg O41
Sub-50nm Ultra-thin-wall Honeycomb Photonic Crystal for Epitaxial Necking
Zhang LIANG, Jinghua TENG, Soojin CHUA, Eugene A. FITZGERALD

16:45 O1-S8.6(O) A01557-02727 pg O54
Proton Beam Writing of Microstructures for Applications in Microphotonics
Andrew BETTIOL, Ee Jin TEO, Sher-Yi CHIAM, Siew-Kit HOI, Chammika UDALAGAMA, Mark BREESE, Frank WATT

17:00 O1-S8.7(O) A00669-02150 pg O29
Compact Silicon Electro-optic Modulator Based on a Cross Waveguide Resonator
Maoqing XIN, Aaron DANNER, Ching Eng PNG, Soon Thor LIM

17:15 O1-S8.8(O) A01859-03213 pg O61
Photonic Crystal Polarizer Element on InP/Air Membranes for Optical MEMS Applications
Thomas KUSSEROW, Matthias WULF, Ricardo ZAMORA, Balasubramanian VENGATESAN, Bernd WITZIGMANN, Hartmut HILLMER

O2-S8: Chalcogenide & Oxide – II

Wednesday, 1 July 2009

15:30 - 17:00

Level 3, Room 323

Chair: Osamu Wada, A. Ramam

15:30 O2-S8.1(O) A01724-03006 pg O56
Effect of Organic Acid on Synthesis of Conductive Poly(N-ethyl)aniline and its Application as Ammonia Sensor
Vasant CHABUKSWAR, Sanjay BHAVSAR, Vishwas GAIKWAD

15:45 O2-S8.2(O) A02349-04079 pg O71
Effect of UV Exposure on Chalcogenide Thin Films for Microlithography Applications
Prabhat DWIVEDI, Satinder SHARMA, Ashutosh SHARMA

16:00 O2-S8.3(O) A01907-03290 pg O62
Titanium Dioxide Synthesized Using Titanium Chloride: Size Effect Study Using Raman and Photoluminescence
Sanjeev K. GUPTA, Rucha DESAI, Prafulla K. JHA

16:15 O2-S8.4(O) A02742-04775 pg O79
Synthesis of ZnS (II-VI) Nanostructures for Gas Sensors and Effect of Growth Conditions
M HAFEEZ, U MANZOOR, A. S BHATTI

16:30 O2-S8.5(O) A01441-02502 pg O52
Optical Properties of Methylene Blue Encapsulated in Nano Matrix
Umesh GUPTA, Devendra Mohan NASA, Sib Krishna GHOSHAL, Vandana NASA, Sunita SHARMA

16:45 O2-S8.6(O) A02758-04928 pg O80
Electrical, Optical and Structural Properties of Pure and Gold-coated VO₂ Thin Films on Quartz Substrate
Francis DEJENE

O1-S9: III-As/P Epitaxy & QD/Wires - II

Thursday, 2 July 2009

10:30 - 12:45

Level 3, Room 304

Chair: Ci-Ling Pan, Xiang Ning

10:30 O1-S9.1-2(IN) A01363-02377 pg O49

Progress in Quantum Dash Semiconductor Broadband Emitters

Chee Loon TAN, Clara E. DIMAS, Cheng CHEN, Hery Susanto DJIE, James C. M. HWANG, Boon Siew OOI

11:00 O1-S9.3-4(IN) A00793-04577 pg O32

Inductively-coupled Argon Plasma-enhanced Quantum Well/Dot Intermixing: A Promising Post-growth Processing Technique for Photonic Integration
Ting MEI

11:30 O1-S9.5(O) A00453-00886 pg O25

Ab initio Calculation of Lattice Relaxation around Ga in CdTe: Evidence of the DX and A Centers
Vasil KOTESKI, Heinz-Eberhard MAHNKE, Jelena BELOSEVIC-CAVOR, Petro FOCHUK

11:45 O1-S9.6(O) A01671-02949 pg O56

Characterization of InAs/In_xGa_{1-x}As dots-in-a-well (DWELL) Structures

Rui CHEN, Handong SUN, Huiyun LIU

12:00 O1-S9.7(O) A00981-01733 pg O36

Liquid Phase Epitaxial Growth of Dilute InAsN Layers from Bi Solvents

Martin DE LA MARE, Tushar Dhabal DAS, Sunanda DHAR, Anthony KRIER

12:15 O1-S9.8(O) A00981-01774 pg O37

Growth and Characterisation of InAsN Dilute Nitride Semiconductor Alloys for the Mid-infrared Spectral Range

Martin DE LA MARE, Qian-Dong ZHUANG, Sunanda DHAR, Anthony KRIER

12:30 O1-S9.9(O) A00149-01137 pg O17

Analysis of Al Incorporation in GaSb Grown by MOCVD

Ari Handono RAMELAN, Pepen ARIFIN

10:45 O2-S9.2(O) A00781-01372 pg O31

Optical Absorption, Photoluminescence and Third Order Two-Photon Nonlinear Absorption Coefficient Studies in Quantum Dots of CdS_xSe_{1-x} Grown in Borosilicate Glass Matrix

Paramatma Chandra MATHUR, Pramod Kumar BHATNAGAR, Jitender KUMAR, Abhishek VERMA, Praveen Kant PANDEY, Sing Hai TANG, Weimin LIU

11:00 O2-S9.3(O) A01238-02126 pg O44

Orientation-Controllable Growth of ZnS Nanowire Arrays on GaAs Substrates

Yao LIANG, Suikong HARK

11:15 O2-S9.4(O) A02045-03519 pg O64

Cathodoluminescence Microscopy of Polycrystalline CuInS₂ Thin Films

Anja DEMPEWOLF, Frank BERTRAM, Sebastian METZNER, Alexander FRANKE, Thomas HEMPEL, Jürgen CHRISTEN, Joachim KLAER, Frank WÜNSCH, Thomas SCHEDEL-NIEDRIG

11:30 O2-S9.5(O) A01545-02696 pg O53

Laser Ablation of AgInSe₂; A Clean and Effective Approach for Ternary Semiconductors

Dinesh PATHAK, Ratish Kumar BEDI, Davinder KAUR

11:45 O2-S9.6(O) A01838-03191 pg O60

Effect of Annealing on the Structural, Optical and Electrical Properties of CdS Thin Films Deposited Using Polymer Matrix in Chemical Bath Deposition

G. BAKIYARAJ, N. GOPALAKRISHANAN, T. BALASUBRAMANIAN, R. DHANASEKARAN

12:00 O2-S9.7(O) A01327-04346 pg O48

Photoluminescence Property of YVO₄: Eu³⁺ Nanophosphor Synthesized via Na₂EDTA-assisted Sonochemical Method

Raghvendra YADAV

12:15 O2-S9.8(O) A02050-03526 pg O65

Optical Studies on In/Te Bilayer Thin Films

Palanisamy MATHESWARAN, R. SARAVANAKUMAR, R. SATHYAMOORTHY

O2-S9: Chalcogenide & Oxide – III

Thursday, 2 July 2009

10:30 - 12:30

Level 3, Room 313

Chair: Elhadj Dogheche, Han Ming Yong

10:30 O2-S9.1(O) A00042-00468 pg O12

Two-Dimensional Magneto-Electronic Transport in CdSe Single Quantum Wells

Pradip Kumar GHOSH, Anup DEY, Amit NATH, Rajdeep RAY

O1-S10: Optoelectronic Devices & Integration - IV

Thursday, 2 July 2009

14:30 - 16:15

Level 3, Room 304

Chair: Boon S. Ooi, Mei Ting

14:30 O1-S10.1-2(IN) A02484-04248 pg O74
Metamorphic InGaAs Materials and Telecom Lasers
Shumin WANG, Yuxin SONG, Ivar TÅNGRING,
Zonghe LAI, Mahdad SADEGHI, Anders LARSSON,
Donghai WU, Zhichuan NIU

15:00 O1-S10.3-4(IN) A02879-04926 pg O82
Carrier and Thermal Induced Index Variations in InP Waveguide Diodes
Didier DECOSTER, M. ZEGAOU, N. SAADSAOUD,
E. DOGHECHE, J. CHAZELAS

15:30 O1-S10.5(O) A00319-03280 pg O23
A Si-Based Al/AlN/Si MIS Device and its Photo Responsivity
Ming Chang SHIH, Sheng Tsung CHEN, Su WEI CHUN

15:45 O1-S10.6(O) A00760-01340 pg O31
Silicon Waveguide Fabrication Using Direct Proton Beam Writing
Ee Jin TEO, Andrew BETTIOL, Mark BREESE,
Boqian XIONG, Pengyuan YANG,
Goran MASHANOVICH, William HEADLEY,
Graham REED

16:00 O1-S10.7(O) A02505-04302 pg O74
New Heterostructure Based Silicon and TCOs
Sadia MAIFI, Mohamed Said BELKAID

O2-S10: ZnO – II

Thursday, 2 July 2009

14:30 - 16:15

Level 3, Room 313

Chair: S. T. Ho, Wang Shijie

14:30 O2-S10.1(O) A01430-03037 pg O51
Highly Crystalline and Monodisperse CdSe-ZnO Nanocrystals
Tich-Lam NGUYEN, Margaret MICHAEL,
Paul MULVANEY

14:45 O2-S10.2(O) A02025-04514 pg O64
Optical Properties of ZnO with One-Photon and Two-Photon Excitations
Xinhai ZHANG, Anna Marie YONG, Shijie XU

15:00 O2-S10.3(O) A02442-04164 pg O73
ZnO Ternary Alloys; ZnMgO and ZnCdO
S. PANNIRSELVAM, J.D. YE, S.T. TAN, Y. YANG,
X.W. SUN, G.Q. LO, K.L. TEO

15:15 O2-S10.4(O) A02209-03784 pg O68
Quantum Confinement and Morphology of Nano ZnO at Various Preparatory Conditions
Rita JOHN, Sasi Florence S, Blessie S, Rajakumari R

15:30 O2-S10.5(O) A02436-04152 pg O72
High-quality Layer-by-layer Growth Of ZnO Heteroepilayers by Metal-organic Chemical-vapor Deposition
S. T. TAN, J. D. YE, S. PANNIRSELVAM, Y. YANG,
X. W. SUN, G. Q. LO, K. L. TEO

15:45 O2-S10.6(O) A02150-03731 pg O66
Energetics of Various Intrinsic Defects Formation in ZnO from Density Functional Calculations
Vidya RAVINDRAN, Ponniah RAVINDRAN,
Helmer FJELLVÅG, Bengt SVENSSON

16:00 O2-S10.7(O) A02607-04453 pg O78
Synthesis and Modifications of ZnO-porous Silicon Nanocomposites for White Light Applications
Ram Gopal SINGH, Fouran SINGH,
Vivechana AGARWAL, Dinakar KANJILAL,
Ram Mohan MEHRA

O-S11: Poster Session

Thursday, 2 July 2009

16:00 -18:00

Level 3, Gallery

O-S11.01(P) A00111-00286 pg O15
Study of Strain Effects in Multi-Quantum Well Structures of AlGaInP-based Light Emitting Diodes
Hwa-Sub OH, Jee-Hue JOO, Jin-Hong LEE,
Joon-Seop KWAK, Jong-Hyeob BAEK

O-S11.02(P) A00127-00416 pg O15
A Ridge Waveguide Quantum Well AlGaAs/GaAs Laser Design
Marziyeh NAZARI

O-S11.03(P) A00137-03802 pg O16
Exciton Wavefunction Coupled Surface Plasmon Resonance for Indium-doped p-ZnO Nanowires with Perforated Aluminum Circle Hole Arrays on Si Substrate
Chung-Yuan TSAI, Yi-Ping WANG, Jen-Cheng WANG,
Tzer-En NEE

O-S11.04(P) A00152-00634 pg O17
A Si-doped GaAs/AlGaAs Solar Cell on (311) A GaAs Substrate
Ong-arj TANGMETAJITAKUL,
Supachok THAINOI, Somsak PANYAKEOW,
Somchai RATANATHAMMAPHAN

- O-S11.05(P) A00196-00627** pg O18
InGaAs Ring-shaped Nanostructures Grown by Droplet Epitaxy
Naraporn PANKAOW, Somsak PANYAKEOW,
Somchai RATANATHAMMAPHAN
- O-S11.06(P) A00233-00566** pg O19
Mesoporous Titanium Dioxide Film for Solar Cell Application
Shweta AGARWALA, Ghim Wei HO,
Goutam Kumar DALAPATI, Andrew See Weng WONG
- O-S11.07(P) A00246-00464** pg O19
Photoluminescence and Phonon Properties of β -FeSi₂ Nanocrystals Precipitated in Si
Yoshihito MAEDA, Yusuke HIRAIWA,
Yoshikazu TERAJ
- O-S11.08(P) A00254-00681** pg O20
Synthesis and Characterization of ZnS Nanocrystallites Embedded in Mesoporous Silica Glasses by Sol-gel Process
Vorrada LORYUENYONG, Suchewin PIMPA,
Nalintip CHANGSARN, Hathaichanok PROMSON
- O-S11.09(P) A00255-01905** pg O20
Native Oxidation of Al-containing Epitaxy for Application in III-V to Si Heterogeneous Electronic-Photonic Integrations
Ter-Hoe LOH, Ya-Dong WANG, Chee-Wei LEE,
Seng-Tiong HO
- O-S11.10(P) A00275-00738** pg O21
Designing Distributed Bragg Reflectors for Short-Cavity Edge Emitting Quantum Dot Lasers by Transfer Matrix Method and FDTD
Chongyang LIU, Soon Fatt YOON, Rui WANG,
Qi CAO, Hanxue ZHAO
- O-S11.11(P) A00275-00745** pg O21
Comparison of Optical Properties from GaAs-based 1.3 μ m InAs Quantum Dot Lasers and InGaAsN Quantum Well Lasers
Chongyang LIU, Soon Fatt YOON, Rui WANG,
Qi CAO, Hanxue ZHAO
- O-S11.12(P) A00282-00628** pg O22
Effect of Substrate Temperature on In_{0.15}Ga_{0.85}As/GaAs (001) Nanohole Templates Grown by Droplet Molecular Beam Epitaxy
Poonyasiri BOONPENG, Somsak PANYAKEOW,
Somchai RATANATHAMMAPHAN
- O-S11.13(P) A00337-02020** pg O23
Dependency of In Thickness on the Properties of Self-assembled InP Ring-shape Nanostructures Grown by Droplet Molecular Beam Epitaxy
Wipakorn JEVASUWAN, Somsak PANYAKEOW,
Somchai RATANATHAMMAPHAN
- O-S11.14(P) A00399-01209** pg O24
Properties of Dilute InPN Alloys Grown by Liquid Phase Epitaxy
Tushar Dhabal DAS, Sunanda DHAR,
Brij Mohan ARORA
- O-S11.15(P) A00403-00783** pg O25
Size and Composition Effects on Bandgap Energies in Semiconductor Nanoalloys
Chun Cheng YANG, Sean LI
- O-S11.16(P) A00440-00824** pg O25
Fabrication of Large Area Patterned Porous Silicon Distributed Bragg Reflectors
Mangaiyarkarasi DHARMALINGAM,
Mark BREESE, Yueh Seng Isaac OW
- O-S11.17(P) A00465-04335** pg O25
Characterization of Anomalous Temperature-dependent Berthelot-type Behaviors in the Disordered InGaN/GaN Multiple Quantum Well Heterosystems
Chung-Yuan TSAI, Jen-Cheng WANG,
Hui-Tang SHEN, Tzer-En NEE
- O-S11.18(P) A00502-00922** pg O27
Synthesis of Conductive Polymer via Chemical Reduction of Graphite Oxide for Enhanced Conductivity
Sang-Myung LIM, Kyeong K. LEE, EunHee LIM,
Sungkoo LEE
- O-S11.19(P) A00527-00958** pg O28
Effect of Thermal Annealing on Phosphor-doped ZnO Grown on Sapphire by Pulsed Laser Deposition
Deny SENTOSA, Shi Jie WANG, Lai Mun WONG,
Yew Von LIM, Ten It WONG
- O-S11.20(P) A00563-01030** pg O28
Investigation on Polypyrrole /TiO₂ Composite Electrode for Dye-sensitized Solar Cell
Mingqi GAO, Xianfeng DU, Youlong XU, Yang BAI
- O-S11.21(P) A00634-01152** pg O28
Effective Channel Length Degradation in Submicron LDD NMOSFETs Under Hot-Carrier Stressing
Anucha RUANGPHANIT,
Nopphon PHONGPHANCHANTHRA,
Rangsan MUANGHLUA
- O-S11.22(P) A00699-01256** pg O29
Chlorine-assisted Size-controlled Synthesis and Tunable Photoluminescence in Cr-doped Silica Nanospheres
Dandan WANG, Guozhong XING, Tom WU

- O-S11.23(P) A00702-02292** pg O30
Magneto-tuning of Defect Modes in One Dimensional Photonic Crystals
Ali SOLTANI VALA, Jamal BARVESTANI, Manouchehr KALAFI
- O-S11.24(P) A00800-01397** pg O33
Fabrication of Iron Silicide Photonic Crystals and Properties of Light Propagation
Yoshihito MAEDA, Shunsuke KUNIMATSU, Yusuke HIRAIWA, Yoshikazu TERAJ
- O-S11.25(P) A00814-03892** pg O33
Raman Investigations of GaAsN Phase Formed by N Ion Implantation and Pulse Laser Annealing
Ravi SONI
- O-S11.26(P) A00815-02309** pg O34
Multilayered Structures of Doped and Undoped ZnO
Saraswathi CHIRAKKARA, Saluru Babu KRUPANIDHI
- O-S11.27(P) A00819-01427** pg O34
Enhancement of Forward Emission in ZnO Thin Films by Pt Nano-pattern
Kewei LIU, Yundi TANG, Chunxiao CONG, Tze-Chien SUM, Alfred C. H. HUAN, Ze-Xiang SHEN, Li WANG, Fengyi JIANG, Xiaowei SUN, Handong SUN
- O-S11.28(P) A00904-01586** pg O35
Effect of Thickness of GaP Ultra-thin Insertion Layer on the Structural and Optical Properties of InP Quantum Dots
Soe Soe HAN, Somsak PANYAKEOW, Somchai RATANATHAMMAPHAN
- O-S11.29(P) A00953-01672** pg O36
Determination of Electron Trap Density in Dilute Nitride GaNAs and InGaNs Semiconductors
Hosein ESHGHI, Mohsen AMERI
- O-S11.30(P) A00978-01706** pg O36
Negative and Positive Magnetoresistivity Behaviours at Very Low Temperatures with Magnetic Fields in Insulating CdSe Semiconductors
Abdelhamid EL KAAOUACHI, Rachid ABDIA, Abdelhakim NAFIDI, Gerard BISKUPSKI, Jamal HEMINE
- O-S11.31(P) A01067-01852** pg O38
Implementation of SiO₂ Film Containing Si Nanocrystals as Anti Reflective Layer for Blu-ray Si Photodetector Application
Eunice Shing Mei GOH, Tu Pei CHEN, Chang Qing SUN, Liang DING, Yang LIU
- O-S11.32(P) A01107-01933** pg O40
Fabrication of a Polymeric Device with Integrated Colloidal Crystal and Embedded Optical Fibers
Xiao CHEN, Siew Kit HOI, Andrew BETTIOL
- O-S11.33(P) A01127-01934** pg O40
Low Temperature InP-Si Wafer Bonding for Photonic Integration Application
Yadong WANG, Doris NG, Chongyang LIU, Cheewei LEE, Seng Tiong HO
- O-S11.34(P) A01132-03998** pg O40
Variation of Ga Profiles for Cu(In,Ga)Se₂ Solar Cells Prepared by Co-evaporation Process
Chia-Hua HUANG, Hung-Lung CHENG
- O-S11.35(P) A01184-02072** pg O42
Fabrication and Properties of Non-stoichiometric Nickel Oxide Films by Radio Frequency Sputtering
Sheng-Chi CHEN, Tsung-Yen KUO, Wei-Hang HONG, Yu-Chin LIN, Po-Cheng KUO
- O-S11.36(P) A01189-02036** pg O43
Characterization of ZnS Compound Semiconductor Nano-particle in an Protein Cage, Apoferritin
Kenji IWAHORI, Hirotohi FURUSHO, Ichiro YAMASHITA
- O-S11.37(P) A01215-02154** pg O44
Nanoheteoepitaxy of GaN for High Efficient Light Emitting Diodes
Keyan ZANG, Yadong WANG, Soo Jin CHUA
- O-S11.38(P) A01280-02229** pg O44
Role of Hydrogen in CdTe/Mn Bilayer Thin Film of Diluted Magnetic Semiconductor
Satyapal NEHRA, Subodh SRIVASTAVA, Mahesh JANGIR, Mangej SINGH, Yogesh Kumar VIJAY
- O-S11.39(P) A01291-02250** pg O46
Enhanced Light Extraction from GaN-based Light Emitting Diodes with ZnO Nanorods on NiO/ITO Contact
Kehui DAI, Chuan Beng TAY, Liang ZHANG, Chew Beng SOH, Soo Jin CHUA, Lianshan WANG, Dexiu HUANG
- O-S11.40(P) A01291-02260** pg O46
Investigation of Low Resistance Ni/ITO Ohmic Contacts to p-type GaN by Inserting Au and Ag Nanodots in Contact Interface
Kehui DAI, Liang ZHANG, Chew Beng SOH, Soo Jin CHUA, Lianshan WANG, Dexiu HUANG
- O-S11.41(P) A01294-02522** pg O47
Structural and Optical Properties of Si⁺⁷ Ion Irradiated ZnS Nanocrystals Doped in PMMA Matrix
Shweta AGRAWAL, Subodh SRIVASTAVA, Sumit KUMAR, Mangej SINGH, Devesh Kumar AVASTHI, Yogesh Kumar VIJAY

- O-S11.42(P) A01297-02264** pg O47
Fabrication of Silicon Waveguides by Masked Proton Irradiation
Boqian XIONG, Ee Jin TEO, Mark BREESE
- O-S11.43(P) A01300-02267** pg O47
P-type Conductivity in Beta-phase Iron Disilicide
Andrew See Weng WONG, Siao Li LIEW, Goutam Kumar DALAPATI, Meng Da LU, Ghim Wei HO, Dong Zhi CHI
- O-S11.44(P) A01317-02795** pg O48
Preparation of AlSb Compound Semiconductor
Ram Kishan MANGAL, Balram TRIPAATHI, Mangej SINGH, Yogesh VIJAY
- O-S11.45(P) A01416-02456** pg O49
Liquid Phase Epitaxial Growth of Zn_3P_2 and the Effect of Ni Ion Irradiation
Selvakumar SUDHAKAR, Mony NAGARAJAN, Krishnan BASKAR
- O-S11.46(P) A01417-02606** pg O50
Structural and Electrical Properties of Zinc Selenide with and without Irradiation
Vimal KISHORE, Vibhav SARASWAT, Jyotshna PAL
- O-S11.47(P) A01418-02463** pg O50
Analyzing the Thermal-Annealing-Induced Photoluminescence Blueshifts for GaInNAs/GaAs Quantum Wells capped with Dielectric Films
Vivek DIXIT, Hongfei LIU, Ning XIANG
- O-S11.48(P) A01418-03430** pg O51
Study of Indium Segregation in GaInNAs/GaAs Quantum Wells
Vivek DIXIT, Hongfei LIU, Ning XIANG
- O-S11.49(P) A01422-03714** pg O51
X-ray Photoelectron Spectroscopy Analysis of Plasma-Treated n-GaN Surfaces in Relation to Ohmic Contact Formation
Lip Khoon LI, Leng Seow TAN, Eng Fong CHOR
- O-S11.50(P) A01502-02613** pg O52
Growth of InGaN Alloys by MOCVD and Fabrication of InGaN-based Photoelectrodes
Bin LIU, Wenjun LUO, Rong ZHANG, Zhigang ZOU, Zili XIE, Zhansheng LI, Xiangqian XIU, Dunjun CHEN, Ping HAN, Youdou ZHENG
- O-S11.51(P) A01660-04617** pg O55
Engineering InAs Quantum Dots for Light Emission and Detection
C K CHIA, M SURYANA, B Z WANG
- O-S11.52(P) A01664-02879** pg O55
Conduction Mechanism In Se-Te based Ternary Chalcogenide Glasses
Vibhav SARASWAT, Vimal KISHORE, Deepika, N. S. SAXENA, Yogendra SARASWAT
- O-S11.53(P) A01680-03537** pg O56
Raman Spectra of Aged Erbium Doped Silicate Xerogels
Vandana RANGA, B.B. NAYAK, H.N. ACHARYA, R.K. KHANNA, Anirudh KUMAR
- O-S11.54(P) A01733-03510** pg O57
Ultra-compact Multimode Interference Optical Power Splitter Using Submicron Waveguide
Rui YIN, Jinghua TENG, C.C. CHUM, S.S. ANG, M. ZEGAOU, D. DECOSTER, E. DOGHECHE
- O-S11.55(P) A01741-04626** pg O57
Application of Fourier Transform-based K·P Method to Semiconductor Supperlattices
Zhao QIUJI, Xiaoguang TU, Ting MEI
- O-S11.56(P) A01752-03058** pg O58
Nonlinear Properties and Optical Limiting Performance of SulforhodamineB Doped Silica and Polymeric Matrices
Sunita SHARMA, Devendra MOHAN, S.K. GHOSHAL, Umesh GUPTA
- O-S11.57(P) A01919-03304** pg O62
White Light Emitting from $Ba_3MgSi_{2-x}Al_xO_8$: yEu^{2+} , zMn^{2+} Phosphor
Shen CHANGYU, Jin YONGXING, Yang YI
- O-S11.58(P) A01940-03347** pg O63
Photoinduced Effect in As-Se Based Chalcogenide Thin Films
Rashmi CHAUHAN, Amit SRIVASTAVA, Arvind TRIPATHI, Krishna Kumar SRIVASTAVA
- O-S11.59(P) A01953-04208** pg O63
Quantum Dot Laser Diodes with Native Oxide Injection Current Confinement: Static and Dynamic Properties
Hanxue ZHAO, Rui WANG, Qi CAO, Chongyang LIU, Cunzhu TONG, Mui Ling Sharon NAI, Jun WEI, Soon Fatt YOON
- O-S11.60(P) A02089-03599** pg O65
Compton Profile Study of Semiconductor Compound AlN: Experiment and Theory
Vimal VYAS, Babu Lal AHUJA, BalKrishan SHARMA
- O-S11.61(P) A02164-04287** pg O66
High-k in MOSFETs Transistors
Ouiza BOUGHIAS, Mohamed Said BELKAID, Farida NEMMAR

- O-S11.62(P) A02165-03727** pg O67
Cd_{1-x}Se_x Thin Films: Application to Photoelectrochemical Solar Cells
Vithal PUJARI, Lalasaheb DESHMUKH
- O-S11.63(P) A02280-03889** pg O70
Construction of Energy Band Diagram for CdIn₂S₄ Thin Films Deposited onto Fluorine-doped Tin Oxide (FTO) and Stainless Steel (SS) Substrates
Raosaheb SAWANT
- O-S11.64(P) A02324-03984** pg O70
Temperature Dependency of Photoluminescence and Photoluminescence Excitation in GaAsN/AlAs/AlGaAs Quantum Well Structures
Daosheng LI, Weijun FAN, Baoshan MA, Yuxing DANG
- O-S11.65(P) A02339-04296** pg O71
Investigation of Ni/WSi/Ti Ohmic Contact to n-type SiCN
Wenjuan CHENG, Xueming MA
- O-S11.66(P) A02343-04024** pg O71
Single-crystalline Zinc Oxide Nanowires as Photoanode Material for Dye-sensitized Solar Cells
Shu-Te HO, Ching-Lun HSIAO, Heh-Nan LIN
- O-S11.67(P) A02351-04033** pg O72
Wafer Bonded Blue Light-Emitting Diode Grown on a Si Substrate
Seung-Jae LEE, Kang Ho KIM, Jae Hoon KIM, Seong-Ran JEON, Tak JEONG, Sang Hern LEE, Jong Hyeob BAEK
- O-S11.68(P) A02452-04182** pg O73
Temperature-dependent Photoluminescence Study on the Multilayer of ZnMgO/ZnO Grown at High Temperature
Yi YANG, Somasuntharam PANNIRSELVAM, Swee Tiam TAN, Jian Dong YE, Xiao Wei SUN, Guo-Qiang LO, Kie Leong TEO
- O-S11.69(P) A02512-04303** pg O75
Optical Properties of GaN Epitaxial Layers Deposited on a Low Temperature Buffer Layer of AlN for Waveguide Applications
Arnaud STOLZ, Eunjung CHO, El Hadj DOGHECHE, Dimitris PAVLIDIS, Didier DECOSTER
- O-S11.70(P) A02525-04321** pg O75
Surface Superpolaritons in One Dimensional Superconducting Photonic Crystals
Jamal BARVESTANI
- O-S11.71(P) A02527-04325** pg O75
Synthesis and Characterization of Colloidal SnTe/MEH-PPV Film
Guan Hui LIM, Min Shern NEO, Soo Jin CHUA, Qinghua XU, Wee Shiong CHIN
- O-S11.72(P) A02655-04555** pg O78
InSb Diodes Formed by Mg Rapid Thermal Diffusion
Z. J. XU, J.H. LI, D. H. ZHANG, X. Z. CHEN
- O-S11.73(P) A02683-04697** pg O79
Optimization of Annealing Condition of InSbN Alloys Fabricated by Ion Implantation
X.Z CHEN, D.H ZHANG, J.H LI, Y WANG, Y.J JIN
- O-S11.74(P) A02690-04625** pg O79
InSb_{1-x}N_x Epilayers Grown by Metal-organic Chemical Vapor Deposition and their Characterization
Yunjiang JIN, Xiaohong TANG, Xizi CHEN, Daohua ZHANG
- O-S11.75(P) A02693-04631** pg O79
Aluminum Incorporation in MOVPE Growth of AlInP using TBP in Pure N₂ Ambient
Jingua ZHAO, Xiaohong TANG
- O-S11.76(P) A00108-03255** pg O15
Bandgap Engineering Based on BexZn1-xO Alloy Films Prepared by RF Magnetron Co-sputtering
Dae-Sung PARK, Jung-Hyun KIM, Ji-Hyun YU, Tae-Su JOENG, Chang-Joo YOUN
- O-S11.77(P) A01033-01802** pg O38
Transmission Electron Microscope Study of Interdiffused InAs/InAlGaAs Quantum-dash-in-well Structure
Vitchanetra HONGPINYO, Shohei NAKAHARA, DongNing WANG, BoonSiew OOI, James C. HWANG
- O-S11.78(P) A01746-03043** pg O58
Solar Cells with Quantum Dots Molecularly Linked to TiO₂ as Light Harvesters
Sindhu SWAMINATHAN, Lekha P, Deepa K. G, Deepika B, Mini P. A, Subramanian K.R.V, Prasanth R, Shanti Kumar V NAIR

O1-S12: ZnO – III

Friday, 3 July 2009

11:00 - 13:00

Level 3, Room 304

Chair: Juergen Christen, Yao Kui

- 11:00 O1-S12.1-2(IN) A02260-03856** pg O69
Single-Photon and Two-Photon Pumped Whispering-Gallery Mode Ultraviolet Laser from an Individual ZnO Nanoneedle
Chunxiang XU, Guangping ZHU, Jin ZHU, Changgui LV, Yiping CUI

11:30 O1-S12.3(O) A00369-00678 pg O24
Ultrafast Optical Studies in Transition-Metal-Doped ZnO Nanowires
Guo Zhong XING, Ali Sucipto TAN,
Michael KURNIAWAN, Edbert Jarvis SIE,
Dan Dan WANG, Fa Xin ZANG, Zhi Peng WEI,
Cheng Hon Alfred HUAN, Tom WU, Tze Chien SUM

11:45 O1-S12.4(O) A00607-01105 pg O28
Effect of Annealing on Structural and Optical Properties of ZnO Crystals Grown on InP/c-sapphire Substrate by RF-magnetron Sputtering
Hongfei LIU, Soojin CHUA, Guangxia HU, Hao GONG

12:00 O1-S12.5(O) A00791-01385 pg O32
Atomic and Electronic Structures at ZnO and ZrO₂ Interface for Transparent Thin-film Transistors
Shijie WANG

12:15 O1-S12.6(O) A01282-02233 pg O45
Hydrothermal Synthesis of ZnO Nanorod on p-GaN
Yong Xing XU, Chew Beng SOH, Chuan Beng TAY,
Soo Jin CHUA

12:30 O1-S12.7(O) A00923-01619 pg O35
Growth and Chemical Surface Modification of SnO₂-based Nanorod Arrays
Hui HUANG, Chiew Keat LIM, Hua GONG,
Ooi Kiang TAN

12:45 O1-S12.8(O) A02470-04220 pg O74
Growth Modes Transition in ZnO Heteroepitaxy on Sapphire
Jiandong YE, Swee Tiam TAN,
Somasuntharam PANNIRSELVAM, Yi YANG,
Xiaowei SUN, Guoqiang LO, Kie Leong TEO

12:00 O2-S12.5(O) A01527-02668 pg O53
Determination of Effective Index Variation and Insertion Loss Introduced by Quantum Well Intermixing in InP/InGaAsP based Quantum Well
Yicheng LAI, Chee-Wei LEE, Yingyan HUANG,
Seng-Tiong HO

12:15 O2-S12.6(O) A02672-04589 pg O78
Novel Photonic Crystal Based Nanocavity Resonator
Fu Li HSIAO, Chengkuo LEE

12:30 O2-S12.7(O) A00031-02797 pg O12
Synthesis and Characterization of TiO₂ Inverse Opals for Solar Cell Applications
Siva KARUTURI, Lijun LIU, L. T. SU, A. I. Y. TOK

12:45 O2-S12.8(O) A00793-03041 pg O32
InGaAsP Superluminescent Device Based on Plasma Exposure Enhanced Quantum Well Intermixing
Yicen LI, Shuh Ying LEE, Ting MEI, Jing Hua TENG

O2-S12: Optoelectronic Devices & Integration – V

Friday, 3 July 2009

11:00 - 13:00

Level 3, Room 313

Chair: Steve Brueck, Tang Xiaohong

11:00 O2-S12.1-2(IN) A02549-04359 pg O77
New Approaches for Modulation of Vertical Cavity Lasers
Kent CHOQUETTE, Chen CHEN

11:30 O2-S12.3-4(IN) A03028-05161 pg O84
A Comparative Study of High-Power Sub-THz Photonic-Transmitters Based on GaAs/AlGaAs Uni-Traveling Carrier and Separated-Transport-Recombination Photodiodes
Ci-Ling PAN