Progress in Semiconductor Materials for Optoelectronic Applications

Symposium held November 26–29, 2001, Boston, Massachusetts, U.S.A.

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CONTENTS

Preface ......................................................................................................................................................... xix

Materials Research Society Symposium Proceedings ................................................................................... xx

LOW CONCENTRATION NITRIDE ALLOYS I

Luminescent Characteristics of InGaAsP/InP Multiple Quantum Well Structures by Impurity-Free Vacancy Disordering .......................................................................................................................... 3

J. Zhao, X.D. Zhang, Z.C. Feng, J.C. Deng, P. Jin, Y.C. Wang, and G. Xu

Successes and Predictions of a Pseudopotential Approach in Anion-Mixed Nitrides .................................................................................................................................................................................. 9

L. Bellaiche, A. Al-Yacoub, N.A. Modine, and E.D. Jones

The Role of Nitrogen-Induced Localization and Defects in InGaAsN (≈ 2% N): Comparison of InGaAsN Grown by Molecular Beam Epitaxy and Metal-Organic Chemical Vapor Deposition ........................................................................................................... 21


Growth of High Nitrogen Content GaAsN by Metalorganic Chemical Vapor Deposition .......................................................................................................................................................................................... 29


High Luminescence Efficiency From GaAsN Layers Grown by MBE With RF Nitrogen Plasma Source ........................................................................................................................................................................ 35

Victor M. Ustinov, Nikolai A. Cherkashin, Nikolai A. Bert, Andrei F. Tsatsuls’nikov, Alexei R. Kovsh, Jyh-Shang Wang, Li Wei, and Jim Y. Chi

Effect of Rapid Thermal Annealing: Red and Blue Shift in Photoluminescence of GaNAs Grown By RF Plasma-Assisted Molecular Beam Epitaxy .............................................................................................................................................. 41

W.K. Loke, S.F. Yoon, T.K. Ng, S.Z. Wang, and W.J. Fan

*Invited Paper
LOW CONCENTRATION NITRIDE ALLOYS II AND PHOTOVOLTAICS

* Electronic Structure Near the Band Gap of Heavily Nitrogen Doped GaAs and GaP ................................................................. 49
  Yong Zhang, B. Fluegel, M. Hanna, A. Duda, and A. Mascarenhas

InAsN Grown by Plasma-Assisted Gas Source MBE ........................................ 61

Nature and Formation of Non-Radiative Defects in GaNAs and InGaAsN ................................................................. 67
  W.M. Chen, N.Q. Thinh, I.A. Buyanova, P.N. Hai, H.P. Xin,
  C.W. Tu, Wei Li, and M. Pessa

* Deep Centers and Their Capture Barriers in MOCVD-Grown GaN ................................................................. 73
  Daniel K. Johnston, Mohamed Ahoujja, Yung Kee Yeo,
  Robert L. Hengehold, and Louis Guido

Near-Field Photoluminescence Spectroscopy of Localized States in InGaAsN Alloys................................. 85
  A.M. Mintairov, P.A. Blagnov, T. Kosel, J.L. Merz,
  V.M. Ustinov, A.S. Vlasov, and R.E. Cook

Raman and Photoluminescence Mapping of Lattice Matched InGaP/GaAs Heterostructures ........................................ 91
  G. Attolini, P. Fallini, F. Germini, C. Pelosi, O. Martinez,
  L.F. Sanz, M.A. González, and J. Jiménez

QUANTUM DOTS

* Quantum Dots of InAs/GaSb Type II Superlattice for Infrared Sensing. ................................................................. 99
  M. Razeghi, Y. Wei, A. Gin, and G.J. Brown

* Quantum Dot Long-Wavelength Detectors ................................................................. 109
  Pallab Bhattacharya, Adrienne D. Stiff-Roberts,
  Sanjay Krishna, and Steve Kennerly

*Invited Paper
Enhanced Photoluminescence from Long Wavelength InAs Quantum Dots Embedded in a Graded (In,Ga)As Quantum Well


A Theoretical Study of Structural Disorder and Photoluminescence Linewidth in InGaAs/GaAs Self Assembled Quantum Dots

Yih-Yin Lin, Hongtao Jiang, and Jasprit Singh

Electroluminescence and Spectral Shift of CdS Nanoparticles on Si Wafer

Eih-Zhe Liang, Ching-Fuh Lin, Sheng-Ming Shih, and Wei-Fang Su

InAs Quantum Dots in AlAs/GaAs Short Period Superlattices: Structure, Optical Characteristics and Laser Diodes


INFRARED DETECTORS

* Multi-Color Quantum Well Infrared Photodetectors for Mid-, Long-, and Very Long-Wavelength Infrared Applications

Sheng S. Li

* A Bowtie Antenna Coupled Tunable Photon-Assisted Tunneling Double Quantum Well (DQW) THz Detector

Majid M. Khodier, Christos G. Christodoulou, and Jerry A. Simmons

Fast Room Temperature Detection of State of Circular Polarization of Terahertz Radiation

Sergey D. Ganichev, Hermann Ketterl, and Wilhelm Prettl

PbTe Flash Evaporation on Si <100> Substrates for Heterojunction Infrared Detectors

Sonia Guimarães, Sabrina de C.F.F. da Silva, and João M.K. de Assis

GaAs Photodetector for X-ray Imaging

G.C. Sun, H. Samic, V. Donchev, S. Gautrot, and J.C. Bourgoin

* Invited Paper
INNOVATIVE DEVICES

Lead Telluride-Based Far-Infrared Photodetectors—A Promising Alternative To Doped Si and Ge
Dmitriy Dolzhenko, Ivan Ivanchik, Dmitriy Khokhlov, and Konstantin Kristovskiy

POSTER SESSION

Structural Properties and Doping of Zn_{1-x}(Mg,Li)_xO Materials
R.E. Melgarejo, M.S. Tomar, A. Hidalgo, and R.S. Katiyar

Depth Profiling of SiC Lattice Damage Using Micro-Raman Spectroscopy
Iulia C. Muntele, Daryush Ila, Claudiu I. Muntele, David B. Poker, and Dale K. Hensley

New Approach Towards the Deposition of I-III-VI Thin Films
Mohammad Afzaal, David Crouch, Paul O’Brien, and Jin-Ho Park

Comparison of AlGaAs Oxidation in MBE and MOCVD Grown Samples

Hole Concentration vs. Mn Fraction in a Diluted (Ga,Mn)As Ferromagnetic Semiconductor
Raimundo R. dos Santos, L.E. Oliveira, and J. d’Albuquerque e Castro

Photoluminescence from Er-Implanted 4H and 6H-SiC
Shin-ichiro Uekusa and Takayuki Goto

Control of ZnO Morphology by Solution Route
Lingdong Sun, Jan Zhang, Chunsheng Liao, and Chunhua Yan
Influence of Er and O Doses on Er-Related Emission in Al₀.₇₀Ga₀.₃₀As:Er
S.-I. Uekusa and T. Arai

Intersubband Transitions in InGaAs/InAlAs Multiple Quantum Wells Grown on InP Substrate
Qiaoying Zhou, M.O. Manasreh, B.D. Weaver, and M. Missous

Calculations of Dielectric Constant for AlGaInAs Quaternary Semiconductor Alloy in the Transparent Region and Above (0.4-4.0eV)
M. Linnik and A. Christou

Annealing of Some II-IV-V₂ Crystals in the Vapor of Volatile Constituents
Valeriy G. Voevodin, Olgag V. Voevodina, Svetlana A. Bereznaya, Zoya V. Korotchenko, Nils C. Fernelius, Jonathan T. Goldstein, and Melvin C. Ohmer

Radiative Recombination Processes of Thermal Donors in Silicon
S. Pizzini, S. Binetti, E. Leoni, A. Le Donne, M. Acciarri, and A. Castaldini

Annealing Effect on the Nonradiative Carrier Recombination in AlGaAs/GaAs Investigated by a Piezoelectric Photothermal Spectroscopy
Atsuhiko Fukuyama, Hiroaki Nagatomo, Yoshito Akashi, and Tetsuo Ikari

Optically Detected Magnetic Resonance Study of Core-Shell and Alloy Nanocrystals of HgTe and CdS

On the Scaling of Exciton and Impurity Binding Energies and the Virial Theorem in Semiconductor Quantum Wells and Quantum-Well Wires
M. de Dios-Leyva and L.E. Oliveira

Intra-Magnetoexciton Transitions in Semiconductor Quantum Wells
Z. Barticevic, M. Pacheco, C.A. Duque, and L.E. Oliveira

ix
Electron Scattering in Two-Dimensional Disordered
Heterostructures ................................................................. 307
I. Gómez, E. Diez, F. Domínguez-Adame, and P. Orellana

Exciton Diamagnetic Shifts and Magnetic Field Dependent
Linewidths in Ordered and Disordered InGaP Alloys ................................................................. 313
E.D. Jones, K.K. Bajaj, G. Coli, S.A. Crooker, Yong Zhang,
A. Mascarenhas, and J.M. Olsen

Field Emission Enhancement of DLC Films Using Triple-
Junction Type Emission Structure ................................................................. 319
Namwoong Paik, Michael Martin, Daeil Kim, Sungjin Kim,
Steven Kim, and Kie Moon Song

Luminescence of Quasi-2DEG in Heterostructures Based on
PbS Films .................................................................................. 325
G. Khlyap

LASERS AND MATERIALS

* GaInNAs Material Properties for Long Wavelength
Opto-Electronic Devices ................................................................. 333
Vincent Gambin, Wonill Ha, Mark Wistey, Seongsin Kim,
and James S. Harris

Excitonic Diamagnetic Shifts and Magnetic Field Dependent
Linewidths in Al,Ga, As Alloys ................................................................. 343
G. Coli, K.K. Bajaj, J.L. Reno, and E.D. Jones

Novel AlGaAs/CaF SESAM Device for Ultrashort Pulse
Generation .................................................................................. 349
Silke Schön, Lukas Gallmann, Markus Haiml, and Ursula Keller

Optical Characterization of IV-VI Mid-Infrared VCSEL ................................................................. 355
F. Zhao, H. Wu, T. Zheng, P.J. McCann, A. Majumdar,
Lalith Jayasinghe, and Z. Shi

ANTIMONY-BASED DEVICES

* Sb-Based Mid-Infrared Diode Lasers ................................................................. 365
C. Mermelstein, M. Rattunde, J. Schmitz, S. Simanowski,
R. Kiefer, M. Walthier, and J. Wagner

*Invited Paper

x
Thin Films of Antimony-Tin Oxide as Counter-Electrodes for Proton Working Electrochromic Devices .......................................................... 377
N. Naghavi, C. Marcel, L. Dupont, A. Rougier, and J-M. Tarascon

Sb-Terminated InAs(001)-(2x4) and (2x8) Studied Using Scanning Tunneling Microscopy and Ab Initio Density Functional Theory .......................................................................................... 383
William Barvosa-Carter, Frank Grosse, James H.G. Owen, and Jennifer J. Zinck

Effect of Marangoni Convection on InSb Single Crystal Growth by Horizontal Bridgman Method ......................................................... 389
K. Kodera, A. Kinoshita, K. Arafune, Y. Nakae, and A. Hirata

Asymmetric Hybrid Al(Ga)SbAs/InAs/Cd(Mg)Se Heterostructures for Mid-IR LEDs and Lasers ................................................................. 395

POSTER SESSION

Local Vibrational Modes of Carbon-Hydrogen Complexes in Proton Irradiated AlGaN .................................................................................. 403
M.O. Manasreh and B.D. Weaver

Effects of Ion Bombarding and Nitrogenation on the Properties of Photovoltaic a-CN, Thin Films .................................................................. 411

Doping Profiles of n-Type GaAs Layers Grown on Si by the Conformal Method ...................................................................................... 417

Gallium Vacancy in GaSb Studied by Positron Lifetime Spectroscopy and Photoluminescence ......................................................................... 423
Characterization of LiInS$_2$ and LiInSe$_2$ Single Crystals for Nonlinear Optical Applications

Ludmila Isaenko, Alexander Yelisseyev, Sergei Lobanov, Alexander Panich, Vitaly Vedenyapin, Julia Smirnova, Valentin Petrov, Jean-Jacques Zondy, and Guido Knippels

Optical Constants of Annealed a-Si:H from Transmittance at Normal Incidence

Atsutoshi Doi and Yoshiyuki Matsumoto

Field Effect Controlled Photoresistors Based on Chemically Deposited PbS Films

Eugenia Pentia, Lucian Pintilie, Ion Matei, and Ioana Pintilie

Photo-Stimulated Rebuilding of Structure in Semiconductors

S.S. Rashidova, B.L. Oksengendler, N.N. Turaeva, and I.M. Aripov

Luminescence From Erbium Oxide Grown on Silicon

E. Nogales, B. Méndez, J. Piqueras, R. Plugaru, J.A. García, and T.J. Tate

High-Performance InAs/GaAs Quantum Dots Infrared Photodetector With/Without Al$_{0.2}$Ga$_{0.8}$As Blocking Layers

Zhengmao Ye, Joe C. Campbell, Zhonghui Chen, O. Baklenov, E.T. Kim, I. Mukhametzhanov, J. Tie, and A. Madhukar

Current Images of CdSe Colloidal Nanodots Observed by Conductive-Tip Atomic Force Microscopy

Ichiro Tanaka, Eri Kawasaki, O. Ohtsuki, M. Hara, H. Asami, and I. Kamiya

Shallow-Donor States in Spherical Quantum Dots With Parabolic Confinement


Continuous and Time Resolved Optically Detected Magnetic Resonance Studies of InP Nanoparticles

L. Langof, E. Ehrenfreund, E. Lifshitz, O.I. Micic, and A.J. Nozik
Airplane and Drop Experiments on Crystallization of In$_x$Ga$_{1-x}$Sb Semiconductor Under Different Gravity Conditions

Krishnan Balakrishnan, Yasuhiro Hayakawa, Hideki Komatsu, Noriaki Murakami, Tetsuo Nakamura, Tadashi Kimura, Tetsuo Ozawa, Yasunori Okano, Masafumi Miyazawa, Sadik Dost, Le H. Dao, and Masashi Kumagawa

I-V And C-V Characteristics of nGaAs-nInSb Heterojunctions Obtained by Pulsed Laser Deposition Technique

Karapet E. Avdjian

Effects of Electric Fields on Cathodoluminescence From II-VI Quantum Well Light Emitting Diodes

A.Y. Nikiforov, G.S. Cargill III, M.C. Tamargo, S.P. Guo, and Y.-C. Chen

Gas Source MBE Growth and Characterization of TlInGaAs/InP DH Structures for Temperature-Independent Wavelength LD Application

Hajime Asahi, Hwe-Jae Lee, Akiko Mizobata, Kenta Konishi, Osamu Maeda, and Kumiko Asami

Effect of Zn Atom Diffusion in the Active Layer of InGaAlP Visible-LED Investigated by the Piezoelectric Photothermal Spectroscopy

Ryuji Ohno, Yoshihito Taiti, Shoihiro Sato, Atsuhiko Fukuyama, Shigeru Shigetomi, and Tetsuo Ikari

Strategies For Direct Monolithic Integration of Al$_x$Ga$_{1-x}$As/In$_x$Ga$_{1-x}$As LEDs and Lasers on Ge/GeSi/Si Substrates Via Relaxed Graded Ge$_{1-y}$Si$_y$ Buffer Layers


CVD Diamond Thin Films for Alpha Particle Detector Application

S.G. Wang, Q. Zhang, S.F. Yoon, and J. Ahn

Improved Routes Towards Solution Deposition of Indium Sulfide Thin Films for Photovoltaic Applications

Kuveshni Govender, David Smyth-Boyle, and Paul O’Brien

Third Order Mode Optically Pumped Semiconductor Laser for an Integrated Twin Photon Source in Quantum Optics

N.G. Semaltianos, A. De Rossi, V. Berger, B. Vinter, E. Chirillas, and V. Ortiz
On the Optical Memory of a Thin-Film pInSb-nCdTe Heterojunction Obtained by Laser Pulsed Deposition
Arik G. Alexanian, Nikolay S. Aramyan, Romen P. Grigoryan, Ashot M. Khachatryan, Lenrik A. Matevosssian, and Arsham S. Yeremyan

Quantitative Secondary Ion Mass Spectrometry (SIMS) of III-V Materials
P. Van Lierde, C. Tian, B. Rothman, and R.A. Hockett

Preparation of CdS/ZnO Core/Shell Structured Nanoparticles by Hydrothermal Method
Chunhua Yan, Lingdong Sun, Xuefeng Fu, and Chunsheing Liao

Development of AIBVI Semiconductors Doped with Cr for IR Laser Application
V.A. Kasiyan, R.Z. Shneck, Z.M. Dashevsky, and S.R. Rotman

Oxidation Kinetics and Microstructure of Wet-Oxidized MBE-Grown Short-Period AlGaAs Superlattices
René Todt, Katharine Dovidenko, Alexei Katsnelson, Vadim Tokranov, Michael Yakimov, and Serge Oktyabrsky

RADIATION DETECTORS AND EFFECTS

* Space Radiation Effects in Advanced Solar Cell Materials and Devices
R.J. Walters, G.P. Summers, and S.R. Messenger

Thermal Anneal Effects on Carbon-Hydrogen LVMs in AlGaN
M.O. Manasreh and B.D. Weaver

* Irradiation Effects in Space Solar Cells Made of Multiple Absorbers

* Ion Implantation Induced Interdiffusion in Quantum Wells for Optoelectronic Device Integration

* Invited Paper
The Influence of Annealing Temperature and Doping on the Red/Near-Infrared Luminescence of Ion Implanted SiO2:nc-Si

D.I. Tetelbaum, V.A. Burdov, S.A. Trushin, A.N. Mikhaylov, D.G. Revin, and D.M. Gaponova

**GROWTH, MATERIALS, AND DOPING**

* Airplane and Drop Experiments on Crystallization of InxGa1-xSb Semiconductor Under Different Gravity Conditions

Krishnan Balakrishnan, Yasuhiro Hayakawa, Hideki Komatsu, Noriaki Murakami, Tetsuo Nakamura, Tadasu Kimura, Tetsuo Ozawa, Yasunori Okano, Masafumi Miyazawa, Sadik Dost, Le. H. Dao, and Masashi Kumagawa

Photo-Assisted MOVPE Growth of ZnMgS on (100) Si

Angel Rodriguez, Jeremy Shattuck, Xiaoguang Zhang, Peng Li, David Parent, John Ayers, and Faquir Jain

Optical Vibrational and Structural Properties of Ge1-xSnx Alloys by UHV-CVD

Jennifer Taraci, S. Zollner, M.R. McCartney, Jose Menendez, D.J. Smith, John Tolle, M. Bauer, Erika Duda, N.V. Edwards, and J. Kouvetakis

Pulsed Laser Deposition and Characterization of Zn1-xMnxO Films

C. Jin, A. Tiwari, A. Kvit, D. Kumar, J. Muth, and J. Narayan

* InP Self Assembled Quantum Dot Lasers Grown on GaAs Substrates by Metalorganic Chemical Vapor Deposition


Effects of As Doping on Properties of ZnO Films


Growth of the Single-Crystalline ZnO Films on Si (111) Substrates by Plasma-Assisted Molecular-Beam Epitaxy

Kazuto Koike, Takanori Tanite, Shigehiko Sasa, Masataka Inoue, and Mitsuaki Yano

*Invited Paper
SYMPOSIUM K PAPERS


Interference Lithography for 3D Photonic Band Gap Crystal Layer by Layer Fabrication .............................................................. A Feigel, Z. Kotler, B. Sfez, A. Arsh, M. Klebanov, and V. Lyubin

Simulations of Realizable Photonic Bandgap Structures With High Refractive Contrast ............................................................... Bonnie Gersten and Jennifer Synowczynski

Optical Study of 2D Photonic Crystals in an InP/GaInAsP Slab Waveguide Structure ............................................................. Rolando Ferrini, David Leuenberger, Mikaël Mulot, Min Qiu, Jürgen Moosburger, Martin Kamp, Alfred Forchel, Srinivasan Anand, and Romuald Houdré

Fabrication of Microstructures for Microphotonic Circuit ............................................ Subhasish Chakraborty, D.G. Hasko, and R.J. Mears

* Two Dimensional Photonic Crystal Modes and Resonances in Three-Dimensional Structures .................................................. Shanhui Fan and J.D. Joannopoulos

Artificial Second Order Non-Linearity in Photonic Crystals ......................... A Feigel, Z. Kotler, and B. Sfez

*Invited Paper
PREFACE

Symposium H, entitled "Progress in Semiconductor Materials for Optoelectronic Applications," was held November 26–29 at the 2001 MRS Fall Meeting in Boston, Massachusetts. There were 160 papers presented in eleven sessions, including two poster sessions. The sessions were well attended and the discussions were lively.

The presentations during this four-day symposium emphasize the broad scientific and technological interest in semiconductor materials for optoelectronic applications. The objective of this symposium was to review the progress on interband and intersubband transitions in semiconductor materials including III-V, IV, and II-VI materials and quantum structures as well as to cover the progress on light sources, detectors, modulators, and other novel devices. A significant portion of the symposium addressed materials growth and processing issues for optoelectronic devices, including work on solar cell and lasers materials utilizing low nitrogen concentration compounds, VCSELs, quantum dots, and quantum wells, as well as heterostructures. Materials ranged over the III-V and II-VI semiconductors, including GaAs, GaAsN, InP, ZnSe, and others. Technological applications ranged over infrared detectors, microelectronics, optical materials, lasers solar cell applications and design and VCSELs.

Session chairs included: Salah Bedair, Yoon-Soo Park, Joe Campbell, Weng Chow, John Bruno, Steven Kurtz, Brad Weaver, Chennupati Jagadish, and Robert M. Biefeld. The organizers gratefully acknowledge their contribution.

Symposium support was provided by the Air Force Office of Scientific Research and the Office of Naval Research. The symposium organizers, proceedings editor, and the Materials Research Society gratefully acknowledge their support.

It should be noted that several selected papers from Symposium K and Symposium T were added to this proceedings.

Eric D. Jones
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January 2002
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