



## Technical Program

Sunday, 21 September 2008

11:00 – 14:00	<b>Registration</b>
14:00 – 14:15	<b>Opening</b>
	<b>Plenary</b>
14:15 – 14:45	<b>Su 1.1; Reaching Excellence in University R&amp;D – The Institutional Strategy of RWTH-Aachen 2020 (Plenary)</b> Reinhart Poprawe <i>Fraunhofer-Institut für Lasertechnik ILT, Lehrstuhl für Lasertechnik der RWTH, Aachen</i>
14:45 – 15:15	<b>Su 1.2; Photonic Metamaterials: Optics Starts Walking on Two Feet (Plenary)</b> Martin Wegener <i>Universität Karlsruhe (TH), Institut für Angewandte Physik, Center for Functional Nanostructures, Institut für Nanotechnologie, Karlsruhe</i>
15:15 – 15:45	<b>Su 1.3; The Konstanz Center for Applied Photonics: Bridging the Gap between Fundamental Research and High-Tech Industry (Plenary)</b> A. Leitenstorfer, R. Bratschitsch, E. May*, R. Huber, A. Sell, F. Sotier, and D. Träutlein <i>Department of Physics and Department of Biology*, University of Konstanz</i>
15:45 – 16:15	<b>Su 1.4; Light from crystals - light emitting diodes are penetrating our everyday life (Plenary)</b> Stefan Illek and K. Streubel <i>OSRAM Opto Semiconductors GmbH, Regensburg</i>
16:15 – 17:00	<b>Coffee Break</b>
17:00 – 17:30	<b>Su 2.1; Micro/Nanomechanical systems based on semiconductor heterostructures (Invited)</b> H. Yamaguchi, I. Mahboob, H. Okamoto, and K. Onomitsu <i>NTT Basic Research Laboratories, Kanagawa</i>
17:30 – 18:00	<b>Su 2.2; Manipulating single spins and coherence for spintronics (Invited)</b> David D. Awschalom <i>Center for Spintronics and Quantum Computation, University of California, Santa Barbara</i>
18:00 – 18:30	<b>Su 2.3; Microstructure and charge transport in polymeric semiconductors (Invited)</b> Alberto Salleo <sup>1*</sup> , Leslie Jimison <sup>1</sup> , Jonathan Rivnay <sup>1</sup> , Ludwig Goris <sup>1</sup> , Chenchen Wang <sup>2</sup> , Michael F. Toney <sup>3</sup> <sup>1</sup> <i>Department of Materials Science and Engineering, Stanford University</i> <sup>2</sup> <i>Department of Applied Physics, Stanford University</i> <sup>3</sup> <i>Stanford Synchrotron Radiation Laboratory, Menlo Park</i>
18:30 – 19:00	<b>Break</b>
19:00 – 20:30	<b>Welcome Reception</b>

Monday, 22 September 2008

**Spintronics**

- 8:30 – 9:00 **Mo 1.1; Optical control of a single manganese spin in a quantum dot (Invited)**  
L. Besombes\*, C. Le Gall, Y. Leger, H. Boukari, H. Mariette  
*CNRS, Institut Neel, Grenoble*
- 9:00 – 9:15 **Mo 1.2; Mn and Fe doped InAs quantum dots studied by X-STM**  
M. Bozkurt<sup>1\*</sup>, J.M. Ulloa<sup>1</sup>, C. Çelebi<sup>1</sup>, P.J. van Veldhoven<sup>1</sup>, R. Nötzel<sup>1</sup>, P.M. Koenraad<sup>1</sup>,  
V.A. Grant<sup>2</sup>, C.T. Foxon<sup>2</sup>, Euclides Marega Jr.<sup>3</sup>, and Gregory J. Salomo<sup>4</sup>  
<sup>1</sup>*Department of Applied Physics, Eindhoven University of Technology, Eindhoven*  
<sup>2</sup>*School of Physics and Astronomy, The University of Nottingham.*  
<sup>3</sup>*Instituto de Fisica de Sao Carlos, University of São Paulo*  
<sup>4</sup>*Physics Department, University of Arkansas*
- 9:15 – 9:30 **Mo 1.3; Narrow-gap ferromagnetic semiconductors (In,Mn)Sb on GaAs (001): growth and properties**  
T. Lien Tran<sup>1\*</sup>, Jens Herfort<sup>2</sup>, Oliver Bierwagen<sup>3</sup>, Fariba Hatami<sup>1</sup>, and W. Ted Masselink<sup>1</sup>  
<sup>1</sup>*Humboldt University, Berlin*  
<sup>2</sup>*Paul-Drude-Institute, Berlin*  
<sup>3</sup>*University of California, Santa Barbara*
- 9:30 – 10:00 **Mo 1.4; Spin-control in semiconductor nanostructures (Invited)**  
Th. Schäpers<sup>1\*</sup>, V. A. Guzenko<sup>1</sup>, M. Akabori<sup>1</sup>, S. Estévez-Hernández<sup>1</sup>, A. Bringer<sup>2</sup>,  
M. Hagedorn<sup>1</sup>, and H. Hardtdegen<sup>1</sup>  
<sup>1</sup>*Institute of Bio- und Nanosystems (IBN1), Research Center Jülich*  
<sup>2</sup>*Institute of Solid State Research (IFF), Research Center Jülich*
- 10:00 – 10:15 **Mo 1.5; Selective nuclear spin manipulation at n = 2/3 spin phase transition**  
S. Watanabe<sup>1</sup>, N. Kumada<sup>2</sup>, K. Hashimoto<sup>1,3</sup> and Y. Hirayama<sup>1,3</sup>  
<sup>1</sup>*Graduate School of Science, Department of Physics, Tohoku University, Sendai*  
<sup>2</sup>*NTT Basic Research Laboratories, Kanagawa*  
<sup>3</sup>*ERATO, Japan Science and Technology Agency, Kawaguchi*
- 10:15 – 10:30 **Mo 1.6; Fabrication of AlGaIn-based UV MOS LEDs grown by MBE (late news paper)**  
Tohru Honda\*, Shigetoshi Komiyama, Shota Suzuki and Takashi Okuhata  
*Department of Electronic Engineering, Kogakuin University, Tokyo*
- 10:30 – 11:00 **Coffee Break**
- Optoelectronic Devices**
- 11:00 – 11:30 **Mo 2.1; Molecular beam epitaxy of ZnO based heterostructures for advanced optoelectronic devices (Invited)**  
K. Nakahara<sup>1\*</sup>, S. Akasaka<sup>1</sup>, H. Yuji<sup>1</sup>, K. Tamura<sup>1</sup>, T. Fujii<sup>1</sup>, Y. Nishimoto<sup>1</sup>, D. Takamizu<sup>1</sup>,  
A. Sasaki<sup>1</sup>, T. Tanabe<sup>1</sup>, A. Kamisawa<sup>1</sup>, H. Amaike<sup>2</sup>, T. Onuma<sup>2</sup>, S. F. Chichibu<sup>2</sup>, M. Nakano<sup>3</sup>,  
T. Fukumura<sup>3</sup>, A. Tsukazaki<sup>3</sup>, A. Ohtomo<sup>3</sup>, and M. Kawasaki<sup>3,4,5\*</sup>  
<sup>1</sup>*Advanced compound semiconductors R&D center, ROHM Co. Ltd., Kyoto*  
<sup>2</sup>*Institute of Multidisciplinary Research for Advanced Materials, Tohoku University, Sendai*  
<sup>3</sup>*Institute for Materials Research, Tohoku University, Sendai*  
<sup>4</sup>*WPI Advanced Institute for Materials Research, Tohoku University, Sendai*  
<sup>5</sup>*CREST Japan Science and Technology Agency (JST), Tokyo*
- 11:30 – 11:45 **Mo 2.2; Monolithically integrated multi wavelength laser device based on GaSb**  
M. Müller\*, T. Lehnhardt, K. Röbner and A. Forchel  
*Technische Physik, Universität Würzburg*
- 11:45 - 12:00 **Mo 2.3; Biexciton Rabi oscillation in a single quantum dot at a telecommunication band**  
T. Kodera<sup>1\*</sup>, A. Suzuki<sup>2</sup>, T. Miyazawa<sup>1</sup>, H. Takagi<sup>2</sup>, N. Kumagai<sup>1</sup>, K. Watanabe<sup>1</sup>,  
T. Nakaoka<sup>1,3</sup>, and Y. Arakawa<sup>1,2,3</sup>  
<sup>1</sup>*Institute for Nano Quantum Information Electronics, University of Tokyo,*  
<sup>2</sup>*Research Center for Advanced Science and Technology, University of Tokyo*  
<sup>3</sup>*Institute of Industrial Science, University of Tokyo*

- 12:00 – 12:15 **Mo 2.4; Intersubband relaxation and dephasing in narrow InGaAs/AlAsSb quantum well structures**  
C. V-B. Grimm<sup>1</sup>, C. Pfau<sup>1</sup>, S. Zybelle<sup>1</sup>, M. Priegnitz<sup>1</sup>, S. Winnerl<sup>1</sup>, H. Schneider<sup>1</sup>, M. Helm<sup>1</sup>, K. Biermann<sup>2</sup>, and H. Künzel<sup>2</sup>  
<sup>1</sup>*Institute of Ion Beam Physics and Materials Research, Forschungszentrum Dresden Rossendorf*  
<sup>2</sup>*Fraunhofer Institute for Telecommunications (Heinrich Hertz Institut), Berlin*
- 12:15 – 12:30 **Mo 2.5; Homoepitaxial growth and characterization of ZnO(0001) thin films by metalorganic chemical vapor epitaxy**  
T. Ive\*, T. Ben-Yaacov, C. G. Van de Walle, U. K. Mishra, J. S. Speck, S. P. Denbaars  
*Materials Department and Electrical and Computer Engineering Department, University of California at Santa Barbara*
- 12:30 - 12:45 **Mo 2.6; Optical verification of gain in Ga(NAsP)/(BGa)(AsP) multi-quantum-well heterostructures monolithically grown lattice-matched on (001) silicon substrate**  
B. Kunert<sup>1</sup>, I. Németh<sup>2</sup>, S. Zinnkann<sup>2</sup>, G. Lukin<sup>2</sup>, T. B. Adams<sup>2</sup>, R. Fritz<sup>2</sup>, K. Volz<sup>2</sup>, W. Stolz<sup>2\*</sup>, C. Lange<sup>3</sup>, N. S. Koester<sup>3</sup>, D. J. Franzbach<sup>3</sup>, S. Chatterjee<sup>3</sup>, W. W. Rühle<sup>3</sup>, N. C. Gerhardt<sup>4</sup>, N. Koukourakis<sup>4</sup>, and M. Hofmann<sup>4</sup>  
<sup>1</sup>*NAsP III/V GmbH, Marburg*  
<sup>2</sup>*Material Sciences Center and Faculty of Physics, Philipps-University Marburg*  
<sup>3</sup>*Faculty of Physics, Philipps University Marburg*  
<sup>4</sup>*Photonics and Terahertz Technology, Ruhr-University Bochum*
- 12:45 – 14:00 **Lunch Break**  
**Low-dimensional structures**
- 14:00 – 14:30 **Mo 3.1; Complex Nanowire Structures (Invited)**  
Erik P.A.M. Bakkers<sup>1\*</sup>, Rienk Algra<sup>1,2,3</sup>, Magnus T. Borgstrom<sup>1,4</sup>, George Immink<sup>1</sup>, Bas Ketelaars<sup>1</sup>, Marcel A. Verheijen<sup>1</sup>, L.F. Feiner<sup>1</sup>, G. Immink<sup>2</sup>, W.J.P. van Enkevort<sup>3</sup>, E. Vlieg<sup>3</sup>  
<sup>1</sup>*Philips Research Laboratories Eindhoven, Eindhoven,*  
<sup>2</sup>*The Netherlands Materials Innovation Institute (M2i), Delft*  
<sup>3</sup>*IMM, Solid State Chemistry, Radboud University Nijmegen, Nijmegen*  
<sup>4</sup>*Solid State Physics, Lund University, Lund*
- 14:30 – 14:45 **Mo 3.2; MBE-VLS growth mechanism of GaAs nanowire on (111)Si substrate**  
J.H.. Paek, T. Nishiwaki, M. Yamaguchi\*, and N. Sawaki  
*Department of Electrical Engineering and Computer Science, Nagoya University, Nagoya*
- 14:45 – 15:00 **Mo 3.3; HVPE process : an effective tool for the bottom-up shaping of micro- and nano-objects with controlled morphology**  
R. M. Ramdani\*, E. Gil, Y. Andre, A. Trassoudaine and D. Castelluci  
*LASMEA UMR 6602 UBP / CNRS, Aubiere Cedex*
- 15:00 – 15:15 **Mo 3.4; Structural characterization of GaN nanowalls grown by Ti-mask selective area growth of molecular beam epitaxy**  
Akihiko Kikuchi<sup>1,2,3,\*</sup>, Katsumi Kishino<sup>1,2,3</sup> and Takayuki Hoshino<sup>1</sup>  
<sup>1</sup>*Department of Engineering and Applied Sciences, Sophia University, Tokyo*  
<sup>2</sup>*Sophia Nanotechnology Research Center, Sophia University, Tokyo*  
<sup>3</sup>*CREST, Japan Science and Technology*
- 15:15 – 15:30 **Mo 3.5; Growth and low-temperature-photoluminescence studies of high indium-content InAlN nanocolumns**  
J. Kamimura<sup>1,2</sup>, K. Kishino<sup>1,2,3\*</sup> and A. Kikuchi<sup>1,2,3</sup>  
<sup>1</sup>*Department of Engineering and Applied Sciences, Sophia University, Tokyo*  
<sup>2</sup>*Sophia nanotechnology research center, Sophia University, Tokyo*  
<sup>3</sup>*CREST, Japan Science and Technology Agency*

- 15:30 – 15:45 **Mo 3.6; GaN nanowires for nano-optoelectronic applications**  
 R. Calarco<sup>1\*</sup>, R.J. Meijers<sup>1</sup>, T. Stoica<sup>1</sup>, T. Richter<sup>1</sup>, K. Jeganathan<sup>1</sup>, R. K. Debnath<sup>1</sup>,  
 M. Marso<sup>1</sup>, E. Sutter<sup>2</sup>, H. Lüth<sup>1</sup>, L. Polenta<sup>3</sup>, A. Cavallini<sup>3</sup>, M. Rossi<sup>3</sup>, and D. Grützmacher<sup>1</sup>  
<sup>1</sup> *Institute of Bio- and Nanosystems (IBNI), Research Center Jülich*  
<sup>2</sup> *Center for Functional Nanomaterials, Brookhaven National Laboratory, New York*  
<sup>3</sup> *CNISM and Physics Department, University of Bologna*
- 15:45 – 16:00 **Mo 3.7; Optical properties of amber-emission InGaN/GaN single quantum disk nanocolumns**  
 Jo Tanaka<sup>1</sup>, Katsumi Kishino<sup>1,2,3\*</sup>, Hiroto Sekiguchi<sup>1,2,3</sup>, and Akihiko Kikuchi<sup>1,2,3</sup>  
<sup>1</sup> *Department of Electrical and Electronics Engineering, Sophia University, Tokyo*  
<sup>2</sup> *Sophia Nanotechnology Research, Center, Sophia University, Tokyo*  
<sup>3</sup> *CREST, Japan Science and Technology Agency, Tokyo*
- 16:00 – 19:30 **Break**
- 19:30 – 23:00 **Conference Dinner and Award Ceremony**

## Tuesday, 23 September 2008

### Electronic Devices

- 8:30 – 9:00 **Tu 1.1; GaN HFETs for millimeter-wave technologies (Invited)**  
 Masataka Higashiwaki<sup>\*1</sup>, Zhen Chen<sup>1</sup>, Stacia Keller<sup>1</sup>, Nobumitsu Hirose<sup>2</sup>, Takashi Mimura<sup>2,3</sup>,  
 Toshiaki Matsui<sup>2</sup>, and Umesh K. Mishra<sup>1</sup>  
<sup>1</sup> *Department of Electrical and Computer Engineering, University of California, Santa Barbara*  
<sup>2</sup> *National Institute of Information and Communications Technology, Tokyo*  
<sup>3</sup> *Fujitsu Laboratories Ltd., Kanagawa*
- 9:00 - 9:15 **Tu 1.2; Advanced mHEMT MMICs for 220 GHz high-resolution imaging systems**  
 S. Chartier<sup>1,2</sup>, A. Leuther<sup>1</sup>, I. Kallfass<sup>1</sup>, A. Tessmann<sup>1</sup>, M. Schlechtweg<sup>1</sup>, S. Stanko<sup>2</sup>, D. Nötzel<sup>2</sup>,  
 H. Essen<sup>2</sup> and O. Ambacher<sup>1</sup>  
<sup>1</sup> *Fraunhofer Institute for Applied Solid State Physics, Freiburg*  
<sup>2</sup> *FGAN-FHR, Research Institute for High Frequency Physics and Radar Techniques, Wachtberg*
- 9:15 - 9:30 **Tu 1.3; InGaAs channel MOSFET with novel self-aligned source/drain MBE regrowth technology**  
 U. Singiseti<sup>\*1</sup>, M.A. Wistey<sup>2</sup>, G.J. Burek<sup>1</sup>, E. Arkun<sup>2</sup>, Y.Sun<sup>3</sup>, E.W. Kiewra<sup>3</sup>, D.K. Sadana<sup>3</sup>,  
 B. J. Thibeault<sup>1</sup>, A.C. Gossard<sup>1,2</sup>, C. Palmstrom<sup>1,2</sup> and M.J.W. Rodwell<sup>1</sup>  
<sup>1,2</sup> *ECE and Materials Departments, University of California, Santa Barbara*  
<sup>3</sup> *IBM T.J. Watson Research Center, New York*
- 9:30 - 9:45 **Tu 1.4; Quantum-corrected Monte Carlo study of quasi-ballistic transport in nano-scale InGaAs HEMTs**  
 R. Yamada, T. Takegishi, Y. Hirata, T. Matsumoto, S. Hara and H. I. Fujishiro<sup>\*</sup>  
*Department of Applied Electronic, Tokyo University of Science, Chiba*
- 9:45 - 10:00 **Tu 1.5; InAlAs/InAs/InGaAs pseudomorphic High Electron Mobility Transistors exhibiting ultra-fast optical response**  
 Hirohisa Taguchi<sup>\*</sup>, Nobuhito Wakimura, Yugo Nakagawa, Tsutomu Iida, and  
 Yoshifumi Takanashi  
*Tokyo University of Science, Chiba*
- 10:00 - 10:15 **Tu 1.6; 20 GHz gated tunnel diode based UWB pulse generator**  
 M. Nilsson<sup>\*1</sup>, M. Årlelid<sup>2</sup>, E. Lind<sup>1</sup>, G. Astromskas<sup>1</sup>, and L.-E. Wernersson<sup>2</sup>  
<sup>1</sup> *Solid State Physics, Lund University, Lund*  
<sup>2</sup> *Electrical and Information Technology, Lund University, Lund*
- 10:15 – 10:30 **Tu 1.7; An Over 100 W AlGaIn/GaN Enhancement-Mode HEMT Power Amplifier with Piezoelectric-Induced Cap Structure (late news paper)**  
 Toshihiro Ohki, Toshihide Kikkawa, Masahito Kanamura, Kenji Imanishi, Kozo Makiyama,  
 Naoya Okamoto, Kazukiyo Joshin and Naoki Hara  
*Fujitsu Ltd. and Fujitsu Laboratories Ltd., Atsugi*

- 10:30 – 11:00 **Coffee Break**  
**GaN Electronics**
- 11:00 – 11:30 **Tu 2.1; GaN and Digital Electronics: A Way out of Moore's Law? (Invited)**  
Tomás Palacios  
*Massachusetts Institute of Technology, Cambridge*
- 11:30 – 11:45 **Tu 2.2; Development of AlGaIn/GaN HEMTs with efficiencies above 60% up to 100 V for next generation mobile communication 100 W power bars**  
P. Waltereit<sup>1,\*</sup>, W. Bronner<sup>1</sup>, R. Quay<sup>1</sup>, M. Dammann<sup>1</sup>, S. Müller<sup>1</sup>, M. Mikulla<sup>1</sup>, O. Ambacher<sup>1</sup>, F. van Rijs<sup>2</sup>, T. Rödle<sup>2</sup>, K. Riepe<sup>3</sup>  
<sup>1</sup>*Fraunhofer Institute for Applied Solid State Physics, Freiburg*  
<sup>2</sup>*NXP Semiconductors, Nijmegen*  
<sup>3</sup>*United Monolithic Semiconductors, Ulm*
- 11:45 – 12:00 **Tu 2.3; Depletion and Enhancement mode AlGaIn/GaN CAVET with Al ion implanted current blocking layer**  
Srabanti Chowdhury<sup>1,\*</sup>, Brian L. Swenson<sup>1</sup>, Steven P. DenBaars<sup>1,2</sup>, and Umesh K. Mishra<sup>1</sup>  
<sup>1</sup>*Department of Electrical and Computer Engineering, University of California, Santa Barbara*  
<sup>2</sup>*Materials Department, University of California, Santa Barbara*
- 12:00 – 12:15 **Tu 2.4; Punch-through voltage enhancement scaling of AlGaIn/GaN HEMTs using AlGaIn double heterojunction confinement**  
E. Bahat Treidel\*, O. Hilt, F. Brunner, J. Würfl and G. Tränkle  
*Ferdinand-Braun-Institut für Höchstfrequenztechnik, Berlin*
- 12:15 – 12:30 **Tu 2.5; AlN/GaN Metal Insulator Semiconductor Field Effect Transistors with in-situ MOCVD deposited Si<sub>3</sub>N<sub>4</sub>**  
S. Seo, E. Cho, C. Jin, D Pavlidis\* and L. Considine  
*Department of High Frequency Electronics, Darmstadt University of Technology, Darmstadt*
- 12:30 – 12:45 **Tu 2.6; Industrial GaN Process in Europe**  
K. Beilenhoff<sup>1,\*</sup>, J. Thorpe<sup>1</sup>, R. Behtash<sup>1</sup>, M. Hosch<sup>1</sup>, F. Bourgeois<sup>1</sup>, H. Blanck<sup>1</sup>, K. Riepe<sup>1</sup>, S. Heckmann<sup>2</sup>, D. Floriot<sup>2</sup>, B. Lambert<sup>2</sup>, M. Mußer<sup>3</sup>, P. Waltereit<sup>3</sup>, W. Bronner<sup>3</sup>, R. Quay<sup>3</sup>, M. Dammann<sup>3</sup>, S. Müller<sup>3</sup>, R. Kiefer<sup>3</sup>, H. Walcher<sup>3</sup>, F. van Raay<sup>3</sup>, O. Kappeler<sup>3</sup>, M. Mikulla<sup>3</sup>, F. van Rijs<sup>4</sup>, T. Rödle<sup>4</sup>, S. Murad<sup>4</sup>, P. van der Wel<sup>4</sup>  
<sup>1</sup>*United Monolithic Semiconductors GmbH, Ulm,*  
<sup>2</sup>*United Monolithic Semiconductors S.A.S, Orsay*  
<sup>3</sup>*Fraunhofer Institut for Applied Solid State Physics, Freiburg*  
<sup>4</sup>*NXP Semiconductors, Nijmegen*
- 12:45 – 14:00 **Lunch Break**  
**GaN Optoelectronics**
- 14:00 – 14:30 **Tu 3.1; Progress in the growth, characterization and device performance for nonpolar and semipolar GaN-based materials (Invited)**  
James S. Speck  
*Materials Department, University of California, Santa Barbara*
- 14:30 – 14:45 **Tu 3.2; Materials issues in the growth of GaN based green light emitting structures**  
H. Jönen<sup>1</sup>, U. Rossow<sup>1,\*</sup>, T. Langer<sup>1</sup>, A. Dräger<sup>1</sup>, L. Hoffmann<sup>1</sup>, H. Bremers<sup>1</sup>, A. Hangleiter<sup>1</sup>, F. Bertram<sup>2</sup>, S. Metzner<sup>2</sup>, and J. Christen<sup>2</sup>  
<sup>1</sup>*TU Braunschweig, Institut für Angewandte Physik, Braunschweig*  
<sup>2</sup>*Otto-von-Guericke Universität Magdeburg, Abteilung Festkörperphysik, Magdeburg*
- 14:45 – 15:00 **Tu 3.3; Efficiency and non-thermal roll-over of violet emitting GaInN LEDs grown on substrates with different dislocation densities**  
Markus Maier, Thorsten Passow, Michael Kunzer, Shangjing Liu, Joachim Wiegert, Ralf Schmidt, Klaus Köhler, and Joachim Wagner  
*Fraunhofer Institute for Solid State Physics, Freiburg*
- 15:00 – 15:15 **Tu 3.4; Mass Production of Optoelectronic Devices for Solid-State-Lighting (SSL)**  
K. Christiansen, B. Schoettker, A. Boyd, B. Schineller\*, and M. Heuken  
*AIXTRON AG, Aachen*

- 15:15 – 15:45 **Tu 3.5; Polariton lasing in GaN based microcavities (Invited)**  
N. Grandjean, G. Christmann, J. Levrat, A. Castiglia, E. Feltin, J.-F. Carlin, and R. Butté  
*Ecole Polytechnique Fédérale de Lausanne (EPFL)*
- 15:45 – 16:00 **Tu 3.6; Effect of microcracks and uniaxial stress on the optical properties of GaN/AlN quantum dots grown on Si(111)**  
O. Moshe<sup>\*1</sup>, D. H. Rich<sup>1</sup>, B. Damilano<sup>2</sup>, and J. Massies<sup>2</sup>  
<sup>1</sup>*Department of Physics, The Ilse Katz Center for Nano and Meso Scale Science and Technology, Ben-Gurion University of the Negev, Beer-Sheva*  
<sup>2</sup>*Centre de Recherche sur l'Hétéro-Epitaxie et ses Applications, Centre National de la Recherche Scientifique, Valbonne*
- 16:00 – 20:00 **Break**
- 20:00 – 22:00 **Poster Session**
- P01; Scanning of GaAs nanolayers by an electron beam. Monte Carlo model of cathodoluminescence technique**  
A. Nouri<sup>\*</sup> and R. Aouati  
*Department of Physics, University Mentouri of Constantine*
- P02; Deep level parameters from frequency resolved capacitance spectroscopy (FRCS) under pressure**  
Ashok K. Saxena<sup>\*</sup>  
*Semiconductor Devices and VLSI Group, Department of Electronics and Computer Engineering, Indian Institute of Technology, Roorkee (Uttarakhand)*
- P03; Optical Kerr response to multi pump pulses on GaAs weakly confined exciton**  
A. Kanno<sup>1,\*</sup>, R. Katouf<sup>1</sup>, O. Kojima<sup>1,2</sup>, J. Ishi-Hayase<sup>1,3</sup>, M. Tsuchiya<sup>1</sup> and T. Isu<sup>1,4</sup>  
<sup>1</sup>*National Institute of Information and Communications Technology, Tokyo*  
<sup>2</sup>*Department of Electrical and Electronics Engineering, Kobe University, Kobe*  
<sup>3</sup>*PRESTO, Japan Science and Technology Agency (JST), Saitama*  
<sup>4</sup>*Institute of Technology and Science, The University of Tokushima*
- P04; Determination of band offsets and subband levels for a GaInP/AlGaInP quantum well by photoreflectance using a 410nm InGaN laser diode**  
Wataru Susaki, Shinichi Kakuda, Takahiro Igawa, Takeshi Inada, Akihiro Tomioka  
*Osaka Electro-Communication University, Neyagawa*
- Withdrawn**
- P05; Photoreflectance study of InGaAs/AlAs/AlAsSb coupled double quantum wells**  
T. Mozume<sup>\*</sup> and S. Gozu  
*National Institute of Advanced Industrial Science and Technologies (AIST), Tsukuba*
- P06; Multicarrier analysis of magnetotransport data at low and high electric fields**  
Murthy O.V.S.N., V. Venkataraman  
*Department of Physics, Indian Institute of Science, Bangalore*
- P07; Mesoscopic elasticity of surface and nano-clusters**  
Eldada Peretz  
*Ben Gurion University of Negev, Beer Sheva*
- P08; Raman spectroscopy investigation of the plasmon damping effect in doped GaAs/AlGaAs superlattices**  
A. D. Rodrigues<sup>1</sup>, J. C. Galzerani<sup>\*1</sup>, Yu A. Pusep<sup>2</sup>  
<sup>1</sup>*Departamento de Física, Universidade Federal de São Carlos*  
<sup>2</sup>*Instituto de Física de São Carlos, Universidade de São Paulo*
- P09; Effect of monolayer coverage and spacer thickness on InAs/GaAs bilayer QDs grown at a reduced growth rate**  
S. Chakrabarti<sup>\*1</sup>, N. Halder<sup>1</sup>, Jayant Charthad<sup>1</sup>, Sandip Ghosh<sup>2</sup>, C. R. Stanley<sup>3</sup>  
<sup>1</sup>*Centre of Excellence in Nanoelectronics, Dept. of Electrical Engineering, Indian Institute of Technology Bombay, Maharashtra*  
<sup>2</sup>*Department of Condensed Matter Physics & Material Science, Tata Institute of Fundamental Research, Maharashtra*  
<sup>3</sup>*Department of Electronics & Electrical Engineering, Glasgow*

**P10; Deterministic self-organization: Ordered positioning of InAs quantum dots by self-organized anisotropic strain engineering on patterned GaAs (311)B**

E. Selçuk\*, G. J. Hamhuis, and R. Nötzel

*COBRA Inter-University Research Institute, Eindhoven University of Technology, Eindhoven*

**P11; Optical stability of the shape-engineered InAs/InAlGaAs quantum dots and its influences on the lasing characteristics**

Youngsin Yang<sup>1</sup>, Byounggu Jo<sup>1</sup>, Jaesu Kim<sup>1</sup>, Soo Kyung Bae<sup>1</sup>, Cheul-Ro Lee<sup>1</sup>, Jin Soo Kim<sup>1\*</sup>, Byung Seok Choi<sup>2</sup>, Dae Kon Oh<sup>2</sup>, Jong Su Kim<sup>3</sup>, and Jae-Young Leem<sup>4</sup>

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<sup>2</sup>*Electronics and Telecommunication Research Institute (ETRI), Daejeon*

<sup>3</sup>*Advanced Photonics Research Institute, Gwangju Institute of Science and Technology, Gwangju*

<sup>4</sup>*School of Nano Engineering, Inje University, Gimhae*

**P12; Exciton - donor complexes and trions in semiconductor quantum dots in a magnetic field**

A.P. Djotyan<sup>\*1</sup>, A.A. Avetisyan<sup>2</sup>, E.M. Kazaryan<sup>3</sup> and K. Moulopoulos<sup>4</sup>

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<sup>2</sup>*Departement Fysica, Universiteit Antwerpen*

<sup>3</sup>*Russian -Armenian (Slavonic) State University, Yerevan*

<sup>4</sup>*Department of Physics, University of Cyprus, Nicosia*

**P13; Photoluminescence decay time of GaAs quantum nanostructures**

Jong Su Kim<sup>\*1</sup>, Hoonsoo Kang<sup>1</sup>, Clare C. Byeon<sup>1</sup>, Mun Seok Jeong<sup>1</sup>, Sang-Youp Yim<sup>1</sup>, Jin Soo Kim<sup>2</sup>, Jae-Young Leem<sup>3</sup>, Do-Kyeong Ko<sup>1</sup>, and Jongmin Lee<sup>1</sup>

<sup>1</sup>*Advanced Photonics Research Institute, GIST, Gwangju*

<sup>2</sup>*Division of Advanced Materials Engineering, Chonbuk National University, Jeonju*

<sup>3</sup>*School of Nano Engineering, Center for Nano Manufacturing, Inje University, Gimhae*

**P14; A study of the grain size and electric property of Mn-doped ZnO thin films grown by plasma-assisted molecular beam epitaxy**

Hung-Ji Lin<sup>1</sup>, Der-Yuh Lin<sup>1\*</sup>, Jia-Zheng Hong<sup>1</sup>, Chu-Shou Yang<sup>2</sup>, Wei-Hsuan Lo<sup>3</sup>, and Jyh-Shyang Wang<sup>3</sup>

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<sup>2</sup>*Graduate Institute in Electro-Optical Engineering, Tatung University, Taipei*

<sup>3</sup>*Department of Physics and Center of nano-technology, Chung-Yuan Christian University, Chung-Li*

**P15; Time-resolved photoluminescence of type-II InAs/GaAs quantum dots covered by a thin GaAs<sub>1-x</sub>Sb<sub>x</sub> layer**

Yu-An Liao<sup>\*1</sup>, Wei-Ting Hsu<sup>1</sup>, Ming-Chih Lee<sup>1</sup>, Pei-Chin Chiu<sup>2</sup>, Jen-Inn Chyi<sup>2</sup>, and Wen-Hao Chang<sup>1</sup>

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<sup>2</sup>*Department of Electrical Engineering, National Central University, Chung-li*

**Withdrawn**

**P16; The fine structures of the optical absorption of chemically deposited CdS-Se films under varied conditions**

A. Oudhia\*, Shashibhushan

*Department of Physics, Govt. Arts and Science College, Durg (C.G.)*

**P17; The growth of InAs-based diode heterostructures with quantum dots as a new material for thermophotovoltaic application**

K. M. Gambaryan<sup>\*1</sup>, V. M. Aroutiounian<sup>1</sup>, T. Boeck<sup>2</sup> and M. Schulze<sup>2</sup>

<sup>1</sup>*Department of Physics of Semiconductors and Microelectronics, Yerevan State University, Yerevan*

<sup>2</sup>*Institute for Crystal Growth (IKZ), Berlin*

**P18; Electroluminescence analysis of 1.3-1.5  $\mu\text{m}$  InAs quantum dot LEDs with (Ga,In)(N,As) capping layers**

M. Montes<sup>1,\*</sup>, A. Hierro<sup>1</sup>, J. M. Ulloa<sup>1</sup>, A. Guzmán<sup>1</sup>, M. Al Khalfioui<sup>2</sup>, M. Hugues<sup>2</sup>, B. Damilano<sup>2</sup>, and J. Massies<sup>2</sup>

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<sup>2</sup>*CRHEA-Centre National de la Recherche Scientifique, Valbonne*

**P19; Growth of In-doped ZnO thin films by metalorganic chemical vapor deposition**

T. Ben-Yaacov\*, T. Ive, C. G. Van de Walle, U. K. Mishra, J. S. Speck, S. P. Denbaars  
*Materials Department and Electrical and Computer Engineering Department, University of California, Santa Barbara*

**P20; Optical observation of Aharonov-Bohm effect for a single neutral exciton**

Fei Ding<sup>1,2,3,4</sup>, N Akopian<sup>4</sup>, U Perinetti<sup>4</sup>, L Wang<sup>2</sup>, S Kiravittaya<sup>2</sup>, Y H Chen<sup>3</sup>, Z G Wang<sup>3</sup>, V. Zwiller<sup>4</sup>, A Rastelli<sup>1</sup>, and O G Schmidt<sup>1</sup>

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<sup>2</sup>*Max-Planck-Institut für Festkörperforschung, Stuttgart*

<sup>3</sup>*The Key Laboratory of Semiconductor Materials Science, Institute of Semiconductor, Chinese Academy of Sciences, Beijing*

<sup>4</sup>*Kavli Institute of Nanoscience, Delft University of Technology, Delft*

**P21; Crystalline Ge<sub>3</sub>N<sub>4</sub> on Ge(111)**

R. R. Lieten<sup>\*1,2</sup>, S. Degroote<sup>1</sup>, M. Kuijk<sup>2</sup>, and G. Borghs<sup>2</sup>

<sup>1</sup>*III-V Systems, IMEC, Leuven*

<sup>2</sup>*ETRO, Vrije Universiteit Brussel, Brussels*

**P22; Heteroepitaxial growth of rotated AlInSb layer mediated by InSb bi-layer on Si(111) substrate**

M. Saito\*, M. Mori, K. Ueda, K. Nakatani, K. Maezawa  
*Venture Business Laboratory, University of Toyama*

**P23; The Heteroepitaxy of the Semiconducting Oxide SnO<sub>2</sub> via Plasma-Assisted Molecular Beam Epitaxy**

M. E. White\*, M. Y. Tsai, O. Bierwagen, and J. S. Speck

*Materials Department, University of California, Santa Barbara*

**P24; Improved transport characteristics on Indium Nitride (InN) films grown by plasma assisted molecular-beam epitaxy (PAMBE)**

Andreas Knübel<sup>\*1</sup>, Rolf Aidam<sup>1</sup>, Volker Cimalla<sup>1</sup>, Vadim Lebedev<sup>1</sup>, Jan Wallauer<sup>2</sup>, Markus Walther<sup>2</sup>, and Joachim Wagner<sup>1</sup>

<sup>1</sup>*Fraunhofer Institute for Applied Solid State Physics, Freiburg*

<sup>2</sup>*Albert-Ludwigs-University, Institute of Physics, Department of Molecular and Optical Physics, Freiburg*

**P25; Influence of barrier thickness on device performance in recessed AlGaIn/GaN HEMTs**

C. Haupt\*, S. Maroldt, W. Pletschen, A. Leuther, R. Quay and O. Ambacher

*Fraunhofer Institute for Applied Solid State Physics, Freiburg*

**P26; Electroluminescence Characterization of AlGaIn/GaN HEMTs**

R. Lossy<sup>\*1</sup>, A. Glowacki<sup>2</sup>, Ch. Boit<sup>2</sup> and J. Würfl<sup>1</sup>

<sup>1</sup>*Ferdinand-Braun-Institut für Höchstfrequenztechnik, Berlin*

<sup>2</sup>*Technische Universität Berlin*

**P27; Engineered linearity of GaN-based HEMTs power devices by tailoring transfer characteristics**

E. Bahat Treidel\*, M. I. Khalil, O. Hilt, J. Würfl and G. Tränkle

*Ferdinand-Braun-Institut für Höchstfrequenztechnik, Berlin*

**P28; Multiscale modeling and simulation of Silicon Carbide oxidation**

A. N. Chatterjee<sup>\*1</sup> and K. S. Matocha<sup>2</sup>

<sup>1</sup>*GE Global Research Center, Bangalor*

<sup>2</sup>*GE Global Research Center, New York*

**P29; Vertical and metal alloy based InGaN light emitting diodes with eutectic backside layer**

W.H. Liu<sup>2</sup>, T. Doan<sup>1</sup>, C. Tran<sup>1</sup>, Y.H. Chang<sup>2</sup>, C. Chu<sup>2</sup>, C. Cheng<sup>2</sup>, H.P. Cheng<sup>2</sup>

<sup>1</sup>*SemiLEDs Corp., Boise*

<sup>2</sup>*Semi-Photonics, Hsinchu*

**P30; Optimization of electrode configuration in large GaInN light-emitting diodes**

W. Ochiai<sup>1</sup>, R. Kawai<sup>1</sup>, A. Suzuki<sup>2</sup>, M. Iwaya<sup>1</sup>, H. Amano<sup>1</sup>, S. Kamiyama<sup>1,2</sup>, and I. Akasaki<sup>1</sup>

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<sup>2</sup>*EL-SEED Corporation, Chikusa-ku, Nagoya*

**Withdrawn**

**P31; In-situ optical monitoring of stress and growth rate during the deposition of Boron Nitride thin films by RF magnetron sputtering**

Alexandru Riposan<sup>1,2\*</sup>, Codrin N. Cionca<sup>1</sup>, Naji S. Husseini<sup>1</sup>, Divine P. Kumah<sup>1</sup>, Charles A. Taylor<sup>3</sup>, and Roy Clarke<sup>1</sup>

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<sup>2</sup>*Intevac, Inc., Santa Clara*

<sup>3</sup>*k-Space Associates, Inc., Ann Arbor*

**P32; The role of carbon in transport processes during PVT growth of bulk GaN**

H.-J. Rost, D. Siche\*, D. Gogova, M. Albrecht, R. Fornari

*Leibniz Institute for Crystal Growth, Berlin*

**P33; Design and analysis of high-performance terahertz quantum cascade lasers**

Norihiko Sekine\* and Iwao Hosako

*National Institute of Information and Communications Technology (NICT), Tokyo*

**P34; Intense emission of THz electromagnetic wave from an undoped GaAs/n-type GaAs epitaxial layer structure**

H. Takeuchi<sup>\*1</sup>, J. Yanagisawa<sup>1</sup>, T. Hasegawa<sup>2</sup>, and M. Nakayama<sup>2</sup>

<sup>1</sup>*Department of Electronic Systems Engineering, School of Engineering, The University of Shiga Prefecture, Shiga*

<sup>2</sup>*Department of Applied Physics, Graduate School of Engineering, Osaka City University, Osaka*

**P35; Optical Kerr signals of GaAs/AlAs multilayer cavities for a short pulse**

K. Morita\*, T. Kanbara, S. Yano, T. Kitada and T. Isu

*Center for Frontier Research of Engineering, Institute of Technology and Science, The University of Tokushima*

**P36; GaAs/AlAs vertical resonant tunneling nano-transistor**

M. I. Lepsa<sup>1\*</sup>, J. Wensorra<sup>1</sup>, K. M. Indlekofer<sup>1,2</sup>, A. Förster<sup>3</sup>, H. Lüth<sup>1</sup> and D. Grützmacher<sup>1</sup>

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<sup>2</sup>*FH Wiesbaden, University of Applied Sciences, Information Technology and Electrical Engineering, Rüsselsheim*

<sup>3</sup>*FH Aachen, University of Applied Sciences and Technology, Jülich*

**P37; Performances comparison of Si and GaAs based resonant tunneling diodes**

E. Buccafurri<sup>1</sup>, R. Clerc<sup>2</sup>, F. Calmon<sup>1</sup>, M. Pala<sup>2</sup>, A. Poncet<sup>1</sup> and G. Ghibaudo<sup>2</sup>

<sup>1</sup>*INL, INSA-Lyon, Villeurbanne Cedex*

<sup>2</sup>*IMEP – LAHC, Grenoble Cedex*

**P38; Electron transport properties in InAs four-terminal ballistic junctions under weak magnetic fields**

M. Koyama\*, K. Fujiwara, N. Amano, T. Maemoto, S. Sasa and M. Inoue

*Nanomaterials Microdevices Research Center, Osaka Institute of Technology, Osaka*

**Withdrawn**

**P39; Simulation of stresses fields in GaSb/InAs heteroepitaxial system**

Ye. Baganov<sup>\*,1</sup>, S. Shutov<sup>2</sup>

<sup>1</sup>*Kherson National Technical University, Kherson*

<sup>2</sup>*V. Lashkaryov Institute of Semiconductor Physics, National Academy of Science of Ukraine, Kyiv*

**P40; Photoreduction and oxidation principle of highly sensitive ozone sensors based on indium oxide nanoparticles**

Ch. Y. Wang<sup>\*,1</sup>, M. Himmerlich<sup>2</sup>, V. Cimalla<sup>1</sup>, T. Richter<sup>1</sup>, M. Kunzer<sup>1</sup>, M. Maier<sup>1</sup>, K. Köhler<sup>1</sup>, J.A. Schaefer<sup>2</sup>, S. Krischok<sup>2</sup>, and O. Ambacher<sup>1</sup>

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<sup>2</sup>*Institute of Physics and Institute of Micro- and Nanotechnologies, TU Ilmenau*

**P41; CNT-Based Gas sensors with integration-friendly micro-nano features**

O. Yilmazoglu<sup>1\*</sup>, A. Popp<sup>2</sup>, D. Pavlidis<sup>1\*</sup>, J. J. Schneider<sup>2</sup>

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<sup>2</sup>*Department of Chemistry, Inorganic Chemistry, Technische Universität Darmstadt*

**P42; C-plane chromia on c-plane sapphire**

A. Tarre<sup>\*,1</sup>, G. Carlotti<sup>2</sup>, A. Gerst<sup>1</sup>, H. Mändar<sup>1</sup>, A. Niilik<sup>1</sup>, V. Sammelseg<sup>1</sup>, G. Socino<sup>2</sup>, and A. Rosental<sup>1</sup>

<sup>1</sup>*Institute of Physics, University of Tartu*

<sup>2</sup>*CNISM and Dipartimento di Fisica, Università di Perugia*

**P43; Record fT and fMAX of 48 GHz and 81 GHz respectively using non-alloyed ohmic contacts on Nitrogen-polar GaN/AlN high electron mobility transistor (late news paper)**

Nidhi<sup>1\*</sup>, Sansaptak Dasgupta<sup>1</sup>, Yi Pei<sup>1</sup>, James S. Speck<sup>2</sup>, Umesh K. Mishra<sup>1</sup>

<sup>1</sup>*Department of Electrical and Computer Engineering, University of California, Santa Barbara*

<sup>2</sup>*Materials Department, University of California, Santa Barbara*

Wednesday, 24 September 2008

**Emerging Materials**

- 8:30 – 9:00 **We 1.1; Carbon Nano-electronics (Invited)**  
Zhihong Chen  
*IBM T.J. Watson Research Center, New York*
- 9:00 - 9:15 **We 1.2; Enhancement of N incorporation into (Ga)InAsN quantum dots**  
R.Gargallo-Caballero<sup>1,\*</sup>, A. Guzmán<sup>1</sup>, M. Hopkinson<sup>2</sup>, J. M. Ulloa<sup>1</sup>, A. Hierro<sup>1</sup> and E. Calleja<sup>1</sup>  
<sup>1</sup>*Instituto de Sistemas Optoelectrónicos y Microtecnología (ISOM) – Universidad Politécnica de Madrid, ETSIT, Ciudad Universitaria s/n, Madrid*  
<sup>2</sup>*Department of Electronic & Electrical Engineering, EPSRC National Centre for III-V Technologies, University of Sheffield*
- 9:15 – 9:30 **We 1.3; Device integration of site-controlled InAs quantum dots into photonic crystal resonators**  
C. Schneider, T. Sünner<sup>\*</sup>, A. Huggenberger, M. Strauß, D. Wiener, M. Kamp, S. Höfling, and A. Forchel  
*Technische Physik, Universität Würzburg*
- 9:30 - 9:45 **We 1.4; Strain relaxation of InN Islands on GaN investigated by Micro-Raman scattering**  
Wen-Che Tsai<sup>\*</sup>, Feng-Yi Lin, Wen-Chen Ke, Wu-Ching Chou, Wei-Kuo Chen, Ming-Chih Lee, and Wen-Hao Chang  
*Department of Electrophysics, National Chiao Tung University, Hsinchu*
- 9:45 – 10:00 **We 1.5; Three-dimensional Ge/Si quantum dot crystals with small periodicities**  
Gregor Mussler<sup>1,2,\*</sup>, Christian Dais<sup>3</sup>, Detlev Grützmacher<sup>1,2</sup>, Harun H. Solak<sup>3</sup>, Thomas Fromherz<sup>4</sup>, Julian Stangl<sup>4</sup>  
<sup>1</sup>*Institute for semiconductor nanoelectronics IBN-I, Research Center Jülich,*  
<sup>2</sup>*Fundamentals of future information technology, Jülich Aachen Research Alliance*  
<sup>3</sup>*Laboratory for Micro- and Nanotechnology, Paul Scherrer Institute, Villigen*  
<sup>4</sup>*Institute for semiconductor physics, Johannes Kepler University, Linz*

- 10:00 – 10:15 **We 1.6; Strain relaxation mechanism in the MBE grown InSb/GaSb material system**  
 B. Satpati<sup>1</sup>, E. Luna<sup>1</sup>, B. Yadav<sup>1</sup>, and A. Trampert<sup>1\*</sup>, N. Deguffroy<sup>2</sup>, V. Tasco<sup>2,§</sup>, A.N. Baranov<sup>2</sup>, and E. Tournié<sup>2</sup>  
<sup>1</sup>*Paul-Drude-Institut für Festkörperelektronik, Berlin*  
<sup>2</sup>*Université Montpellier 2, Montpellier cedex*  
<sup>§</sup>*Present address : National Nanotechnology Laboratory of CNR-INFM, Lecce*
- 10:15 – 10:30 **We 1.7; Suppression of domain formation in GaN layers grown on Ge(111) (late news paper)**  
 R. R. Lieten<sup>\*1,2</sup>, S. Degroote<sup>1</sup>, M. Leys<sup>1</sup>, M. Kuijk<sup>2</sup> and G. Borghs<sup>3</sup>  
<sup>1</sup>*III-V Systems, IMEC, Leuven, Belgium*  
<sup>2</sup>*ETRO, Vrije Universiteit Brussel, Brussels*  
<sup>3</sup>*NEXTR, IMEC, Leuven*
- 10:30 – 11:00 **Coffee Break**  
**Materials - Growth**
- 11:00 – 11:30 **We 2.1; Seeded growth of AlN crystals in polar and non-polar directions (Invited)**  
 Z. Herro, P. Lu, D. Zhuang, R. Schlessler, Z. Sitar  
*Department of Materials Science and Engineering, North Carolina State University*
- 11:30 – 11:45 **We 2.2; Approaches for AlN bulk crystal growth improvements**  
 Carsten Hartmann, Roberto Fornari, Jürgen Wollweber, Martin Albrecht, Christoph Seitz, Michael Kaatz  
*Leibniz Institute for Crystal Growth, Berlin*
- 11:45 – 12:00 **We 2.3; Micro-photoluminescence spectroscopy of single CdTe/ZnTe quantum dots grown on Si (100) substrates**  
 H. S. Lee\*, M. Benyoucef, A. Rastelli, O. G. Schmidt  
*Institute for Integrative Nanosciences, IFW Dresden*
- 12:00 – 12:15 **We 2.4; Dislocation reduction in N-polar GaN grown on Si(111) by insertion of Al<sub>x</sub>Ga<sub>1-x</sub>N/GaN superlattice**  
 Sansaptak Dasgupta<sup>1</sup>, J.S. Speck<sup>2</sup> and U.K. Mishra<sup>1</sup>  
<sup>1</sup>*ECE Dept., University of California, Santa Barbara*  
<sup>2</sup>*Materials Dept., University of California, Santa Barbara*
- 12:15 – 12:30 **We 2.5; Epitaxial growth of Al-doped β-FeSi<sub>2</sub> on Si(111) substrate by reaction deposition epitaxy**  
 Yoshikazu Terai\*, Syoutaro Hashimoto, Keiichi Noda, and Yasufumi Fujiwara  
*Division of Materials and Manufacturing Science, Graduate School of Engineering, Osaka University*
- 12:30 – 12:45 **We 2.6; MBE growth and carrier dynamics of type-II ZnTe/ZnSe heterostructures**  
 Rita Najjar\*, Régis André, Lucien Besombes, Catherine Bougerol, Serge Tatarenko, and Henri Mariette  
*CEA-CNRS group "Nanophysique et semiconducteurs", Institut NEEL-CNRS, Grenoble cedex*
- 12:45 – 14:00 **Lunch**
- 14:00 – 19:00 **Excursion to Freiburg**