

## Invited Talks

- Inv.1: Monday, June 8 at 09:30h  
III-V Semiconductor Nanowires and Core-Shell Nanowires and Their Device Applications.  
T. Fukui et al. (Hokkaido University, Sapporo, Japan)
- Inv.2: Monday, June 8 at 10:15h  
Optimization of III-N heterostructures growth by MOVPE via surface processes control  
W.V. Lundin (Ioffe Physico-Technical Institute, St-Petersburg, Russia) et al.
- Inv.3: Monday, June 8 at 14:30h  
The impact of gas-phase and surface chemistry during group-III nitride MOVPE  
J.R. Creighton (Sandia National Laboratories, Albuquerque, U.S.A.)
- Inv.4: Monday, June 8 at 15:15h  
Selective Area Growth for Photonic Integrated Circuits  
J. Decobert (Acatel-Thales III-V Lab, Marcoussis, France)
- Inv.5: Tuesday, June 9 at 09:00h  
Production, development and perspectives of Azur's multijunction solar cells  
T. Bergunde (Azurspace, Heilbronn, Germany)
- Inv.6: Tuesday, June 9 at 09:45h  
p-type doping of narrow gap II-VI materials by MOVPE  
J.E. Hails (*QinetiQ Ltd., Malvern, UK*)
- Inv.7: Wednesday, June 10 at 09:00h  
Strain-Compensated GaInAs/AlInAs/InP Quantum Cascade Laser Materials Grown by MOVPE  
C.A. Wang (Lincoln Laboratory, MIT, Lexington, U.S.A.)
- Inv.8: Wednesday, June 10 at 09:45h  
MOVPE and MBE in blue laser diode technology.  
M. Leszczynski et al. (UNIPRESS and TopGaN, Warsaw, Poland)

## Posters

### Poster Session A: Monday 11:15 – 13:15

- A.01 Vapor Pressure of Trimethylantimony and Tert-butyldimethylantimony.  
M. Fulem (Institute of Chemical Technology, Prague, Czech Republic) et al.
- A.02 MOVPE preparation of Si(100) for III-V hetero epitaxy.  
H. Döscher et al. (Helmholtz-Zentrum Berlin für Materialien und Energie)
- A.03 Central Delivery of TMGa Vapor From a Bulk Source.  
E. Woelk et al. (Rohm and Haas Electronic Materials, North Andover, MA, USA)
- A.04 1060nm Vertical External Cavity Surface Emitting Lasers as one major component for frequency doubled green lasers.  
I. Pietzonka et al. (OSRAM OS GmbH, Regensburg, Germany)
- A.05 High-Power Pulsed Laser Diodes (900nm) Based on Triple Integrated Heterostructures InGaAs/AlGaAs/GaAs Grown by MOVPE.  
M.A. Ladugin (Sigm Plus Co., Moscow, Russia) et al.
- A.06 Minority carrier lifetimes of InGaAsP and InGaAs absorbers for low bandgap tandem solar cells  
N. Szabó et al. (Helmholtz Center Berlin for Materials and Energy, Germany)
- A.07 Planarization of overgrown tunnel junctions for InP-based VCSEL by MOVPE  
C. Grasse (Walter Schottky Institut, TU München, Germany) et al.
- A.08 Atomic step morphology of InGaN layers  
R. Czernecki (Institute of High Pressure Physics PAS, Warsaw, Poland) et al.
- A.09 Growth of a-plane GaN layers on slightly misoriented r-plane Sapphire substrates.  
S. Schwaiger et al. (Institut für Optoelektronik, Universität Ulm, Germany)
- A.10 Effect of Fe doping on optical properties of Si GaN bulk substrates suitable for MOVPE growths  
E. Hulcius (Institute of Physics, AS CR, Prague, Czech Republic) et al.
- A.11 Low dislocation density GaN growth on high-temperature AlN buffer layers on (0001) sapphire  
M.J. Kappers (University of Cambridge, UK) et al.
- A.12 A study of the spatial distribution and generation mechanism of dislocations in the early stages of GaN growth on (0001) sapphire  
M. A. Moram et al. (University of Cambridge, UK)
- A.13 High quality Al<sub>0.2</sub>Ga<sub>0.8</sub>N epilayers grown directly on sapphire without GaN buffer layer  
K. Forghani (Institut für Optoelektronik, Universität Ulm, Germany) et al.
- A.14 Growth and characterization of epitaxial structures for violet and blue laser diodes grown by MOCVD.  
Jianping Liu (Georgia Institute of Technology, Atlanta, Georgia, USA) et al.

- A.15 Investigation of MOVPE grown GaN around ZnO Nanostructures  
A. Behrends (Technical University Braunschweig, Germany) et al.
- A.16 Wurtzite–zinc blende transition in InAs nanowires: experiments and theory.  
J. Johansson (Solid State Physics, Lund University, Sweden) et al.
- A.17 Axial doping profile in VLS grown GaAs:Zn nanowires  
I. Regolin et al. (Center for Nanointegration, University of Duisburg-Essen, Germany)
- A.18 Comparative study on gold seed particles fabricated by different methods for the growth of GaAs nanowires  
M. E. Messing (Solid State Physics, Lund University, Sweden) et al.
- A.19 On the growth rates, shape and composition of AlGaAs nanowires by Au-catalyzed MOVPE  
P. Paiano (Dept. of Innovation Engineering, Univ. of Salento, Lecce, Italy) et al.
- A.20 GaN:Mn layers growth by MOVPE.  
Z. Sofer (Institute of Chemical Technology, Prague, Czech Republic) et al.
- A.21 MOVPE growth and characterisation of Ga(NAsP) for the integration of solar cell structures on Si substrate  
C. Jurecka et al. (Philipps University Marburg, Germany)
- A.22 Growth of InMnAs nanostructures over InP patterned substrates using MOVPE  
M. P. Pires (Inst. de Física, Univ. Federal do Rio de Janeiro, Brazil) et al.

**Poster Session B: Monday 16:30 – 18:30**

- B.01 New approach in MOVPE process design of graded Al<sub>x</sub>Ga<sub>1-x</sub>As structures aided by neural network  
M. Wosko et al. (Wrocław University of Technology, Poland)
- B.02 Low-temperature growth kinetics in III-nitride and III-V MOVPE  
W.V. Lundin (Ioffe Physico-Technical Institute, St.Petersburg, Russia) et al.
- B.03 AlGaAs/ GaAs heterojunction phototransistor made by MOVPE - device simulations and performance characteristics  
B. Sciana et al. (Wroclaw University of Technology; Poland)
- B.04 Characterization of regrown interfaces for single-mode DFB or DBR laser diodes  
F. Bugge (Ferdinand-Braun-Institut Berlin, Germany) et al.
- B.05 Fabrication and characterization of red AlGaInP-VECSEL  
T. Schwarzbäck et al. (IHFG, Universität Stuttgart, Germany)
- B.06 In situ Strain Measurements of InGaAs and Metamorphic Buffer Layers used in MOVPE Solar Cell structures  
C. Ebert (Veeco Turbodisc, Somerset, NJ 08873 USA) et al.
- B.07 MOVPE of AlGaIn with high Al-content and high growth rates in a close coupled showerhead reactor  
J. Stellmach et al. (Institut für Festkörperphysik, TU Berlin, Germany)

- B.08 MOVPE Grown GaN Structures on Silicon Pillar Arrays  
S. Fündling (Technische Universität Braunschweig, Germany) et al.
- B.09 The columnar structure of GaN layers influence on the performance of UV detectors  
A. Szyszka (Wroclaw University of Technology, Wroclaw, Poland) et al.
- B.10 The role of InGaN interlayers on the microstructure of InN epilayers grown via metal organic vapour phase epitaxy  
Abdul Kadir et al. (Tata Institute of Fundamental Research, Mumbai, India)
- B.11 Dislocation Reduction in MOCVD grown GaN layers on Si(111) using two different buffer layer approaches  
M. Häberlen et al. (University of Cambridge, UK)
- B.12 MOVPE growth and advanced characterization of InAlN/GaN distributed Bragg reflectors  
W.V. Lundin (Ioffe Physico-Technical Institute, St-Petersburg, Russia) et al.
- B.13 Reproducible growth of near UV-LEDs by means of in-situ temperature and wafer curvature control  
A. Knauer et al. (Ferdinand-Braun-Institut Berlin, Germany)
- B.14 Comparison of InGaAs and GaAsSb strain reducing layers covering InAs/GaAs quantum dots  
A. Hospodková et al. (Institute of Physics AS CR, Prague, Czech Republic)
- B.15 MOVPE growth of antimonide nanowire heterostructures  
B. M. Borg et al. (*Dept. of Solid State Physics, Lund University, Sweden*)
- B.16 InP/AlGaInP quantum dots for laser operation  
M. Eichfelder et al. (IHFG, Universität Stuttgart, Germany)
- B.17 A novel site-controlled quantum dot system with record spectral purity.  
V. Dimastrodonato et al. (Tyndall National Inst., University College Cork, Ireland)
- B.18 Growth of GaN nanostructures by MOVPE and their strain relaxation study by micro-Raman and submicron beam x-ray diffraction  
W. H. Goh (Instit. of Technology/GTL, Georgia Tech-CNRS, Metz, France) et al.
- B.19 Photoluminescence properties of GaAs-AlGaAs core-shell nanowires and their dependence on MOVPE growth conditions  
P. Prete (IMM-CNR, Lecce Research Unit, Lecce, Italy) et al.
- B.20 Selective-Area Metal-Organic Vapour Phase Epitaxy of Anisotropic-Shaped Ferromagnetic MnAs Nanoclusters for Magneto-Resistive Device Applications.  
Sh. Hara (Hokkaido University, Sapporo 060-8628, Japan) et al.
- B.21 OMVPE growth and properties of In(Mn)As epitaxial layers  
S. Hasenöhrl et al. (Slovak Academy of Sciences, Bratislava, Slovak Republic)
- B.22 Formation of inversion domains during high temperature AlN growth  
V. Küller et al. (Ferdinand-Braun-Institut Berlin, Germany)

**Poster Session C: Tuesday 11:00 – 13:00**

- C.01 Triple-Junction Solar Cells (TJ-SC) – Support from MOCVD for Competitiveness through Improved Material Quality and Cost Reduction  
L. Pauli et al.(AIXTRON AG, Aachen, Germany)
- C.02 Influence of the in-situ deposited SiN<sub>x</sub> interlayer on the crystalline quality of MOVPE grown thin GaN films  
B. Miljević (FZ Karlsruhe GmbH, Eggenstein-Leopoldshafen, Germany) et al.
- C.03 Al-free and Al-contained 800÷810 nm High Power Laser Heterostructures Grown by MOCVD.  
A.A. Marmalyuk (Sigm Plus Co., Moscow, Russia) et al.
- C.04 High Power Broadband SLD Heterostructures with Spectral Maximum in the Range 840÷860 nm Grown by LP MOCVD.  
A.A. Padalitsa (Sigm Plus Co., Moscow, Russia) et al.
- C.05 HEMT transistors with aluminum oxide and InGaP cap layers  
R. Kúdela et al. (Institute of Electrical Engineering, SAS , Bratislava, Slovakia)
- C.06 GaAs-growth on porous silicon  
M. Wiesner (IHFG, Universität Stuttgart, Germany) et al.
- C.07 Growth of InN on GaN by Metalorganic Vapor Phase Epitaxy using tertiary-butylhydrazine as alternative nitrogen source  
R. Kremzow et al. (Institut für Festkörperphysik, TU Berlin, Germany)
- C.08 Fabrication of high quality semipolar GaInN/GaN on c-plane sapphire using selective area epitaxy.  
T. Wunderer (Institut für Optoelektronik, Universität Ulm, Germany) et al.
- C.09 Morphology, strain and defect structure of MOVPE-grown m-plane GaN layers on LiAlO<sub>2</sub> substrates.  
C. Mauder (ITHE, RWTH Aachen University, Germany) et al.
- C.10 2D-3D Transition and Relaxation During Strained Compound Semiconductor Growth  
Markus Pristovsek et al. (Institut für Festkörperphysik, TU Berlin, Germany)
- C.11 MOVPE growth of InGaN on ZnO-buffered Si(111) substrates for solar cells applications  
T. Moudakir (UMI 2958 GT-CNRS, Metz, France) et al.
- C.12 Hydrogen sensor based on nitrides  
B. Paszkiewicz et al. (Wrocław University of Technology, Poland)
- C.13 Reduction of the threading edge dislocation density in AlGaIn epilayers by GaN nucleation  
R. Gutt et al.(Fraunhofer-IAF, Freiburg, Germany)
- C.14 In situ reflectance anisotropy spectroscopy monitoring of formation and capping process of InAs/GaAs quantum dots  
A. Hospodková (Institute of Physics AS CR, Prague, Czech Republic) et al.

- C.15 Electric field control of vertically coupled InP quantum dots  
E. Koroknay et al. (IHFG, Universität Stuttgart, Germany)
- C.16 Ultra low density InAs quantum dots  
D. Richter et al. (IHFG, Universität Stuttgart, Germany)
- C.17 GaSb/ In<sub>0.49</sub> Ga<sub>0.51</sub>P/GaAs self assembled quantum dots grown by MOVPE  
O. Gustafsson (Royal Institute of Technology, Kista, Sweden) et al.
- C.18 Catalyst free MOVPE of GaAs- and InAs-Based Nanowires in N<sub>2</sub> atmosphere  
K. Sladek et al. (Inst. of Bio- and Nanosystems, R. Center Jülich, Germany)
- C.19 ~1meV inhomogeneous broadening and dense (5x10<sup>9</sup>.cm<sup>-2</sup>) arrays of site controlled pyramidal quantum dots  
P. Gallo et al. (Ecole Polytechnique Fédérale de Lausanne, Switzerland)
- C.20 MOCVD of Pyrite (FeS<sub>2</sub>) using Iron Pentacarbonyl (IPC) with Di-tert-butyl Disulphide (DtBS<sub>2</sub>)  
A.J. Clayton et al. (Centre for Solar Energy Research, Glyndŵr University, UK)
- C.21 n and p-doped Germanium grown by MOVPE for solar cell applications  
R. Jakomin (LPN-CNRS, 91460 Marcoussis, France) et al.
- C.22 MOCVD growth of ZnO with different growth rate  
D. Nohavica (Academy of Sci. of the Czech Republic, Prague) et al.

**Poster Session D: Wednesday 11:00 – 13:00**

- D.01 In-situ etching of GaAs/Ga<sub>0.5</sub>In<sub>0.5</sub>P by CBr<sub>4</sub>  
A. Maaßdorf et al. (Ferdinand-Braun-Institut Berlin, Germany)
- D.02 PINCH PHOTONICS- New Facility for in-situ and ex-situ Characterization of MOVPE-grown Nitride Semiconductors  
P. Prystawko (Institute of High Pressure Physics, Warsaw, Poland) et al.
- D.03 Interdiffusion study in MOVPE grown Ge/GaAs and GaAs/Ge heterojunctions  
G.Attolini (IMEM-CNR Institute, Parma, Italy) et al.
- D.04 AFM and Raman scattering study of Ge/GaAs (100), (111)A and B heterostructures grown by MOVPE  
G.Attolini (IMEM-CNR Institute, Parma. Italy) et al.
- D.05 Beam profile characteristics of red VCSEL with oxide-confined aperture  
S. Weidenfeld et al. (IHFG, Universität Stuttgart, Germany)
- D.06 1300-nm VCSEL arrays formed by regrown tunnel junction mesas  
A. Mereuta (Ecole Polytechnique Fédérale de Lausanne, Switzerland) et al.
- D.07 Growth of GaN on {1010} (m-plane) sapphire by metalorganic vapour phase epitaxy  
S. Ploch (Institute of Solid State Physics, TU Berlin, Germany) et al.

- D.08 Photoluminescence emission characteristics of GaInN/GaN quantum wells: variation with well width and crystal orientation  
C. Netzel (Ferdinand-Braun-Institut Berlin, Germany) et al.
- D.09 Structural investigations of the influence of process parameters on the quality of semipolar substrates.  
C. Wächter et al. (IHFG, Universität Stuttgart, Germany)
- D.10 Growth and properties of c-plane and m-plane GaInN quantum wells suitable for blue-green laser applications  
H. Jönen (Technische Universität Braunschweig, Germany) et al.
- D.11 MOVPE growth of GaN on high index Si-substrates.  
R. Ravash et al. (Otto-von-Guericke-Universität Magdeburg, Germany)
- D.12 Growth of AlN on c-sapphire by pulsed MOVPE  
H. Kroencke et al. (IFP, University of Bremen, Germany)
- D.13 InAlN/GaN HEMT heterostructures grown on SiC substrates. X-band power HEMT applications.  
M-A di Forte Poisson (Alcatel-Thales III-V Lab, Marcoussis, France) et al.
- D.14 Development of thick GaN on silicon layers for ultrafast rectifier applications  
D.Schenck (Picogiga International, Courtaboeuf, France) et al.
- D.15 Electrically pumped single-photon emission of InP quantum dots in a microcavity-LED  
W.-M. Schulz et al. (IHFG, Universität Stuttgart, Germany)
- D.16 Self-assembled growth of catalyst free gallium nitride nanowires by MOVPE  
R. Köster (CEA Grenoble, France) et al.
- D.17 Characteristics of Al<sub>x</sub>In<sub>y</sub>Ga<sub>1-x-y</sub>N quantum dots deposited by pulsed metal-organic epitaxy  
M. Jetter et al. (IHFG, Universität Stuttgart, Germany)
- D.18 Red emission from InP-quantum dot based AlGaAs micropillars  
R. Roßbach (IHFG, Universität Stuttgart, Germany) et al.
- D.19 State of Vanadium in ZnSe Films prepared by Metal-Organic Vapor Phase Epitaxy Growth Method  
M. Tahashi et al. (Chubu University, Aichi, Japan)
- D.20 Thin InAs films grown on GaAs(001) substrates using AlSb-GaSb buffers  
G. Astromskas et al. (Dept. of Solid State Physics, Lund University, Sweden)
- D.21 Systematic studies on structural properties of indium oxide grown by MOCVD  
Ch. Y. Wang et al. (Fraunhofer-IAF, Freiburg, Germany)