

The Sixteenth International Conference on Metal Organic Vapor Phase Epitaxy

www.icmovpe2012.org



IMPORTANT DATES

Abstract Submission Due
Abstract Acceptance Notification
Late News Abstract Submission Due
Late News Abstract Acceptance Notification
Advance Registration Due
Final Manuscript Submission Due

December 2, 2011
February 3, 2012
March 2, 2012
March 30, 2012
April 20, 2012
April 30, 2012



SPONSORED BY





























INTRODUCTION

The sixteenth International Conference on Metal Organic Vapor Phase Epitaxy(ICMOVPE 2012) Will be held from May 20 through 25, 2012 at the Paradise Hotel Busan, Busan, Korea. The conference builds upon the strong tradition of previous conferences of presenting the latest advances in science, technology and applications of MOVPE and related growth techniques. The objective of the conference is to bring together a wide spectrum of specialists from Industry, Commerce, Academia, and National Laboratories to present their most recent progress in the fundamental and applied aspects of MOVPE technology. The program is designed to provide a wide range of opportunities for formal and informal discussions of and presentations on all topics.

TOPICS

- Basic Growth Studies
- Nitride Semiconductors and Devices
- III-V Compound Semiconductors (Arsenides, Phosphides, Antimonides) and Devices
- II-VI Compound Semiconductors and Devices
- Narrow Bandgap Materials
- Oxides (TFT, TCO, Dielectrics, etc)
- Novel Materials (Magnetic Materials, Graphene, Diamond, etc)
- Heteroepitaxy

• Nanostructures and Hybrid Devices

- Patterned Growth and Selective Area Epitaxy
- Atomic Layer Deposition and Epitaxy
- Virtual Substrates and Epitaxial Lift-off
- In Situ Monitoring and Process Control
- Characterization
- Energy Technology (Solar Cells, Thermoelectrics, Piezoelectrics etc)
- Equipment, Safety, Environmental and Production

PLENARY & INVITED SPEAKERS

PLENARY SPEAKERS



Prof. Yasuhiko **Arakawa** The University of Tokyo,





optoelectronic devices

Germany GaN-on-Si: A platform for electronic and

Prof. Alois Krost

Otto-von-Guericke

Universität Magdeburg.



Korea



Prof. Thomas Kuech University ctu of Wisconsin at Madison.

Recent Progress of GaN-based LED Technology

Growth of Metastable Epitaxial Alloys: Approaches, Problems and Some Successes

• INVITED SPEAKERS

practical implementation

Advances in quantum dots: From science to

- · Prof. Hiroshi Amano (Nagoya University, Japan) "Indium and Impurity Incorporation in InGaN"
- · Prof. Ishwara Bhat (Renneslaer Polytechnic University, USA) "Recent Advances on the Epitaxial growth of CdTe and ZnTe on Si Substrates by MOVPE'
- · Dr. Oliei Briot (Laboratoire Charles Coulomb, France) "MOVPE of Mismatched and Strained Semiconductor Systems: from II-VI to Nitrides"
- · Prof. James Coleman (University of Illinios, USA) "Patterned Nanostructure Lasers by Metalorganic Chemical Vapor Deposition"
- · Dr. Frank Dimroth (Fraunhofer ISE, Germany) "Next Generation Multi-junction Solar Cells for Concentrator Photovoltaic Applications"
- · Prof. Takashi Fukui (Hokkaido University, Japan) "Compound Semiconductor Nanowire Solar Cells"
- · Prof. Mitsuru Funato (Kyoto University, Japan) "High Quality AlGaN-based Quantum Wells for Deep-ultraviolet Emitters"

- · Prof. Han Jung (Yale University, USA) "Selective Area Growth of GaN: Prospects and New Twists'
- · Prof. Sang Woo Kim (Sungkyunkwan University, Korea) "ZnO/Graphene Heterostructures for Piezoelectric Nanogenerator and OPV Applications"
- Prof. Hao-Chung Kuo (National Chiao Tung University, Taiwan) "Improvement in Efficiency Droop of GaN-based Light-emitting Diodes by Optimization of Active Regions"
- · Prof. Luke Mawst (University of Wisconsin Madison, USA) "Deep Well Quantum Cascade Lasers'
- · Dr. Kirsten Moselund (IBM Zurich, Germany) "III-V Nanowire Heterostructures on Silicon for Tunneling Devices"
- · Prof. Seong-Ju Park (GIST, Korea) "Prospects for High Performance GaN LED"
- · Prof. Wolfgang Stolz (Universitaet Marburg, Germany) "MOVPE of Monolithically Integrated, Lattice-matched Ga(NAsP)-laser Material on (001) Si Substrate"

ORGANIZING COMMITTEES

- Conference Chair
- · Euijoon Yoon (Seoul Nat'l Univ., Korea)
- Steering Committee Chair
- Seong-Ju Park (GIST, Korea)
- International Program Committee Chair
- Ok-Hyun Nam, Korea Polytechnic Univ., Korea
- Organizing Committee **General Secretary**
- · In-Hwan Lee (Chonbuk Nat'l Univ., Korea)

International Publication Committee Chair

- Jong Kyu Kim (POSTECH, Korea)
- **Finance Committee Chair**
- Jong Hyeob Baek (KOPTI, Korea)

Local Committee Chair

· Jiho Chang (Korea Maritime Univ., Korea)

Exhibition Committee Chair

· June Key Lee (Chonnam Nat'l Univ., Korea)

• International Advisory Committee

- · Hiroshi Amano (Nagoya Univ., Japan)
- Rajaram Bhat (Corning Inc., USA)
- Steve DenBaars (UCSB, USA)
- Russel Dupuis (Georgia Inst. of Tech., USA)
- Takashi Fukui (Hokkaido Univ., Japan)
- Eduard Hulicius (Inst. of Physics, Czech Republic)
- · Stuart Irvine (Glyndŵr Univ., UK)
- · Thomas F. Kuech (Univ. of Wisconsin- Madison, USA)

- · Maarten Leys (IMEC, Belgium)
- · Tien-Chang Lu (Nat'l Chiao Tung Univ., Taiwan)
- · Nigel Mason (Richard Thomson Associate, UK)
- · Kentaro Onabe (Univ. of Tokyo, Japan)
- · Abdallah Ougazzeden (Georgia Tech-Lorraine, France)
- · Seong-Ju Park (GIST, Korea)
- · Marie-Antoinette Poisson (Alcatel -Thales III-V Lab, France)
- · Ferdinand Scholz (Univ. of Ulm, Germany)
- · Wolfgang Stolz (Philipps-Universität Marburg, Germany)
- · Jerry Stringfellow (Univ. of Utah, USA)
- · Christine Wang (MIT, USA)
- · Hui Yang (Chinese Academy of Sci., China)

ABSTRACT SUBMISSION

All prospective authors are invited to submit abstracts for oral or poster presentations. All contributions will be reviewed before inclusion in the program. Abstracts must be submitted electronically via the conference website (www.icmovpe2012.org), and a detailed submission guideline can be found on it. The deadline for the on-line abstract submission is December 2, 2011 and the e-mail notification of the abstract acceptance in either an oral or a poster presentation will be sent by February 3, 2012.

PAPER PUBLICATION

All submitted papers will be peer reviewed and papers accepted for presentation will be bound in proceedings of ICMOVPE-XVI.

Selected full-length high quality papers will also be published in special issues of CRYS-Journal of Crystal Growth, the world's leading journal of scientific information.

Further information on the Special Issue will appear on the conference website (www.icmovpe2012.org).

ICMOVPE-XVI SECRETARIAT

5F. Daehan Bldg., #1018 Dunsan-Dong, Seo-Gu, Daejeon 302-120, Korea

Tel: +82-42-472-7461 / Fax: +82-42-472-7459 E-mail: secretariat@icmovpe2012.org

Web: www.icmovpe2012.org