

EMN Vienna Meeting
June 18 to 22, 2018
ARCOTEL Wimberger Vienna Hotel, Austria

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| June 18th, Monday At the Hotel | |
| 14:00-17:30 | Onsite Registration & Sign up |

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| June 19th, Tuesday Room A | | |
| 8:30-8:40 | <i>Opening</i> | |
| Session: Epitaxy General I Chair: Algirdas Sužiedėlis | | |
| 8:40-9:10 | A01: Epitaxial antimonides and enhanced photodetection (Keynote) | Dao Hua Zhang Nanyang Technological University, Singapore |
| 9:10-9:35 | A02: Design and fabrication of MEMS Pirani gauge utilizing the process compatible with CMOS technology | Guohe Zhang Xi'an Jiaotong University, China |
| 9:35-10:00 | A03: Magnetoelectric coupling in epitaxial ferromagnetic/ferroelectric interfaces | Piero Torelli Laboratorio TASC, CNR-IOM, Italy |
| 10:00-10:25 | A04: Epitaxy of strain engineered ferroelectric $K_xNa_{1-x}NbO_3$ thin films | Jutta Schwarzkopf Leibniz Institute for Crystal Growth, Germany |
| 10:25-10:45 | <i>Session Break</i> | |
| Session: Epitaxy General II Chair: Dao Hua Zhang | | |
| 10:45-11:10 | A05: Selectively doped 2D semiconductor structures for microwave electronics | Algirdas Sužiedėlis Center for Physical Sciences and Technology, Lithuania |

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| 11:10-11:35 | A06: Unsupervised Analysis – revealing objects and respective contributions | Jorge Costa Pereira University of Coimbra, Portugal |
| 11:35-12:00 | A07: Epitaxial growth of metal-insulator transition materials | Nicolas Emond INRS-EMT, Canada |
| 12:00-12:25 | A08: CO ₂ Photocatalytic Reduction over TiO ₂ Nanocrystals with Specific Facet | Yongchun Zhao Huazhong University of Science and Technology, China |
| 12:25-14:25 | <i>Lunch Break</i> | |
| Session: MOCVD Chair: Stéphane Andrieu | | |
| 14:25-14:50 | A09: Nano-patterned substrates for reduced footprint GaN epitaxy | Guy Feuillet Université Grenoble Alpes, CEA-LETI, France |
| 14:50-15:15 | A10: Amorphous thin GeSbTe phase-change films prepared by radical-assisted metal-organic chemical vapor deposition | Yoshihisa Fujisaki YourFriend, Japan |
| 15:15-15:40 | A11: Selective area metal organic vapor phase epitaxy and characterization of buried-heterostructure quantum cascade lasers | Rachid Driad Fraunhofer IAF, Germany |
| 15:40-16:05 | A12: MOVPE growth of GaInAsP system on directly bonded InP/Si substrate | Gandhi Kallarasan Periyannayagam Sophia University, Japan |
| 16:05-16:30 | A13: Intrinsic electronic structure of high-quality CrO ₂ epitaxial film prepared by a closed-system CVD method | Hirokazu Fujiwara Okayama University, Japan |
| 16:30-16:50 | <i>Session Break</i> | |
| Session: Vacuum Electronics Chair: Guohe Zhang | | |

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| 16:50-17:15 | A14: Miniature X-ray Sources for electronic brachytherapy | Mikhail Taubin Academician of the International Academy of science of Higher Education, Russia |
| 17:15-17:40 | A15: Resonant MEMS accelerometers | Hideo Muro Chiba Institute of Technology, Japan |
| 17:40-18:05 | A16: Compact Setup for Electron Acceleration by Intense THz Pulses | Zoltan Tibai University of Pécs, Hungary |
| 18:05-18:30 | A17: Nanomaterials-based Embedded Sensing in Laminated Composites | Latha Nataraj Res Lab, USA |

| June 20th, Wednesday | | |
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| Room A | | |
| Session: Keynote & MBE I Chair: Masahiko Kondow | | |
| 8:30-9:00 | A18: Epitaxy at the atomic scale: from core-shell to axial heterojunctions in nanostructures (Keynote) | Jordi Arbiol ICREA and Catalan Institute of Nanoscience and Nanotechnology (ICN2), CSIC and BIST, Catalonia, Spain |
| 9:00-9:30 | A19: Rhombohedral Super-Hetero-Epitaxy Technology (Keynote) | Sang H. Choi NASA Langley Research Center, USA |
| 9:30-9:55 | A20: Metal droplets behavior during high-temperature annealing of A ^{III} B ^V semiconductors and nanostructures formation | Nataliya Shwartz A.V. Rzhanov Institute of Semiconductor Physics SB RAS, Russia |
| 9:55-10:20 | A21: Epitaxial growth of ferroelectric thin films and their potential applications | Cristina Chirila National Institute of Materials Physics, Romania |
| 10:20-10:45 | A22: Au nanoparticle assisted MBE growth and thermal annealing of GaAs nanowires | Alexei Bouravleuv St.Petersburg Academic University RAS, Russia |
| 10:45-11:05 | <i>Session Break</i> | |
| Session: MBE II Chair: Jordi Arbiol | | |
| 11:05-11:30 | A23: Suitable quality (Q) factor for photonic crystal laser grown by MBE | Masahiko Kondow Osaka University, Japan |
| 11:30-11:55 | A24: Promising materials for spintronics: Co ₂ MnX (X=Si, Ge, Ga, Al, Sn) Half-Metal Magnetic grown by Molecular Beam Epitaxy | Stéphane Andrieu Institut Jean Lamour, CNRS, Université de Lorraine, France |

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| 11:55-12:20 | A25: Molecular Beam Epitaxy of β -Ga ₂ O ₃ and β -(Al _x Ga _{1-x}) ₂ O ₃ | Elaheh Ahmadi University of Michigan, USA |
| 12:20-14:20 | <i>Lunch Break</i> | |
| Session: Epitaxy Nanomaterials I Chair: Tetyana Torchynska | | |
| 14:20-14:45 | A26: Electronic structures of vanadium oxide ultrathin films epitaxially grown on Ag(100) | Kazuyuki Edamoto Rikkyo University, Japan |
| 14:45-15:10 | A27: Synthesis and physical property investigation of FeSe _{1-x} Te _x and FeSe _{1-x} S _x epitaxial thin films | Atsutaka Maeda University of Tokyo, Japan |
| 15:10-15:35 | A28: Epitaxial multifunctional oxide thin films | Seung-Hyub Baek Korea Institute of Science and Technology, Korea |
| 15:35-16:00 | A29: Functionalization of 2D materials | Laurent Simon Institut des Sciences de Matériaux de Mulhouse, CNRS, France |
| 16:00-16:40 | <i>Poster Session</i> | |
| Session: Epitaxy Nanomaterials II Chair: Kazuyuki Edamoto | | |
| 16:40-17:05 | A30: Emission and HR-XRD study in MBE hetero-structures with InAs quantum dots and AlGaInAs strain reduced layers | Tetyana Torchynska ESFM-National Polytechnic Institute, Mexico |
| 17:05-17:30 | A31: Characterization of Inhomogeneity in Thermal Oxide Films on 4H-SiC Epitaxial Substrates by a Combination of Infrared, Raman and Cathodoluminescence Spectroscopy | Masanobu Yoshikawa Toray Research Center, Inc., Japan |

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| 17:30-17:55 | A32: Growth of Epitaxial Vanadium Oxide Thin Film by Pulsed Laser Deposition | Tohru Higuchi Tokyo University of Science, Japan |
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| June 20th, Wednesday Afternoon 16:00-16:40 | |
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| <i>Poster Session</i> | |
| P01: Comparative Study of Ag _x -Re _{1-x} (Re=Gd, Sm) Systems From first Principles Calculations | Abdelhak Ferroudj Abdelhak Ferroudj Batna 1 University, Algeria |
| P02: Band gap front graded Cu ₂ ZnSn(S, Se) ₄ thin films for low open circuit voltage deficit | Dae-Kue Hwang Daegu Gyeongbuk Institute of Science and Technology (DGIST), Korea |
| P03: Effect of TiO ₂ photoelectrodes with metal nanowires-nanoparticles in Sb ₂ S ₃ hybrid solar cells | Kang-Pil Kim Daegu Gyeongbuk Institute of Science and Technology (DGIST), Korea |
| P04: Ultrafast photocarrier dynamics in CIGS solar cell with CBD-ZnS buffer layer as a function of thiourea mole concentration measured by optical pump-THz probe spectroscopy | Woo-Jung Lee Electronics and Telecommunications Research Institute, Korea |
| P05: Thermal impact on emission and structure of MBE GaAs/AlGaAs heterostructures with InAs quantum dots | Georgiy Polupan ESIME- National Polytechnic Institute, Mexico |

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| P06: Characterization of CBD-ZnS films grown by high-deposition rate process for CIGS thin-film solar cell applications | Hye-Jung Yu Electronics and Telecommunications Research Institute, Korea |
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| June 21st, Thursday <i>(We will poster details at the spot)</i> |
| One-Day Excursion: Nature, Culture, and Collaboration |