COST Action CA20116

OPERA

European Network for Innovative and Advanced Epitaxy

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COST is supported by the EU Framework Programme Horizon 2020

Workshop

"From Epitaxial Materials towards Technological Transfer: Academic/Industrial meeting"

Paris-Saclay, August 29-31, 2023

August 29, 2023

12h30	**Registration**
14h00	**Welcome & Workshop opening**
14h30	*S1.01* - **M. Sawicka - *Invited Speaker*** Porous GaN for nitride laser diodes *Institute of High-Pressure Physics, Warsaw - Poland*
15h00	*S1.02* - **D. H. ÜNAL-** The Effect of Layer Thickness on High-Performance MSM Photodetector Structure *Sivas Cumhuriyet University, Sivas - Turkey*
15h15	*S1.03* - **A. Ougazzaden - *Invited Speaker*** Large scale van der Waals Epitaxy and Layer Transfer Techniques of III-nitrides on 2D Boron Nitride - Recent Advances and Applications *Georgia tech Metz, Metz - France*
15h45	**Coffee Break**
16h30	*S2.01* - **C. Besançon - *Invited Speaker*** III-V integration onto silicon by bonding and regrowth for high-speed telecommunications *III-V Lab, a joint lab of Nokia Bell Labs, Thales Research and Technology and CEA LETI, Palaiseau - France*
17h00	*S2.02* - **A. Adhikari -** Bandgap engineering of (Cd, Mg)O ternary alloys for device applications *Faculty of Mathematics and Natural Sciences, Cardinal Stefan Wyszynski University, Warsaw - Poland*
17h15	*S2.04* - **A. Hospodkova -** Improved design and technology of AlGaN/GaN/AlGaN HEMT structures for high frequency applications *Institute of Physics, Prague - Czech Republic*
17h30	*S2.05* - **G. Afonso -** Integration by SAG of multiple SIBH-DFB lasers with optimized performance over >100 nm in the O-band *III-V Lab, a joint lab of Nokia Bell Labs, Thales Research and Technology and CEA LETI, Palaiseau - France*
17h45	*S2.03* - **E. Rosseel - *Invited Speaker*** Epitaxial SiGe/Si Multi-Stacks for Complementary FET Devices *Imec, Leuven - Belgium*
18h15	**Women in Science & Cocktail** **Open to Women and Men**

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8h30	**Registration**
9h00	*S3.01* - **R. Rousseau - *Invited Speaker*** Advanced optical flux monitoring to control thin layer deposition processes *INL-CNRS/Ecole Centrale de Lyon, Ecully - France*
9h30	*S3.02* - **P. Onufrijevs -** Comparative Analysis of Nano- and Femtosecond Laser Technologies for GeSn Epilayers: The Potential for IR Device Applications *Institute of Technical Physics, Riga Technical University, Riga - Latvia*
9h45	*S3.03* - **B. Beltran-Pitarch - *Invited Speaker*** Micro four-point probe method for the determination of thermal and thermoelectric properties *CAPRES – a KLA Company, & DTU Energy, Lyngby - Denmark*
10h15	**Coffee Break**
11h00	*S4.01* - **G. Gregoire - *Invited Speaker*** Molecular beam epitaxy of III-V materials for infrared applications: from R&D to industrialization *III-V Lab, a joint lab of Nokia Bell Labs, Thales Research and Technology and CEA LETI, Palaiseau - France*
11h30	*S4.02* - **N. Ferreira -** Ceramic for energy applications prepared by laser technology *i3N & Physics Department, Universidade de Aveiro, Aveiro - Portugal*
11h45	*S4.03* - **F. DEPRAT - *Invited Speaker*** Epitaxy for the Heterojunction Bipolar Transistors: Areas for improvement *STMicroelectronics, Crolles - France*
12h15	**Lunch**
14h00	*S5.01* – **W. Braun -** Thermal Laser Epitaxy – a universal, high-throughput epitaxy tool *Max Planck Institute for Solid State Research, Stuttgart - Germany*
14h15	*S5.02* - **G. Benvenuti - *Invited Speaker*** Chemical Beam Vapour Deposition technique with Sybilla equipment: a review *3D-Oxides, Saint-Genis-Pouilly - France*
14h45	*S5.03* - **Z. Jovanovic -** PLD growth of functional oxides on rGO-buffered silicon substrate *National Institute of the Republic of Serbia, University of Belgrade - Serbia*
15h00	*S5.04* - **S. Rennesson - *Invited Speaker*** MBE growth of GaN-on-Si on 200 mm substrates *EasyGaN SAS, Valbonne - France*
15h30	*S5.05* - **E. Chereau -** Selective area growth of III-As nanowire arrays by hydride vapour phase epitaxy *Institut Pascal, Clermont-Ferrand - France*
15h45	*S5.06* - **C. F. Blanco - *Invited Speaker*** Safe and sustainable-by-design approaches to epitaxial PV cells *CML - Institute of Environmental Sciences Faculty of Sciences, Leiden University, Leiden - The Netherlands*
16h15	**Coffee Break & Poster session**
18h00	**Academic – Startup/Industrial event – Bar Le 19**

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August 31, 2023

8h30	**Registration**
9h00	*S6.01* - **E. Sandana - *Invited Speaker*** Gallium Oxide: From lab research to space applications *Nanovation, Châteaufort - France*
9h30	*S7.01* - **V. Marinova -** Graphene synthesis and applications in liquid crystal tunable phase retarders *1Institute of Optical Materials and Technologies, Bulgarian Academy of Sciences, Sofia - Bulgaria*
9h45	*S6.03* - **R. Bruder - *Invited Speaker*** In situ curvature measurement: a great breakthrough for MBE growth monitoring *Riber SA, Bezons - France*
10h15	**Coffee Break**
11h00	*S6.02* - **E. Semlali -** Growth of GaN nanostructures by HVPE *Institut Pascal, Clermont-Ferrand - France*
11h15	*S7.02* - **S. Sundaram - *Invited Speaker*** Mixed Dimensional Heterostructures on Hexagonal Boron Nitride and its Applications *Georgia tech Metz, Metz - France*
11h45	*S7.03* - **W. Pacuski -** Wafer scale molecular beam epitaxy of transition metal dichalcogenides *Faculty of Physics, University of Warsaw, Warsaw - Poland*
12h00	*S7.04* - **J. Brites - *Invited Speaker*** NanoGPS - Facile correlative microscopy for 2D materials flakes, nanowires and epitaxial defects characterization *HORIBA, Palaiseau - France*
12h30	**End - few words**
12h45	**Lunch**
14h30 - 17h00	**C2N-Lab & HORIBA Tours**

Poster session – August 30, 2023 – 16h15

PS.01	**E. Mensur -** Using the Crystallographic Orientation to Enhance the Performance of a Novel Underwater Transducer *Gebze Technical University, Dept. of Materials Sci. and Eng, Kocaeli - Turkey*
PS.02	**F. Matos -** Engineering ultra-thin films for low noise 2D spintronic sensors *INESC Microsistemas e Nanotecnologias, Lisboa - Portugal*
PS.03	**L. Watrin -** Study of III-V thin films growth directly on silicon by remote-plasma CVD: Towards a reduction in solar cell industrialization costs *Institut Photovoltaïque d'Ile-de-France (IPVF), Palaiseau - France*
PS.04	**R. Bernard -** Development of robust, cost efficient and autonomous III-V/Si epitaxial photoelectrochemical cell for H2 production - NAUTILUS project - PEPR H2 *Université Rennes, INSA Rennes, Institut FOTON, Rennes - France*
PS.05	**P. Henning -** X-ray photoelectron spectroscopy of partially oxidized ultrathin films of 4d refractory metals deposited by e-beam physical vapor deposition *Advanced Epitaxy, Institute of Materials Physics, Georg-August-University of Göttingen - Germany*
PS.06	**B. Napoleonov -** Synthesis of MoS2 nanoclusters by redeposition on a sapphire substrate *Institute of Optical Materials and Technologies, Bulgarian Academy of Sciences, Sofia - Bulgaria*
PS.07	**K. Dremliuzhenko -** Properties of CdTe nanocrystals doped with manganese, cobalt, erbium, and europium *V.E. Lashkaryov Institute of Semiconductor Physics NAS of Ukraine, Kyiv - Ukraine*
PS.08	**J. Palakkal -** Influence of Epitaxial Relationship and Stoichiometry on the Intrinsic Ferromagnetism of Chromium Tellurides: An Overview *Advanced Epitaxy, Institute of Materials Physics, Georg-August-University of Göttingen - Germany*
PS.09	**D. Dimitrov -** Low-temperature synthesis of PtTe2 nanolayer *Institute of Solid-State Physics, Bulgarian Academy of Sciences, Sofia - Bulgaria*
PS.10	**A. Khaireh-Walieh -** MBE substrate deoxidation surveillance via RHEED image analysis with Deep-Learning *LAAS-CNRS, Université de Toulouse, Toulouse - France*