18th European Molecular Beam Epitaxy Workshop | Canazei IT |

March 15-18 | 2015

program

Sun15th, Mon 16th, Tue 17th program

		Mo1 Photovoltaics, electronics and optoelectronics	Mo2 Nanowires and 3D growth	Mo3 Nanostructures, site-controlled and droplet epitaxy	Tu1 III-N materials	Tu2 MBE production technology	Tu3 Novel III-V heterostructures	Tu4 Oxides
8:30 AM		*Opening remarks*			Tu1.1 Invited 4: Czeslaw Skierbiszewski			
8:45 AM		*Plenary* Gerhard Abstreiter						
9:00 AM					Tu1.2 - Denis Martin			
9:15 AM					Tu1.3 - Marcin Siekacz			
9:30 AM		Mo1.1 Invited 1: Alexei Baranov			Tu1.4 - Yvon Cordier			
9:45 AM					Tu1.5 - Henryk Turski			
10:00 AM		Mo1.2 - Stefan Fält			Tu1.6 - Patricia Val Gómez			
10:15 AM		Mo1.3 - Nobuhiko Ozaki			Tu1.7 - Stanislav Petrov			
10:30 AM		*Coffee break - sponsored by* STAIB Instruments			*Coffee break - sponsored by* RIBER			
10:45 AM								
11:00 AM			Mo2.1 Invited 2: Jean-Christophe Harmand			Tu2.1 Invited 5: Clement Merkling		
11:15 AM								
11:30 AM			Mo2.2 - Bernhard Loitsch			Tu2.2 - Clement Porret		
11:45 AM			Mo2.3 - Sergio Bietti			Tu2.3 - Mark O'Steen		
12:00 PM			Mo2.4 - Julian Treu				Tu3.1 Invited 6: Masahiro Yoshimoto	
12:15 PM			Mo2.5 - Joel Cibert					
12:30 PM			Mo2.6 - Qiandong Zhuang				Tu3.2 - Esperanza Luna	
12:45 PM			Mo2.7 - Carlos Garcia				Tu3.3 - Li Yue	
1:00 PM								
2:30 PM								
2:45 PM								
3:00 PM								
3:15 PM								
3:30 PM								
3:45 PM								
4:00 PM								
4:15 PM								
4:30 PM								
4:45 PM								
5:00 PM				Mo3.1 Invited 3: Christian Heyn				Tu4.1 Invited 7: Hans Boschker
5:15 PM								
5:30 PM				Mo3.2 - Christian Grossauer				Tu4.2 - Benjamin Meunier
5:45 PM				Mo3.3 - Donat As				Tu4.3 - David Adolph
6:00 PM	*Registration*			Mo3.4 - Ernesto Placidi				Tu4.4 - Kristy Kormondy
6:15 PM				Mo3.5 - Charles Cornet				Tu4.5 - Alex Demkov
6:30 PM								
6:45 PM				MoP POSTER SESSION				TuP POSTER SESSION
7:00 PM								
7:15 PM								
7:30 PM								
7:45 PM								
8:00 PM								
8:15 PM	*Welcome reception*							
8:30 PM								
9:00 PM				*User Meeting - VEECO*				*User Meeting - RIBER*

Wed 18th program

8:30 AM	We1 Nanowires and 3D growth	**We1.1** Invited 8: Lutz Geelhaar
8:45 AM		
9:00 AM		**We1.2** - Vladimir Dubrovskii
9:15 AM		**We1.3** - Torsten Rieger
9:30 AM		**We1.4** - Umesh Gomes
9:45 AM		**We1.5** - Pascal Hille
10:00 AM		**We1.6** - Zarko Gacevic
10:15 AM		*Coffee break - sponsored by* VacuumBarrierSystems
10:30 AM		
10:45 AM	We2 Organic materials - Ferromagnetic and spintronic materials	**We2.1** Invited 9: Frank Natali
11:00 AM		
11:15 AM		**We2.2** - Janusz Sadowski
11:30 AM		**We2.3** - Jens Herfort
11:45 AM	We3 Characterization	**We3.1** Invited 10: Martien den Hertog
12:00 PM		
12:15 PM		**We3.2** - Claudéric Ouellet-Plamondon
12:30 PM		**We3.3** - Yuxin Song
12:45 PM		**We3.4** - Robert Kudrawiec
1:00 PM		**We3.5** - Helene Carrere

2:30 PM	We4 Photovoltaics, electronics and optoelectronics	**We4.1** Invited 11: Huiyun Liu
2:45 PM		
3:00 PM		**We4.2** - Arto Aho
3:15 PM		**We4.3** - Aaron Maxwell Andrews
3:30 PM		**We4.4** - Matthias Golling
3:45 PM		**We4.5** - Pierre Guilleme
4:00 PM		**We4.6** - Salim El Kazzi
4:15 PM	We5 III-N materials	**We5.1** Invited 12: Valentin Jmerik
4:30 PM		
4:45 PM		**We5.2** - Antoine Ogerau
5:00 PM		*Coffee break*
5:15 PM		
5:30 PM	We6 Topological insulators, Graphene and other 2D layered materials	**We6.1** Invited 13: Michael Oehme
5:45 PM		
6:00 PM		**We6.2** - Gunther Springholz
6:15 PM		**We6.3** - Gregor Mussler
6:30 PM		**We6.4** - Jos Boschker
6:45 PM		**We6.5** - Thomas Tschirky
7:00 PM		*Concluding remarks*
7:15 PM		
7:30 PM		
7:45 PM		
8:00 PM		
8:15 PM		
8:30 PM		
9:00 PM		*Workshop dinner*

Time	Monday, March 16th
Monday, 8:45 - 9:30	**Mo0: PLENARY SESSION**
Monday, 8:45 - 9:30 **Mo0.1**	Gerhard Abstreiter
Monday, 9:30 - 10:30	**Mo1: Photovoltaics, electronics, and optoelectronics**
Monday, 9:30 - 10:00 **Mo1.1**	ANTIMONIDE-BASED QUANTUM CASCADE LASERS GROWN BY MOLECULAR BEAM EPITAXY (invited) A.N. Baranov*, R. Teissier, and M. Bahriz **Université Montpellier 2, CNRS, Institut d'Electronique du Sud Montpellier Cedex 5, France*
Monday, 10:00 - 10:15 **Mo1.2**	MBE GROWTH OF 2-DIMENSIONAL ELECTRON GASES FOR MANY -BODY STATE CAVITY QUANTUM ELECTRODYNAMICS S. Fält*, W. Wegscheider, S. Smolka, W. Wüster, F. Haupt, and A. Imamoglu **Solid State Physics Laboratory and Institute of Quantum Electronics (ETH) Zurich, Switzerland*
Monday, 10:15 - 10:30 **Mo1.3**	SUPERLUMINESCENT DIODE WITH NEAR-INFRARED BROADBAND EMISSION USING SELF-ASSEMBLED InAs QUANTUM DOTS FOR OPTICAL COHERENCE TOMOGRAPHY N. Ozaki*, T. Yasuda, H. Shibata, S. Ohkouchi, H. Ohsato, E. Watanabe, N. Ikeda, Y. Sugimoto, D. T. D. Childs, and R. A. Hogg **Wakayama University, Japan and University of Sheffield, UK*
Monday, 11:00 - 13:00	**Mo2: Nanowires and 3D growth**
Monday, 11:00 - 11:30 **Mo2.1**	EPITAXIAL PLATFORMS FOR NANOWIRE GROWTH: THE NANO-SUBSTRATES (invited) Y. Cohin, A. Cattoni, F. Oehler, V. Kumaresan, S. Bouchoule, O. Mauguin, L. Largeau, G. Patriarche, F. Glas, E. Søndergård, and J.-C. Harmand* **CNRS-Laboratoire de Photonique et de Nanostructures, Marcoussis and Saint-Gobain Recherche/CNRS, Aubervilliers, France*
Monday, 11:30 - 11:45 **Mo2.2**	TUNABLE QUANTUM CONFINEMENT IN ULTRATHIN, OPTICALLY ACTIVE GaAs NANOWIRES VIA REVERSE–REACTION GROWTH B. Loitsch*, D. Rudolph, S. Morkötter, M. Döblinger, G. Grimaldi, L. Hanschke, S. Matich, E. Parzinger, U. Wurstbauer, G. Abstreiter, J. J. Finley, and G. Koblmüller **Walter Schottky Institut, Technische Universität München, Germany*

Monday, 11:45 - 12:00 **Mo2.3**	InAs/GaAs SHARPLY-DEFINED AXIAL HETEROSTRUCTURES IN SELF-ASSISTED NANOWIRES S. Bietti*, C. Somaschini, D. Scarpellini, A. Fedorov, C. Frigeri, V. Grillo, L. Esposito, E. Bonera, P. G. Medaglia, and S. Sanguinetti **L-NESS and Dipartimento di Fisica, Politecnico di Milano, Como, Italy*
Monday, 12:00 - 12:15 **Mo2.4**	GROWTH AND OPTICAL PROPERTIES OF COMPOSITION-TUNED $In_{1-x}Ga_xAs$ BASED CORE-SHELL NANOWIRE ARRAYS Julian Treu*, T. Stettner, S. Morkötter, B. Mayer, M. Bichler, G. Abstreiter, J. Finley, and G. Koblmüller **Walter Schottky Institut and Physik Dept., Technische Universität München, Garching, Germany*
Monday, 12:15 - 12:30 **Mo2.5**	STRAIN IN CORE-SHELL NANOWIRES AND DOTS IN NANOWIRES A. Artioli, P. Rueda-Fonseca, M. Orrù, Y. Genuist, R. André, F. Donatini, J.-F. Motte, G. Nogues, E. Robin, M. Lopez-Haro, S. Tatarenko, E. Bellet-Amalric, D. Ferrand, and J. Cibert* **Inst. NEEL, Univ. Grenoble Alpes & CNRS, 38000 Grenoble, France*
Monday, 12:30 - 12:45 **Mo2.6**	PHASE CONTROL OF InAsSb NANOWIRES IN MOLECULAR BEAM EPITAXIAL GROWTH Q. D. Zhuang*, E. A Anyebe, R. Chen, H. Liu, A. M Sanchez, M. K Rajpalke, T. D Veal, H. Alradhi, Zh. M. Jin, Y. Z. Huang, and H. D. Sun **Physics Department, Lancaster University, UK*
Monday, 12:45 - 13:00 **Mo2.7**	INTEGRATION OF GaAs NANOWIRES ON ELECTRONIC DEVICES BY DIELECTROPHORESIS C. García Núñez*, A. F. Braña, N. López, J. L. Pau, and B. J. García **Grupo de Electrónica y Semiconductores, Dpto. Física Aplicada, Universidad Autónoma de Madrid, Spain*
Monday, 17:00 - 18:30	**Mo3: Nanostructures, site-controlled and droplet epitaxy**
Monday, 17:00 - 17:30 **Mo3.1**	METAL DROPLET ETCHING: COMBINING SELF-ASSEMBLED TOP-DOWN WITH BOTTOM-UP STRATEGIES FOR NANOSTRUCTURING (invited) Christian Heyn*, A. Küster, A. Ungeheuer, A. Graf, D. Sonnenberg, T. Bartsch, and W. Hansen **Institute for Applied Physics, University of Hamburg, Germany*
Monday, 17:30 - 17:45 **Mo3.2**	STM VIDEO INVESTIGATION ON GE HUT-NANOWIRE GROWTH ON SINGULAR AND VICINAL Si(001) SUBSTRATES Christian Grossauer*, I. Daruka, and G. Springholz **Johannes Kepler University, Institute of Semiconductor and Solid State Physics, Linz, Austria*
Monday, 17:45 - 18:00 **Mo3.3**	CUBIC GAIN QUANTUM DOTS GROWN BY DROPLET EPITAXY AS SINGLE PHOTON SOURCE D.J. As*, T. Schupp, M. Bürger, S. Sergent, S. Kako, and Y. Arakawa **Department Physik, Universität Paderborn, Germany*

Monday, 18:00 - 18:15 **Mo3.4**	SINGLE EXCITON EMISSION FROM MULTISTACKED InAs QUANTUM DOTS CHAINS SELF-ASSEMBLED ON GaAs (001) Ernesto Placidi*, F. Arciprete, V. Latini, R. Magri, F. Sarti, M. Gurioli, A. Vinattieri, M. Scuderi, G. Nicotra, and F. Patella **CNR-ISM, Roma and Dipartimento di Fisica, Università di Roma "Tor Vergata", Roma, Italy*
Monday, 18:15 - 18:30 **Mo3.5**	STRUCTURAL, ELECTRONIC PROPERTIES AND CARRIER DYNAMICS IN InGaAs(N)/GaP QUANTUM DOTS C. Cornet*, J. –P. Gauthier, C. Robert, S. Almosni, Y. Léger, M. Perrin, A. Balocchi, H. Carrere, X. Marie, M. Nestoklon, K. Pereira da Silva, L. Pedessau, M. I. Alonso, A. R. Goni, P. Turban, J. M. Jancu, J. Even, and O. Durand **UMR FOTON, CNRS, Rennes, France*
Time	**Tuesday, March 17th**
Tuesday, 8:30 - 10:30	**Tu1: III-N materials**
Tuesday, 8:30 - 9:00 **Tu1.1**	LONG LIVING TRUE-BLUE LASER DIODES GROWN BY PAMBE (invited) C. Skierbiszewski*, G. Muziol, M. Siekacz, H. Turski, P. Wolny, P. Wiśniewski, J. Borysiuk, S. Grzanka, I. Makarowa, P. Perlin, and I. Grzegory **Institute of High Pressure Physics, Polish Academy of Sciences, Warsaw, and TopGaN Ltd, Warsaw, Poland*
Tuesday, 9:00 - 9:15 **Tu1.2**	LOW TEMPERATURE P-TYPE DOPING OF (Al)GaN LAYERS GROWN BY AMMONIA MOLECULAR BEAM EPITAXY D. Martin*, M. Malinverni, and N. Grandjean **Institute of Condensed Matter Physics, École Polytechnique Fédérale de Lausanne (EPFL), Switzerland*
Tuesday, 9:15 - 9:30 **Tu1.3**	InN/GaN SHORT-PERIOD SUPERLATTICES GROWN BY PLASMA ASSISTED MBE M. Siekacz*, G. Staszczak, T. Suski, E. Grzanka, H. Turski, T. Schulz, M. Albrecht, and C. Skierbiszewski **Institute of High Pressure Physics, Polish Academy of Sciences, Warszawa, and TopGaN Ltd, Warszawa, Poland*
Tuesday, 9:30 - 9:45 **Tu1.4**	EVALUATION OF GaN FILMS AND AlGaN/GaN QUANTUM WELLS GROWN BY PLASMA ASSISTED MBE USING A HIGH DENSITY RADICAL SOURCE Yvon Cordier*, B. Damilano, E. Frayssinet, D. Lefebvre, M. Portail, P. Aing, O. Grange, and C. Chaix **CRHEA-CNRS, Valbonne, France*
Tuesday, 9:45 - 10:00 **Tu1.5**	EFFICIENT BLUE-GREEN InGaN/InGaN QUANTUM WELLS FOR LASER APPLICATIONS GROWN BY PLASMA-ASSISTED MBE H. Turski*, G. Muziol, M. Siekacz, P. Wolny, K. Żmuda, S. Grzanka, E. Grzanka, M. Baranowski, R. Kudrawiec, S. Porowski, and C. Skierbiszewski **Institute of High Pressure Physics, Polish Academy of Sciences, Warsaw, Poland*

Tuesday, 10:00 - 10:15 **Tu1.6**	DIRECT GROWTH OF InGaN ON Si (111) BY RADIO-FREQUENCY MOLECULAR BEAM EPITAXY FOR OPTOELECTRINIC APPLICATIONS P. Val-Gomez*, A. Bengoechea-Encabo, S. Albert, Z. Gacevic, M.A. Sánchez-García, and E. Calleja **ISOM and Electronic Eng. Dpt. Univ. Politécnica, Madrid, Spain*
Tuesday, 10:15 - 10:30 **Tu1.7**	LOW DISLOCATION DENSITY AND HIGH MOBILITY GaN BASED HEMT HETEROSTRUCTURES GROWN BY PLASMA-ASSISTED AND HIGH TEMPERATURE AMMONIA MBE S.I. Petrov*, A.N. Alexeev, D.M. Krasovitsky, V.P. Chaly, and V.V. Mamaev **SemiTEq JSC, St. Petersburg, Russia*
Tuesday, 11:00 - 12:00	**Tu2: MBE production technology**
Tuesday, 11:00 - 11:30 **Tu2.1**	TOWARDS THE INTEGRATION OF MOLECULAR BEAM EPITAXY TECHNIQUE FOR ADVANCED III-V CMOS AND BEYOND Si DEVICES (invited) C. Merckling*, S. El-Kazzi, C. Porret, M. Heyns, N. Collaert, and A. Thean **IMEC, Leuven, Belgium*
Tuesday, 11:30 - 11:45 **Tu2.2**	RIBER MPVD300: SEMI-COMPATIBLE MODULAR 300MM MBE TOOL C. Porret*, S. El Kazzi, D. Esteve, P. Aing, D. Lin, and C. Merckling **RIBER S.A., Bezons cedex, France*
Tuesday, 11:45 - 12:00 **Tu2.3**	DEVELOPMENT AND CHARACTERIZATION OF A FULLY-INTEGRATED MOLECULAR BEAM EPITAXY SYSTEM FOR COMPOUND SEMICONDUCTOR RESEARCH AND DEVELOPMENT M. L. O'Steen*, S. G. Farrell, R. Bresnahan, S. W. Priddy, M. Marek, and D. Hanser **Veeco Instruments, Inc., St. Paul, MN 55127, USA*
Tuesday, 12:00 - 13:00	**Tu3: Novel III-V heterostructures**
Tuesday, 12:00 - 12:30 **Tu3.1**	MOLECULAR BEAM EPITAXY OF GaAsBi AND ITS APPLICATION TO LASER DIODES WITH LOW-TEMPERATURE DEPENDENCE OF OSCILLATION WAVELENGTH (invited) Masahiro Yoshimoto*, R. Yoshioka, K. Yoshida, and T. Fuyuki **Department of Electronics, Kyoto Institute of Technology, Sakyo, Kyoto, Japan*
Tuesday, 12:30 - 12:45 **Tu3.2**	VERTICAL AND LATERAL BI SEGREGATION IN Ga(As,Bi) HETEROSTRUCTURES GROWN BY MOLECULAR BEAM EPITAXY E. Luna*, M. Wu, J. Puustinen, M. Guina, S. R. Jin, S. J. Sweeney, and A. Trampert **Paul-Drude Institut für Festkörperelektronik, Berlin, Germany*
Tuesday, 12:45 - 13:00 **Tu3.3**	GROWTH AND CHARACTERIZATION OF InGaPBi THIN FILMS BY MOLECULAR BEAM EPITAXY Li Yue*, P. Wang, K. Wang, X. Wu, W. Pan, Y. Li, Y. Song, Q. Gong, and S. Wang

	**State Key Laboratory of Functional Materials for Informatics, Shanghai Institute of Microsystem and Information Technology, Chinese Academy of Sciences, Shanghai, China*
Tuesday, 17:00 - 18:30	**Tu4: Oxides**
Tuesday, 17:00 - 17:30 **Tu4.1**	GROWTH OF COMPLEX OXIDES FOR SOLID STATE QUANTUM ELECTRONICS (invited) Hans Boschker* **Max Planck Institute for Solid State Research, Stuttgart, Germany*
Tuesday, 17:30 - 17:45 **Tu4.2**	EPITAXIAL GROWTH OF FERROELECTRIC $Pb(Zr,Ti)O_3$ THIN LAYERS ON $SrTiO_3$-TEMPLATED GaAs/InGaAs QUANTUM WELL STRUCTURE FOR OPTO-MECHANICAL APPLICATION B. Meunier*, R. Bachelet, B. Vilquin, P. Rojo-Romeo, G. Grenet, C. Botella, P. Regreny, J. Penuelas, G. Agnus, P. Lecoeur, V. Pillard, N. Chauvin, L. Largeau, and G. Saint-Girons **Ecole Centrale de Lyon, INL-CNRS, Ecully, France*
Tuesday, 17:45 - 18:00 **Tu4.3**	*HYBRID PLASMA-ASSISTED MOLECULAR BEAM EPITAXY OF ZnO ON IN-SITU GROWN GaN/4H-SiC BUFFER LAYERS* *David Adolph* and T. Ive* **Department of Microtechnology and Nanoscience, Chalmers*
Tuesday, 18:00 - 18:15 **Tu4.4**	BARIUM TITANATE EPITAXIAL FILMS ON SILICON: STRUCTURE AND ELECTRO-OPTIC PROPERTIES Kristy J. Kormondy*, F. Fallegger, S. Abel, Y. Popoff, P. Ponath, A. B. Posadas, M. Sousa, D. Caimi, H. Siegwart, E. Uccelli, L. Czornomaz, A. A. Demkov, C. Marchiori, and J. Fompeyrine **Department of Physics, University of Texas at Austin, USA*
Tuesday, 18:15 - 18:30 **Tu4.5**	GROWTH AND ELECTRONIC PROPERTIES OF EPITAXIAL NbO_2 Alexander A. Demkov*, A. B. Posadas, T. Hadamek, A. O'Hara, T. N. Nunley, S. Rangan, S. Zollner, and R. A. Bartynski **Department of Physics, The University of Texas, Austin, USA*
Time	**Wednesday, March 18th**
Wednesday,8:30-10:15	**We1: Nanowires and 3D growth**
Wednesday, 8:30-9:00 **We1.1**	PREDICTIVE GROWTH OF SELF-ASSISTED GaAs NANOWIRES ON Si (111) (invited) F. Bastiman, H. Küpers, C. Somaschini, and Lutz Geelhaar* **Paul-Drude-Institut für Festkörperelektronik, Berlin, Germany*
Wednesday, 9:00-9:15 **We1.2**	CRYSTAL PHASE DESIGN IN Au-CATALYZED, MBE-GROWN III-V NANOWIRES V.G. Dubrovskii* **St. Petersburg Academic University, and Ioffe Physical Technical Institute RAS, St. Petersburg, Russia*
Wednesday, 9:15-9:30 **We1.3**	SELF-ASSEMBLED NANOWIRE JUNCTIONS ON PATTERNED Si SUBSTRATES Torsten Rieger*, D. Rosenbach, S. Heedt, M. I. Lepsa, T. Schäpers, and D. Grützmacher

	**Peter Grünberg Institute 9 (PGI9) and JARA-FIT, Forschungszentrum Jülich, Germany*
Wednesday, 9:30-9:45 **We1.4**	NUCLEATION MECHANISM AND GROWTH KINETICS OF InAs NANOWIRES GROWN ON SILICON (111) BY CHEMICAL BEAM EPITAXY Umesh Gomes*, D. Ercolani, F. Beltram, and L. Sorba **NEST Scuola Normale Superiore and Istituto di Nanoscienze-CNR, Pisa, Italy*
Wednesday,9:45-10:00 **We1.5**	SCREENING OF THE QUANTUM-CONFINED STARK EFFECT IN AlN/GaN NANOWIRE SUPERLATTICES BY GERMANIUM DOPING P. Hille*, J. Müßener, P. Becker, M. de la Mata, N. Rosemann, C. Magen, J. Arbiol, J. Teubert, S. Chatterjee, J. Schörmann, and M. Eickhoff **I. Physikalisches Institut, Justus-Liebig-Universität Gießen, Germany*
Wednesday,10:00-10:15 **We1.6**	FORMATION MECHANISMS OF GaN NANOWIRES GROWN BY SELECTIVE AREA GROWTH HOMOEPITAXY Ž. Gačević*, D. Gómez Sánchez, and E. Calleja **ISOM-ETSIT, Universidad Politécnica de Madrid, Spain*
Wednesday,10:45-11:45	**We2: Organic materials - Ferromagnetic and spintronic materials**
Wednesday,10:45-11:15 **We2.1**	RARE EARTH MONONITRIDES: NOVEL INTRINSIC FERROMAGNETIC SEMICONDUCTORS (invited) Franck Natali*, B. Ruck, and J. Trodahl **MacDiarmid Institute for Advanced Materials and Nanotechnology, School of Chemical and Physical Sciences, Victoria University of Wellington, New Zealand*
Wednesday,11:15-11:30 **We2.2**	FERROMAGNETIC (In,Ga)As-MnGa CORE-SHELL NANOWIRES Janus Sadowski*, A. Siusys, T. Wojciechowski, T. Kasama, and R. Mathieu **MAX-IV laboratory, Lund University, Sweden and Institute of Physics, Polish Academy of Sciences, Warszawa, Poland*
Wednesday,11:30-11:45 **We2.3**	EPITAXIAL Fe_3Si/Al/Fe_3Si METAL THIN FILM STACKS GROWN ON GaAs(001) J. Herfort*, C. Herrmann, and B. Jenichen **Paul-Drude-Institut für Festkörperelektronik, Berlin, Germany*
Wednesday,11:45-13:15	**We3: Characterization**
Wednesday,11:45-12:15 **We3.1**	CORRELATING OPTOELECTRONIC AND TRANSPORT PROPERTIES OF GaN/AlN NANOWIRES WITH POLARITY AND CRYSTAL STRUCTURE (invited) M. Den Hertog*, F. Gonzalez-Posada, R. Songmuang, J.L. Rouviere, B. Gayral, and E. Monroy **Institut Néel-CNRS, Grenoble, France*

Wednesday,12:15-12:30 **We3.2**	POLARITON MODE ARISING FROM COUPLED QUANTUM WELL EXCITONS IN PLANAR MICROCAVITY Claudéric Ouellet-Plamondon*, G. Sallen, F. Jabeen, D. Oberli, and B. Deveaud **Institute of Condensed Matter Physics, EPFL, Switzerland*
Wednesday,12:30-12:45 **We3.3**	RAMAN SPECTROSCOPY OF Bi_4Tr_3 THIN FILMS GROWN BY MBE H. Xu, Yuxin Song*, W. Pan, Q. Gong, and S. Wang **Shanghai Institute of Microsystem and Information Technology, Chinese Academy of Sciences, Shanghai, China*
Wednesday,12:45-13:00 **We3.4**	CONTACTLESS ELECTROREFLECTANCE STUDY OF FERMI LEVEL POSITION ON GaN SURFACE OF VARIOUS CRYSTALLOGRAPHIC ORIENTATIONS R. Kudrawiec*, Ł. Janicki, M. Gladysiewicz, G. Cywinski, M. Sawicka, M. Boćkowski, C. Chèze, P. Wolny, and C. Skierbiszewski **Department of Experimental Physics, Wroclaw University of Technology, Poland*
Wednesday,13:00-13:15 **We3.5**	SPIN PROPERTIES OF DILUTE BISMIDES H. Carrère*, S. Mazzucato, S. Azaizia, F. Beato de Le Salle, D. Lagarde, P. Boonpeng, A. Arnoult, A. Balocchi, T. Amand, C. Fontaine, and X. Marie **LPCNO, INSA-UPS-CNRS, Toulouse, France*
Wednesday,14:30-16:15	**We4: Photovoltaics, electronics and optoelectronics**
Wednesday,14:30-15:00 **We4.1**	III-V QUANTUM DOTS AND QUANTUM-DOT DEVICES MONOLITHICALLY GROWN ON SILICON PLATFORM FOR SILICON OHOTONICS (invited) Huiyun Liu* **Department of Electronic and Electrical Engineering, University College London, UK*
Wednesday,15:00-15:15 **We4.2**	MBE GROWN GaInNAsSb MULTIJUNCTION SOLAR CELLS: PATH TOWARDS 50% EFFICIENCY Arto Aho*, V. Polojärvi, T. Aho, M. Raappana, A. Tukiainen, and M. Guina **Optoelectronics Research Centre, Tampere University of Technology, Finland*
Wednesday,15:15-15:30 **We4.3**	AlGaInAs BARRIERS FOR InP-BASED TERAHERTZ QUANTUM CASCADE LASERS Aaron Maxwell Andrews*, D. C. MacFarland, M. Krall, T. Zederbauer, H. Detz, W. Schrenk, M. Brandstetter, C. Deutsch, K. Unterrainer, and G. Strasser **Institute for Solid-state Electronics and Center for Micro and Nanostructures Vienna University of Technology, Wien, Austria*
Wednesday,15:30-15:45 **We4.4**	MBE GROWTH OF SEMICONDUCTOR DISK LASER FOR REPETITION RATE SCALING FROM 5 TO 100 GHz Matthias Golling*, M. Mangold, C. A. Zaugg, S. M. Link, D. Waldburger, C. G.E. Alfieri, B. W. Tilma, and U. Keller **Department of Physics, Institute for Quantum Electronics ETH Zürich, Switzerland*

Wednesday,15:45-16:00 **We4.5**	MBE-GROWN GaP/Si MICRODISKS P. Guillemé*, M. Bahri, J. Le Pouliquen, D. Gachet, T. Rohel, C. Cornet, Y. Dumeige, P. Féron, L.Largeau, G. Patriarche, O. Durand, and Y. Léger **UMR FOTON, CNRS, INSA Rennes, Université de Rennes 1, Rennes, France*
Wednesday,16:00-16:15 **We4.6**	MBE GROWTH INVESTIGATIONS OF $In_xGa_{1-x}As/GaAs_ySb_{1-y}$ SYSTEMS FOR TFET PERFORMANCE PREDICTION S. El Kazzi*, Q. Smets, R. Rooyackers, J. Delmotte, J. Geypen, A. Verhulst, N. Collaert, M.M Heyns, C. Merckling, and A. Thean **Imec, Heverlee, Belgium*
Wednesday,16:15-17:00	**We5: III-N materials**
Wednesday,16:15-16:45 **We5.1**	PA MBE OF AlGaN-BASED HETEROSTRUCTURES FOR MID-ULTRAVIOLET OPTOELECTRONICS (invited) Valentin Jmerik*, E. Lutsenko, and S. Ivanov **IOFFE Physical Technical Institute, Saint Petersburg, Russia*
Wednesday,16:45-17:00 **We5.2**	NON POLAR GaN GROWN ON ZnO SUBSTRATES: A COMPARISON BETWEEN a-PLANE (11-20) AND m-PLANE (10-10) GROWTH A. Ogereau*, J. Brault, Y. Xia, B. Damilano, M. Leroux, M.Nemoz, P. Vennéguès, M. Al Khalfioui, M. Teisseire, and J. M. Chauveau **CRHEA-CNRS, Valbonne and Université de Nice Sophia-Antipolis, Nice, France*
Wednesday,17:30-19:00	**We6: Topological Insulators, Graphene and other 2D layered materials**
Wednesday,17:30-18:00 **We6.1**	GeSn HETEROEPITAXY ON Si (invited) Michael Oehme* **Institute for Semiconductor Engineering, University of Stuttgart, Germany*
Wednesday,18:00-18:15 **We6.2**	STOICHIOMETRY CONTROL AND MAGNETIC DOPING OF BISMUTH CHALCOGENIDE TOPOLOGICAL INSULATORS G. Springholz*, H. Steiner, S. Wimmer, V. Volobuev, A. Ney, O. Caha, V. Holy, M. Partha, J. Sanchez-Barriga, A. Varykhalov, O. Rader, and G. Bauer **Johannes Kepler University, Linz, Austria*
Wednesday,18:15-18:30 **We6.3**	SUPPRESSION OF TWIN DOMAINS IN MBE-GROWN TOPOLOGICAL INSULATOR Bi_2Te_3 THIN FILMS ON Si(111) Gregor Mussler*, J. Kampmeier, S. Borisova, M. Lanius, M. Luysberg, and D. Grützmacher **Peter Grünberg Institute, Research Center Jülich & Jülich-Aachen Research Alliance, Jülich, Germany*
Wednesday,18:30-18:45 **We6.4**	COINCIDENCE LATTICE FORMATION BETWEEN 2D MATERIALS J.E. Boschker*, L.A. Galves, J.M.J. Lopes, and R. Calarco **Paul-Drude-Institut für Festkörperelektronik, Berlin, Germany*

Wednesday,18:45-19:00 **We6.5**	2D TOPOLOGICAL INSULATORS IN THE InAs/GaSb SYSTEM T. Tschirky*, Ch. Charpentier1, A. N. Pal, S. Müller, T. Ihn, K. Ensslin, W. Wegscheider, V. Pribiag, A. Beukman, F. Qu, M. Cassidy, and L. Kouwenhoven **Solid State Physics Laboratory, ETH Zürich, Switzerland*

Time	Monday, March 16th
Monday, 18:45 - 20:30	**MoP: POSTER SESSION**
MoP.1	IN-PLANE QUANTUM WELL WIRES ON PATTERNED GaAs(111)B SUBSTRATES Klaus Biermann*, M. Hoericke, U. Jahn, A. Tahraoui, V. Kaganer, R. Hey, and P. V. Santos **Paul-Drude-Institut für Festkörperelektronik, Berlin, Germany*
MoP.2	ON AN IMPACT OF THE Si-N INTERLAYER ON PROPERTIES OF GaN NANOWIRES GROWN CATALYST-FREE BY PAMBE ON Si Z.R. Zytkiewicz*, M. Sobanska, K. Klosek, A. Wierzbicka, and J. Borysiuk **Institute of Physics, Polish Academy of Sciences, Warszawa, Poland*
MoP.3	InAs/InP SEMICONDUCTOR NANOWIRES ON SILICON FOR TELECOMMUNICATION BAND LIGHT SOURCES Amaury Mavel*, N. Chauvin, P. Regreny, G. Patriarche, and M. Gendry **Université de Lyon, Institut des Nanotechnologies de Lyon-INL, Villeurbanne, France & Ecole Centrale de Lyon, Ecully, France*
MoP.4	POLARITY VARIABILITY IN GaN NANOWIRE ASSEMBLY: CONSEQUENCES FOR INDIUM INCORPORATION Thomas Auzelle*, B. Haas, X. Zhang, J-L. Rouvière, C. Bougerol, A. Cros, and B. Duadin **CEA-CNRS, Grenoble, France*
MoP.5	WURTZITE/ZINC-BLENDE POLYMORPHISM IN ZnTe NANOWIRES P. Rueda-Fonseca, A. Artioli, Marta Orrù*, Y. Genuist, R. André, D. Ferrand, J. Cibert, S. Tatarenko, and E. Bellet-Amalric **Inst. NEEL, Univ. Grenoble Alpes & CNRS, Grenoble, France*
MoP.6	n-TYPE DOPING IN SELF-ASSISTED GaAs NANOWIRES BY Te CO-DEPOSITION Marta Orrù*, E. Repiso, F. Martelli, A. Franciosi, S. Roddaro, and S. Rubini **CNR-IOM Institute, Trieste, Italy*
MoP.7	KINETICS OF SELF-INDUCED NUCLEATION OF GaN NANOWIRES ON AMORPHOUS Al_2O_3 BUFFER BY PAMBE Marta Sobanska*, K. Klosek, G. Tchutchulashvili, S. Gieraltowska, and Z.R. Zytkiewicz **Institute of Physics, Polish Academy of Sciences, Warszawa, Poland*

MoP.8	AXIAL AND RADIAL GROWTH OF GaAs/InSb HETEROSTRUCTURE NANOWIRES Torsten Rieger*, M. Ion Lepsa, and D. Grützmacher **Peter Grünberg Institute 9 and JARA-FIT, Forschungszentrum Jülich GmbH, Germany*
MoP.9	ANISOTROPY OF THE SPIN SPLITTING IN ZnMnTe/ZnMgTe CORE/SHELL NANOWIRES Piotr Wojnar*, J. Suffczyński, T. Smoleński, E. Janik, W. Zaleszczyk, S. Kret, T. Wojciechowski, P. Kossacki, G. Karczewski, T. Wojtowicz, and J. Kossut **Institute of Physics, Polish Academy of Sciences, Warsaw, Poland*
MoP.10	GROWTH OF SELF-ASSISTED InAs NANOWIRES FOR InAs/GaSb CORE-SHELL HETEROSTRUCTURES Heidi Potts*, G. Tütüncüoglu, F. Matteini, M. Friedl, and A. Fontcuberta i Morral **Laboratoire des Matériaux Semiconducteurs, Ecole Polytéchnique Fédérale de Lausanne, Switzerland*
MoP.11	MODIFYING ZELDOVICH NUCLEATION RATE FOR ACCURATE DESCRIPTION OF III-V NANOWIRE CRYSTAL STRUCTURE Jurij Grecenkov* and V. G. Dubrovski **St. Petersburg Academic University, St. Petersburg, Russia*
MoP.12	THE COMPOSITION OSCILLATIONS IN HETEROSTRUCTURE NANOWIRES Nickolay Sibirev* **Saint Petersburg Academic University, St. Petersburg, Russia*
MoP.13	GaAs/InAs HETEROSTRUCTURED NANOWIRES S. Kanti De, U. Gomes, D. Ercolani, F. Beltram, and Lucia Sorba* **CNR-NANO Institute, Pisa, Italy*
MoP.14	STATISTICAL ANALYSIS OF THE MORPHOLOGY OF SELFASSISTED GaAs NANOWIRES ON SI(111) BY TRANSMISSION ELECTRON MICROSCOPY: DOES THE ASPECT RATIO MATTER? Esperanza Luna*, F. Bastiman, S. Breuer, L. Geelhaar, H. Riechert, and A. Trampert **Paul-Drude Institut für Festkörperelektronik, Berlin, Germany*
MoP.15	EPITAXIAL GROWTH OF CdSe/ZnSe CORE/SHELL NANOWIRES Valentina Zannier*, M. Vettori, M. Fanetti, T. Cremel, A. Artioli, and S. Rubini **CNR-IOM Institute, Trieste, Italy*
MoP.16	SELF-CATALYZED GROWTH OF GaAs NANOWIRES ON SILICON FOR TANDEM SOLAR CELLS Abdennacer Benali*, J. Michallon, P. Regreny, E. Drouard, P. Rojo, N. Chauvin, A. Fave, G. Patriarche, A. Kaminski-Cachopo, and M. Gendry **Université de Lyon, Institut des Nanotechnologies de Lyon-INL, Ecole Centrale de Lyon, Ecully, France*

MoP.17	STRAIN RELAXATION STUDY IN InAs/GaAs SHARPLY-DEFINED AXIAL HETERO-STRUCTURES NANOWIRES David Scarpellini*, C. Somaschini, A. Fedorov, S. Bietti, C. Frigeri, V. Grillo, L. Esposito, E. Bonera, A. Marzegalli, M. Salvalaglio, F. Montalenti, P. G. Medaglia, and S. Sanguinetti **L–NESS and Dipartimento di Scienza dei Materiali, Università di Milano Bicocca, Milano and Department of Industrial Engineering, University of Rome Tor Vergata, Rome, Italy*
MoP.18	FORMATION OF A FLAT TOP FACET IN SELF-ASSISTED GaAs NANOWIRES C. Somaschini, Alexey Fedorov*, D. Scarpellini, M. Bollani, S. Bietti, P.G. Medaglia, and S. Sangunetti **L-NESS and CNR-IFN Institute, Como, Italy*
MoP.19	SELF-CATALYZED GROWTH OF GaAs NANOWIRES ON LITHOGRAPHY-FREE Si/SiO_x PATTERNS Teemu Hakkarainen*, A. Schramm, and M. Guina **Optoelectronics Research Centre, Tampere University of Technology, Finland*
MoP.20	THE EFFECT OF RESIDUAL DOPING ON ELECTRIC FIELD DISTRIBUTION IN GaN/AlGaN/GaN HETEROSTRUCTURES Marta Gladysiewicz-Kudrawiec*, Ł. Janicki, R. Kudrawiec, J. Misiewicz, K. Klosek, M. Sobanska, and Z.R. Zytkiewicz **Department of Experimental Physics, Wroclaw University of Technology, Poland*
MoP.21	IMPACT OF GaN BUFFER LAYER THICKNESS AND INTERFACE OF GaN BUFFER AND AlN TEMPLATE ON THE ELECTRICAL PROPERTIES OF GaN/AlGaN HIGH ELECTRON MOBILITY TRANSISTOR GROWN ON Si(111) SUBSTRATE WITH AND WITHOUT BACK BARRIER Kankat Ghosh*, K. Takhar, S. Ganguly, D. Saha, and Apurba Laha **Department of Electrical Engineering and Center of Excellence in Nanoelectronics, Indian Institute of Technology Bombay, Mumbai, India*
MoP.22	INVESTIGATION OF UNINTENTIONAL DOPING IN GaN(0001) GROWN BY PLASMA ASSISTED MOLECULAR BEAM EPITAXY Tobias Tingberg* and T. Ive **Department of Microtechnology and Nanoscience, Chalmers University of Technology, Göteborg, Sweden*
MoP.23	ELIMINATION OF SUBSTRATE MODES IN NITRIDE LASER DIODES GROWN BY PAMBE Grzegorz Muziol*, H. Turski, M. Siekacz, P. Wolny, K. Płodzień, E. Grzanka, P. Perlin, C. Skierbiszewski **Institute of High Pressure Physics, Polish Academy of Sciences, Warsaw, Poland*
MoP.24	STATUS AND PROSPECTS FOR GaN-ON-Si: A RENEWED INTEREST FOR MBE? Fabrice Semond* **CRHEA-CNRS, Sophia Antipolis, Valbonne, France*

MoP.25	STRUCTURAL AND OPTICAL PROPERTIES OF HIGH-REFLECTIVITY CRACK-FREE AlN/AlGaN BRAGG MIRRORS GROWN ON PATTERNED Si SUBSTRATES Fabrice Semond, M. Nemoz*, M. Meletis, J. Zuniga-Perez, B. Damilano, M. Leroux, D. Lefevbre, A. Courville, S. Chenot, F. Réveret, E. Mallet, O. Jamadi, J. Leymarie, P. Disseix, T. Guillet, C. Brimont, R. Hahe, X. Lafosse, S. Bouchoule, and G. Patriarche **CRHEA-CNRS, Sophia Antipolis, Valbonne, France*
MoP.26	EFFECT OF GROWTH AND ANNEALING CONDITIONS ON THE PHOTOLUMINESCENCE OF QUANTUM DOT-LIKE GaAsBi CLUSTERS Janne Puustinen*, J. Hilska, M. Wu, E. Luna, and M. Guina **Optoelectronics Research Centre, Tampere University of Technology, Finland*
MoP.27	STRUCTURAL AND ELECTRONIC PROPERTIES OF GaAsBi ALLOYS GROWN ON (001) GaAs SUBSTRATES BY MOLECULAR BEAM EPITAXY Chantal Fontaine*, A.Arnoult, P.Prongjit, S. Mazzucato, H. Carrère, F. Cristiano, T. Hungria, H. Makhloufi, and G. Lacoste **CNRS and Université de Toulouse, Université Paul Sabatier, LAAS, Toulouse, France*
MoP.28	NON-DESTRUCTIVE WAFER LEVEL MAPPING OF DOPING CONCENTRATIONS OF HIGH SPEED RESONANT TUNNELLING DIODES FOR TERAHERTZ APPLICATIONS Kristof J.P. Jacobs*, B.J. Stevens, T. Mukai, D. Ohnishi, and R.A. Hogg **Department of Electronic & Electrical Engineering, University of Sheffield, Centre for Nanoscience & Technology, North Campus, Sheffield, UK*
MoP.29	PL STUDY OF H_2O PASSIVATION EFFECTS ON MBE InAs QDs Giovanna Trevisi*, L. Seravalli, and P. Frigeri **CNR-IMEM Institute, Parma, Italy*
MoP.30	DEEP LEVELS IN HOMOEPITAXIAL ZnO AND THE EFFECT OF NDOPING Adrian Hierro*, A. Kurtz, L. Gura, E. Muñoz, and J.M. Chauveau **ISOM-Dept. Ingenieria Electronica,Univ. Politecnica de Madrid, Spain*
MoP.31	QUANTITATIVE DOMAIN ORIENTATION ANALYSIS OF GaN/Er_2O_3 GROWN ON VICINAL Si(001) Lars Grieger* and J. F. Woitok **PANalytical B.V., Almelo, The Netherlands*
MoP.32	STRUCTURAL AND ELECTRICAL CHARACTERIZATION OF STRAIN INDUCED SELF-ROLLED NANOTUBES Paola Frigeri*, G. Trevisi, L. Seravalli, M. Calicchio, F. Rossi, and E. Gombia **CNR-IMEM Institute, Parma, Italy*
MoP.33	EVALUATION OF LATERAL COMPOSITION MODULATION IN Ga(As,Bi) EPILAYERS BY X-RAY DIFFRACTION Mingjian Wu*, M. Hanke, E. Luna, J. Puustinen, M. Guina, and A. Trampert **Paul-Drude-Institut für Festkörperelektronik, Berlin, Germany and Optoelectronics Research Centre, Tampere Univ. of Tech., Finland*

MoP.34	OBSERVATION OF ATOMIC ORDERING OF TRIPLE-PERIOD-A AND -B TYPE IN Ga(As,Bi) Mingjian Wu*, E. Luna, J. Puustinen, M. Guina, and A. Trampert **Paul-DrudeInstitut für Festkörperelektronik, Berlin, Germany*
MoP.35	CARRIER LOCALIZATION EFFECTS IN GaBiAs LAYERS V. Orsi Gordo, A. R. H. Carvalho, H. V. A. Galeti, Yara Galvão Gobato*, M.P.F. de Godoy, R. Kudrawiec, O. Lemine, and M. Henini **Departamento de Física, Universidade Federal de São Carlos, Brazil*
MoP.36	SPIN INJECTION DYNAMICS OF ELECTRONS IN P-TYPE RESONANT TUNNELING DIODE H. V.A. Galeti*, M. J. S. P. Brasil, Y. Galvão Gobato, and M. Henini **Departamento de Física, Universidade Federal de São Carlos, Brazil*
Tuesday, 18:45 - 20:30	**TuP: POSTER SESSION**
TuP.1	MODEL FOR N INCORPORATION RATE INTO GaInNAs Arto Aho*, V.-M. Korpijärvi, J. Puustinen, A. Tukiainen, and M. Guina **Optoelectronics Research Centre, Tampere University of Technology, Finland*
TuP.2	CONTINUOUS-WAVE OPERATION OF InAs QUANTUM DOT LASER ON Ge SUBSTRATES GROWN BY GAS SOURCE MOLECULAR BEAM EPITAXY Qian Gong*, P. Wang, K. Wang, C. F. Cao, Y. Y. Li, and S. M. Wang **State Key Laboratory of Functional Materials for Informatics, Shanghai Institute of Microsystem and Information Technology, China*
TuP.3	MBE GROWN TERAHERTZ GaN/AlGaN TRANSISTORS BASED EMITTERS AND DETECTORS Grzegorz Cywiński*, K. Szkudlarek, P. Wolny, W. Knap, D. Yavorskiy, K. Karpierz, J. Łusakowski, N. Dyakonova, K. Dybko, M. Siekacz, and C. Skierbiszewski **Institute of High Pressure Physics PAS, Warsaw, Poland*
TuP.4	GaAs(Sb)(N)-CAPPED InAs/GaAs QUANTUM DOTS FOR ENHANCED SOLAR CELL EFFICIENCY Antonio David Utrilla*, J.M. Ulloa, Ž Gačević, D.F. Reyes, T. Ben, A. Hierro, A. Guzman, and D. González **Institute for Systems based on Optoelectronics and Microtechnology (ISOM) and Dpto. Ingeniería Electrónica, Universidad Politecnica de Madrid, Madrid, Spain*
TuP.5	OPTIMIZATION OF RELAXED BUFFER GROWTH FOR InSb QUANTUM WELLS ON GaAs WAFERS Christian A. Lehner*, T. Tschirky, Ch. Charpentier, S. Fält, and W. Wegscheider **Solid State Physics Laboratory, ETH Zürich, Switzerland*

TuP.6	SUBSTRATE CLEANING PROCESS FOR THE MBE GROWTH OF Sb-BASED HETEROSTRUCTURES ON Si SUBSTRATES Karine Madiomanana*, J.-B. Rodriguez, L. Cerutti, A. Castellano, M. Bahri, L. Largeau, O. Mauguin, G. Patriarche, and E. Tournié **Université de Montpellier, IES, and CNRS, IES, Montpellier France*
TuP.7	SEMIINSULATING InAlAs AND InP:Fe FOR BURIED-HETEROSTRUCTURE QCLs BY GAS-SOURCE MBE Mykhaylo P. Semtsiv*, Y. V. Flores, A. Aleksandrova, M. Elagin, J. Kischkat, S. S. Kurlov, G. Monastyrskyi, J. Hellemann, S. L. Golovynskyi, G. G. Tarasov, O. I. Dacenko, S. V. Kondratenko, and W. T. Masselink **Department of Physics, Humboldt University Berlin, Germany*
TuP.8	UNALLOYED Cr/Au CONTACTS TO AlGaN/GaN 2-DEG FOR HEMT APPLICATIONS K. Takhar, S. Sankaranarayanan, M. Meer, A. K. Jain, S. Ganguly, A. Laha, and Dipankar Saha* **Center of Excellence in Nanoelectronics, Department of electrical Engineering, IIT Bombay, Powai, Mumbai, India*
TuP.9	THIN BARRIER GaN HIGH ELECTRON MOBILITY STRUCTURES FOR POWER DEVICES OPERATING AT 40 GHZ Yvon Cordier*, S. Rennesson, B. Damilano, E. Frayssinet, M. Chmielowska, S. Chenot, F. Lecourt, N. Defrance, M. Lesecq, V. Hoel, E. Okada, P. Altuntas, A. Cutivet, A. Agboton, A. Soltani, and J.-C. De Jaeger **CRHEA-CNRS, Valbonne, France*
TuP.10	CARRIER INJECTION IN GaP-BASED LASER WAVEGUIDES AND DILUTE NITRIDES GAIN MEDIUM J. -P. Gauthier, C. Robert, S. Almosni, Charles Cornet*, Y. Léger M. Perrin, J. -P. Burin, A. Létoublon, J. Even, R. Tremblay, A. Beck, H. Carrère, A. Balocchi, X. Marie, and O. Durand **UMR FOTON, CNRS, INSA Rennes, France*
TuP.11	LATTICE-MATCHED GaAsPN/GaP SINGLE JUNCTION SOLAR CELLS FOR HIGH -EFFICIENCY TANDEM SOLAR CELLS ON SILICON S. Almosni, C. Cornet, A. Létoublon, N. Bertru, A. Le Corre, C. Levallois, J. Even, A. Rolland, P. Rale, L. Lombez, J.-F. Guillemoles, and Olivier Durand* **UMR FOTON, CNRS, INSA Rennes, France*
TuP.12	TYPE-I AND TYPE-II InAs/GaAs QUANTUM DOT SOLAR CELLS WITH A GaAsSb CAPPING LAYER Jose Maria Ulloa*, A.D. Utrilla, Ž Gačević, D.F. Reyes, D. González, T. Ben, A. Guzman, and A. Hierro **Institute for Systems based on Optoelectronics and Microtechnology (ISOM) and Dpto. Ingeniería Electrónica, Universidad Politécnica de Madrid, Spain*
TuP.13	HIGH Al CONTENT GROWTH OF AlGaAs LAYERS BY CBE USING TTBAl AS Al PRECURSOR FOR NEW GENERATION SOLAR CELLS Alejandro F. Braña de Cal*, N. López, C. García Núñez, and B. J. García **Grupo de Electrónica y Semiconductores, Dpto. Física Aplicada, Universidad Autónoma de Madrid, Spain*

TuP.14	GaAs BASED HETEROSTRUCTURES ON Ge SUSPENDED LAYERS ON NOMINAL (001) PATTERNED SILICON SUBSTRATES Andrea Ballabio*, S. Bietti, L. Esposito, A. Fedorov, A. Scaccabarozzi, A. Vinattieri, F. Biccari, M. Gurioli, G. Isella, L. Miglio, and S. Sanguinetti **Politecnico di Milano, Milano, Italy*
TuP.15	NOVEL POSITION SENSITIVE PHOTON DETECTOR BASED ON InGaAa/InAlAs QUANTUM WELL FOR BEAM DIAGNOSTICS Tamiraa Ganbold*, M. Antonelli, G. Cautero, R. H. Menk, and G. Biasiol **University of Trieste, Italy*
TuP.16	MBE GROWN II-VI SUPERLATTICES LATTICE-MATCHED TO GaSb AS BUILDING BLOCKS OF THREE-CASCADE HETEROVALENT SOLAR CELLS G.V. Klimko, E.A. Evropeitsev, S.V. Sorokin, I.V. Sedova, S.V. Gronin, A.A. Toropov, and Sergey V. Ivanov* **Ioffe Physical-Technical Institute, St.Petersburg, Russia*
TuP.17	ROLE OF SURFACE STATES ON THE SENSING PROPERTIES OF $In_{0.5}Ga_{0.5}As$ SURFACE QUANTUM DOTS María José Milla Rodrigo*, I. Hernández, J. Mendez, J. M. Garcia, and A. Guzmán **Instituto de Sistemas Optoelectrónicos y Microtecnología (ISOM), Madrid, Spain*
TuP.18	CHAINS OF QUANTUM DOTS GROWN ON Si SURFACE PRE-PATTERNED BY ION-ASSISTED NANOIMPRINT LITHOGRAPHY: STRUCTURAL, TRANSPORT AND SPIN PROPERTIES Natalia P. Stepina*, Zh.V. Smagina, A.F. Zinovieva, and A.V. Dvurechenskii **Institute of Semiconductor Physics, Novosibirsk, Russia*
TuP.19	SELF-LIMITED FORMATION OF STRAINED Au NANOISLANDS N. V. Sibirev, Yury Berdnikov*, A. Koryakin, V.G Dubrovskii, J.H. Kang, and H. Shtrikman **St. Petersburg Academic University, St. Petersburg, Russia*
TuP.20	NUCLEATION OF NANOSCALE GALLIUM DROPLETS ON SILICON SUBSTRATES Hermann Detz*, M. Kriz, S. Lancaster, D. MacFarland, T. Zederbauer, A.M. Andrews, W. Schrenk, and G. Strasser **Center for Micro- and Nano-structures and Institute for Solid-State Electronics, Vienna University of Technology, Wien, Austria*
TuP.21	A TWO-COLOR EMITTING InGaN NANODISK AS A SITE-CONTROLLED SOURCE OF CLASSICAL AND QUANTUM LIGHT Žarko Gačević*, N. García-Lepetit, E. Chernysheva, S. Lazić, N. Vukmirović, M. Müller, S. Metzner, A. Torres-Pardo, S. Albert, A. Bengoechea-Encabo, F. Bertram, J. Christen, J.M. González-Calbet, J.M. Calleja, and E. Calleja **ISOM-ETSIT, Universidad Politécnica de Madrid, Madrid, Spain*
TuP.22	PRE- AND POST-EPITAXIAL III-V QUANTUM WELLS MODIFICATION BY FOCUSED ION BEAM: RESONANT DIFFRACTION GRATINGS Yury V. Kapitonov*, P.Yu. Shapochkin, Yu.V. Petrov, Yu. K. Dolgikh, S.A. Eliseev, Yu.P. Efimov, V.V. Petrov, and V.V. Ovsyankin **St. Petersburg State University, St. Petersburg, Russia*

TuP.23	DIRECTED SELF-ASSEMBLY OF Ge QUANTUM DOTS WITH EUV INTERFERENCE LITHOGRAPHY Jenny Tempeler*, S. Danylyuk, S. Brose, G. Mussler, L. Juschkin, and P. Loosen **Chair for the Technology of Optical Systems, RWTH Aachen University and JARA - Fundamentals of Future Information Technology, Aachen, Germany*
TuP.24	SOME ASPECTS TO THE KINETICS OF DROPLET EPITAXIAL NANO STRUCTURE GROWTH Ákos Nemcsics*, L. Tóth, B. Pődör, L. Dobos, J. Balázs J. Makai, and A. Ürmös **Institute of Microelectronics and Technology, Óbuda University and Institute of Technical Physics and Materials Science, Research Centre of Natural Science, Hungarian Academy of Sciences, Budapest, Hungary*
TuP.25	OVERGROWTH OF SHALLOW PATTERNED GaAs SUBSTRATES Michael Hoericke*, K. Biermann, U. Jahn, A. Tahraoui, V. Kaganer, and R. Hey **Paul-Drude-Institut für Festkörperelektronik, Berlin, Germany*
TuP.26	A SYSTEMATIC STUDY ON THE MORPHOLOGY OF THE (111)A GaAs AND $Al_{0.30}Ga_{0.70}As$ SURFACES Luca Esposito*, S. Bietti, A. Ballabio, A. Fedorov, and S. Sanguinetti **L–NESS, Dipartimento di Fisica, Politecnico di Milano, Como, Italy*
TuP.27	GALLIUM ANTIMONIDE RING-WITH-DOT STRUCTURES GROWN BY DROPLET EPITAXY M. Kunrugsa, S. Panyakeow, and Somchai Ratanathammaphan* **Semiconductor Device Research Laboratory (Nanotec Center of Excellence), Department of Electrical Engineering, Chulalongkorn University, Bangkok, Thailand*
TuP.28	AXIAL InAs/GsAs HETEROSTRUCTURES ON SILICON IN A NANOWIRE GEOMETRY Claudio Somaschini*, A. Biermanns, S. Bietti, G. Bussone, A. Trampert, S. Sanguinetti, H. Riechert, U. Pietsch, and L. Geelhaar **Paul-Drude-Institut für Festkörperelektronik, Berlin, Germany*
TuP.29	MOLECULAR BEAM EPITAXY AND ARPES STUDIES OF LEAD TIN CHALCOGENIDE TOPOLOGICAL CRYSTALLINE INSULATORS Valentine V. Volobuev*, G. Bauer, G. Springholz, O. Caha, P.S. Mandal, J. Sanchez-Barriga, A. Varykhalov, and O. Rader **Johannes Kepler University, Linz, Austria*
TuP.30	(In,Ga)As-Bi CORE-SHELL NANOWIRES - POTENTIAL NEW TOPOLOGICAL INSULATOR NANOSTRUCTURES Janusz Sadowski*, P. Dziawa, S. Kret, A. Reszka, A. Siusys, and A. Zakharov **MAX-IV laboratory, Lund University, Sweden and Institute of Physics, Polish Academy of Sciences, Warszawa, Poland*

TuP.31	SYNTHESIS AND PROPERTIES OF NOVEL HIGH-TEMPERATURE SUPERCONDUCTING HETEROINTERFACES Federico Baiutti*, G. Logvenov, G. Gregori, G. Christiani, Y. Wang, W. Sigle, P. van Aken, and J. Maier **Max Planck Institute for Solid State Research, Stuttgart, Germany*
TuP.32	LARGE SCALE SUBSTRATES FOR THE GROWTH OF FUNCTIONAL OXIDES F. Fallegger, Stefan Abel*, M. Sousa, K. J. Kormondy, Y. Popoff, E. Uccelli, S. Reidt, H. Siegwart, D. Caimi, A. A. Demkov, L. Czornomaz, C. Marchiori, and J. Fompeyrine **IBM Research GmbH, Zuerich Laboratory, Rueschlikon, Switzerland and Department of Physics, University of Texas, Austin, USA*
TuP.33	A FULLY FEATURED PULSED LASER DEPOSITION SYSTEM FOR IN-SITU SYNCHROTRON X-RAY DIFFRACTION STUDIES ON OXIDE FILMS Wolfgang Stein*, T. Heeg, and S. Bauer **SURFACE systems+technology GmbH & CO. KG, Hückelhoven, Germany*
TuP.34	PHASE STABILITY OF ROCK SALT (Mg,Zn)O Max Kracht*, J. Schörmann, and M. Eickhoff **I. Physikalisches Institut Justus- Liebig-Universität Gießen, Gießen, Germany*