

# WOCSDICE EXMATEC 2022

3-6 May 2022 | Ponta Delgada (São Miguel Island - Azores), PORTUGAL

	2 May, Monday	3 May, Tuesday	4 May, Wednesday	5 May, Thursday	6 May, Friday
08:30		Secretariat Opening	Secretariat Opening	Secretariat Opening	Secretariat Opening
09:00-09:10		<b>Opening Ceremony</b>	<b>Alice Hospoková</b> A link between Ga vacancies formation and growth conditions in MOVPE prepared GaN layers	<b>Filippo Giannazzo</b> 2D materials integration with wide bandgap semiconductors	<b>José Carlos Pedro</b> A Study of AlGaIn/GaN HEMT Trapping Effects and Their Impact on RF Power Amplifier Wireless Infrastructure Applications
09:10-09:20					
09:20-09:30					
09:30-09:40					
09:40-09:50					
09:50-10:00					
10:00-10:10	<b>Session 1</b> Chairpersons: <b>Teresa Monteiro &amp; Luis Hierro-Aves</b>	<b>Daniela Nunes</b> Sustainable metal oxide nanostructures for multifunctional applications	<b>Session 4A</b> Chairpersons: <b>Ekaterine Chikolize &amp; Samir Arbabji</b>	<b>Session 6</b> Chairpersons: <b>Yvon Cordier &amp; Marco Pavesi</b>	<b>Session 9A</b> Chairpersons: <b>Etienne Piner &amp; Fabrizio Roccaforte</b>
10:10-10:20	<b>Daniela R. Pereira</b> Field effect transistors based on $\alpha$ -MnO <sub>2</sub> exfoliated crystals and pseudo-layers	<b>Mike Leszczynski</b> X-ray Diffraction study of InGa Quantum Wells Grown on Implanted GaN	<b>Lucia Nieto</b> Optimization of GaN growth conditions by RF-sputtering on silicon substrates	<b>Joel Novik</b> Characterization of MoS <sub>2</sub> /GaP heterojunction properties	<b>Daniel Francis</b> Radiation-tolerant, High-Efficiency GaN-on-Diamond Power Amplifiers and Satellite Radios
10:20-10:30	<b>Amara Ezej</b> The Role of Nitrogen intercalation on the electrooxidation of H <sub>2</sub> O <sub>2</sub> sensor	<b>Sergio Magalhães</b> Combining X-ray real and reciprocal spaces mapping techniques to explore the epitaxial growth of nitrides, oxides and In compounds	<b>Reda Ewardi</b> Investigation on GaN channel thickness downscaling in high electron mobility transistor structures grown on AlN bulk substrate	<b>Carlos Garcia Nufiez</b> Ultrathin Graphene Foam Based Flexible Piezoresistive Pressure Sensors	<b>Manuel Fregolent</b> Deep Levels and Threshold Voltage Instability in Vertical $\alpha$ -Plane Oriented GaN MISFETs
10:30-10:40		<b>Umaria Lymanalis</b> Formation and Suppression of V <sub>g</sub> defects on wurzite GaN polar surfaces from first principles	<b>Caroline Elias</b> Influence of the temperature on growth by ammonia source molecular beam epitaxy of wurzite phase $\text{In}_{0.2}\text{Ga}_{0.8}\text{N}$ alloy on GaN	<b>Zbigniew R. Zytewicz</b> Polarity of Self-Induced GaN Nanowires on Si(111) Studied by Kelvin Probe Force Microscopy: Influence of Si Substrate Preparation	<b>Dain Han</b> Steep-Slope, Fast Switching and High Frequency InAs Impact Ionization MOSFETs Operating at Low V <sub>ds</sub>
10:40-10:50	Coffee break	Coffee break	Coffee break	Coffee break	Coffee break
10:50-11:00		<b>Ekaterine Chikolize</b> Glorious future for Ga <sub>2</sub> O <sub>3</sub> and related Ultra Wide Band Gap materials	<b>Caroline Elias</b> Influence of the temperature on growth by ammonia source molecular beam epitaxy of wurzite phase $\text{In}_{0.2}\text{Ga}_{0.8}\text{N}$ alloy on GaN	<b>Matteo Meneghini</b> Dynamic performance of power GaN devices: role of off-state stress and hot electrons	<b>Giuseppe Greco</b> Electron and hole trapping in the threshold voltage instability of normally-off p-GaN-gate HEMTs
11:00-11:10	<b>Session 2</b> Chairpersons: <b>Katharina Lorenz &amp; Sergio Magalhães</b>	<b>Roberto Fornari</b> Ga <sub>2</sub> O <sub>3</sub> epilayers: phase selection, properties, and applications	<b>Session 4B</b> Chairpersons: <b>Mike Leszczynski &amp; Roberto Fornari</b>	<b>Session 7</b> Chairpersons: <b>Henrique Lomami Gomes &amp; Zhaohu Star</b>	<b>Session 9B</b> Chairpersons: <b>Josna Catarina Mendes &amp; Hans L. Hartnagel</b>
11:10-11:20	<b>Coralie Perrier</b> Deep electron traps in Si-Ga <sub>2</sub> O <sub>3</sub> crystal grown by floating zone	<b>Mikolaj Grabowski</b> Effects of point defects in GaN layers with different doping types on the properties and decomposition of InGaIn/GaN QWs	<b>Ewa Grzanka</b> Examination of the helium concentration fluctuations in InGaIn/GaN quantum wells	<b>Clément Maubuit</b> Alternatives to Standard Ni/Au Stack for Low Resistance p-GaN Ohmic Contacts	<b>Besir Garcia-Vasallo</b> Physical Analysis of Current Mechanisms in High-Frequency GaN-on-SiC Schottky Barrier Diodes
11:20-11:30	<b>Marco Pavesi</b> Ga <sub>2</sub> O <sub>3</sub> Nano-Membranes Produced by a New Method Based on Ion Implantation	<b>Tien Khee Ng</b> In <sub>0.2</sub> Ga <sub>0.8</sub> N <sub>0.9</sub> grown using plasma-assisted molecular beam epitaxy	<b>Andrei Tarnes</b> Dependence of diffusion of Si and Mg atoms implanted into GaN on TDD	<b>Fabrice Recourtois</b> Study of Ni Schottky barrier on GaN epilayers grown on bulk substrates	<b>Hossein Yazdani</b> T-gate Technology Towards a Higher Cut-off Frequency in GaN HEMTs
11:30-11:40	<b>Yana Durakchieva</b> Terahertz Electron Paramagnetic Resonance Spectroscopic Ellipsometry for Characterization of Defects in Ultra-wide Bandgap Semiconductors	<b>Sylvia Hagedorn</b> Dislocation half-loop suppression by Si-doping in AlN homoepitaxy on high-temperature annealed AlN	<b>Alfonso Lamelas</b> Ca colour centres in diamond: optical and computation study	<b>Tien Khee Ng</b> Molecular beam epitaxy grown GaN nanowires based on $\alpha$ -plane on a diamond substrate via Ti pre-orienting layer	<b>Carsten Beckmann</b> Flash-like AlGaIn/GaN/AlGaIn Double heterostructure MSHFET
11:40-11:50	<b>Flip Guemann</b> Growth of gallium oxide on Si using liquid injection MOCVD	<b>Daniel Araújo</b> Boron doping and dislocation generation mechanisms in diamond epilayers	<b>Fernando Lorez</b> MW PE CVD-growth boron-doped diamond coating on carbon fibers for sensor applications	<b>Carsten Beckmann</b> Growth, Characterization and Processing of GaN/AlGaIn Heterostructures for p-Channel Heterojunction Field Effect Transistors	<b>Carsten Beckmann</b> Flash-like AlGaIn/GaN/AlGaIn Double heterostructure MSHFET
11:50-12:00	<b>Marco Pavesi</b> Ga <sub>2</sub> O <sub>3</sub> Nano-Membranes Produced by a New Method Based on Ion Implantation	<b>Yana Durakchieva</b> Terahertz Electron Paramagnetic Resonance Spectroscopic Ellipsometry for Characterization of Defects in Ultra-wide Bandgap Semiconductors	<b>María S. Batista</b> Analysis of persistent luminescence of Cr-doped zinc gallium garnet phosphor	<b>Carsten Beckmann</b> Growth, Characterization and Processing of GaN/AlGaIn Heterostructures for p-Channel Heterojunction Field Effect Transistors	<b>Carsten Beckmann</b> Flash-like AlGaIn/GaN/AlGaIn Double heterostructure MSHFET
12:00-12:10					
12:10-12:20					
12:20-12:30					
12:30-14:00	Lunch	Lunch	Lunch	Lunch	Lunch
14:00-14:10					
14:10-14:20	<b>Session 3</b> Chairpersons: <b>Alice Hospoková &amp; Luis Fello</b>	<b>Klaas Strempel</b> Micro and Nano-LEDs: Epitaxy, Processing, Applications	<b>Session 5</b> Chairpersons: <b>Matteo Meneghini &amp; José Carlos Pedro</b>	<b>Session 8</b> Chairpersons: <b>Filippo Giannazzo &amp; Drorbin Porvolski</b>	<b>Robert Kaplar</b> Realization of Medium-Voltage Vertical GaN PIN Diodes
14:20-14:30	<b>Karolis Kazlauskas</b> High Triplet Energy Hosts for Blue Thermally Activated Delayed Fluorescence OLEDs	<b>Blaise Yvert</b> Efficient neural interfacing with microsystems: implication for functional rehabilitation	<b>Scott Greenhorn</b> $\alpha$ -SiC Characterization Towards Optimal MEA Neural Interface Positioning	<b>Juraj Prielost</b> EBIC analysis of semi-insulating GaN/Si-doped GaN on-GaN test structures for vertical GaN transistors	<b>Juraj Prielost</b> EBIC analysis of semi-insulating GaN/Si-doped GaN on-GaN test structures for vertical GaN transistors
14:30-14:40	<b>Liad Tadmor</b> Atomic layer deposited Al <sub>2</sub> O <sub>3</sub> on GaN post process annealing at elevated temperatures	<b>Karolis Kazlauskas</b> High Triplet Energy Hosts for Blue Thermally Activated Delayed Fluorescence OLEDs	<b>Hans L. Hartnagel</b> Detection of the Corne View by Terahertz Spectroscopy based on Quantum Cascade Sources	<b>Matěj Matušík</b> Defect Distribution Study of p-n-GaN diodes for High Power Applications	<b>Matěj Matušík</b> Defect Distribution Study of p-n-GaN diodes for High Power Applications
14:40-14:50	<b>Julian Bauerler</b> Anisotropic mobility in AlGaIn/GaN heterostructure with thin GaN on AlN/Sapphire template	<b>Scott Greenhorn</b> $\alpha$ -SiC Characterization Towards Optimal MEA Neural Interface Positioning	<b>Getfied Strasser</b> High-speed quantum cascade and interband cascade detectors	<b>Shumilha Kytam</b> Improving the Thermal Management of Power LED Arrays with Diamond	<b>Shumilha Kytam</b> Improving the Thermal Management of Power LED Arrays with Diamond
14:50-15:00	<b>Kalvin Karami</b> Investigation of Al <sub>2</sub> O <sub>3</sub> , Si <sub>3</sub> N <sub>4</sub> and SiO <sub>2</sub> used for surface passivation and gate dielectric on AlGaIn/GaN metal-oxide semiconductor high electron mobility transistors	<b>Blaise Yvert</b> Efficient neural interfacing with microsystems: implication for functional rehabilitation	<b>Ashay M. Arabshah</b> The InP/GaAs DHBT Characterization from 300 to 7 K	<b>Daniela Crispin</b> 200nm Silicon Carbide Epitaxy for Power Devices: Equipment and Process Perspective	<b>Daniela Crispin</b> 200nm Silicon Carbide Epitaxy for Power Devices: Equipment and Process Perspective
15:00-15:10	<b>Henrique Leonel Gomes</b> Anisotropic self-assembled multilayer films used simultaneously as dielectric and conducting channel material: A novel approach to fabricate solid-state electrolyte gate organic transistors	<b>Blaise Yvert</b> Efficient neural interfacing with microsystems: implication for functional rehabilitation	<b>El Hajj Abidi</b> Enhancement of terahertz detection using asymmetric dual grating antenna coupled FET	<b>Alec Chvala</b> Electro-Thermal Simulation Analysis and Optimization of SiC Power MOSFET under US Test Condition	<b>Alec Chvala</b> Electro-Thermal Simulation Analysis and Optimization of SiC Power MOSFET under US Test Condition
15:10-15:20	<b>Dirkjan Verheij</b> Radiation detectors based on GaN core-shell p-n junction microcavities	<b>Blaise Yvert</b> Efficient neural interfacing with microsystems: implication for functional rehabilitation	<b>Tomás González</b> On the Subthreshold behaviour of GaN and InGaAs HEMTs at sub-THz detectors	<b>Daniel Krebs</b> Treasure Map for Normally OFF SiC Power FinFETs	<b>Daniel Krebs</b> Treasure Map for Normally OFF SiC Power FinFETs
15:20-15:30	<b>Majandro Gallego</b> Efficiency enhancement in superstrate-based solar cells by controlled Sb composition profile	<b>Blaise Yvert</b> Efficient neural interfacing with microsystems: implication for functional rehabilitation	<b>Yuhan Pu</b> High-gain high-sensitivity AlGaIn/GaN Ultraviolet Photodetector with Effective Photocurrent Collection Poles	<b>Juraj Marek</b> Electrical performance degradation of power p-GaN HEMTs exposed to repetitive short circuit conditions	<b>Juraj Marek</b> Electrical performance degradation of power p-GaN HEMTs exposed to repetitive short circuit conditions
15:30-15:40	<b>María Nolasco</b> Characterization and Modelling of Quantum Efficiency InGaIn/GaN Multi-Quantum Well (MQW) Solar Cells	<b>Blaise Yvert</b> Efficient neural interfacing with microsystems: implication for functional rehabilitation	<b>Shajin Chaudhary</b> Bias-Free Operation of GaInAsSb/InP High Speed Un-Travelling Carrier Photodiodes	<b>Gold Sponsor Presentation: Element Six</b>	<b>Gold Sponsor Presentation: Element Six</b>
15:40-15:50	<b>Gold Sponsor Presentation: SENTECH</b>	<b>Gold Sponsor Presentation: Tektrolis/ADMMedia</b>	<b>Gold Sponsor Presentation: LPE</b>	<b>Gold Sponsor Presentation: LPE</b>	<b>Gold Sponsor Presentation: LPE</b>
15:50-16:00					
16:00-16:30	Coffee break	Coffee break	Coffee break	Coffee break	Coffee break
16:30-17:00					
17:00-17:30					
17:30-18:00	Registration		Island Tour		
18:00-19:00	Welcome Reception			Gala Dinner	
19:00-22:00					

# WOCSDICE EXMATEC 2022

3-6 May 2022 | Ponta Delgada (São Miguel island - Azores), PORTUGAL

2 May, Monday

17:30-18:00

Registration

18:00-19:00

Welcome Reception

# WOCSDICE EXMATEC 2022

3-6 May 2022 | Ponta Delgada (São Miguel island - Azores), PORTUGAL

3 May, Tuesday

08:30	Secretariat Opening	
09:00-09:30	Opening Ceremony	
09:30-10:00	Session 1 Chairpersons: Teresa Monteiro & Luis Nero Alves	<b>Daniela Nunes</b> Sustainable metal oxide nanostructures for multifunctional applications
10:00-10:10		<b>Daniela R. Pereira</b> Field effect transistors based on $\alpha$ -MoO <sub>3</sub> exfoliated crystals and pseudo-layers
10:10-10:20		<b>Ammara Ejaz</b> The Role of Nitrogen intercalation on the electrooxidation of H <sub>2</sub> O <sub>2</sub> Sensor
10:20-10:50	Coffee break	
10:50-11:20	Session 2 Chairpersons: Katharina Lorenz & Sérgio Magalhães	<b>Ekaterine Chikoidze</b> Glorious future for Ga <sub>2</sub> O <sub>3</sub> and related Ultra Wide Band Gap materials
11:20-11:50		<b>Roberto Fornari</b> Ga <sub>2</sub> O <sub>3</sub> epilayers: phase selection, properties, and applications
11:50-12:00		<b>Coralie Perrier</b> Deep electron traps in $\delta$ -Ga <sub>2</sub> O <sub>3</sub> crystal grown by floating zone
12:00-12:10		<b>Filip Guemann</b> Growth of gallium oxide on 4H-SiC using liquid-injection MOCVD
12:10-12:20		<b>Marco Peres</b> Ga <sub>2</sub> O <sub>3</sub> Nano-Membranes Produced by a New Method Based on Ion Implantation
12:20-12:30		<b>Vanya Darakchieva</b> Terahertz Electron Paramagnetic Resonance Spectroscopic Ellipsometry for Characterization of Defects in Ultra-Wide Bandgap Semiconductors
12:30-14:00	Lunch	

14:00-14:30	Session 3 Chairpersons: Alice Hospodková & Luis Rino	<b>Klaas Stempel</b> Micro and NanoLEDs: Epitaxy, Processing, Applications
14:30-14:40		<b>Karolis Kazlauskas</b> High Triplet Energy Hosts for Blue Thermally Activated Delayed Fluorescence OLEDs
14:40-14:50		<b>Liad Tadmor</b> Atomic layer deposited Al <sub>2</sub> O <sub>3</sub> on <i>n</i> -GaN post process annealing at elevated temperatures
14:50-15:00		<b>Julien Bassaler</b> Anisotropic mobility in AlGaN/GaN heterostructure with thin GaN on AlN/Sapphire template
15:00-15:10		<b>Kaivan Karami</b> Investigation of Al <sub>2</sub> O <sub>3</sub> , Si <sub>3</sub> N <sub>4</sub> and SiO <sub>2</sub> used for surface passivation and gate dielectric on AlGaN/GaN metal-oxide-semiconductor high electron mobility transistors
15:10-15:20		<b>Henrique Leonel Gomes</b> Anisotropic self-assembled multilayer films used simultaneously as dielectric and conducting channel material: A novel approach to fabricate solid-state electrolyte gate organic transistors
15:20-15:30		<b>Dirkjan Verheij</b> Radiation detectors based on GaN core-shell p-n junction microwires
15:30-15:40		<b>Alejandro Gallego</b> Efficiency enhancement in superlattice-based solar cells by controlled Sb composition profile
15:40-15:50		<b>Marco Nicoletto</b> Characterization and Modelling of Quantum Efficiency InGaN-GaN Multi-Quantum Well (MQW) Solar Cells
15:50-16:00		Gold Sponsor Presentation: <b>SENTECH</b>
16:00-16:30	Coffee break	

# WOCSDICE EXMATEC 2022

3-6 May 2022 | Ponta Delgada (São Miguel island - Azores), PORTUGAL

4 May, Wednesday

08:30	Secretariat Opening	
09:00-09:30	<b>Session 4A</b> Chairpersons: Ekaterina Chikoidze & Daniel Araujo	<b>Alice Hospokdová</b> A link between Ga vacancies formation and growth conditions in MOVPE prepared GaN layers
09:30-09:40		<b>Mike Leszczynski</b> X-ray Diffraction in study of InGaN Quantum Wells Grown on Implanted GaN
09:40-09:50		<b>Sérgio Magalhães</b> Combining X-ray real and reciprocal spaces mapping techniques to explore the epitaxial growth of nitrides, oxides and tin compounds
09:50-10:00		<b>Liverios Lymparakis</b> Formation and properties of V-pit defects on wurtzite GaN polar surfaces from first principles
10:00-10:10		<b>Lucía Nieto</b> Optimization of AlN growth conditions by RF-sputtering on silicon substrates
10:10-10:20		<b>Reda Elwaradi</b> Investigation on GaN channel thickness downscaling in high electron mobility transistor structures grown on AlN bulk substrate
10:20-10:50		Coffee break
10:50-11:00	<b>Session 4B</b> Chairpersons: Mike Leszczynski & Roberto Fornari	<b>Caroline Elias</b> Influence of the temperature on growth by ammonia source molecular beam epitaxy of wurtzite phase $\text{Sc}_x\text{Al}_{1-x}\text{N}$ alloy on GaN
11:00-11:10		<b>Mikolaj Grabowski</b> Effects of point defects in GaN layers with different doping types on the properties and decomposition of InGaN/GaN QWs
11:10-11:20		<b>Ewa Grzanka</b> Examination of the Indium concentration fluctuations in InGaN/GaN quantum wells
11:20-11:30		<b>Tien Khee Ng</b> $(\text{In}_x\text{Ga}_{1-x})_2\text{O}_3$ grown using oxygen-plasma-assisted molecular beam epitaxy
11:30-11:40		<b>Andrzej Turos</b> Dependence of diffusion of Si and Mg atoms implanted into GaN on TDD
11:40-11:50		<b>Sylvia Hagedorn</b> Dislocation half-loop suppression by Si-doping in AlN homoepitaxy on high-temperature annealed AlN
11:50-12:00		<b>Afonso Lamelas</b> Ca colour centres in diamond: optical and computation study
12:00-12:10		<b>Daniel Araujo</b> Boron doping and dislocation generation mechanisms in diamond epilayers
12:10-12:20		<b>Fernando Lloret</b> MW PE CVD-growth boron-doped diamond coating on carbon fibers for sensor applications
12:20-12:30		<b>Maria S. Batista</b> Analysis of persistent luminescence of Cr-doped zinc gallogermanate phosphor
12:30-14:00	Lunch	
14:00-14:30	<b>Session 5</b> Chairpersons: Matteo Meneghini & José Carlos Pedro	<b>Blaise Yvert</b> Efficient neural interfacing with microsystems: implication for functional rehabilitation
14:30-14:40		<b>Scott Greenhorn</b> a-SiC:H Characterization Towards Optimal MEA Neural Interface Passivation
14:40-14:50		<b>Hans L. Hartnagel</b> Detection of the Corona Virus by Terahertz Spectroscopy based on Quantum Cascade Sources
14:50-15:00		<b>Gottfried Strasser</b> High-speed quantum cascade and interband cascade detectors
15:00-15:10		<b>Akshay M. Arabhavi</b> THz InP/GaAsSb DHBT Characterization from 300 to 7 K
15:10-15:20		<b>EL Hadj Abidi</b> Enhancement of terahertz detection using asymmetric dual grating antenna coupled FET
15:20-15:30		<b>Tomás González</b> On the Subthreshold Behaviour of GaN and InGaAs HEMTs as sub-THz detectors
15:30-15:40		<b>Yuhan Pu</b> High-gain High-sensitivity AlGaIn/GaN Ultraviolet Photodetector with Effective Photocurrent Collection Plates
15:40-15:50		<b>Rimjhim Chaudhary</b> Bias-Free Operation of GaInAsSb/InP High Speed Uni-Travelling Carrier Photodiodes
15:50-16:00	Gold Sponsor Presentation: Tektronix/ADMedida	
16:00-16:30	Coffee break	
16:30-19:00	Island Tour	

# WOCSDICE EXMATEC 2022

3-6 May 2022 | Ponta Delgada (São Miguel island - Azores), PORTUGAL

5 May, Thursday

08:30	Secretariat Opening	
09:00-09:30	<b>Session 6</b> Chairpersons: Yvon Cordier & Marco Peres	<b>Filippo Giannazzo</b> 2D materials integration with wide bandgap semiconductors
09:30-09:40		<b>Jozef Novák</b> Characterization of MoS <sub>2</sub> /GaP heterojunction properties
09:40-09:50		<b>Carlos Garcia Nuñez</b> Ultrathin Graphene Foam Based Flexible Piezoresistive Pressure Sensors
09:50-10:00		<b>Zbigniew R. Zykiewicz</b> Polarity of Self-induced GaN Nanowires on Si(111) Studied by Kelvin Probe Force Microscopy: Influence of Si Substrate Preparation
10:00-10:10		<b>Marta Sobanska</b> Zn nucleation layer as a buried mirror and metallic bottom contact for GaN nanowires grown by plasma-assisted MBE
10:10-10:20		<b>Eduardo Alves</b> Growth of Au-Nano particles by ion implantation
10:20-10:50		Coffee break
10:50-11:00	<b>Session 7</b> Chairpersons: Henrique Leonel Gomes & Zlatko Sitar	<b>Matteo Meneghini</b> Dynamic performance of power GaN devices: role of off-state stress and hot electrons
11:00-11:10		
11:10-11:20		
11:20-11:30		<b>Clément Mauduit</b> Alternatives to Standard Ni/Au Stack for Low Resistance p-GaN Ohmic Contacts
11:30-11:40		<b>Fabrizio Roccaforte</b> Study of Ni Schottky barrier on GaN epilayers grown on bulk substrates
11:40-11:50		<b>Yvon Cordier</b> Selective sublimation of GaN and regrowth of AlGaIn to co-integrate enhancement mode with depletion mode high electron mobility transistors
11:50-12:00		<b>Tien Khee Ng</b> Molecular beam epitaxy grown GaN-nanowires-based <i>p-i-n</i> structures on a diamond substrate via Ti pre-orienting layer
12:00-12:10		<b>Carsten Beckman</b> Growth, Characterization and Processing of GaN/AlGaIn Heterostructures for p-Channel Heterojunction Field Effect Transistors
12:10-12:20		<b>Dimitris Pavlidis</b> DC Characteristics of GaN Nanowire Vacuum Field-Emission Transistors
12:20-12:30		
12:30-14:00	Lunch	

14:00-14:30	<b>Session 8</b> Chairpersons: Filippo Giannazzo & Dimitris Pavlidis	<b>Robert Kaplar</b> Realization of Medium-Voltage Vertical GaN PIN Diodes
14:30-14:40		<b>Juraj Priesol</b> EBIC analysis of semi-insulating GaN/ Si-doped GaN-on-GaN test structures for vertical GaN transistors
14:40-14:50		<b>Matej Matuš</b> Defect Distribution Study of p-n GaN diode for High Power Applications
14:50-15:00		<b>Shusmitha Kyatam</b> Improving the Thermal Management of Power LED Arrays with Diamond
15:00-15:10		<b>Danilo Crippa</b> 200mm Silicon Carbide Epitaxy for Power Devices: Equipment and Process Perspective
15:10-15:20		<b>Ales Chvala</b> Electro-Thermal Simulation Analysis and Optimization of SiC Power MOSFET under UIS Test Condition
15:20-15:30		<b>Daniel Krebs</b> Treasure Map for Normally OFF SiC Power FinFETs
15:30-15:40		<b>Juraj Marek</b> Electrical performance degradation of power p-GaN HEMTs exposed to repetitive short circuit conditions
15:40-15:50	Gold Sponsor Presentation: <i>Element Six</i>	
15:50-16:00	Gold Sponsor Presentation: <i>LPE</i>	
16:00-16:30	Coffee break	
16:30-17:00		
17:00-22:00	Gala Dinner	

# WOCSDICE EXMATEC 2022

3-6 May 2022 | Ponta Delgada (São Miguel island - Azores), PORTUGAL

6 May, Friday

08:30		Secretariat Opening
09:00-09:30	<b>Session 9A</b> Chairpersons: Edwin Piner & Fabrizio Roccalforte	<b>José Carlos Pedro</b> A Study of AlGaIn/GaN HEMT Trapping Effects and Their Impact on RF Power Amplifier Wireless Infrastructure Applications
09:30-09:40		<b>Daniel Francis</b> Radiation-tested, High-Efficiency, GaN-on-Diamond Power Amplifiers and Satellite Radios
09:40-09:50		<b>Manuel Fregolent</b> Deep Levels and Threshold Voltage Instability in Vertical a-Plane Oriented GaN MISFETs
09:50-10:00		<b>Daxin Han</b> Steep-Slope, Fast Switching and High frequency InAs Impact Ionization MOSFETs Operating at Low $V_{DS}$
10:00-10:10		<b>Aniket Dhongde</b> High performance of AlGaIn/GaN HEMTs using buffer-free GaN on SiC structure
10:10-10:20		<b>Elodie Carneiro</b> Sub-Micron Thick GaN-on-Si HEMTs with More than 7.5 MV/cm Buffer Breakdown Field
10:20-10:50		
10:50-11:00	<b>Session 9B</b> Chairpersons: Joana Catarina Mendes & Hans L. Hartnagel	<b>Giuseppe Greco</b> Electron and hole trapping in the threshold voltage instability of normally-off p-GaN-gate HEMTs
11:00-11:10		<b>Beatriz García-Vasallo</b> Physical Analysis of Current Mechanisms in High-Frequency GaN-on-SiC Schottky Barrier Diodes
11:10-11:20		<b>Hossein Yazdani</b> T-gate Technology Towards a Higher Cut off Frequency in GaN HFETs
11:20-11:30		<b>Carsten Beckmann</b> Flash-like AlGaIn/GaN/AlGaIn Double Heterostructure MISHFET
11:30-11:40	Closing Ceremony  Student Awards Ceremony  <b>Hans L. Hartnagel</b> WOCSDICE & EXMATEC: past, present and future	
11:40-11:50		
11:50-12:00		
12:00-12:10		
12:10-12:20		
12:20-12:30	Lunch	
12:30-14:00		