## Day 1 - Monday 15th April 2024

**18:30** **Pre-conference networking drinks reception**

# Day 2 - Tuesday 16th April 2024

08:00 Registration and welcome refreshments

08:50 Housekeeping by Chris Meadows and Tim Bettles - Conference Chairs

## Ensuring SiC's phenomenal success

09:00 Silicon Carbide: a game changer in power electronics
*Presented by Mario Saggio - STMicroelectronics*

09:15 Supporting SiC Success Stories Through Technical Innovation
*Presented by David Liese - htt Group, and Michael Köppl - htt Group*

09:30 Next-Generation Factory Inspection: Improving Performance by Synthesizing Intelligent Microscopy
*Presented by Marius Fischer - Nanotronics*

09:45 Challenges in HVM Amidst Evolving Device Architectures and Requirements for Compound Semiconductor based Power Devices
*Presented by Nick Keller - Onto Innovation*

10:00 Sharpening SiC Wafer specs and Frontend Performance by Crystal Orientation Metrology
*Presented by Lars Grieger - Malvern Panalytical*

10:15 Sample preparation and TEM imaging techniques for advanced power device analysis
*Presented by Antonio Mani - Thermo Fisher Scientific*

10:30 Morning Break

11:10 Giving SiC a superjunction
*Presented by Reza Ghandi - GE Aerospace*

11:25 The Unspoken Impacts of SiC Power Packaging
*Presented by Kevin Speer - Microchip*

11:40 Challenges and solutions in new generation SiC metrology
*Presented by Dr. Eszter Najbauer - Semilab*

11:55 Accelerating semiconductor technologies for the green revolution
*Presented by Shiva Rai - Applied Materials*

12:10 A Hybrid Defect Inspection System for SiC substrate and Epi applications
*Presented by Aris Ma - AK Optics Technology Co. Ltd*

12:25 Capital Efficient Systems for SiC Manufacturing Expansion and R&D
*Presented by Brian Stickney - C & D Semiconductor*

12:40 Lunch Break

13:55 Enabling Low Cost SiC Boule Fabrication – The BoulePro 200AX is the New Process Of Record
*Presented by Jeff Gum - Usach*

14:10 Industry ready detection of TSDs and BPDs in SiC wafers
*Presented by Dr.-Ing. Christian Reimann - Rigaku*

14:25 Cutting-edge SiC Manufacturing: Beyond Chemical-Mechanical Constraints
*Presented by Philipp Böttger - scia Systems GmbH*

14:40 Modernizing Industrial Low Voltage Motor Drives with Silicon Carbide
*Presented by Pranjal Srivastava - Wolfspeed*

14:55 PulseForge and Teikoku Taping Systems Announce Novel Fully Automated Photonic Debonding Platform
*Presented by Vahid Akhavan - PulseForge (in association with Teikoku Taping Systems Inc)*

15:10 Coating at its best - Spraying graphite parts with tantalum carbide cuts the cost of producing SiC crystals
*Presented by Dr.-Ing. Matthias Trempa - Fraunhofer IISB*

15:25 Powering the SiC Revolution with Vertical Integration
*Presented by Ajay Poonjal Pai - Sanan*

15:40 Afternoon Break

## Taking power from the photon

16:20 Record-breaking solar cells
*Presented by Dr. Oliver Höhn - Fraunhofer ISE*

16:35 Integrated storage unlocks CPV's full potential
*Presented by Kira Rundel - RayGen*

16:50 Germanium Substrates for Photonics and PV: Ensuring Supply Security, Advancing Recycling and Enabling CMOS integration
*Presented by Ivan Zyulkov - Umicore*

17:05 Lattice-matched III-V solar cells. Progress and application opportunities
*Presented by Prof. Mircea Guina - Tampere University*

## New frontiers for the LED

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| 17:20 | **Development of far-UVC LEDs for sensing and skin tolerant antisepsis**<br>*Presented by Sven Einfeldt - FBH Berlin* |
| 17:35 | **Heterogenous Integration of Compound Semiconductors by W2W and D2W Bonding**<br>*Presented by Dr. Bernd Dielacher - EV Group* |
| 17:50 | **Making monolithic RGB displays with InGaN**<br>*Presented by WonTaeg Lim - Soft-Epi* |
| 18:05 | **Closing Remarks** |
| 18:10 | **Networking Drinks / Dinner Reception** |

# Day 3 - Wednesday 17th April 2024

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| 08:00 | Registration and welcome refreshments |
| 08:50 | Housekeeping by Chris Meadows and Tim Bettles - Conference Chairs |

## Accelerating the growth of GaN

Sponsored by Precision Fabricators

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| 09:00 | Where will GaN Power Semiconductors find their greatest success in the 2020s?<br>*Presented by Richard Eden - Omdia* |
| 09:15 | The strengths of IC enhancement-mode GaN<br>*Presented by Andrea Bricconi - Cambridge GaN Devices* |
| 09:30 | Presentation Title to be Confirmed |
| 09:45 | Harnessing the Power of RF GaN-on-Si Technology for Next Generation Connectivity<br>*Presented by Nadine Collaert - imec* |
| 10:00 | Accelerating the Growth of GaN-based Power Electronics Via Adoption of 300mm Technology<br>*Presented by Rudy Parekh - Veeco* |
| 10:15 | Next Level Epitaxy: Revolutionizing Mass Production of Wide Bandgap Semiconductors<br>*Presented by Dr. Yilmaz Dikme* |
| 10:30 | Morning Break |
| 11:10 | Considerations for Tool-To-Tool Matching Across a Fleet of Metrology Tools<br>*Presented by Tamzin Lafford - Bruker UK* |
| 11:25 | Connected metrology – Full 2D characterization of HEMT device structure epi-wafers<br>*Presented by Johannes Zettler - LayTec AG* |
| 11:40 | Emerging Growth Opportunities for MBE in GaN<br>*Presented by Brian Miller - Riber* |
| 11:55 | Commercialization of buffer-free GaN on SiC materials for defense, space, telecom markets and beyond<br>*Presented by Jr-Tai Chen - SweGaN* |
| 12:10 | Numerical design propels RF and power GaN technology<br>*Presented by Ahmed Nejim - Silvaco* |
| 12:25 | Solving the EMC and thermal issues of driving GaN at high speed<br>*Presented by Rupert Baines - QPT* |
| 12:40 | GaN: Delivering on the Net-Zero Economics of an AI-Enabled Future<br>*Presented by Peter Rabbeni - IQE* |
| 12:55 | Lunch Break |

## Expanding horizons for surface emitters

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| 14:10 | VCSELs: Driving Innovations in 3D Sensing and Data Communication<br>*Presented by Ali Jaffal - Yole Group* |
| 14:25 | Vertilas InP VCSELs to address fast growing and novel applications at and beyond 1.3 m<br>*Presented by Christian Neumeyr - Vertilas* |
| 14:40 | Expanding the scope of VCSELs through wavelength extension, added functionality and high power density<br>*Presented by Julien Boucart - Coherent* |
| 14:55 | Speeding VCSEL feedback<br>*Presented by Jack Baker - ICS* |
| 15:10 | Building, powerful, blue-surface-emitting SLEDs<br>*Presented by Juan Morales - iSLight* |
| 15:25 | Novel high-power VCSEL laser modules for Battery Manufacturing<br>*Presented by Roman Koerner - TRUMPF* |
| 15:40 | Placing photonic crystal nano-lasers to silicon<br>*Presented by Mingchu Tang - University College London* |
| 15:55 | Closing Remarks |

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# NOTES