

## 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

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

# Day 3 - Wednesday 17th April 2024

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

09:00 Where will GaN Power Semiconductors find their greatest success in the 2020s?

*Presented by Richard Eden - Omdia*

09:15 The strengths of IC enhancement-mode GaN

*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

*Presented by Nadine Collaert - imec*

10:00 Accelerating the Growth of GaN-based Power Electronics Via Adoption of 300mm Technology

*Presented by Rudy Parekh - Veeco*

10:15 Next Level Epitaxy: Revolutionizing Mass Production of Wide Bandgap Semiconductors

*Presented by Dr. Yilmaz Dikme*

10:30 Morning Break

11:10 Considerations for Tool-To-Tool Matching Across a Fleet of Metrology Tools

*Presented by Tamzin Lafford - Bruker UK*

11:25 Connected metrology – Full 2D characterization of HEMT device structure epi-wafers

*Presented by Johannes Zettler - LayTec AG*

11:40 Emerging Growth Opportunities for MBE in GaN

*Presented by Brian Miller - Riber*

11:55 Commercialization of buffer-free GaN on SiC materials for defense, space, telecom markets and beyond

*Presented by Jr-Tai Chen - SweGaN*

12:10 Numerical design propels RF and power GaN technology

*Presented by Ahmed Nejim - Silvaco*

12:25 Solving the EMC and thermal issues of driving GaN at high speed

*Presented by Rupert Baines - QPT*

12:40 GaN: Delivering on the Net-Zero Economics of an AI-Enabled Future

*Presented by Peter Rabbeni - IQE*

12:55 Lunch Break

## Expanding horizons for surface emitters

14:10 VCSELs: Driving Innovations in 3D Sensing and Data Communication

*Presented by Ali Jaffal - Yole Group*

14:25 Vertilas InP VCSELs to address fast growing and novel applications at and beyond 1.3 μm

*Presented by Christian Neumeyr - Vertilas*

14:40 Expanding the scope of VCSELs through wavelength extension, added functionality and high power density

*Presented by Julien Boucart - Coherent*

14:55 Speeding VCSEL feedback

*Presented by Jack Baker - ICS*

15:10 Building, powerful, blue-surface-emitting SLEDs

*Presented by Juan Morales - iSLight*

15:25 Novel high-power VCSEL laser modules for Battery Manufacturing

*Presented by Roman Koerner - TRUMPF*

15:40 Placing photonic crystal nano-lasers to silicon

*Presented by Mingchu Tang - University College London*

15:55 Closing Remarks

## NOTES