iiT2026
VILLACH AUSTRIA

25th International Conference on

Ion Implantation and Annealing Technology 2026

Date of Conference: 20–24 September 2026
Venue: Congress Center Villach (CCV)
Location: Villach, Austria

DETAILED PROGRAM

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WELCOME ADDRESS

Welcome to IIT 2026

Dear Colleagues, Authors, and Participants,

On behalf of the Organizing Committee, it is my great pleasure to welcome you to the **25th International Conference on Ion Implantation and Annealing Technology (IIT 2026)** in Villach, Austria, hosted by **Infineon Austria Technologies AG.**

This jubilee edition marks an important milestone in the history of IIT and reflects the continued evolution of our field. The conference name now explicitly includes annealing technology, recognizing the growing importance of post-implant thermal processing in modern semiconductor manufacturing.

For five decades, IIT has been the leading international forum for researchers, engineers, equipment developers, and technology specialists in ion implantation and related process technologies. By bringing together experts from industry, academia, and research institutes, IIT promotes the exchange of scientific knowledge, technological innovation, and practical experience that drive progress in semiconductor manufacturing. The IIT School further complements the conference by providing insights into both fundamental and practical aspects of ion implantation and annealing through lectures by recognized experts.

IIT 2026 showcases the innovation, expertise, and dedication of our community. The technical program highlights current developments and emerging trends in ion implantation and annealing technologies, emphasizing their essential role in enabling future semiconductor devices and applications.

I would like to sincerely thank all authors, reviewers, program committee members, sponsors, exhibitors, partners, volunteers, and colleagues whose contributions and dedication have made IIT 2026 possible. Most importantly, I thank all participants, whose active engagement and exchange of ideas are at the heart of every successful IIT conference.

We are delighted to welcome the international IIT community to Villach and hope that IIT 2026 inspires new ideas, fruitful discussions, and lasting collaborations.

I wish you a productive conference and an enjoyable stay in Villach.

Yours sincerely,

Werner Schustereder
Conference Chair, IIT 2026
Infineon Austria Technologies AG

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CONFERENCE TOPICS

- Advanced Equipment for Ion Implantation, Annealing, and Metrology
- Ion Implantation and Annealing Technology of Semiconductor and Non-Semiconductor Materials
- Device Technology and Applications for Ion Implantation and Annealing
- Modeling, Simulation and Metrology of Ion Implantation and Annealing

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PROGRAM OVERVIEW

20 September 2026 (Sunday)

	Congress Center Villach
17:00–19:00	**Welcome reception**

21 September 2026 (Monday)

	Gottfried von Einem Hall
08:00–09:00	**Registration & get together** *(Congress Center Villach)*
09:00–09:20	**Conference Opening**
09:30–11:00	**Session 1: Keynote Speeches** *(Josef Resch Hall)*
11:00–11:30	*Coffee break*
11:30–11:50	**Session 1: Keynote Speeches – continuation** *(Gottfried von Einem Hall)*
11:50–13:00	**Session 2: Advanced Ion Implantation Equipment**
13:00–14:00	*Lunch break*
14:00–15:30	**Session 3: Advanced Annealing**
15:30–16:00	*Coffee break*
16:00–17:30	**Session 4: Novel Equipment**
17:30–18:30	**Poster session 1** *(Foyer, Lower Ground Floor)*

22 September 2026 (Tuesday)

	Gottfried von Einem Hall
08:30–10:00	**Session 5: Profile Engineering – Wide Band Gap**
10:00–10:30	*Coffee break*
10:30–11:40	**Session 6: Defect Engineering**
11:40–12:40	**Session 7: Advanced Ion Implantation Technology**
12:40–13:40	*Lunch break*
14:00–18:00	**Excursions**

23 September 2026 (Wednesday)

	Gottfried von Einem Hall
08:30–10:00	**Session 8: Metrology**
10:00–10:30	*Coffee break*
10:30–12:00	**Session 9: Processes as Technology Enablers**
12:00–13:00	**Poster session 2** *(Foyer, Lower Ground Floor)*
13:00–14:00	*Lunch break*
14:00–15:10	**Session 10: Advanced Semiconductor Production**
15:10–15:40	*Coffee break*
15:40–16:50	**Session 11: Sustainable Advanced Semiconductor Production**
17:30–18:30	**bus transfer**
18:30–00:00	**Conference Dinner** *(Casineum by the Lake, Velden am Wörthersee)*

24 September 2026 (Thursday)

	Gottfried von Einem Hall
08:30–10:00	**Session 12: Quantum Technology**
10:00–10:30	*Coffee break*
10:30–12:00	**Session 13: SiC Power Devices**
12:00–13:00	**Poster session 3** *(Foyer, Lower Ground Floor)*
13:00–14:00	*Lunch break*
14:00–15:10	**Session 14: Advances in CMOS Technology**
15:10–15:40	*Coffee break*
15:40–16:40	**Conference Closing**

DETAILED PROGRAM

20 September 2026 (Sunday)	
16:00–19:00	Conference Registration
17:00–19:00 Congress Center Villach	**Welcome Reception**
21 September 2026 (Monday)	
08:00–09:00	Conference Registration
09:00–09:20 Gottfried von Einem Hall	**Conference Opening** *Werner Schustereder*
09:30–11:00 Josef Resch Hall	**Session 1: Keynote Speeches** ***Chair:*** *Werner Schustereder, Wilfried Lerch*
09:30–10:00	**K-1: AI Automation and Robots – From Manufacturing to Autonomy** Andreas Kugi (AIT Austrian Institute of Technology GmbH & Technische Universität Wien, Austria)
10:00–10:30	**K-2: Powering AI – Architectural Challenges in Hyperscale Datacenters and our Solutions** Gerald Deboy (Infineon Technologies Austria AG, Austria)
10:30–11:00	**K-3: Tiny chips. Big impact-Production Requirements for the next Generation of Semiconductors** Alina Absmeier (Infineon Technologies Austria AG, Austria)
11:00–11:30	*Coffee Break*
11:30–11:50 Gottfried von Einem Hall	**Session 1: Keynote Speeches – continuation** ***Chair:*** *Werner Schustereder, Wilfried Lerch*
11:30–11:45	**Q & A for Keynotes**
11:45–11:50	**"In Memoriam"** Kevin Jones (IIT International Committee Chair)
11:50–13:00 Gottfried von Einem Hall	**Session 2: Advanced Ion Implantation Equipment** ***Chair:*** *Wei Zou*
11:50–12:20	**I-1: Innovational journey of ion implanters along device technology evolution** Hiro Ito (Applied Materials, Japan)
12:20–12:40	**O-1: Market-Driven Roadmap for Implantation and Annealing Equipment in Semiconductor Manufacturing** Clara Grcevic (Yole Group, France)
12:40–13:00	**O-2: Purion XEmax Ultra-High Energy Channeled Implantation as an Enabling Technology for SiC Superjunction MOSFETs** Wilhelm Platow (Axcelis Technologies, USA)
13:00–14:00	*Lunch Break*
14:00–15:30 Gottfried von Einem Hall	**Session 3: Advanced Annealing** ***Chair:*** *Juergen Niess*
14:00–14:30	**I-2: Anneal Technology in CMOS manufacturing Evolution and Synergy Opportunities with Implant** Sagar Ashutosh (Intel Corporation, USA)
14:30–14:50	**O-3: Ultraviolet Laser Annealing of Nickel Silicide Contacts for Advanced SiC Power Devices** Marurice Clair (3D-Micromac AG, Germany)
14:50–15:10	**O-4: Plasma Annealing for High-Efficiency Dopant Activation at Ultra-Low Temperatures in Semiconductor Processing** Yuanning Chen (Microsol Technologies Inc, USA)
15:10–15:30	**O-15: A Method for Generating CF_x^+ Ion Beams for Low-Energy High-Current Implanter** Tomoaki Seki (Nissin Ion Equipment Co., Ltd, Japan)

15:30–16:00	*Coffee Break*
16:00–17:30 **Gottfried von Einem Hall**	**Session 4: Novel Equipment** ***Chair:*** *Lars Rebohle*
16:00–16:30	**I-3: RTP Conditioning of Electrical Contacts in MEMS Pressure Sensors for Harsh Environmental Applications** Roy Knechtel (Schmalkalden University of Applied Sciences, Germany)
16:30–16:50	**O-6: Novel Rapid Thermal Processing to Enable Continued Scaling of Semiconductor Devices** Shashank Sharma (Applied Materials, USA)
16:50–17:10	**O-7: VIISta Javelin™ High Productivity Ion Implantation for SiC** Shardul Patel (Applied Materials, USA)
17:10–17:30	**O-8: A World of Molybdenum & Tungsten: The Role of Refractory Metals in Semiconductor Applications** Hendrik Hotz (Plansee SE, Austria)
17:30–18:30 **Foyer** (Lower Ground Floor)	**Poster Session 1**
	P-1: Performance of the Plansee High Density Plasma Flood Thomas Horsky (Plansee USA LLC, USA)
	P-2: Wafer Contact Surface Coatings for High-Temperature Electrostatic Chucks Nilesh Gunda (Entegris, Inc., USA)
	P-3: Low cost high current metal ion source Vladimir Romanov (Axcelis Technologies, USA)
	P-4: Beam Density Optimization for Polysilicon Sheet Resistance Matching between Single and Batch Wafer Implanters Bohesharvind Naraiyanan Murthi (Infineon Technologies, Malaysia)
	P-5: Reduction of wafer edge exclusion zone through improved wafer cooling in electrostatic chucks Jakub Rybczynski (Entegris, Inc., USA)
	P-6: Three-Dimensional Primary Electron Trajectory Simulation in a Large-Area Multi-cusp Ion Source for FPD Ion Implantation Tae-Seong Kim (Korea Atomic Energy Research Institute, Korea)
	P-7: Extended Carbon life with the Dedicated Carbon Source on VIISta™ Trident Implanters Zachary Page (Applied Materials, USA)
	P-8: Comparison of two Commercially Available Boron Trifluoride and Hydrogen Gas Mixes in Production Application for High Current Ion Implantation Ronald Johnson (Microchip Technology, Inc, USA)
	P-9: Optimization of Surface Temperature Control for Arcing Suppression and Source Bushing Life Extension in High-Current Ion Implanters Hyun jun Kim (SK hynix Semiconductor, Korea & Hanyang University, Korea)
	P-10: Preliminary Design of a Faraday Cup Array with Secondary Electron Suppression for Large-Area Ion Beam Characterization Sung-Ryul Huh (Korea Atomic Energy Research Institute, Korea)
	P-11: Enhancement of Multiply charged ion Generation Efficiency by Applying a Bias Voltage to the Arc Chamber Lid Yuta Iwanami (Nissin Ion Equipment Co., Ltd., Japan)
	P-12: Enhancing production efficiency of multicharged ions using lower hybrid resonance heating in electron cyclotron resonance ion source Shinji Tokuno (University of Osaka, Japan)
	P-13: Realtime Beam Shape Monitor for Next Generation Dose Uniformity Optimization Grace Tkach (Axcelis Technologies, USA)
	P-14: Purion H6: Next Generation High Current Ion Implanter Grace Tkach (Axcelis Technologies, USA)
	P-15: Introducing the MAXion-H ion implantation system Gordon Murray (Ion Beam Services UK Ltd., UK)

P-16: Asymmetrical ion and electron distribution charging
Sarko Cherekdjian (NUSANO, USA)

P-17: Modern semiconductor ion implanters with an "Achilles heel"
Sarko Cherekdjian (NUSANO, USA)

P-18: Introduction of the VIISta® HCP+ Implanter and Process Development at the Entegris Ion Implant Process Efficiency Research Laboratory (IIPERL)
Ying Tang (Entegris Inc., USA)

P-19: Investigation of Electrical Breakdown Risks and Safety Considerations in Remote Gas Delivery for High-Voltage Ion Implant Systems
Ying Tang (Entegris Inc., USA)

P-20: VIISta™ Trident High -Current Beam Setup and Utilization time Improvement with AI
Sruthi Chennadi (Applied Materials, USA)

P-21: Beam Uniformity Control System for the Low-Energy High-Current Ion Implanter
Taido Kurauchi (Nissin Ion Equipment Co., Ltd., Japan)

P-22: Beam Transport, Beam Height, and Angle Control for High-Perveance Ion Implantation on the VIISta™ Trident
Joanna Montgomery (Applied Materials, USA)

P-23: A Charge Compensation Study for High Current Implant Tools
Katja Brockhaus (Infineon Technologies, Germany)

P-24: Deep and Flat Profile Formation by Tilt-Angle Modulation at Fixed Energy in High-Energy Ion Implantation
Shintaro Hirano (Sumitomo Heavy Industries Material Solutions Co., Ltd., Japan)

P-25: Effect of Oxygen on the Enhancement of Molecular Ion Beam Current
Rei Hirao (Nissin Ion Equipment Co., Ltd., Japan)

P-26: Beam Position Measurement for a High-Energy Ion Implantation System
Mikio Yamaguchi (Sumitomo Heavy Industries Material Solutions Co., Ltd., Japan)

P-27: Additive Manufacturing for Refractory Metal Alloys – Alternative Materials for IHC Source Components
Jessica Morette (Plansee USA LLC, USA)

P-28: Enhanced production of multicharged ions by helical antennas for microwaves and investigating influences of low frequency electromagnetic waves antennas on electron cyclotron resonance ion source
Daichi Inoue (University of Osaka, Japan)

P-29: Study of Ion Beam Density on Implantation Profile and Device Tuning
Tie Liu (Beijing Electric Control Integrated Circuit Manufacturing Co., Ltd, China)

P-30: Design of High-Tilt Angle Ion Beam Apparatus Achieving Ultra-Low Defect Performance
Ting-Qian Sun (Advanced Ion Beam Technology, Inc., Taiwan)

P-31: RTP at very low Temperatures
Martin Albrecht (Mattson Thermal Products gmbH, Germany)

P-32: Long-Life, Low-Discharge Multicusp Ion Source for FPD Implanters
Yasushi Ota (Nissin Ion Equipment Co., Ltd., Japan)

22 September 2026 (Tuesday)

08:00–08:30	Conference Registration
08:30–10:00 Gottfried von Einem Hall	**Session 5: Profile Engineering – Wide Band Gap** ***Chair:*** *Takashi Kuroi*
08:30–09:00	**I-4: Profile engineering of ion implantation doping into GaN for vertical power device applications** Tetsuo Narita (Toyota Central R&D Labs., Inc., Japan)
09:00–09:20	**O-9: Channeling-Assisted Al Implantation in 4H-SiC: Energy Dependence, Damage Effects, and Process Window** Manuel Belanche Guadas (APS – ETH Zurich, Switzerland)
09:20–09:40	**O-10: Reduced complexity of ion implantation recipes by channeling** Gerhard Kunkel (Hitachi Energy, Switzerland)
09:40–10:00	**O-11: Channeling Implantation Solutions for Advanced SiC Power Devices** Supakit Charnvanichborikarn (Applied Materials, USA)
10:00–10:30	*Coffee Break*
10:30–11:40 Gottfried von Einem Hall	**Session 6: Defect Engineering** ***Chair:*** *Kevin Jones*
10:30–11:00	**I-5: Annealing as an Application for Implantation** Michael Willemann (Veeco Instruments Inc., USA)
11:00–11:20	**O-12: Impact of Stacking Density on Implant Profiles of Unchanneled Implants in Silicon Carbide** Sean Jones (Axcelis Technologies, USA)
11:20–11:40	**O-13: Laser Irradiation Effect during Implant on Si and SiC Substrate** TaeHoon Huh (Sumitomo Heavy Industries Material Solutions Co., Ltd., Japan)
11:40–12:20 Gottfried von Einem Hall	**Session 7: Advanced Ion Implantation Technology** ***Chair:*** *Frank Torregrosa*
11:40–12:00	**O-14: Enhancement of Ion Beam Current Using Al–Intermetallic Compound Targets in Ion Implantation Sources** Daisuke Matsuo (Nissin Ion Equipment Co., Ltd., Japan)
12:00–12:20	**O-16: Patterned silicon nanostructure fabrication in photovoltaics by ion implantation** Frederic Milesi (University Grenoble Alpes, CEA-Leti, France)
12:40–13:40	*Lunch Break*
14:00–18:00	**Excursions**

23 September 2026 (Wednesday)

08:00–08:30	Conference Registration
08:30–10:00 Gottfried von Einem Hall	**Session 8: Metrology** ***Chair:*** *Silke Hamm*
08:30–09:00	**I-6: From Imaging to Quantification: Advanced TEM for Implantation-Induced Defects in Crystalline Material** Nikolay Cherkashin (University of Toulouse, CNRS, CEMES, France)
09:00–09:20	**O-17: Creation and localization of single W centers in silicon for the fabrication of a single photon source** Frederic Mazen (CEA-LETI, France)
09:20–09:40	**O-18: Dynamic SIMS Characterization of Dopants in SiC for Advanced Power Electronics** Paula Peres (CAMECA-AMETEK, France)
09:40–10:00	**O-19: Physics-Based Modeling of Beam Transport and Surface Evolution for Defect Reduction in High-Current Ion Implanters** Joanna Montgomery (Applied Materials, USA)
10:00–10:30	*Coffee Break*

10:30–12:00 **Gottfried von Einem Hall**	**Session 9: Processes as Technology Enablers** ***Chair:*** *Leonard Rubin*
10:30–11:00	**I-7: Unit Processes as Technology Differentiators** Wolfgang Diewald (Infineon Technologies Austria AG, Austria)
11:00–11:20	**O-20: Wafer-Scale Si_3N_4 Photonic Integrated Tunable Lasers Enabled by Er Ion Implantation** Taegon Kim (Applied Materials, USA)
11:20–11:40	**O-21: Isotopically selective 73Ge Ion implantation on a BiCMOS pilot line for scalable nuclear spin qubit fabrication** Fabian Fidorra (IHP-Leibniz-Institut für innovative Mikroelektronik, Germany)
11:40–12:00	**O-22: Helium Implantation for Local Trapping layers for Radio Frequencies applications** Pablo Acosta (CEA-Leti, University Grenoble Alpes, France)
12:00–13:00 **Foyer** (Lower Ground Floor)	**Poster Session 2**
	P-33: Enabling Conformal Sidewall Doping with Plasma Doping (PLAD) and Advanced Metrology for Novel Semiconductor Devices Sunnie Wang (Applied Materials Inc, USA)
	P-34: Ion Implantation Doping in Double-SOI Structures for Dual-Channel Tunneling Transistors Shengqiang Zhou (Helmholtz-Zentrum Dresden-Rossendorf, Germany)
	P-35: Advanced SIMS approaches for spatially resolved dopant and impurity analysis in SiC power devices Seishi Akahori (Toray Research Center Inc., Japan)
	P-36: Mobility Effects in Hydrogen-Related Donor Profiling: A Dopant-Dependent Model for Proton-Implanted Silicon Andrea Fugger (Infineon Technologies Austria AG & Technische Universität Wien, Austria)
	P-37: Thermal Probe (TP) measurements for Ion Implantation monitoring on silicon carbide substrates Martin Haberjahn (Infineon Technologies AG, Germany)
	P-38: β-Ga_2O_3 Smart Cut™: a study of ion implantation Frederic Mazen (CEA-LETI, France)
	P-39: An improved method for low dose implant monitoring with enhanced accuracy and sensitivity Md Shadab Anwar (Infineon Technologies, Germany)
	P-40: Cryogenic Co-Implantation for Improved Short-Channel Control and Variability in Advanced DRAM Technologies Baonian Guo (Applied Materials, USA)
	P-41: Impact of Cryogenic Ge Pre-Silicide Implantation on Cobalt Silicide Formation in 3D NAND Devices Baonian Guo (Applied Materials, USA)
	P-42: In-Situ Electrostatic Chuck Cleaning and Interferometric Metrology for Particle Control in Ion Implantation Tools Yuxuan Liu (Entegris, Inc., USA)
	P-43: Tensile and compressive Nitride stress relaxation and inversion with Plasma Immersion Ion Implantation Nada Zerhouni Abdou (Université Grenoble Alpes, CEA, Leti, France)
	P-44: Recrystallization of boron doped silicon through solid-phase epitaxial regrowth by nanosecond laser annealing Alan Le Boterf (Université Grenoble Alpes, France)
	P-45: Exploration of ion irradiation induced ferromagnetic ordering in wide band gap semiconductors Nianhua Peng (University of Surrey, UK)
	P-46: Beam Energy Measurement System on Purion XE Series High Energy Ion Implanters William Rogers (Axcelis, USA)

P-47: High active phosphorus concentrations in silicon regrown by solid-phase epitaxy using nanosecond laser annealing
Sébastien Kerdilès (Université Grenoble Alpes, CEA-LETI, France)

P-48: Oxidation Induced Epitaxy (OIE) of SiGe on Si
Kevin Jones (University of Florida, USA)

P-49: Implanted Electrical Contacts for Self-Amplified Nano Resonators
Kevin Jones (University of Florida, USA)

P-50: Flash Lamp Annealing for Defect Repair and Performance Enhancement in High-Sn GeSn
Yu-Hsien Chuang (National Taiwan University, Taiwan & Helmholtz-Zentrum Dresden-Rossendorf, Germany)

P-51: Enhancement of BJT Current Gain by Cold Ion Implantation on VIISta™ Trident XP2 in 65 nm BCD Technology
Sipeng Gu (Applied Materials, USA)

P-52: Optimization of the Medium Current Source Power to Improve the Device White-pixel Performance in CIS Application
Sipeng Gu (Applied Materials, USA)

P-53: Advanced Joining Technologies for Refractory Metal–Ceramic Systems Enabling Extended Ion Implantation Temperature Regimes
Serafin Knitel (Plansee SE, Austria)

P-54: Control of Film Thickness Distribution Within a Wafer by Mapping-Based Intentional Non-Uniform Dose Ion Implantation
Takuya Sakaguchi (Sumitomo Heavy Industries Material Solutions Co., Ltd., Japan)

P-55: Crystallization of Sn-rich Si and Ge thin films by flash lamp annealing
Lars Rebohle (Helmholtz-Zentrum Dresden-Rossendorf & Helmholtz Innovation Blitzlab, Germany)

P-56: Selective heating effects of mixed low mass number ions in electron cyclotron resonance ion source
Yushi Kato (University of Osaka, Japan)

P-57: Low-temperature monitoring RTP-tools with alloying – long-term results
Martin Grund (X-FAB Semiconductor Foundries GmbH, Germany)

P-58: Qualification of high-energy implanters and a comparison of two C-V techniques
Thomas Obitz (X-FAB Semiconductor Foundries GmbH, Germany)

P-59: Neutron Spectroscopy of Light Ion (α,n) Nuclear Reactions with C and B Targets
Peter DeRosa (Axcelis Technologies, USA)

P-60: Pulsed Soak RTP at very high Temperatures
Martin Albrecht (Mattson Thermal Products gmbH, Germany)

P-61: Ion Implant and Millisecond Laser Anneal Co-optimization for Backside Power Delivery Contacts
Shashank Sharma (Applied Materials, USA)

P-62: Surface Photovoltage Analysis of Proton-Implanted GaAs for High-Power Diode Applications
Nadine Schüler (Freiberg Instruments GmbH, Germany)

P-63: Wafer backside particle reduction
Vladimir Romanov (Axcelis Technologies, USA)

13:00–14:00 *Lunch Break*

14:00–15:10
Gottfried von Einem Hall

Session 10: Advanced Semiconductor Production
Chair: *Sagar Ashutosh*

14:00–14:30 **I-8: Next level sustainable semiconductor production: Supply chain and LCA of RTP and implant systems – a review of first level calculations and conclusions**
Juergen Niess (HQ-Dielectrics GmbH, Germany)

14:30–14:50 **O-23: LLM-Enhanced Agentic Assistance for Maintenance Operations of Ion Implantation Equipment**
Daniel Valtiner (Infineon Technologies Austria AG, Austria)

14:50–15:10 **O-24: Blockchain-Enabled Secure Digital Twins for Immutable Traceability in Advanced Ion Implantation and Annealing Processes**
Jasleen Kaur (Indian Institute of forest management, India)

15:10–15:40	*Coffee Break*
15:40–16:50 Gottfried von Einem Hall	**Session 11: Sustainable Advanced Semiconductor Production** ***Chair:*** *Daniel Valtiner*
15:40–16:10	**I-9: Energy and PFAS Chemical Consumption in Semiconductor Manufacturing** Santosh K Kurinec (Rochester Institute of Technology, USA)
16:10–16:30	**O-25: AI-Enabled Analytical Engine for Implant Defect Control** Saurabh Parmar (Applied Materials, USA)
16:30–16:50	**O-26: Laser-assisted implantation method followed by an activation process by µs UV-laser annealing for the formation of highly doped p-type junctions in SiC** Shintaro Hirano (Sumitomo Heavy Industries Material Solutions Co., Ltd. Japan)
18:30–00:00 Congress Center Villach	**Conference Dinner** **From 17:30 – Bus transfer to the Conference Dinner. Meeting point: in front of Congress Center Villach**
24 September 2026 (Thursday)	
08:00–08:30	Conference Registration
08:30–10:00 Gottfried von Einem Hall	**Session 12: Quantum Technology** ***Chair:*** *Ignaz Eisele*
08:30–09:00	**I-10: Generation of NV centers for scalable mobile quantum computers at room temperature** Jan Meijer (University Leipzig, Germany)
09:00–09:20	**O-27: Quantum Sensing Based On 4H-SiC Spin Color Centers** Stefano Meinardi (Infineon Technologies Austria AG, Austria)
09:20–09:40	**O-28: Generation of Vacancy-Based Colour Centres in 4H-Silicon Carbide for Quantum Nanophotonics with Optically Active Spins** Leonard K.S. Zimmermann (Luxembourg Institute of Science and Technology & University of Luxembourg, Luxembourg)
09:40–10:00	**O-29: Highly enriched silicon with ion implantation for robust qubits in a large-scale quantum computer device** David N. Jamieson (University of Melbourne, Australia)
10:00–10:30	*Coffee Break*
10:30–12:00 Gottfried von Einem Hall	**Session 13: SiC Power Devices** ***Chair:*** *Volker Häublein*
10:30–11:00	**I-11: The Challenge of Ion Implantation and Annealing perspective on Silicon Carbide Trench MOSFET** Doojin Choi (onsemi, Korea)
11:00–11:20	**O-30: SiC Superjunction: The Roads from Lab to Mass Production** Marco Negri (Infineon Technologies, Austria)
11:20–11:40	**O-31: Formation of Deep SiC Superjunction Doping Profiles via Energy-Filtered Ion Implantation** Christian T. Plass (mi2-factory GmbH, Germany)
11:40–12:00	**O-32: Examination of High-Energy Al Channelling-Implanted 4H-SiC Samples by Advanced Photomodulated Reflectance Technique** Dénes Ullrich (Semilab Semiconductor Physics Laboratory Ltd & Budapest University of Technology and Economics, Hungary)

12:00–13:00 **Foyer** (Lower Ground Floor)

Poster Session 3

P-64: Active Suppression of Stacking Fault Expansion in 4H-SiC Epitaxial Layers using Energy-Filtered Ion Implantation
Hitesh Jayaprakash (Ernst-Abbe-Hochschule Jena & Friedrich-Alexander-Universität Erlangen-Nürnberg & mi2-factory GmbH, Germany)

P-65: Enhanced Hydrogen Ion Beam Current for GSDIII-180
Hiroki Murooka (Sumitomo Heavy Industries Material Solutions Co., Ltd., Japan)

P-66: Investigation of Al Ion Implantation and Post-Implantation Annealing in 4H-SiC by Molecular Dynamics Simulation and Experiment
Sina Seyedibavilolyaei (Free University of Bolzano & FBK, Italy)

P-67: Silicon carbide microstructure modification by H^+ ion implantation under heating
Louiss Bonnefoy (SOITEC & University Toulouse, CNRS, CEMES, France)

P-68: Comparative Study of Deep Ion Implantation Techniques for n-Type Doping of 4H-SiC
S.M Masum (Ernst-Abbe-Hochschule Jena & mi2-factory GmbH, Germany)

P-69: Improving Within-Wafer Implant Uniformity in 150 mm SiC MOSFET Fabrication Through an Integrated CIP
Raymond Xu (Axcelis Technologies, USA)

P-70: Raman investigation of channeling implantation in SiC: toward lower damage, enhanced activation, and reduced process cost
Frank Torregrosa (IBS – Ion Beam Services, Z.I. de Peynier-Rousset, France)

P-71: Si in-situ doping of InGaAlAs using an industrial MOCVD reactor
Apoorva Pawadi (IHP-Leibniz-Institut für innovative Mikroelektronik, Germany)

P-72: Photoluminescence Based Monitoring of Implant and Activation in n Type 4H SiC Product Wafers
Gerhard Kunkel (Hitachi Energy, Switzerland)

P-73: Remote Vaporizer for Ion Implantation of Al in SiC Power Devices
Brian Dlugosch (Axcelis Technologies, Inc, USA)

P-74: Towards quantum network chips based on optically active spins in silicon carbide
Jonas Schmid (Luxembourg Institute of Science and Technology & University of Luxembourg, Luxembourg)

P-75: Evaluation of Al Implantation Uniformity in 8-inch SiC Wafers by 4-Point-Probe Measurement
Shintaro Hirano (Sumitomo Heavy Industries Material Solutions Co., Ltd., Japan)

P-76: Overcoming the Ohmic Bottleneck in WBG Semiconductors: The Role of Ion Implantation and Advanced Annealing in SiC and GaN Devices
Emmanuele Galluccio (Infineon, Austria)

P-77: High-Energy Multi-Step Channeling Implantation for Superjunction Structures in SiC
Akichika Ono (Sumitomo Heavy Industries Material Solutions Co., Ltd., Japan)

P-78: Silver implanted diamond for antibacterial applications
Nianhua Peng (University of Surrey, UK)

P-79: Electrical Activation of Implanted SiC Using Manufacturing-Ready Lamp RTP
Peter Benkart (Mattson International GmbH, Germany)

P-80: Room-temperature telecom Si:Te PIN planar photodiodes: a study on optimizing device dimensions
Lars Rebohle (Helmholtz-Zentrum Dresden-Rossendorf, Germany)

P-81: A multi-step implant and anneal approach as an alternative to high-temperature implantation in SiC
Deepthi Devendra (Infineon, Austria)

P-82: Blister Formation in 2D Materials Driven by Out-Diffusion of Implanted Light Species
Vasco Joris (University Grenoble Alpes, CEA, Leti & University Toulouse, CNRS, CEMES, France)

P-83: Development of a Model for Wear and Particle Generation from Graphite Components in Ion Implant Environments
Wayne Hambek (POCO Graphite, Inc. & Entegris, Inc., USA)

	P-84: Advanced laser annealing solutions for Si and SiC device manufacturing Sebastian Geburt (Innovavent GmbH, Germany)
	P-85: Impact of Helium Implantation on Deep-Level Defects in 4H-SiC Schottky Diodes for Quantum Color Center Applications Maximilian Titl (Fraunhofer Institute for Integrated Systems and Device Technology IISB, Germany)
	P-86: Near to the future: predictive maintenance combined with automation for more efficient and reliable maintenance André Apelt (Infineon Technologies, Germany)
	P-87: Automated crystal orientation tool for improved assessment of implant channeling in SiC Cal Stroupe (X-Fab, USA)
	P-88: Performance Testing of a Charge Neutralization Device for High-Energy Ion Beams Lihua Chen (China institute of Atomic Energy, China)
	P-89: Defect Repair and Dopant Activation in Boron-Implanted Germanium through Integrated Microwave and Supercritical Fluid Annealing Tai Chen Kuo (Chung Yuan Christian University & Research Center for Semiconductor Materials and Advanced Optics, Taiwan)
	P-90: Aluminum Ion Implantation Beam Current and Performance Improvement through the Investigation of Chloride Materials, Co-gases, and Methods Ying Tang (Entegris Inc., USA)
	P-91: OpenSRIM – An open-source alternative to SRIM Gerhard Hobler (TU Wien, Austria)
	P-92: Challenges in Monitoring Temperature Sensitive Rapid Thermal Annealing Processes using Boron High Dose Ion Implantations Matthias Schmeide (Infineon Technologies Dresden GmbH, Germany)
	P-93: UV Laser Annealing of Polycrystalline Silicon on Insulator Anthony Albanese (Sumitomo (SHI) Material Solutions Europe, France)
13:00–14:00	*Lunch Break*
14:00–15:10 **Gottfried von Einem Hall**	**Session 14: Advances in CMOS Technology** ***Chair:*** *Taehoon Huh*
14:00–14:30	**I-12: Overview of Ion Implantation and Annealing in CMOS Technology Development for DRAM Devices** Seungwoo Jin (R&D Division, SK hynix, Korea)
14:30–14:50	**O-33: Contact module engineering for advanced CMOS nodes at low thermal budget by Gallium and Germanium co-implant** Jan Prominski (Axcelis Technologies Inc., USA)
14:50–15:10	**O-34: Introducing Tellurium into the CMOS Line for Silicon Infrared Photonics** Shengqiang Zhou (Helmholtz-Zentrum Dresden-Rossendorf, Germany)
15:10–15:40	*Coffee Break*
15:40–16:40 **Gottfried von Einem Hall**	**Conference Closing** *Werner Schustereder, Wilfried Lerch et al.*

CONFERENCE KEYNOTE SPEAKERS

Andreas Kugi
Scientific Director, AIT Austrian Institute of Technology
Professor, Complex Dynamical Systems, TU Wien

Gerald Deboy
Fellow, Infineon Technologies Austria AG

Alina Absmeier
Vice President and Head of Production, Infineon Technologies Austria AG

INVITED SPEAKERS

Nikolay Cherkashin
CNRS, CEMES Toulouse
France

Doo Jin Choi
onsemi
South Korea

Wolfgang Diewald
Infineon Technologies Austria AG
Austria

Hiro Ito
Applied Materials Japan, Inc.
Japan

Seung Woo Jin
SK Hynix Inc. (Hyundai Electronics)
South Korea

Roy Knechtel
Schmalkalden University of Applied Sciences
Germany

Santosh K. Kurinec
Rochester Institute of Technology (RIT)
USA

Jan Meijer
Felix Bloch Institute for Solid State Physics
Germany

Tetsuo Narita
Toyota Central R&D Labs., Inc. & Nagoya University
Japan

Juergen Niess
HQ-Dielectrics GmbH
Germany

Ashutosh Sagar
Intel Portland
USA

Michael H. Willemann
Veeco Instruments Inc.
USA

INFORMATION FOR PRESENTERS

All session halls are equipped with standard PowerPoint presentation facilities. **You must submit your presentation at the Speakers Ready Corner at least 60 minutes before the start of your session** with your USB stick/external portable HDD/SSD. If your speech is scheduled for a morning session, please submit it the day before.

Presentations should primarily be uploaded during coffee or lunch breaks.

Speakers Ready Corner

The Speakers Ready Corner is located in Gottfried von Einem Hall.

Opening hours for Speakers Ready Corner:

Day	Time
Monday, 21 September 2026	08:00 – 17:30
Tuesday, 22 September 2026	07:30 – 12:30
Wednesday, 23 September 2026	07:30 – 16:45
Thursday, 24 September 2026	07:30 – 16:50

Instructions

Please refer to the following categories for specific guidance related to your role during the IIT 2026:

- Instructions for Speakers
- Instructions for Poster authors

For detailed information, scan the QR code below or visit:
https://www.iitvillach2026.com/instructions-for-presenters/

LIST OF POSTERS

21 September 2026 (Monday) 17:30–18:30
Poster Session 1

P-1: Performance of the Plansee High Density Plasma Flood
Thomas Horsky (Plansee USA LLC, USA)

P-2: Wafer Contact Surface Coatings for High-Temperature Electrostatic Chucks
Nilesh Gunda (Entegris, Inc., USA)

P-3: Low cost high current metal ion source
Vladimir Romanov (Axcelis Technologies, USA)

P-4: Beam Density Optimization for Polysilicon Sheet Resistance Matching between Single and Batch Wafer Implanters
Bohesharvind Naraiyanan Murthi (Infineon Technologies, Malaysia)

P-5: Reduction of wafer edge exclusion zone through improved wafer cooling in electrostatic chucks
Jakub Rybczynski (Entegris, Inc., USA)

P-6: Three-Dimensional Primary Electron Trajectory Simulation in a Large-Area Multi-cusp Ion Source for FPD Ion Implantation
Tae-Seong Kim (Korea Atomic Energy Research Institute, Korea)

P-7: Extended Carbon life with the Dedicated Carbon Source on VIISta™ Trident Implanters
Zachary Page (Applied Materials, USA)

P-8: Comparison of two Commercially Available Boron Trifluoride and Hydrogen Gas Mixes in Production Application for High Current Ion Implantation
Ronald Johnson (Microchip Technology, Inc, USA)

P-9: Optimization of Surface Temperature Control for Arcing Suppression and Source Bushing Life Extension in High-Current Ion Implanters
Hyun jun Kim (SK hynix Semiconductor, Korea & Hanyang University, Korea)

P-10: Preliminary Design of a Faraday Cup Array with Secondary Electron Suppression for Large-Area Ion Beam Characterization
Sung-Ryul Huh (Korea Atomic Energy Research Institute, Korea)

P-11: Enhancement of Multiply charged ion Generation Efficiency by Applying a Bias Voltage to the Arc Chamber Lid
Yuta Iwanami (Nissin Ion Equipment Co., Ltd., Japan)

P-12: Enhancing production efficiency of multicharged ions using lower hybrid resonance heating in electron cyclotron resonance ion source
Shinji Tokuno (University of Osaka, Japan)

P-13: Realtime Beam Shape Monitor for Next Generation Dose Uniformity Optimization
Grace Tkach (Axcelis Technologies, USA)

P-14: Purion H6: Next Generation High Current Ion Implanter
Grace Tkach (Axcelis Technologies, USA)

P-15: Introducing the MAXion-H ion implantation system
Gordon Murray (Ion Beam Services UK Ltd., UK)

P-16: Asymmetrical ion and electron distribution charging
Sarko Cherekdjian (NUSANO, USA)

P-17: Modern semiconductor ion implanters with an "Achilles heel"
Sarko Cherekdjian (NUSANO, USA)

P-18: Introduction of the VIISta® HCP+ Implanter and Process Development at the Entegris Ion Implant Process Efficiency Research Laboratory (IIPERL)
Ying Tang (Entegris Inc., USA)

P-19: Investigation of Electrical Breakdown Risks and Safety Considerations in Remote Gas Delivery for High-Voltage Ion Implant Systems
Ying Tang (Entegris Inc., USA)

P-20: VIISta™ Trident High -Current Beam Setup and Utilization time Improvement with AI
Sruthi Chennadi (Applied Materials, USA)

P-21: Beam Uniformity Control System for the Low-Energy High-Current Ion Implanter
Taido Kurauchi (Nissin Ion Equipment Co., Ltd., Japan)

P-22: Beam Transport, Beam Height, and Angle Control for High-Perveance Ion Implantation on the VIISta™ Trident
Joanna Montgomery (Applied Materials, USA)

P-23: A Charge Compensation Study for High Current Implant Tools
Katja Brockhaus (Infineon Technologies, Germany)

P-24: Deep and Flat Profile Formation by Tilt-Angle Modulation at Fixed Energy in High-Energy Ion Implantation
Shintaro Hirano (Sumitomo Heavy Industries Material Solutions Co., Ltd., Japan)

P-25: Effect of Oxygen on the Enhancement of Molecular Ion Beam Current
Rei Hirao (Nissin Ion Equipment Co., Ltd., Japan)

P-26: Beam Position Measurement for a High-Energy Ion Implantation System
Mikio Yamaguchi (Sumitomo Heavy Industries Material Solutions Co., Ltd., Japan)

P-27: Additive Manufacturing for Refractory Metal Alloys – Alternative Materials for IHC Source Components
Jessica Morette (Plansee USA LLC, USA)

P-28: Enhanced production of multicharged ions by helical antennas for microwaves and investigating influences of low frequency electromagnetic waves antennas on electron cyclotron resonance ion source
Daichi Inoue (University of Osaka, Japan)

P-29: Study of Ion Beam Density on Implantation Profile and Device Tuning
Tie Liu (Beijing Electric Control Integrated Circuit Manufacturing Co., Ltd, China)

P-30: Design of High-Tilt Angle Ion Beam Apparatus Achieving Ultra-Low Defect Performance
Ting-Qian Sun (Advanced Ion Beam Technology, Inc., Taiwan)

P-31: RTP at very low Temperatures
Martin Albrecht (Mattson Thermal Products gmbH, Germany)

P-32: Long-Life, Low-Discharge Multicusp Ion Source for FPD Implanters
Yasushi Ota (Nissin Ion Equipment Co., Ltd., Japan)

23 September 2026 (Wednesday) 12:00–13:00
Poster Session 2

P-33: Enabling Conformal Sidewall Doping with Plasma Doping (PLAD) and Advanced Metrology for Novel Semiconductor Devices
Sunnie Wang (Applied Materials Inc, USA)

P-34: Ion Implantation Doping in Double-SOI Structures for Dual-Channel Tunneling Transistors
Shengqiang Zhou (Helmholtz-Zentrum Dresden-Rossendorf, Germany)

P-35: Advanced SIMS approaches for spatially resolved dopant and impurity analysis in SiC power devices
Seishi Akahori (Toray Research Center Inc., Japan)

P-36: Mobility Effects in Hydrogen-Related Donor Profiling: A Dopant-Dependent Model for Proton-Implanted Silicon
Andrea Fugger (Infineon Technologies Austria AG & Technische Universität Wien, Austria)

P-37: Thermal Probe (TP) measurements for Ion Implantation monitoring on silicon carbide substrates
Martin Haberjahn (Infineon Technologies AG, Germany)

P-38: β-Ga_2O_3 Smart Cut™: a study of ion implantation
Frederic Mazen (CEA-LETI, France)

P-39: An improved method for low dose implant monitoring with enhanced accuracy and sensitivity
Md Shadab Anwar (Infineon Technologies, Germany)

P-40: Cryogenic Co-Implantation for Improved Short-Channel Control and Variability in Advanced DRAM Technologies
Baonian Guo (Applied Materials, USA)

P-41: Impact of Cryogenic Ge Pre-Silicide Implantation on Cobalt Silicide Formation in 3D NAND Devices
Baonian Guo (Applied Materials, USA)

P-42: In-Situ Electrostatic Chuck Cleaning and Interferometric Metrology for Particle Control in Ion Implantation Tools
Yuxuan Liu (Entegris, Inc., USA)

P-43: Tensile and compressive Nitride stress relaxation and inversion with Plasma Immersion Ion Implantation
Nada Zerhouni Abdou (Université Grenoble Alpes, CEA, Leti, France)

P-44: Recrystallization of boron doped silicon through solid-phase epitaxial regrowth by nanosecond laser annealing
Alan Le Boterf (Université Grenoble Alpes, France)

P-45: Exploration of ion irradiation induced ferromagnetic ordering in wide band gap semiconductors
Nianhua Peng (University of Surrey, UK)

P-46: Beam Energy Measurement System on Purion XE Series High Energy Ion Implanters
William Rogers (Axcelis, USA)

P-47: High active phosphorus concentrations in silicon regrown by solid-phase epitaxy using nanosecond laser annealing
Sébastien Kerdilès (Université Grenoble Alpes, CEA-LETI, France)

P-48: Oxidation Induced Epitaxy (OIE) of SiGe on Si
Kevin Jones (University of Florida, USA)

P-49: Implanted Electrical Contacts for Self-Amplified Nano Resonators
Kevin Jones (University of Florida, USA)

P-50: Flash Lamp Annealing for Defect Repair and Performance Enhancement in High-Sn GeSn
Yu-Hsien Chuang (National Taiwan University, Taiwan & Helmholtz-Zentrum Dresden-Rossendorf, Germany)

P-51: Enhancement of BJT Current Gain by Cold Ion Implantation on VIISta™ Trident XP2 in 65 nm BCD Technology
Sipeng Gu (Applied Materials, USA)

P-52: Optimization of the Medium Current Source Power to Improve the Device White-pixel Performance in CIS Application
Sipeng Gu (Applied Materials, USA)

P-53: Advanced Joining Technologies for Refractory Metal–Ceramic Systems Enabling Extended Ion Implantation Temperature Regimes
Serafin Knitel (Plansee SE, Austria)

P-54: Control of Film Thickness Distribution Within a Wafer by Mapping-Based Intentional Non-Uniform Dose Ion Implantation
Takuya Sakaguchi (Sumitomo Heavy Industries Material Solutions Co., Ltd., Japan)

P-55: Crystallization of Sn-rich Si and Ge thin films by flash lamp annealing
Lars Rebohle (Helmholtz-Zentrum Dresden-Rossendorf & Helmholtz Innovation Blitzlab, Germany)

P-56: Selective heating effects of mixed low mass number ions in electron cyclotron resonance ion source
Yushi Kato (University of Osaka, Japan)

P-57: Low-temperature monitoring RTP-tools with alloying – long-term results
Martin Grund (X-FAB Semiconductor Foundries GmbH, Germany)

P-58: Qualification of high-energy implanters and a comparison of two C-V techniques
Thomas Obitz (X-FAB Semiconductor Foundries GmbH, Germany)

P-59: Neutron Spectroscopy of Light Ion (α,n) Nuclear Reactions with C and B Targets
Peter DeRosa (Axcelis Technologies, USA)

P-60: Pulsed Soak RTP at very high Temperatures
Martin Albrecht (Mattson Thermal Products gmbH, Germany)

P-61: Ion Implant and Millisecond Laser Anneal Co-optimization for Backside Power Delivery Contacts
Shashank Sharma (Applied Materials, USA)

P-62: Surface Photovoltage Analysis of Proton-Implanted GaAs for High-Power Diode Applications
Nadine Schüler (Freiberg Instruments GmbH, Germany)

P-63: Wafer backside particle reduction
Vladimir Romanov (Axcelis Technologies, USA)

24 September 2026 (Thursday) 12:00–13:00
Poster Session 3

P-64: Active Suppression of Stacking Fault Expansion in 4H-SiC Epitaxial Layers using Energy-Filtered Ion Implantation
Hitesh Jayaprakash (Ernst-Abbe-Hochschule Jena & Friedrich-Alexander-Universität Erlangen-Nürnberg & mi2-factory GmbH, Germany)

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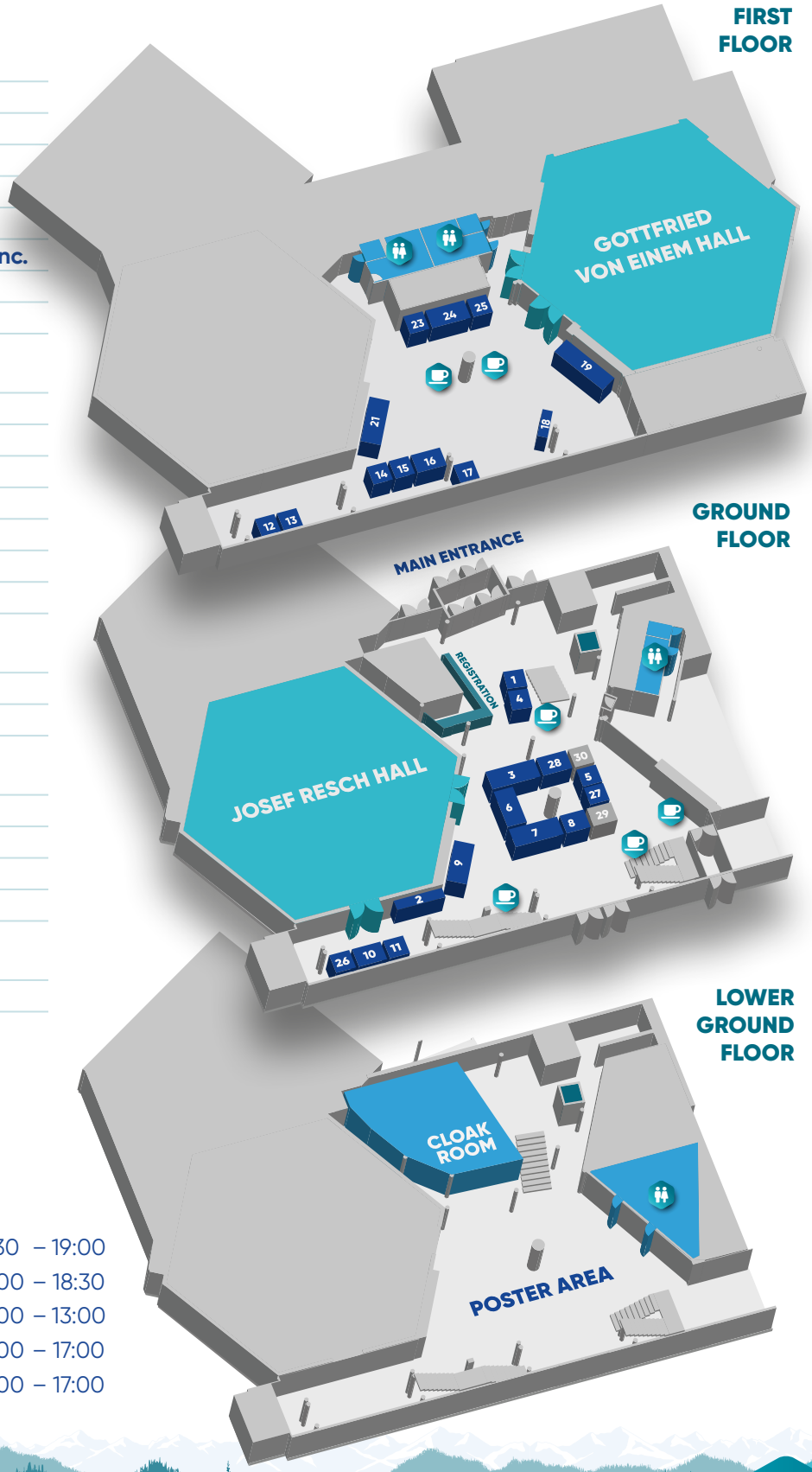
EXHIBITION AND CONFERENCE VENUE

In parallel with the scientific program of the **25th International Conference on Ion Implantation and Annealing Technology (IIT 2026),** an exhibition will feature companies and organizations from the semiconductor industry, showcasing the latest developments in **ion implantation, annealing, metrology, simulation, equipment, and related technologies.**

LIST OF EXHIBITORS

1	Agileo Automation
2	Entegris
3	Applied Materials, Inc.
4	Region Villach Tourismus GmbH
5	Messer Industriegase GmbH
6	Advanced Ion Beam Technology, Inc.
7	Axcelis Technologies Inc
8	AMETEK GmbH / CAMECA
9	Sumitomo (SHI) Cryogenics of Europe GmbH
10	JSW Aktina System Co., Ltd.
11	Nissin Ion Equipment Co., Ltd.
12	mi2-factory GmbH
13	HZDR Innovation GmbH
14	Numat Technologies, Inc. / Merck
15	SEMILAB
16	iON Technology Solutions LLC
17	Busch Semiconductor Vacuum Group GmbH
18	Freiberg Instruments
19	Infineon Technologies Austria AG
21	Sumitomo Heavy Industries Material Solutions Co., Ltd.
23	Adenso Industrial Services GmbH
24	Plansee SE
25	ION BEAM SERVICES SA
26	HQ-Dielectrics GmbH
27	Takachiho Chemical Industrial Company, LTD
28	SIGMAPHI



The exhibition stands will be located on the ground floor and the 1st floor of the Congress Center Villach.

Exhibition hours:

Date	Time
Sunday, 20 September 2026	16:30 – 19:00
Monday, 21 September 2026	08:00 – 18:30
Tuesday, 22 September 2026	08:00 – 13:00
Wednesday, 23 September 2026	08:00 – 17:00
Thursday, 24 September 2026	08:00 – 17:00

EXCURSIONS

All excursions will take place on 22 September 2026, starting after 13:15. **Please note that each excursion has a limited capacity.**

The meeting point for all excursions will be in front of the Congress Center Villach. Each excursion will have a designated guide. Please find your guide according to your **excursion name and number** and join the respective group. Your guide will provide you with all necessary information regarding the departure and the excursion.

Please make sure to **arrive on time.** Each excursion has a scheduled departure time, and transportation must follow the planned timetable.

During the excursion, please **follow your guide's instructions and be considerate of the other participants** to help ensure a smooth and enjoyable experience for everyone.

For excursions using **public transportation**, please make sure to bring your **Erlebnis CARD** with you. The card allows you to use local public transportation free of charge. **Please collect your Erlebnis CARD in advance when checking in at your hotel.** More information about the Erlebnis CARD can be found here: https://www.visitvillach.at/en/erlebnis-card.html

COMPANY TOURS

E1 – Company Tour: Infineon Unlocked

Start: 13:15
Transportation: designated bus
Meeting point: in front of the Congress Center Villach, Europaplatz 1, 9500 Villach, Austria

Discover the fascinating world of microelectronics at Infineon Technologies Austria. During the exclusive company visit, you'll have the chance to meet and interact with our experts from various departments, including Research & Development, Production, and Industry 4.0.

They will provide you with a comprehensive overview of our current research projects and share their insights into the latest developments in the field, giving you a deeper understanding of the innovative technologies that shape our industry.

E2 – Company Tour: SAL Silicon Austria Labs

Start: 13:15
Transportation: designated bus
Meeting point: in front of the Congress Center Villach, Europaplatz 1, 9500 Villach, Austria

Take a look into the innovative spirit of Silicon Austria Labs (SAL). Explore the cutting-edge research and development that's shaping the future of technology.

Join us for an exclusive company tour and hands-on activities, where you'll get to explore the state-of-the-art facilities, experience the latest innovations and connect with experts in a unique and interactive setting.

E3 – Company Tour: Busch Semiconductor Vacuum

Start: 13:15
Transportation: public bus
Meeting point: in front of the Congress Center Villach, Europaplatz 1, 9500 Villach, Austria

Explore the cutting-edge world of vacuum technology at Busch Semiconductor Vacuum Group GmbH in Villach.

As a leading specialist in vacuum solutions for the semiconductor industry, we invite you to join us for an exclusive company tour. Learn about the service and maintenance center for vacuum pumps and systems and experience the latest innovations. Connect with experts in a unique and interactive setting and get a glimpse into the exciting world of vacuum technology.

GUIDED TOURS

E4 – Lake Experience: Boat Trip Ossiach

Start: 13:15
Transportation: public train
Meeting point: in front of the Congress Center Villach, Europaplatz 1, 9500 Villach, Austria

Welcome aboard at the Lake Ossiach! Explore one of Carinthia´s most beautiful lakes by boat. The unique panorama of Lake Ossiach invites you to relax and enjoy, while the crew creates delicious ice cream cups, coffee and more for you.

Additional information: Accessible for people with disabilities. Please make sure to bring a jacket and sun cream.

E5 – Nature and Wildlife at Castle Landskron: Monkey Park & Eagle Show

Start: 13:45
Transportation: designated bus (Schedule may vary depending on the timing of the previous excursion.)
Meeting point: in front of the Congress Center Villach, Europaplatz 1, 9500 Villach, Austria

Enjoy the afternoon with a great view over the Lake Ossiach from the historic ruins of Landskron Castle.

The Monkey Park offers you insights in the fascinating world of over 180 macaques, living freely in the forest. At the Eagle show at Castle Landskron a falconer demonstrates you free flying birds of prey, behavior and habits are explained in detail.

E6 – Guided Hiking: Naturpark Dobratsch / Warmbad Area (Easy Walk)

Start: 13:15
Transportation: public train
Meeting point: in front of the Congress Center Villach, Europaplatz 1, 9500 Villach, Austria

Join a small group guided by two rangers and take part in an easy autumn walk through the forests of Warmbad. You will learn about the history of the area, walk along an old Roman road, discover a natural spring, and finally enjoy a beautiful view of Mount Dobratsch from the edge of the forest.

Additional information: please wear solid shoes and warm clothing.

E7 – Guided Hiking: Bleistätter Moor (Easy Walk)

Start: 13:15
Transportation: public train
Meeting point: in front of the Congress Center Villach, Europaplatz 1, 9500 Villach, Austria

The tour starts near the architectural landmark Domenig Steinhaus, close to Lake Ossiach. The Slow Trail leads through the Bleistätter Moor, a paradise for birds and nature lovers. Enjoy time in this beautiful area and take a rest on one of the benches along the way.

Additional information: please make sure to bring solid shoes, comfortable leisure clothing, light sun or rain protection and a water bottle.

E8 – Visit of Mines: Terra Mystica Bleiberg

Start: 13:45
Transportation: designated bus (Schedule may vary depending on the timing of the previous excursion.)
Meeting point: in front of the Congress Center Villach, Europaplatz 1, 9500 Villach, Austria

Dive into the world of an old mining plant: Experience the working world of the miner, from manual work through to modern, mechanised mining methods and listen to stories about men who spent many years in the mining industry.

Additional information: please bring solid shoes, warm clothing (temperature in the mine: +8 degrees Celsius). Wheelchair accessible.

SOCIAL PROGRAM

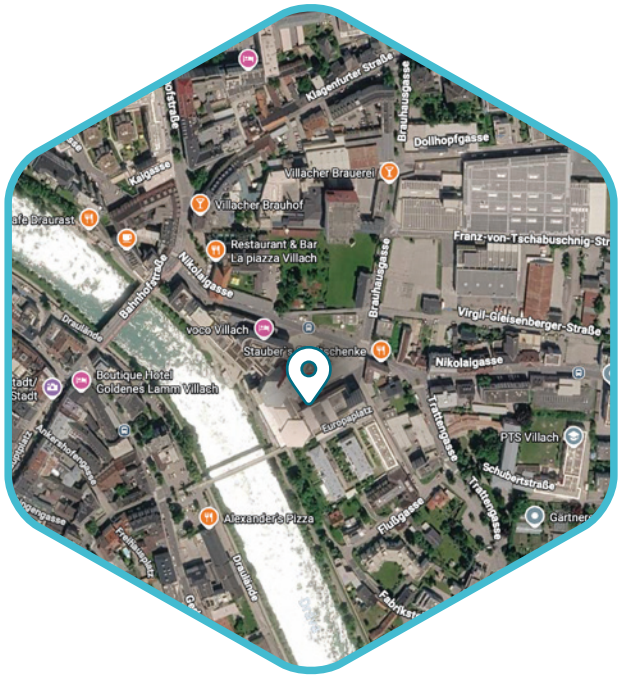
CONFERENCE WELCOME RECEPTION

Date: Sunday, 20 September 2026
Time: 17:00–19:00
Location: Congress Center Villach (CCV)
Address: Europaplatz 1, 9500 Villach, Austria
Price: Included in the IIT Conference registration fee

To celebrate the start of the IIT Conference, we invite you to join us for the Welcome Reception at Congress Center Villach (CCV).

Enjoy light refreshments and drinks while meeting fellow participants and getting into the Conference atmosphere in a relaxed setting.

We look forward to opening the IIT Conference together in Villach!



IIT CONFERENCE OPENING

Date: Monday, 21 September 2026
Time: 09:00–09:20
Location: Congress Center Villach (CCV)
Address: Europaplatz 1, 9500 Villach, Austria
Price: Included in the conference registration fee

CONFERENCE DINNER

Date: Wednesday, 23 September 2026
Time: 18:30
Location: Casineum by the Lake
Address: Am Corso 17, 9220 Velden am Wörthersee, Austria
Price: included in the participant registration fee
Mode of transportation: Designated buses. The meeting point will be in front of the Congress Center Villach. Please be ready at 17:45 sharp in front of the venue. Return transportation by bus will also be provided.

You are warmly invited to the Conference Dinner in Velden am Wörthersee, combining fine dining, networking, and a relaxed lakeside atmosphere.

The dinner will take place at Casineum by the Lake, an elegant venue directly on the shores of Lake Wörthersee.

CONFERENCE INFORMATION

CONFERENCE VENUE

The IIT 2026 Conference takes place in Congress Center Villach.

Address: Europaplatz 1, 9500 Villach, Austria

The Congress Center Villach (CCV) is one of Austria's most modern convention venues, offering flexible spaces and state-of-the-art technology for conferences, corporate events, cultural gatherings, and up to 2,000 participants.

Located in the heart of Villach on the banks of the Drau River, the CCV combines modern architecture, excellent catering and hotel services, and impressive views of the Carinthian mountains.

With its international atmosphere, strong congress infrastructure, and beautiful natural surroundings, Villach provides an exceptional setting for events in southern Austria.

WI-FI INFORMATION

Network name IIT 2026

Password Villach2026!

Free of charge Wi-Fi connection will be available in all conference and exhibition areas.

MOBILE APPLICATION

With access to the online mobile application, you will have the opportunity to increase your interactivity during the event.

Name: IIT 2026

The app provides access to:

- An interactive scientific program
- Your personal planner and agenda
- Venue and exhibition maps
- Full list of sponsors and exhibitors
- Details of the social program
- Networking opportunities
- Live Q&A sessions and so much more!

Download **gCon Events** from the **App Store** or **Google Play** and use the following PIN to access the **IIT 2026** event: **PIN 4564**.

First Login

During your initial login attempt, the site will prompt you to enter your email address (used in the registration form). A PIN code will then be sent to this email address. If you do not receive the email, please check your spam folder. Kindly use this PIN to complete the login process.

Interactive Q&A for Participants

Participants may submit their questions via the dedicated Q&A section of the mobile application. The chair will then select a small number of questions from each session to be displayed on the screen.

REFRESHMENT

Refreshments will be available throughout the events. Coffee breaks and lunches will take place in the Exhibition Area on the ground floor and first floor.

In addition to the drinks already included, a wider selection of beverages will be available for purchase at the bar in the restaurant.

BOOK OF ABSTRACTS

The IIT 2026 Book of Abstracts will be available in both printed and electronic formats.
The electronic Book of Abstracts is available for download here:
https://www.iitvillach2026.com/book-of-abstracts/.

The password was shared in the Before You Go letter.

SOCIAL MEDIA

Join the conversation and stay connected with the IIT community! Follow us on social media and share your favourite moments, experiences, and highlights from the event using our official hashtags.

#IIT2026 #IITSchool #IITVillach2026 #IITConference

https://www.instagram.com/iit2026villach/

https://www.facebook.com/profile.php?id=61578747278051

https://www.linkedin.com/company/iit2026villach/

REGISTRATION

The registration desk will be located on the **ground floor of the Congress Center Villach**. Please follow the IIT 2026 signs.

If you have paid the **combined registration fee** and registered for both **the IIT School and the IIT Conference, you only need to register once.** Your registration will be completed during the IIT School registration.

When attending the IIT Conference, please remember to bring the registration badge you received during the School registration.

REGISTRATION HOURS:

Date	Time
Sunday, 20 September 2026	16:00 – 19:00
Monday, 21 September 2026	08:00 – 18:30
Tuesday, 22 September 2026	07:30 – 13:00
Wednesday, 23 September 2026	07:30 – 17:00
Thursday, 24 September 2026	08:00 – 17:00

REGISTRATION PROCESS

If you are registered for the Conference, on-site check-in will take place at **self-check-in kiosks**. Please have your QR code ready. You will receive the QR code via the **email address used during registration** before the Conference.

You can either **print the QR code** or access it on your mobile device through the Conference app under the "**QR Ticket**" button. Use this QR code for a quick and easy check-in on-site.

If you encounter any issues, please visit the **registration desk** for assistance.

ON-SITE REGISTRATION STEP BY STEP

1. Scan your QR code at the check-in station.
2. If you have paid everything properly, your name badge will be printed out automatically. Lanyards are placed next to the station. Please take only one lanyard per badge.
3. If your registration is not complete, you will not be able to print the badge. In this case, please visit the registration desk. Each participant is kindly requested to wear the name badge when attending the Conference.

THE REGISTRATION FOR IIT CONFERENCE FEE INCLUDES:

- Admission to all scientific sessions of the Conference (20–24 September 2026)
- Admission to the Exhibition area and Poster sessions
- Conference Materials
- Abstract book
- Refreshment during the Conference
- Admission to the Welcome reception (20 September 2026)
- Admission to the Opening Ceremony (21 September 2026) and the Closing Ceremony (24 September 2026)
- One afternoon excursion (22 September 2026)
- Conference dinner (23 September 2026)

Please note that if you registered as an Exhibitor, the services and benefits included in your registration package

may differ.

SPEAKERS READY CORNER IIT CONFERENCE

The Speakers' Ready Corner is located in Gottfried von Einem Hall. It will be available for your convenience during the following hours:

Opening hours

Day	Time
Monday, 21 September 2026	08:00 – 17:30
Tuesday, 22 September 2026	07:30 – 12:30
Wednesday, 23 September 2026	07:30 – 16:45
Thursday, 24 September 2026	07:30 – 16:50

How to submit your presentation on-site

- All session halls are equipped with standard PowerPoint presentation facilities. **You must submit your presentation at the Speakers Ready Corner at least 60 minutes before the start of your session with your USB stick/external portable HDD/SSD**. If your speech is scheduled for a morning session, please submit it the day before.
- **Presentations should primarily be uploaded during coffee or lunch breaks.**
- **The Speakers Ready Corner is located in Gottfried von Einem Hal**l, and a technician will be available to assist you with any technical needs. Due to the online presentation system, all speakers are required to use the provided PC on-site.

BADGES

Registration and badge collection will take place at the **self-check-in stations**. Before the IIT event, each participant will receive a **QR code by email**. The QR code can be printed or shown directly from a mobile device.

Upon arrival, simply scan the QR code at the self-check-in station to receive your badge. **All participants are kindly requested to wear their name badge throughout the IIT event.**

If you need any assistance with registration or badge collection, staff will be available at the **registration desk.**

The QR code on your badge may also be used to access **selected IIT activities or events that require prior registration or booking**.

If you have paid the **combined registration** fee and registered for both the **IIT School and the IIT Conference,** you only need to register once. Therefore, when attending the Conference, please remember to bring the **registration badge you received during the School registration**.

All participants are kindly requested to **wear their conference badge visibly at all times** during the Conference and related activities, including scientific sessions, excursions, **the Conference Dinner and all other social events**. The badge serves as proof of registration and may be required for access to individual activities. In case of loss or damage, please contact the Registration Desk.

CERTIFICATES

You can download your certificates after the School and Conference via the online platform at the following link: https://iit2026.gcon.me/page/home. Please note that you need to log in using the email address you used for your Conference registration.

GOOD TO KNOW

CELL PHONES
Participants are kindly requested to switch their mobile phones to **silent mode** during scientific sessions.

CITY TRANSPORT
Villach has a well-connected local bus network linking the city centre with surrounding districts. Bus services run regularly throughout the day.

CURRENCY
The official currency of Austria is the **Euro (EUR, €)**. Credit and debit cards are widely accepted, although carrying some cash is recommended, especially for smaller establishments.

GERMAN LANGUAGE
The official language of Austria is German. English is commonly spoken in hotels, restaurants and tourist areas.

Useful phrases:

Hello – Guten Tag

Thank you – Danke

Please – Bitte

How much is it? – Wie viel kostet das?

One / **Two** / **Three** – Eins / Zwei / Drei

ENTRY FORMALITIES
Visitors requiring a visa should apply well in advance at an Austrian consulate or diplomatic mission. Passports should be valid for at least **three months beyond the planned departure from the Schengen Are**a.

ELECTRICITY
Austria uses a 230 V / 50 Hz electrical system with standard European type **F sockets**.

IMPORTANT TELEPHONE NUMBERS
112 – European Emergency Number

122 – Fire Department

133 – Police

144 – Ambulance

INSURANCE
Participants are advised to arrange adequate travel and health insurance before travelling. The organizers cannot accept liability for personal injury or loss or damage to personal property.

OFFICIAL LANGUAGE
The official language of **IIT 2026 is English**. Translation services will not be provided.

PROGRAM CHANGES
The organizers reserve the right to make changes to the program due to external or unforeseen circumstances.

SHOPPING
Most shops in Villach are open approximately **9:00–18:00 from Monday to Saturday** and are generally closed on Sundays.

SMOKING AND ALCOHOL
Smoking is prohibited in indoor public areas and within designated non-smoking areas of IIT 2026. The legal age for purchasing tobacco and alcohol products in Austria is 18 years.

TIME ZONE
Austria uses Central European Time (CET). During daylight saving time in September, the time zone is CEST (GMT+2).

TIPPING
Tipping is customary but not mandatory. A tip of approximately **5–10%** is common in restaurants, cafés and taxis.

WEATHER
September in Villach is usually mild, with daytime temperatures around **18 °C** and cooler evenings around **8 °C**. Rain is possible, so participants are advised to bring suitable clothing.

ACKNOWLEDGEMENT

The Organizing Committee of IIT 2026 gratefully acknowledges the valuable support of the following Partners:

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The Power Hattrick from Austria

Setting new benchmarks in power electronics

In Austria, Infineon combines world-class research and development, high-volume manufacturing and global business responsibility. This unique setup makes Villach one of the Infineon group's key innovation hubs – driving technologies that support a more sustainable, connected and energy-efficient world.

Mastering all power technologies – From silicon (Si) and silicon carbide (SiC) to gallium nitride (GaN), innovation from Austria site Villach is helping shape the future of power electronics.

The world's thinnest 300 mm silicon power MOSFET technology – at just 20 micrometers -reduces power losses by more than 15 percent, improving energy efficiency in applications such as AI servers.

Another milestone is the industry's first 300 mm GaN power technology designed for scalable high-volume manufacturing. This enables 2.3 times more chips per wafer while reducing size, weight and overall system costs. Complementing this portfolio, 200 mm SiC technology enables highly efficient and reliable power conversion for electric vehicles, fast-charging infrastructure, renewable energy systems and AI data centers.

Together, these innovations are setting new standards for energy-efficient power electronics while driving decarbonization and digitalization.

Driving decarbonization and digitalization. Together.

Semiconductors are crucial to solve the energy challenges of our time and shape the digital transformation. This is why Infineon is committed to actively driving decarbonization and digitalization.

As a global semiconductor leader in power systems and IoT, we enable game-changing solutions for green and efficient energy, clean and safe mobility, as well as smart and secure IoT.

We make life easier, safer, and greener. Together with our customers and partners. For a better tomorrow.

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We deliver **material innovation** that changes the world.

Applied Materials is the leader in materials engineering solutions that are at the foundation of virtually every new semiconductor and advanced display in the world. The technology we create is essential to advancing AI and accelerating the commercialization of next-generation chips.

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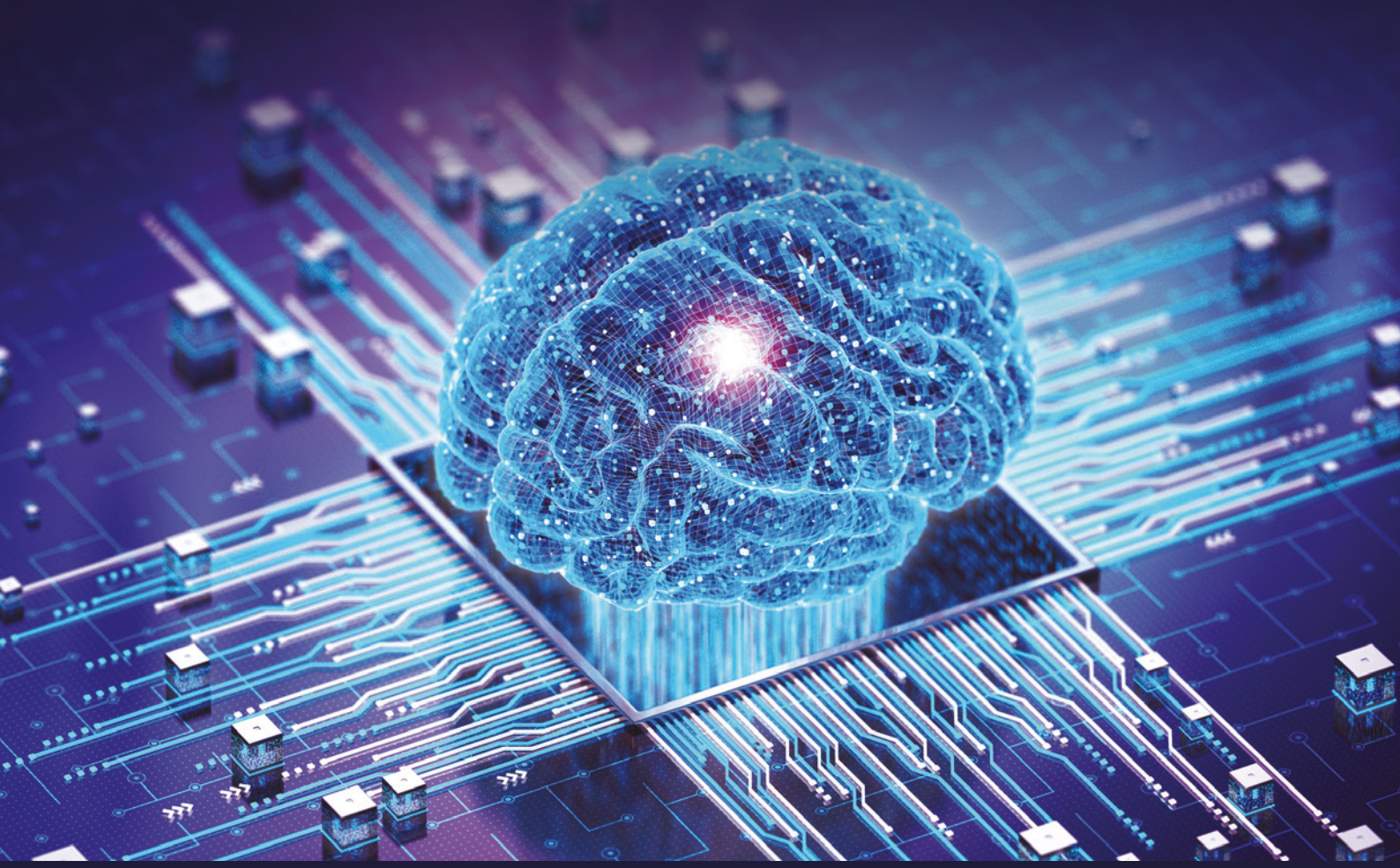
Axcelis' Purion platform delivers the purity, precision and productivity semiconductor manufacturers need to accelerate device performance, yield and cost efficiency. From power and image sensors to AI-driven memory, advanced logic and mature technologies, the Purion Series gives fabs the flexibility, performance and lifecycle support needed to meet today's demanding production requirements, while protecting long-term technology investments.

- Broadest energy range: 500 eV to 15 MeV for complete applications coverage.
- Advanced performance: Purion Power Series with ultra-high energy channeling implantation and novel vaporizer technology.
- Lower cost of ownership: High-throughput systems that improve fab efficiency.
- Lifecycle support: Global expertise from installation through optimization. Axcelis helps fabs advance semiconductor manufacturing. Bring us your toughest ion implant challenges—and discover how Axcelis can help you optimize performance, productivity and cost of ownership.



Accelerating Intelligent Solutions in Ion Implant

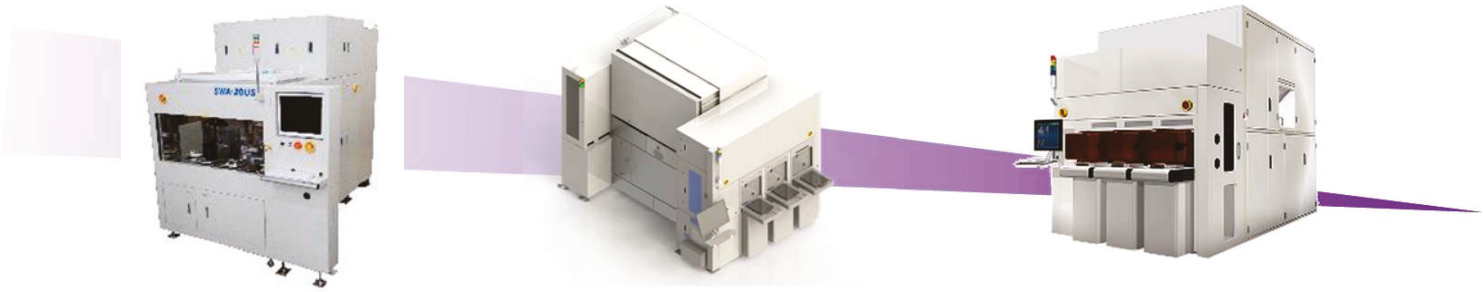
Sumitomo Heavy Industries
Material Solutions Co.,Ltd.

Platinum Partner
IIT 2026 Villach

Shaping the Future of Ion implantation and Laser Annealing Technology

Implanter

Laser Anneal



Sumitomo Heavy Industries Material Solutions Co., Ltd. provides advanced semiconductor manufacturing solutions through innovative ion implantation and laser annealing technologies. Our portfolio supports a wide range of applications, enabling precise process control and high-performance device manufacturing for power and advanced semiconductor technologies. With extensive experience and continuous innovation, we are committed to shaping the future of semiconductor manufacturing together with our customers.

Sumitomo Heavy Industries Material Solutions Co., Ltd.

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Website

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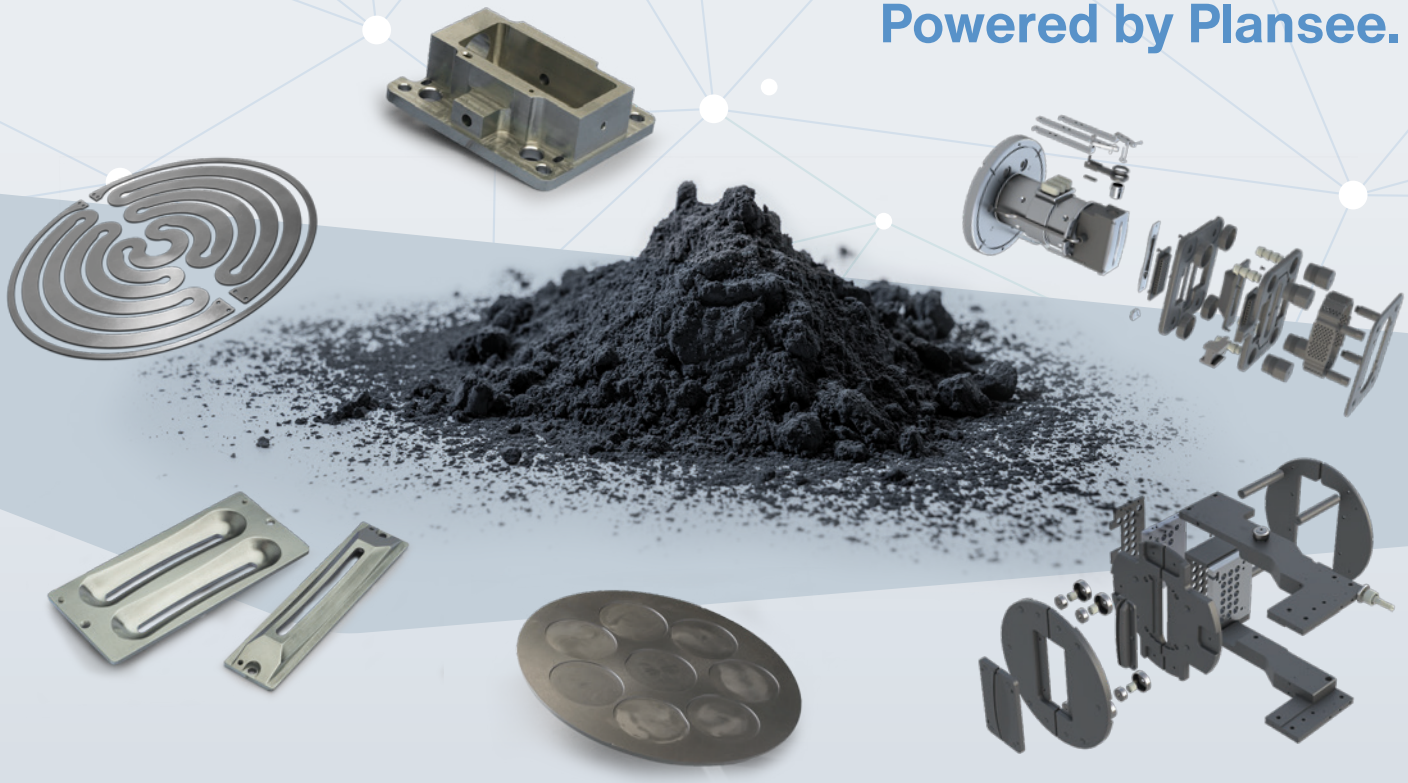

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With hydrogen pumping speeds of up to **15,000 liters per second**, SICERA Cryopumps help maintain stable vacuum conditions, support consistent yields, and maximize tool productivity.

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Qingdao SRI Intellectual Technology Co., Ltd.

Corporate Profile

Qingdao SRI Intellectual Technology Co., Ltd. was established in 2018, with its headquarters in Qingdao, China, and R&D centers in Beijing, Shanghai, and Espoo. SRII focuses on critical front-end semiconductor process equipment, offering system tools and technical service solutions built on independently developed core technologies.

We offer Ion Implantation (IMP) and Atomic Layer Deposition (ALD) systems, serving diverse applications in IC, compound semiconductors, optics, new energy, and parts coating.

Global Business Layout

3+ R&D Centers

8+ Global Business Sites

500+ Customers

Ion Implantation Product Portfolio

SRII offers a full-spectrum ion implanter portfolio, empowering logic, memory, power devices, CIS, and SiC applications.

SRII High-Energy Ion Implanter

-SRII-4.5M -SRII-8M

SRII High-Current Ion Implanter

-SRII-60 -SRII-200

SRII Medium-Current Ion Implanter

-SRII-300

SRII SiC Ion Implanter

-SRII-4.5M SiC -SRII-200 SiC -SRII-300 SiC

Contact Us

No. 88, Wansongshan Road, Huangdao District, Qingdao, China
sriimarketing@sri-i.com
+86 532 58793555
www.sri-i.com

Advanced Ion Implantation Capabilities in Every Category

Engineers in the ion implantation space need to consider a host of consumable and hardware options: gases, gas delivery systems, coated components, e-chucks, graphite, chuck cleaning wafers, and more. These materials are critical to wafer quality, and these are all areas where Entegris can help you excel.

No other organization offers the same breadth of products and services in ion implantation applications. Our resources are focused on improving safety, quality, innovation, and cost of ownership.

Scan the QR code below to talk to an expert and learn how our tailored solutions can help you elevate your industry.

Entegris advantages include:

- Advanced gas delivery systems that offer best-in-class safety, and enable improved throughput
- High-purity gases and mixtures that help improve wafer performance while reducing cost of ownership
- Graphite components that optimize the beamline performance and reduce particulation
- Innovative electrostatic chuck designs that enhance particle performance, throughput and minimize wafer contamination
- Precision-engineered coatings that extend tool life while improving device yield
- Chuck Cleaning Wafers (CCW) for particle removal and extending tool time between PMs

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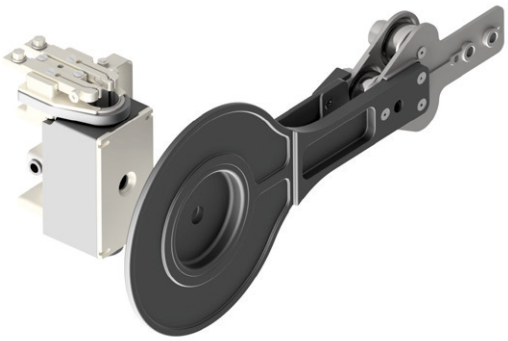

Benefits

- » Source Life Improvement
- » Gas Savings
- » Glitch Rate Reduction
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Air-Gap C-V Metrology System

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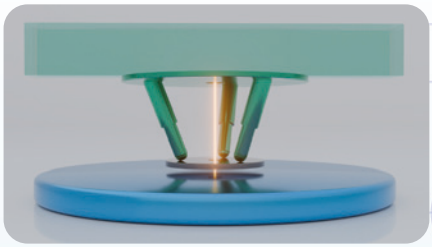
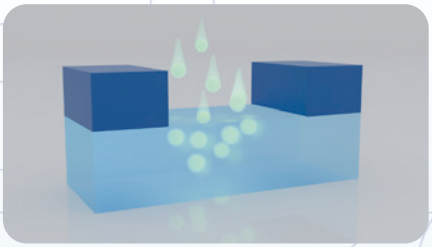
- Dopant concentration depth profile monitoring



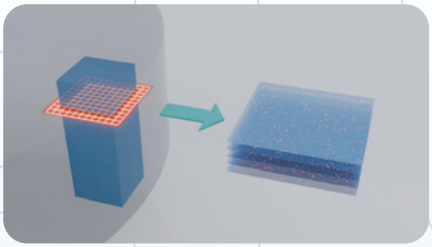
Photomodulated Reflectometry

- Pre-anneal implantation characterization
- Ion implantation dose monitoring
- Ion implant tilt angle monitoring
- Implant temperature monitoring



In-Line Inspection for Buried Defects

- Bulk Microdefect characterization
- Implant defect characterization
- Epi defect characterization
- Trench isolation-induced dislocation monitoring



FINDING THE RIGHT METROLOGY IS CRUCIAL

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Advanced CMOS
ACT10 Technology for 10 A node

Contributing to the monitoring of relaxed layers-induced dislocations in SiGe superlattice samples

PROJECT FINANCED FROM THE NRDI FUND

Funded by the European Union

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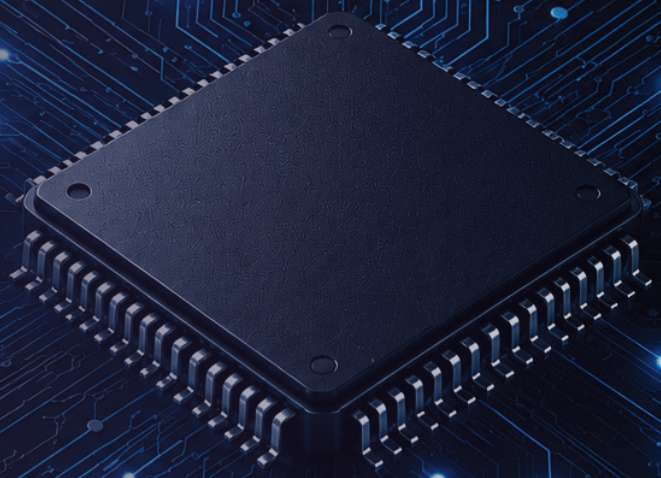
The Intelligence Behind Implant



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