

**SEMINAR:  
Plasma Process Technology**

**Location of the  
PLASMA SEMINAR and WORKSHOP:** **NETWORKING DINNER**  
**SENTECH Instruments GmbH** **At 19:00 Restaurant IL Porto**  
Schwarzschildstrasse 2, Berlin-Adlershof Semmelweisstrasse 104a, Berlin-Adlershof  
**On Wednesday + Thursday, May 06 + 07, 2026** **On Wednesday evening, May 06, 2026**

**SEMINAR PROGRAM**

**09:00** **Welcome and introduction of the program, organisation, and SENTECH employees**  
Friedrich P. Witek, SENTECH GmbH, Krailling and SENTECH Instruments GmbH, Berlin

**Etching:**

**09:10** **SENTECH Plasma Process Technology –  
Latest developments in etching of SiC, super conductive metals, and stress-controlled ICPECVD**  
Marcel Schulze, SENTECH Instruments GmbH, Berlin  
Friedrich P. Witek, SENTECH GmbH, Krailling and SENTECH Instruments GmbH, Berlin

**09:40** **Silicon for Einstein (telescope): High-Aspect-Ratio Cryo-DRIE Applications**  
Thomas Siefke, Friedrich-Schiller-Universität Jena, Jena, Germany

**10:10** **Coffee break and time for discussions**

**10:45** **Process Transfer of GaAs and InP ICP-RIE for HBT and HEMT Transistors in Telecommunication and  
micro/nano Optoelectronics**  
Giuseppe Di Gioia, Université des Sciences et Technologies de Lille, l'Institut d'Electronique - de Microélectronique et  
de Nanotechnologie IEMN, Lille, France

**11:15** **High-Performance Carbon Nanotube Thin-Film Transistors via Atomic Layer Etching-Assisted Fabrication**  
Yu Cao, Peking University PKU, Beijing/Shanxi, China

**11:45** **DNA assisted Stencil Lithography for Nanoelectronics**  
Ciaran Fowley, Helmholtz-Zentrum Dresden - Rossendorf (HZDR), Institute of Ion Beam Physics and Materials  
Research, Dresden, Germany

**12:15** **Lunch and time for discussions**

**13:45** **Highly Precise Plasma Etching Processes for Future 2D Electronics**  
Claudia Bock, Ruhr-Universität Bochum (RUB), Fakultät für Elektrotechnik und Informationstechnik, Lehrstuhl für  
Mikrosystemtechnik, Bochum, Germany

**Deposition:**

**14:15** **ALD super-cycle Processing for Conductive and Wide Band Gap Materials (AZO, IGZO, AlGaN)**  
Ludwig Marth / Paul Plate, SENTECH Instruments, Berlin

**14:45** **Coffee break and time for discussions**

**15:20** **Amorphous Silicon (a-Si) Low-Temperature and High-Rate Deposition**  
Benjamin Schumann, SENTECH Instruments GmbH, Berlin, Germany

**15:45** **Hydrophobic Layer Deposition by HMDSO for Safer Handling, Low-Temperature and Conformal Growth**  
Xuemei Wang, SENTECH Instruments GmbH, Berlin, Germany

**16:30** **All participants of the seminar are invited to visit the application laboratories at SENTECH Instruments**

**17:30** **End of the Seminar**

**WORKSHOP:  
Plasma Process Technology**

**Date:** May 07, 2026

**Location:** SENTECH Instruments GmbH,

**Entrance:** Johann-Hittorf-Str./James-Franck-Str., 12489 Berlin-Adlershof

**Please note:**

*Your own laptop will be required for this workshop. Please ensure to bring one with you! A special license for the SIA operating software will be provided by SENTECH Instruments GmbH for the duration of the workshop. Sessions include practical elements with hands-on experience.*

**WORKSHOP PROGRAM:**

- 09:00**     **Welcome to the Workshop**  
By SENTECH
- 09:10**     **The Plasma Physics behind SENTECH PTSA – a unique ICP Plasma Source**  
A pathway to precision
- 09:30**     **Fundamentals of Plasma Physics and Chemistry**  
Principles and process theory
- 10:00**     **Coffee break and time for discussions**
- 10:30**     **Setting-up an End Point for Laser Interferometer SLI**  
Of transparent and opaque layers
- 11:00**     **Setting-up an End Point for Optical Emission Spectroscopy (OES)**  
For etching and for chamber cleaning
- 11:30**     **The SIA V3 user Tool Box**  
Ease of use for operators, form view and advanced editor, implementing and modifying recipe logic and EPD, analysing data-logging, ...
- 12:30**     **Lunch and time for discussions**
- 14:00**     **Practical hands-on challenges in Plasma Process Development**  
Group session
- 15:30**     **Coffee break and time for discussions**
- 16:00**     **Tutorial on Process set-up for Atomic Layer Deposition (ALD)**  
Including AL Real Time Monitoring of layer deposition, process uniformity, ...
- 16:30**     **Tutorial and insights on Atomic Layer Etching (ALE)**  
Materials, chemistry, and process modes
- 17:00**     **End of Workshop**