SENTECH
Erfolg durch Leistung

Experts in Plasma Process Technology and Thin Film Metrology

SEMINAR:
Plasma Process Technology

Location of the PLASMA SEMINAR and WORKSHOP:

SENTECH Instruments GmbH
Schwarzschildstrasse 2, Berlin-Adlershof
On Wednesday + Thursday, May 06 + 07, 2026

NETWORKING DINNER

At 19:00 Restaurant IL Porto
Semmelweisstrasse 104a, Berlin-Adlershof
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, Shanxi Peking University PKU, 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**