

Services

Main Areas of Competence:

- Ion implantation in a broad range of ion energy (~ 200 eV to ~ 50 MeV) and substrate temperature
- Advanced ion beam technologies (high energy ion implantation, plasma immersion ion implantation, focused ion beam) for (micro)electronic applications
- Deposition of functional coatings using ion-assisted physical vapor deposition
- Development and fabrication of sensors and detectors for charged particle spectroscopy
- High energy ion implantation service for power devices and laser structures
- Doping of semiconductors, in particular wide bandgap semiconductors
- Surface analysis of solid materials with high energy ion beams
- Optical characterization of materials (luminescence, FTIR, Raman)

Offers:

- Consultation and problem evaluation for ion beam applications
- Process development for ion beam processing of metals, ceramics, semiconductors, thin films
- Preparation and treatment of material samples, tools or complex parts of devices
- Ion implantation and ion beam analysis services
- Electron beam lithography and focused ion beam patterning
- Fabrication of silicon radiation sensors under clean room conditions
- Structural diagnostics of materials including e-beam and X-ray techniques

Contact:

Please direct your inquiry about the application of ion beams for modification and analysis of materials to one of the following experts:

Field of application	Name	Phone / Fax	E-mail
Ion implantation (metals, ceramics, polymers, biomaterials)	Prof. Andreas Kolitsch	3348 / 2703	a.kolitsch@fzd.de
Ion implantation (semiconductors, in particular high energy)	Dr. Johannes von Borany	3378 / 3438	j.v.borany@fzd.de
Thin film deposition	Prof. Andreas Kolitsch	3348 / 2703	a.kolitsch@fzd.de
High energy ion beam analysis	Dr. Silke Merchel	2802 / 3701	s.merchel@fzd.de
Semiconductor preparation Detector / Sensor fabrication	Dr. Bernd Schmidt	2726 / 3285	bernd.schmidt@fzd.de
Electron beam lithography	Dr. Artur Erbe	2366	a.erbe@fzd.de
Focused ion beams	Dr. Lothar Bischoff	2963 / 3285	l.bischoff@fzd.de
Structural diagnostics	Dr. Johannes von Borany	3378 / 3438	j.v.borany@fzd.de
Materials research with Synchrotron radiation at ROBL (ESRF)	Dr. Carsten Bähtz	2367	baehtz@esrf.fr
Optical materials characterization	Dr. Harald Schneider	2880 / 3285	h.schneider@fzd.de

For all phone/ fax-numbers choose the country / local code: +49 351 260 - xxxx (for FZD)
+33 47 688 - xxxx (for ROBL)

The institute also recommends the homepages of its spin-off companies

- "GeSiM mbH" Si- Mikrosysteme www.gesim.de
- "APT Dresden" Angewandte Pulstechnik www.apd-dresden.de
- "DFT GmbH" Dünnschichttechnologie www.dtf-technology.de