

Nano and Micro Unite: Nanotechnology Start-Up XRnanotech Acquires Karlsruhe-Based Company Microworks

The Swiss high-tech start-up XRnanotech AG announces the acquisition of the German company Microworks GmbH. With this, XRnanotech strengthens its expertise in lithography processes and electroplating, expanding its portfolio to include microstructured products, which are used in areas such as X-ray imaging. Under the management of CEO Dr. Florian Döring, both companies will leverage their synergies to offer customized solutions for new applications.

Villigen, October 1, 2024 – XRnanotech, a leading Swiss nanotechnology company, today announced the acquisition of the Karlsruhe-based company Microworks. This acquisition allows the Swiss start-up to offer its customers not only nanostructures and optics but also microstructured products.

Complementary Expertise of Both Companies

Microworks' products complement XRnanotech's established portfolio in the micrometer range. This enables the Swiss high-tech company to serve customers focused on microstructures and X-ray imaging. "Through the planned integration while maintaining the Karlsruhe location, our customers will benefit from the technical expertise of both companies," says CEO Dr. Florian Döring. "Our product range expands significantly, and we can provide customized solutions for new applications." Dr. Joachim Schulz, founder of Microworks, adds: "With this acquisition, we ensure continuity for our existing customers while unlocking various synergy effects for new clients and new markets."

X-ray Lithography Enables Optics with High Aspect Ratios

The production of the microstructures is based on various lithography processes, particularly Deep X-ray Lithography. This process allows for structures that are 20 times taller than wide – in some cases, even up to 50 to 100 times. This high aspect ratio enables exceptional performance of Karlsruhe's X-ray optics. Additionally, this method results in very smooth sidewalls, which is particularly important for optical applications in the visible and infrared spectrum. Other lithography processes, such as electron beam, UV, and 2-photon lithography, along with gold, nickel, and nickel alloy electroplating, are also part of Microworks' technology portfolio.

High-Precision Interferometry with TALINT

In addition to high-quality X-ray optical components such as apertures, gratings, X-ray lenses, beam stops, and resolution targets, XRnanotech will now also offer the TALINT series X-ray interferometers. TALINT allows imaging in three modes: absorption, phase contrast, and dark-field contrast. "This technology is unique worldwide, enabling the extraction of significantly more structural information from X-ray images," says Dr. Joachim Schulz. "We are very excited that, with XRnanotech's help, even more international customers will benefit from our technology."

About XRnanotech AG

XRnanotech AG is an award-winning Swiss high-tech start-up, founded as a spin-off from the Paul Scherrer Institute in Villigen by physicist Dr. Florian Döring, MBA. The Aargau-based company manufactures innovative nanostructures and optics with outstanding precision for research institutions and high-tech companies worldwide. The applications of their products range from X-ray microscopy to optical communications and the semiconductor sector. With 14 employees, XRnanotech continually develops new innovative solutions for its customers, based on cutting-edge nanotechnology.

www.xrnanotech.ch

About Microworks GmbH

Microworks GmbH is an innovative manufacturer of standardized and custom products for non-destructive testing and quality control using X-rays. Its main customers include scientists and lecturers, but increasingly also industrial clients. Microworks began 15 years ago by producing high-quality watch parts using X-ray lithography, then expanded into X-ray optical gratings and, most recently, into TALINT, an X-ray interferometer. Microworks is located near the Karlsruhe Institute of Technology (KIT) in Germany and currently employs 7 people.

www.microworks.de

Kontakt:**Dr. Christin Döring**

Marketing and Communication Director
XRnanotech
Park Innovaare
Parkstrasse 1
5234 Villigen
E-Mail: info@xrnanotech.ch
Phone: +41 56 310 55 97

www.xrnanotech.ch

[linkedin.com/company/xrnanotech](https://www.linkedin.com/company/xrnanotech)

XRnanotech

Park Innovaare • Parkstrasse 1 • 5234 Villigen • info@xrnanotech.ch • xrnanotech.ch • [linkedin.com/company/xrnanotech](https://www.linkedin.com/company/xrnanotech)