

Services and Support

SPM Controller and Microscope Training

Over the years, the number of installed Scienta Omicron SPMs and Controllers has risen to over 1000! Due to the long lifespan of our equipment, it is possible that some well-established systems know-how is lost with the turnover of staff and students.

Because of this, and from analysing the type of requests for service that we have received, we have decided to offer training for **MATRIX V1-V4** and **SCALA controller** in combination with **Scienta Omicron VT's, AFM/STM, STM1, LT SPM** and several other microscopes produced by Scienta Omicron. We have three levels of training available:

Level 1 - Essentials

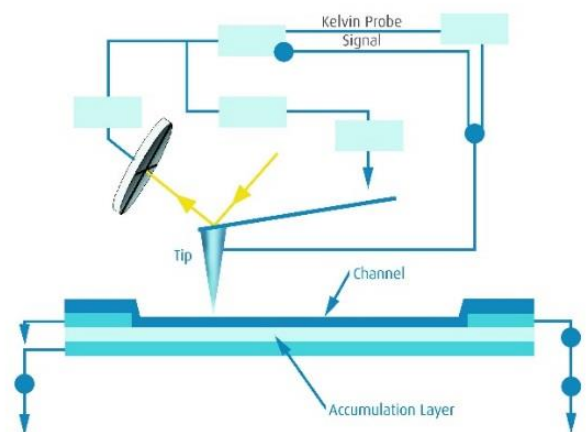
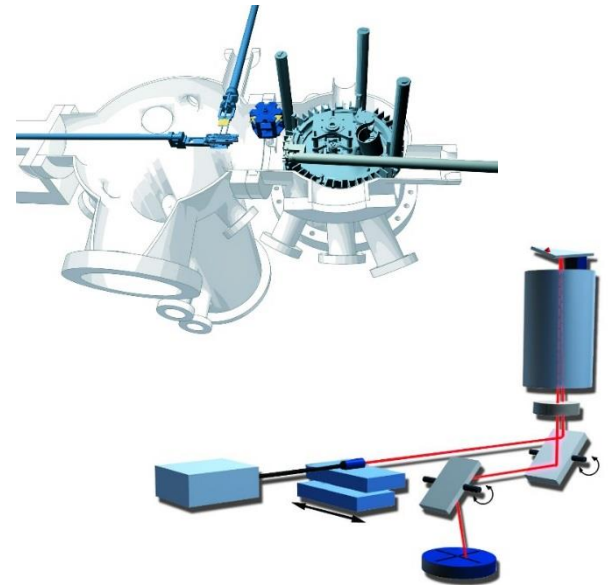
Consisting of **Module 01 - UHV-SPM Basic training** and **Module 02 - SPM Essential training**. These modules will enable UHV and SPM newcomers to use the UHV-SPM setup in a secure manner and to perform measurements. Part of this module is a basic check of your hardware. Depending on factors like status of the SPM system, possibilities of sample and tip preparation, at least two days of training are recommended.

Level 2 - Advanced

Suitable for customers who are already knowledgeable in preparing samples, tips and performing reproducible STM measurements. Training modules like **Beam-Deflection AFM, QPlus AFM, MATRIX and Spectroscopy** are available.

Level 3 - Specialized

Level 3 training is about advanced methods like **MFM, KPFM, EFM, Spectroscopy**, integration of special functions into data acquisition and more. To perform an efficient training, special samples and sensors must be prepared. This training will be given at our application laboratory in Taunusstein, Germany. Our laboratory is equipped with UHV Systems with VT-QPlus-Beam Deflection AFM and LT STM/AFM.



Europe Training Level 1 at a glance:

- From beginners to experts
- One full day at customer site 4000€
- Two full days at customer site 6000€
- Scienta Omicron Certificate for up to four attendees

Non-European-Countries

- Please contact us for individual offers

Training Details

Level 1 - Essentials

- UHV-SPM Essential training
- Starting with a quick check of the whole UHV and SPM system (coarse check; sample reception; stage behavior; noise; controller)
- Transfer of samples and tips in and out of the UHV System
- Managing the carousel
- Exchanging of tips and samples between carousel/sample storage and SPM
- Cabling of the MATRIX or SCALA controller and auto-approach
- First STM measurements at Gold/SI Sample (Omicron test sample)
- SPM Basic training
- Set up of MATRIX / SCALA; Functionalities and concept
- Performing STM Measurement's, tricks and hints
- Introduction - how to check the controller and Microscope

Level 2 - Advanced

- Beam deflection AFM basics
- AFM basics, Contact and noncontact
- How to work with the frequency detection mode
- Extended Software training
- Hands on training / measuring
- SPM QPlus® training
- QPlus® basics
- How to set up the PLL for successful QPlus® measurements
- LookIn dI/dV
- Setting up for Spectroscopy
- Capacity compensation

Level 3 - Specialized

- MATRIX and MATE; KPFM AM/FM; MFM; EFM
customized according to your needs – please ask for a specific quote

How to contact us:

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