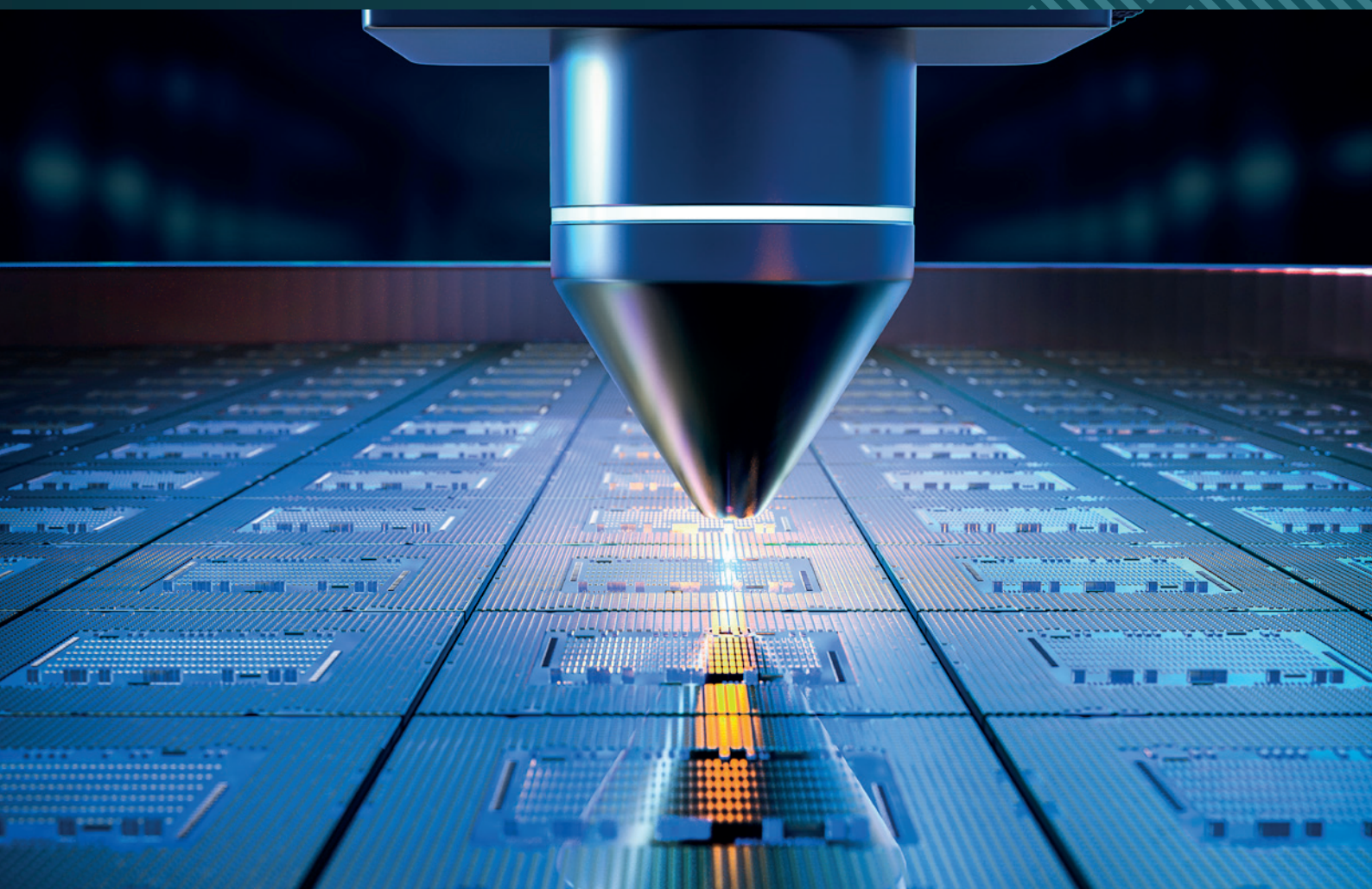




**Malvern
Panalytical**
a spectris company

ToolMatch

Enabling consistent results across multiple instruments



Rising demand for simpler tool matching

To deliver accurate results in XRF measurements which allows meaningful comparison of these results coming from a number of instruments, your XRF spectrometers must be correctly calibrated and tool matched. This tool matching process relies on specialist expertise, which is a costly and time-consuming procedure.

Having differences between results on different instruments is a big problem in today's fast-growing semiconductor market as the end-result of manufacturers should be the same wherever it is coming from. With manufacturers facing increasing demand for more complicated semiconductor devices, the need to deliver precise and consistent results with XRF spectroscopy is now more pressing than ever.

Introducing ToolMatch: software for consistent results on multiple instruments

ToolMatch, an optional software package for our Wafer Analyzer, the 2830 ZT Wavelength Dispersive X-ray Fluorescence (WD-XRF) spectrometer platform with SuperQ software, makes tool matching and comparison of results across your Wafer Analyzers simple. By calculating the regression of systematic differences in your results, this software allows you to correct for these systematic differences for your routine results. As such, measurements performed on the same wafer but with different Wafer Analyzers will everytime result in (nearly) identical data unique to that wafer. For the user, this means that consistency within an acceptable bandwidth is ensured for Wafer Analyzers within the same production site, or across different locations.

ToolMatch is easy to use as the corrections are automatically applied on routine results, making the correction and tuning between instruments available to routine operators, and freeing up time for system managers. Plus, thanks to the quick and simple process, this tool matching can also be performed more frequently – leading to more consistent and precise outcomes within a narrower measurement bandwidth.

Simple measurements, easy application transfer with application distribution

As well as simplifying the process for delivering essentially consistent measurements across different equipment, this software also comes with application transfer functionality. This means that it is easy to move applications from one Wafer Analyzer to another, enabling a faster transfer process with fewer chances of errors as manual inputting is something from the past. And, aside from cross-instrument tool matching, this instrument can also be used on a single system to match to a specified reference value. This may be required when the reference data comes from a different technique or when results need to match historic data.

Here when you need us

At Malvern Panalytical, you can count on us to deliver the highest level of customer service. As well as our service engineers, our global customer support network is always on hand with support and advice. So, don't hesitate to reach out to us!

Malvern Panalytical's Wafer Analyzer the 2830 ZT Wavelength Dispersive X-ray Fluorescence (WD-XRF) spectrometer

A simultaneous X-ray Fluorescence spectrometer for fast and accurate analysis of elements from atomic number 5 (boron) onwards, measures composition and layer thickness of thin films on wafers and similar samples.



Key benefits

- Automated updating of quantification parameters with application distribution
- Ideal for tool standardization **within or across sites**
- **Simple to operate** by process operator, without continued specialist input
- **Inexpensive to run** with additional savings in labor time
- **Better quality control** with smaller process errors



About Malvern Panalytical

We draw on the power of our analytical instruments and services to make the invisible visible and the impossible possible.

Through the chemical, physical and structural analysis of materials, our high precision analytical systems and top-notch services support our customers in creating a better world. We help them improve everything from the energies that power us and the materials we build with, to the medicines that cure us and the foods we enjoy.

We partner with many of the world's biggest companies, universities and research organizations. They value us not only for the power of our solutions, but also for the depth of our expertise, collaboration and integrity.

We are committed to Net Zero in our own operations by 2030 and in our total value chain by 2040. This is woven into the fabric of our business, and we help our employees and customers think about their part in creating a healthier, cleaner, and more productive world.

With over 2300 employees, we serve the world, and we are part of Spectris plc, the world-leading precision measurement group.

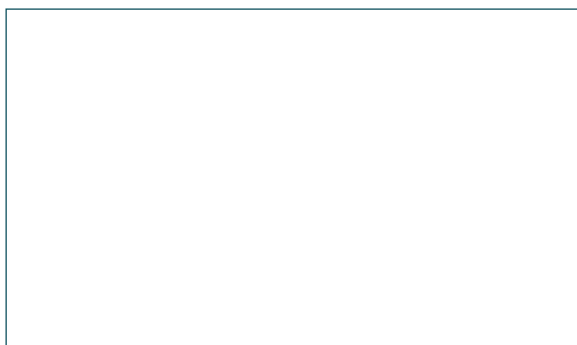
Malvern Panalytical. We're BIG on small™

Service & Support

Malvern Panalytical provides the global training, service and support you need to continuously drive your analytical processes at the highest level. We help you increase the return on your investment with us, and ensure that as your laboratory and analytical needs grow, we are there to support you.

Our worldwide team of specialists adds value to your business processes by ensuring applications expertise, rapid response and maximum instrument uptime.

- Local and remote support
- Full and flexible range of support agreements
- Compliance and validation support
- Onsite or classroom-based training courses
- e-Learning training courses and web seminars
- Sample and application consultancy



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