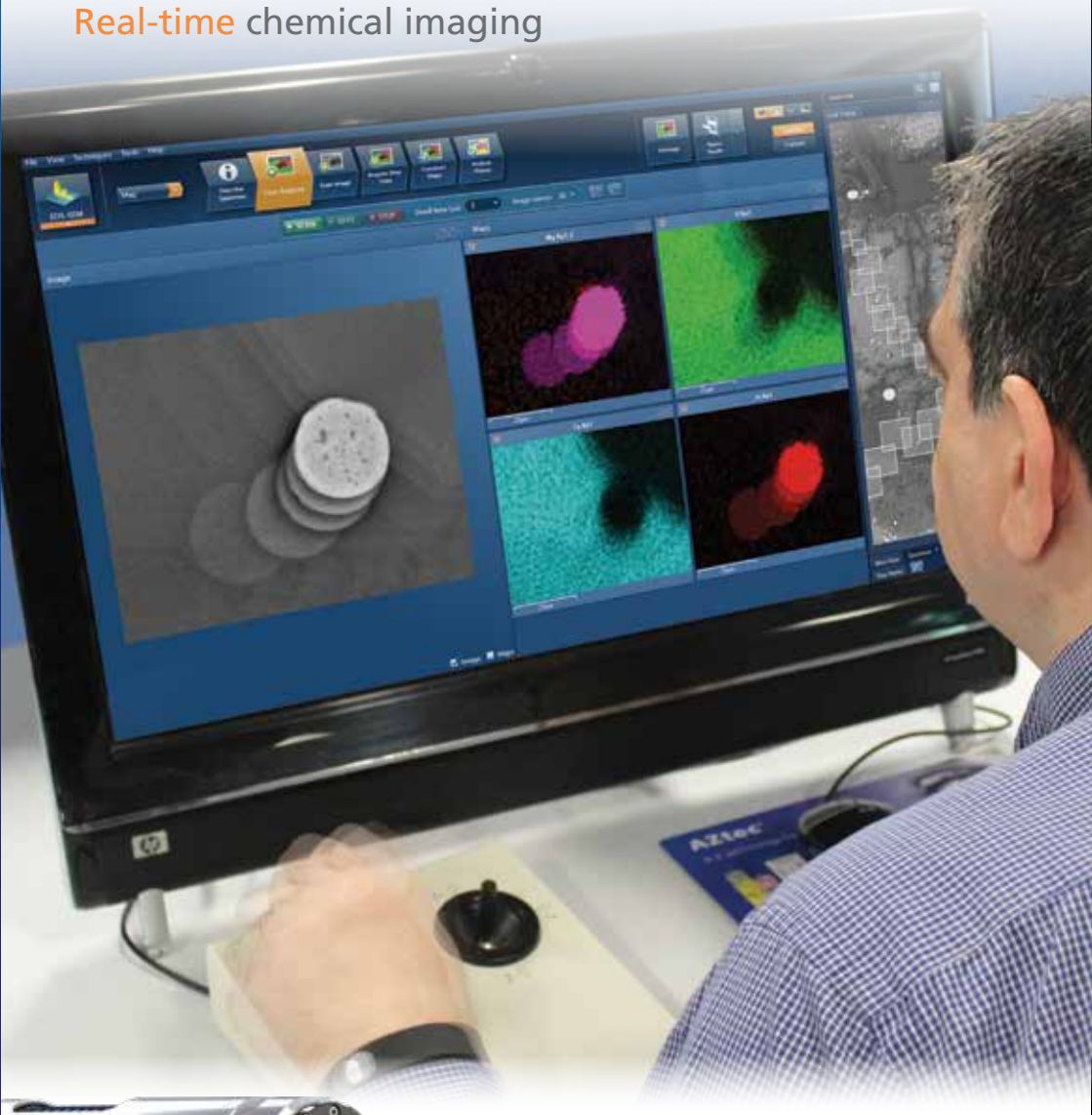
AZtecLive

ULTIM® MAX

Real-time chemical imaging



Powered by **Ultim** Max

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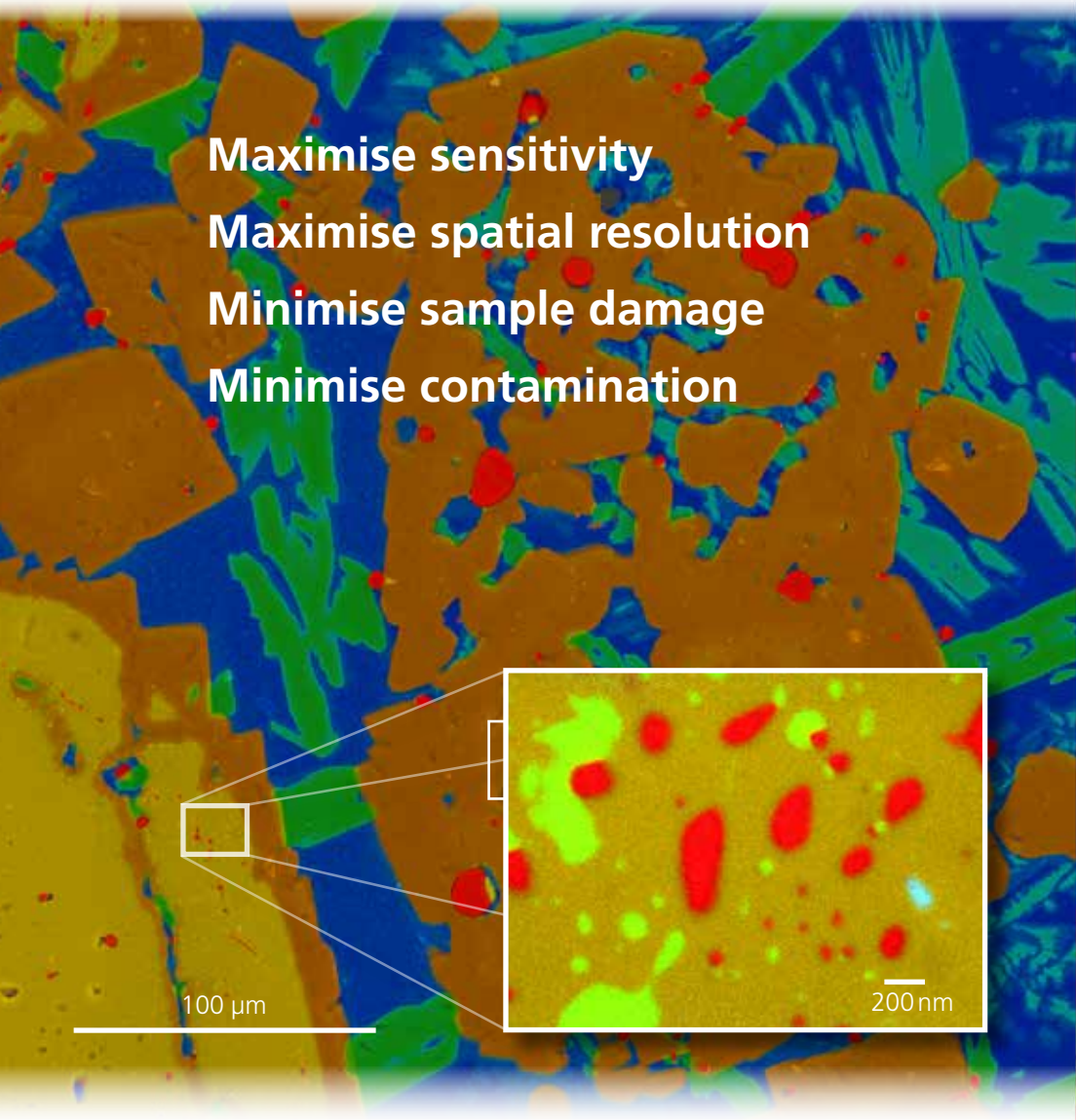
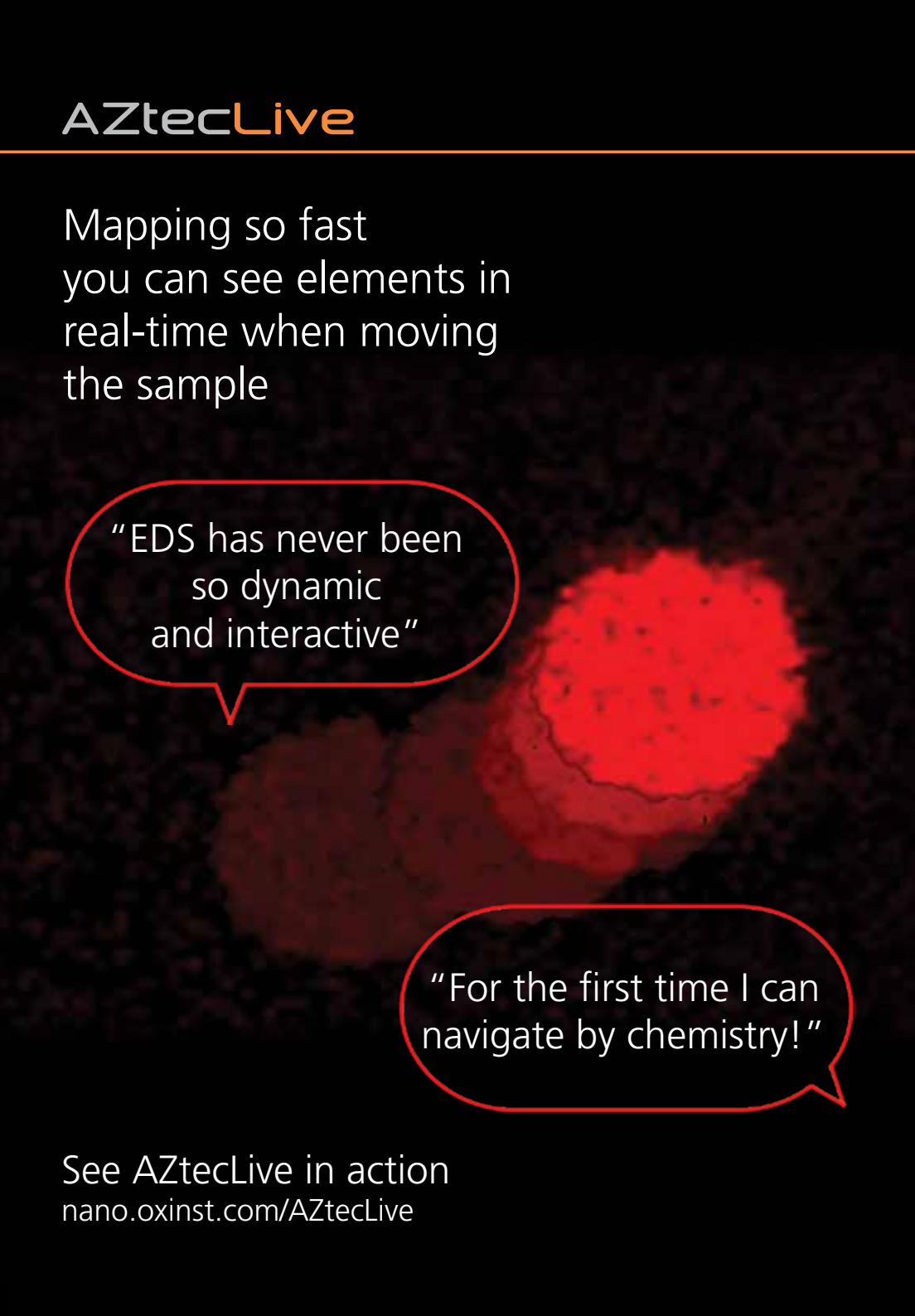
ULTIM MAX



Combining the world's largest SDDs with Extreme electronics that delivered the first detection of Li by EDS

AZtecLive

Mapping so fast
you can see elements in
real-time when moving
the sample



See AZtecLive in action
nano.oxinst.com/AZtecLive

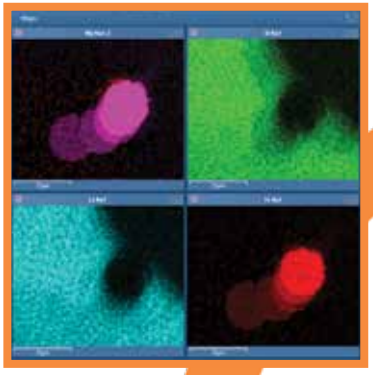
AZtecLive

Real-time chemical imaging

AZtecLive **takes the EDS technique from the static to the dynamic with real-time chemical imaging**

Live imaging and X-ray mapping

- **Video rate electron and chemical imaging in real-time** - no going back and forth between the microscope and EDS software
- **Automatically transition** between responsive live imaging when navigating - and high quality imaging if something of interest is seen

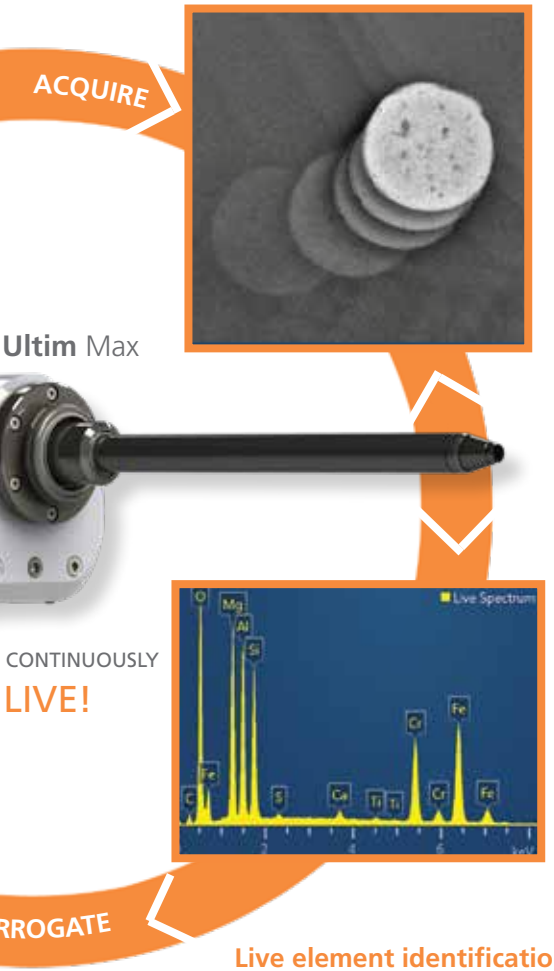


Live trace

- **Automatically record where you've been and what elements have been detected** - never lose a feature of interest
- **View where elements are and their relative concentration** – quickly find element 'hot spots'
- **Relocate to any point on the trace** – quickly carry out more detailed investigation

Patent Pending

Many aspects of **AZtec**Live are covered by pending patents

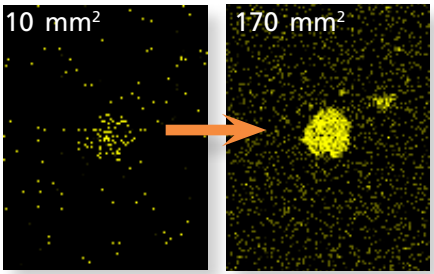


A completely new way of investigating your sample

- **Increase productivity**: you'll analyse more samples in the same time
- **Increase confidence and certainty:** you'll see chemical data even when the stage is moving
- **You'll find what you're looking for** - but also won't miss anything of interest

Powered by Ultim Max

- Detectors so sensitive you'll collect data fast enough to map in real-time



Comparing data from 0.3s acquisition

Live element identification

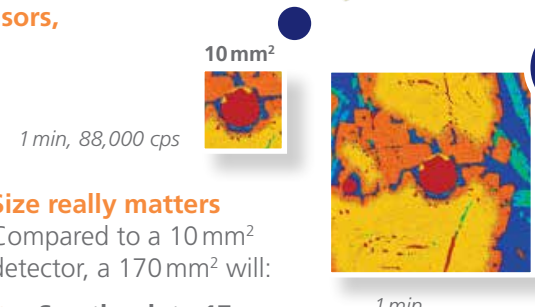
- **Powered by unique Tru-Q® spectrum processing** - identify elements correctly and instantly
- **Pulse pile-up correction of sum spectrum using unique phase clustering algorithm** - will remove any high count rate artifacts

ULTIM MAX

The next generation range of SDD

Ultim Max combines the largest SDD sensors, with unique Extreme electronics

- **40 - 170 mm² sensor areas** - for higher count rates under any conditions
- **Lowest noise X-ray detection** – for the best quality spectra delivering accurate results
- **Quantitative analysis at >400,000 cps** – outstanding accuracy in a fraction of the time
- **Mapping at > 1,000,000 cps** - providing more capability than any other detector range



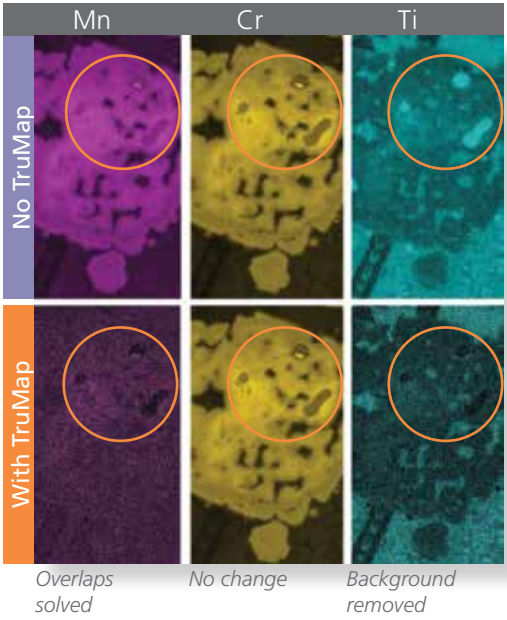
Size really matters

Compared to a 10 mm² detector, a 170 mm² will:

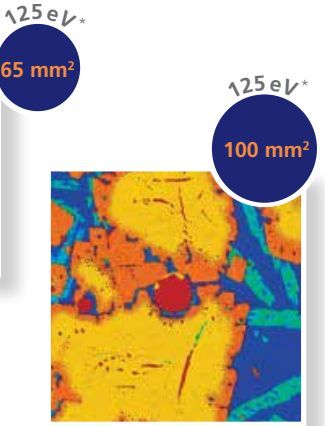
- **See the data 17x faster or map 17x more of your sample** (under the same conditions)
- **Reduce beam current by 94%** - to minimise beam damage
- **Minimise sample contamination**

AZtecLive provides the power for more detailed analysis

- **TruMap** - eliminate peak overlaps
- **Highlight real chemical variation** - remove false contrast due to X-ray background
- **Combined with Ultim Max sensitivity** – you'll map lower concentrations more accurately



Speed and sensitivity

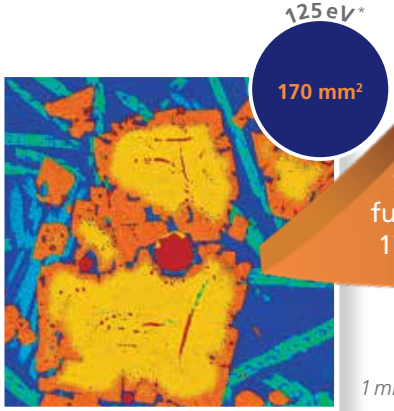


1 min, 880,000 cps

* *Typical performance*

Sensor independent performance

- Same excellent resolution guaranteed at 130,000 cps for all sensor sizes
- No compromising performance



See the full picture 17x faster

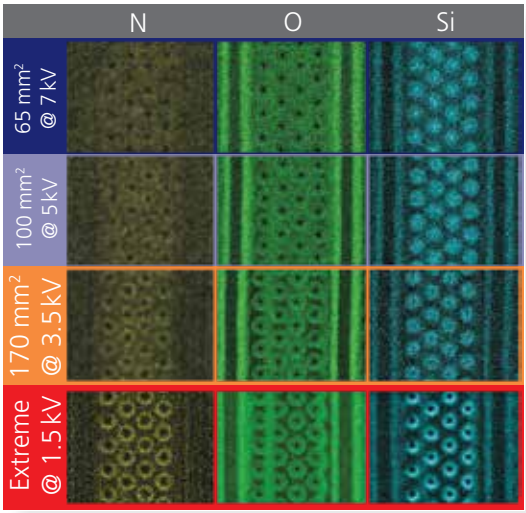
1 min, 1,500,000 cps

Ultim Max makes the most challenging analysis possible

- **Highest sensitivity** - for light element and nano-analysis
- **Work at lower kV** – to characterise smaller structures with less sample damage

Investigate lighter elements and achieve the best spatial resolution in the SEM

- **Ultim Extreme windowless EDS** provides the highest sensitivity analysis at the lowest voltages



Characterising 10 nm semiconductor structures.

OiService®

We are renowned for delivering outstanding support. Our global service hubs offer a full range of technical support to keep your detector, system and staff at maximum efficiency.

Keep your investment at peak performance. Multi-layered maintenance contracts suit your operational needs and budget.

Optimising you. Optimising your team. Omni-channel training enables everyone to deliver the right results every time.

Our global network of help desks guarantee a fast *local* expert response to any application or operational issue.

Our team of accredited support professionals proactively ensure your system is in optimal condition.

We're with you every step of the way to future proof your investment and ensure onwards data and system compatibility.

This brochure can only provide a glimpse into the revolutionary capabilities of **AZtec**Live and **Ultim** Max. See AZtecLive come alive in video!

Scan the QR code or visit

nano.oxinst.com/AZtecLive

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