

# 5 Reasons to Upgrade INCA Wave to AZtecWave

Our new product - AZtecWave - is the ultimate solution for accurate element analysis at all concentration levels in the SEM. AZtecWave expands the capability of your SEM-EDS system where higher certainty, higher accuracy, or lower levels of detection are required, by adding WDS data collected with your high spectral resolution Wave spectrometer.

AZtecWave uses new workflows designed from scratch for combined EDS and WDS data collection and analysis.

These workflows are fully integrated into the AZtec software and data structures. New technology utilizes information from the SEM and EDS detector to calculate the best parameters for combined EDS-WDS data acquisition, guiding the user to the optimum analytical settings. The familiarity of AZtec and the informative guidance built into AZtecWave mean highly accurate, quantitative compositional analysis, of even the most challenging samples, becomes possible for SEM users with all experience levels with minimal additional training required.

## 1. WDS+EDS workflows in the AZtec platform

- Single software platform for data collection and analysis
- Familiar user experience and control

## 2. Unparalleled guidance for WDS set-up

- Guided step-by-step workflows combine WDS with EDS, supported by video tutorials
- Unique technology for automatic optimisation of WDS data collection settings

## 3. Proven EDS accuracy

- Uses the most accurate EDS system available for major element analysis, leaving WDS for when it is required – saving time
- Includes Tru-Q™ technology for proven accuracy at high, productive count rates

## 4. Seamless EDS-WDS integrations

- Complete software and hardware integration
- Max+ interface ensures optimum collection conditions can be achieved for both EDS and WDS\*

## 5. Effectively utilize your WDS spectrometer and bring microprobe-level performance to your SEM

- Full separation of common overlaps including S/Mo, Ti/Ba, REE
- Detection of minor and trace elements down to sub 100 ppm

\*Option – for compatible detectors and microscopes

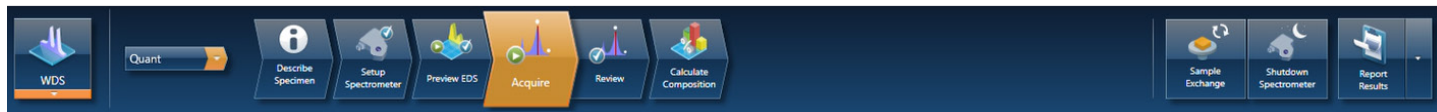


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For more information please go to [nano.oxinst.com/aztecwave](https://nano.oxinst.com/aztecwave)  
or email [na.upgrades@oxinst.com](mailto:na.upgrades@oxinst.com)

# How AZtecWave makes combined EDS-WDS analysis straightforward:

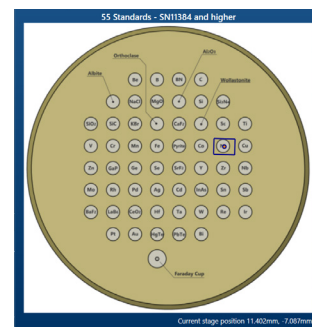
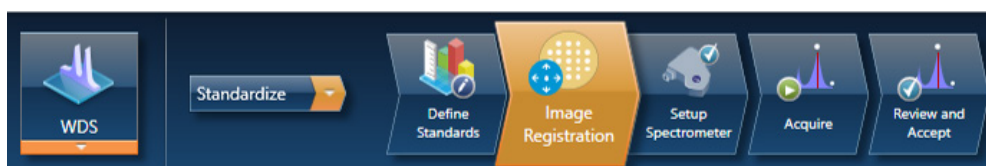
- **Guided workflows** for combined EDS-WDS analysis



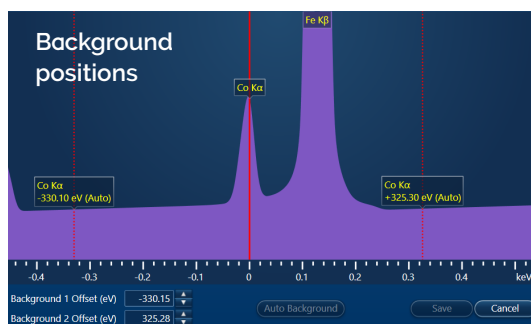
- **Setup Spectrometer** provides **stepwise instructions** to ensure your WDS spectrometer is set up and working correctly

These steps will assist you in preparing the WDS spectrometer for use.

- Register your standard block and Faraday cup for **easy navigation** and **beam measurement**



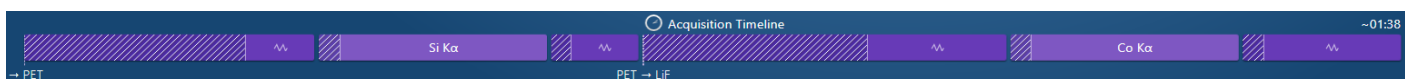
- **Automatically optimised** EDS-WDS collection settings:



Line	Crystal	Estimated Wt%	Target Wt% Sigma	Peak Time (s)	Background Time (s)	Background Mode		
Co	Auto	Kα	LiF	< 0.2	0.0220	10	10	Auto
Si	Auto	Kα	PET	< 0.2	0.0220	10	5	Auto

Optimize EDS collection settings  
Detector Position: Fully Retracted

X-ray line, Crystal, Peak and background count times, EDS process time, EDS detector position



- Acquire, review, and interrogate EDS and WDS data **together**

Element	Signal Type	Line	Wt%	Wt% Sigma	Standard Name	Crystal	Beam Current (nA)	Peak Live Time (s)	Backgrounds Live Time (s)
Ni	WDS	Kα	0.0305	0.0073	55 Standards - SN11384 and higher - Ni	LiF	22.987	130.0	110 110
Cu	WDS	Kα	0.5895	0.0156	55 Standards - Cu	LiF	22.987	70.0	45 45
Sn	EDS	L series	98.4005	0.0304	Sn				
Total			99.0206						

For more information please go to [nano.oxinst.com/aztecwave](http://nano.oxinst.com/aztecwave) or email [na.upgrades@oxinst.com](mailto:na.upgrades@oxinst.com)

