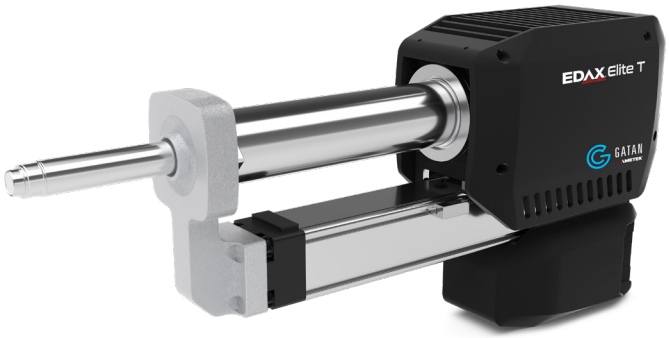
EDAX Elite T EDS Systems

Models 1071, 1072, 1171, and 1172

Introducing EDAX Elite T EDS Systems – the most intuitive and easy-to-use energy dispersive x-ray spectroscopy (EDS) tool for scanning transmission electron microscope (S)TEM applications and *in-situ* microscopy.

Elite T EDS systems fully integrate data acquisition, analysis, and reporting using industry-standard software, enabling you to achieve the best possible EDS elemental analysis in some of the most challenging conditions.



Benefits

- **Generates the most complete view of your specimen** – Seamlessly synchronizes experimental control and links multi-dimensional datasets
- **Delivers unparalleled detail in elemental and phase maps** – Clearly resolves features using a sensor with an active area more than 80% larger than other detectors
- **Ideal for expert and novice users alike** – Provides the most intuitive and easy-to-use analytical tool for STEM applications

At their core, Elite T systems utilize a compact sensor geometry and large active area to maximize the solid angle of collection, offering an unobstructed collection angle up to 2.3 steradian, increasing the detected x-ray counts, delivering outstanding detection efficiencies to perform compositional mapping swiftly and accurately while minimizing beam damage.

Using the industry-standard DigitalMicrograph® software, live elemental mapping and quantitative elemental analysis is accessible to users of all skill-levels. Following a unified approach to data collection and analysis, you can easily perform EDS studies independently or in parallel to other STEM experiments.

Elite T systems provide a more in-depth understanding of dynamic processes during *in-situ* electron microscopy, synchronizing experimental control and delivering meaningful results in real-time. Record STEM signals in parallel from multiple detectors (e.g., EDS, bright and dark field, electron energy loss spectroscopy (EELS), 4D STEM, cathodoluminescence) and link multi-dimensional datasets seamlessly to bring a complete view of your specimen and propel your research forward.

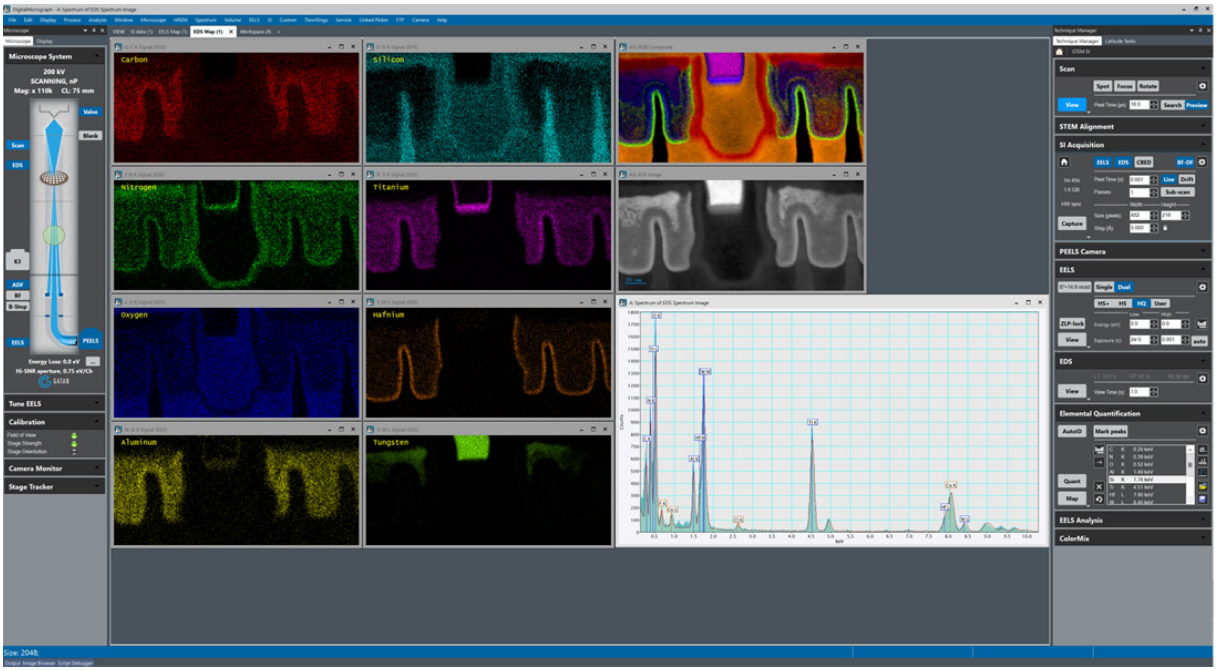


Figure 1. DigitalMicrograph STEM spectrum imaging technique for STEM EDS data collection and processing.

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Specifications

	Elite T Super	Elite T Ultra
Detector chip	70 mm^2	160 mm^2
Window design	Windowless	
Elemental range	Be – Am	
X-ray energy, min.	73 eV (Al L)	
Cooling	Peltier	
Energy resolution[1]	127 eV	128 eV
Input count rate, max.	1.8m cps	1.0m cps
Throughput, max.	>850k cps	>400k cps
Insertion mechanism	Precision motorized slide	
Stray x-ray rejection	Included	
Shutter	Optional[2,3]	
Compatible with sample heating <400 °C	Included	
Compatible with sample heating ~1,000 °C	Optional IR filter available[2,3]	
Software	DigitalMicrograph	
In-situ measurements	Optional *in-situ* module available[4]	
Simultaneous STEM imaging, EELS, and 4D STEM	Optional[4]	

Specifications are subject to change without notice

[1] Measured at Mn Kα at 10k counts per second (cps) (ISO 15632:2012)

[2] Must be ordered with the main instrument

[3] Compatibility check required; please contact Gatan

[4] Additional components are required; contact Gatan for compatibility

Ordering

Model	System	No. of EDS detectors	STEM mapping	Computer
1071.TEM	Elite T EDS System	One		●
1071.Mapping	Elite T EDS Mapping System[1]	One	●	●
1071.STEMEDS	Elite T EDS for STEMPack[2]	One	●	
1072.STEMEDS	Elite T EDS for STEMPack[2]	Two	●	
1171.TEM	Elite T Ultra EDS System	One		●
1171.Mapping	Elite T EDS Mapping System[1]	One	●	●
1171.STEMEDS	Elite T Ultra EDS for STEMPack[2]	One	●	
1172.STEMEDS	Elite T Ultra EDS for STEMPack[2]	Two	●	

[1] Includes STEMEDS software modules and DigiScan™ 3 system (model 888). Requires scanning system with external scan interface

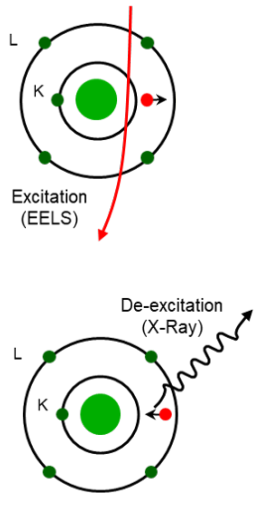
[2] Includes STEMEDS software modules

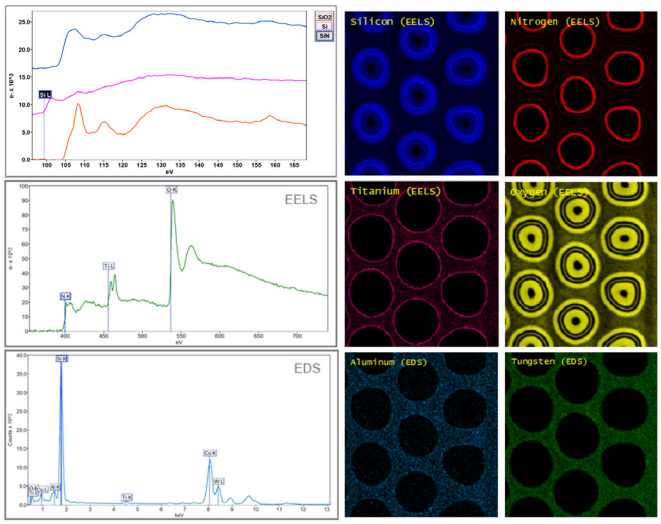
Research areas

- Materials science
- Semiconductor
- *In-situ* microscopy
- Natural resources
- Life science

Other products to consider

- STEMx® 4D STEM system
- Gatan analytical holders
- GIF Continuum® and Continuum S
- Advanced STEM detector





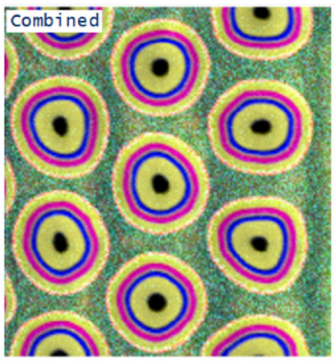


Figure 2. Multimodal data acquisition of EDS and EELS data combines the broad compositional mapping of EDS with the high spectral resolution and chemical sensitivity of EELS. Shows STEM EDS/EELS mapping of 3D NAND acquired simultaneously using DigitalMicrograph software.

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