

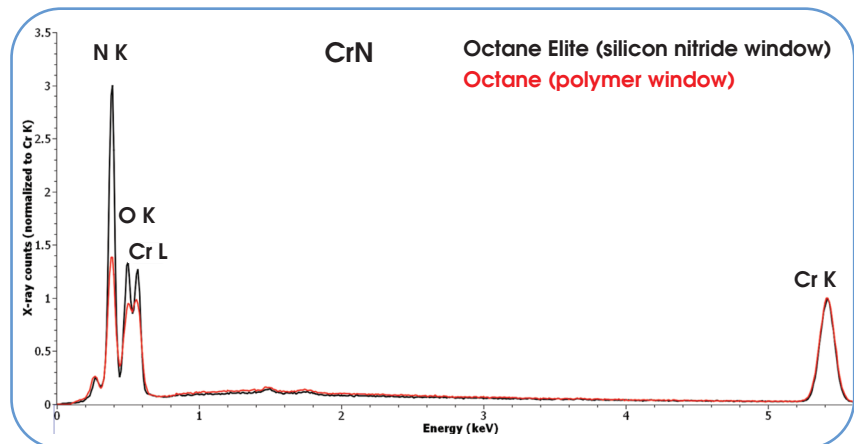


- Octane Elite EDS System with motorized slide
- Highest resolution with premium resolution option
- Increased light element sensitivity
- Outstanding low-energy performance
- Silicon Nitride window
- Market-leading throughput count rate
- Integrated EDS-EBSD-WDS option with Trident Analysis System

The game changing advancements in the Octane Elite EDS System with Octane Elite Silicon Drift Detectors (SDDs) takes EDS analysis to the next level. This system includes detectors which incorporate a silicon nitride (Si_3N_4) window, offering remarkable improvements in low energy sensitivity for light element detection and low kV microanalysis. The Octane Elite detectors also use technology which yields high speed X-ray data processing within a smaller and fully vacuum encapsulated detector device.

Best light element performance

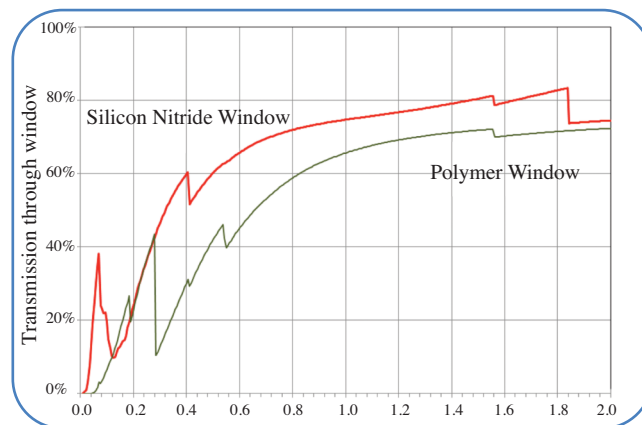
The silicon nitride window offers major improvements compared to a polymer window, leading to greatly improved light element performance and significantly more critical data for the analyst.



Spectra acquired from a chromium nitride sample at 10 kV. The comparison of the scaled spectra to the Cr K peak clearly shows the increased nitrogen and oxygen peak intensities achieved with a Si_3N_4 window.

Si_3N_4 window

The silicon nitride window offers superior low energy transmission compared to a polymer window.



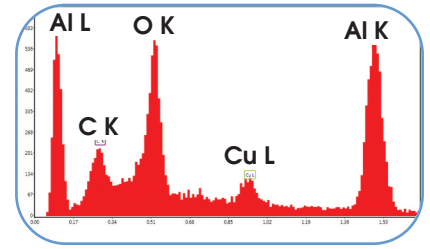
Features

- Octane Elite SDD options:
 - Plus (30 mm²)
 - Super (70 mm²)
- 125 eV resolution at Mn K
 - 123 eV premium option
- Carbon detection above 750 K input cps for ultra fast mapping and particle acquisition
- Detection range Al L (73 eV) to Am
- Throughput - 850 k ocps at 2.0 M icps
- Al L to Al K peak height ratio of 1:1 at 2.5 kV
- Cooling: Peltier
- Standard with EDS Analysis Software
 - Fast Phase Mapping routine (patent pending) and materials libraries
 - Smart Diagnostics
 - Smart Acquisition
 - EXpert ID
 - Smart Mapping
 - Smart Data Management

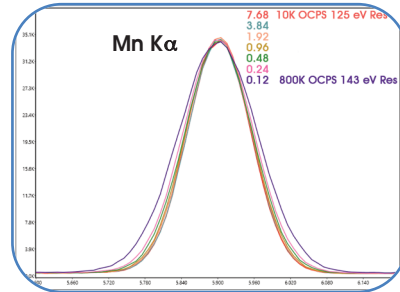
Benefits

Low kV performance

The mechanical properties of Si₃N₄ allow the use of thinly fabricated windows, offering a great benefit in terms of sensitivity and optimal low voltage analysis.



Al L to Al K peak height ratio of 1:1 at 2.5 kV



Optimized SDD Electronics

- Fast pulse processing for mapping and quantification
- Optimized data quality at all count rates
- High resolution quantitative analysis at mapping speeds greater than 400,000 output cps

Throughput

EDAX EDS systems with advanced detection electronics offer the highest throughput count rates on the market for the best possible analysis and increased productivity.

Reliability

The material properties and durability of Si₃N₄ ensure the most robust and reliable detectors available for all EDS applications.

Motorized Slide

The motorized slide on the Octane Elite SDDs offers full control of the detector via the software and is optimal for analytical flexibility. It is ideal for all FIB systems.

EDS Analysis Software allows users to optimize their analysis time and get the best possible data from their sample

- Smart Diagnostics and Smart Acquisition facilitate optimized collection and analysis conditions
- Smart Pulse Pile-Up Correction minimizes concerns typical of high count rate collections and allows maximum use of SDD technology

Conclusion

The design enhancements and analytical benefits of the Octane Elite EDS System ensure that it remains the platinum standard for analysts who face materials characterization challenges that demand the full range of analysis options.