



**Electron & Ion  
Detection Solutions**

**You Can Detect *the Difference***

## COMPANY PROFILE

*El-Mul Technologies is an experienced solution provider and OEM manufacturer of charged particle detectors and devices for analytical instrument and semiconductor inspection systems. Among our customers are industry leaders in each market segment.*

## HIGHLIGHTS

- El-Mul is a leading designer and manufacturer of electron and ion particle detectors for use in high resolution analytical instruments.
- Our proprietary E-Beam On-a-Chip™ carbon nanotube-based electron beam source was recognized with a 2008 *Frost & Sullivan Innovation Award*.
- QuantomiX® WETSEM® capsules make it possible to produce and analyze high resolution SEM images of wet and anhydrous substances for industrial, research and medical applications.



## LEADERSHIP IN NANOSCALE ENGINEERING

**W**ith our E-Beam On-a-Chip™, El-Mul is among a handful of companies pioneering the development of addressable carbon nanotubes as cold field emitters and as low power consuming electron sources intended for x-ray devices.

Our current manufacturing methods use conventional semiconductor processing techniques that enable reproducible, durable CNT source devices, singly or in scalable arrays. El-Mul's platform is fully customizable and readily adaptable to industrial manufacturing.

**S**ince its founding in 1992, El-Mul Technologies has established itself as a major supplier of advanced, high performance particle detectors that meet the most challenging needs of its customers.

El-Mul's core competencies are in electron and ion particle detection, addressable carbon nanotube-based electron sources, and devices for SEM imaging of wet samples.

## Innovative Approaches

El-Mul is recognized for its design and manufacture of breakthrough hybrid detectors for SEM and FIB equipment, including:

- Dual SE and ion detectors (Elion™)
- Dual SE and SE3 detectors (3Max™)
- Combined SE and BSE spectral separation detectors (SpectroMax™)
- High efficiency, durable scintillation detectors (ScintiMax™)

## Engineering Know-How at the Edge

As supplier for a broad range of strategic projects and applications, El-Mul has cultivated expertise in:

- Optimization of electron and ion particle collection efficiency
- High voltage holding under severe space constraints
- Advanced scintillator manufacturing
- Efficient light extraction through optimized light guide design
- Nanoelectron source design and manufacturing
- SEM imaging of wet samples

## Long Experience, Outstanding Support

El-Mul's primary asset is a team of skilled, highly educated and highly motivated professionals, representing many decades of collective expertise. An emphasis on innovation, confidentiality and personal service drives its business philosophy.

The company maintains state-of-the-art R&D, production and characterization facilities, with which we continue to achieve impressive breakthroughs.

El-Mul's customers worldwide have rewarded its outstanding OEM support with their long-term loyalty, as well as their top supplier awards.

Please feel welcome to contact us, and to explore how we can provide reliable, tailored solutions to your electron and ion detection challenges.



**El-Mul Technologies, Ltd**

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