

Matching your needs **precisely**



A creative
point of view
to a Unique Market



Hi-Tech Services Ltd

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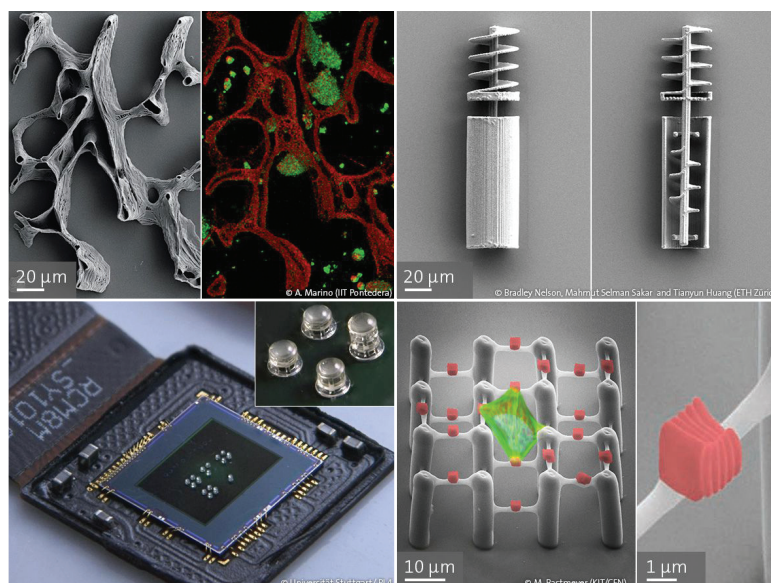
What if you could **improve** your images with **minimum efforts**?

The new **affordable high resolution SEM**
by JEOL – HR 500



- High resolution, high magnification
- Real time - information and EDS
- Fully automated 5-axis stage
- Large-specimen chamber (200 mm dia, 90 mm (H), load up to 2 kg)
- Minimum installation requirements - no chiller is required
- Intuitive operation
- 3D measurements – optional

What precision level can you **really reach?**



High resolution printing of **micro & nano-structures** with Nanoscribe's 3D printer

- Printing of complex geometric structures and features from hundreds of nanometers to a few millimeters
- High-speed printing
- Arrays up to 100 x 100 mm
- Includes a high-sensitivity microscope for real-time printing process observation
- Fast and simple sample preparation and after printing model development
- User-friendly software

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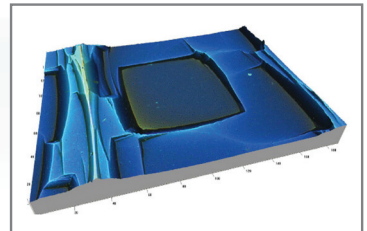
True Color 3D Non-contact Optical Profiler with Multi Mode Optics Technology

The Zeta3D™ metrology systems of KLA Tencor is capable of measuring difficult surfaces that white light interferometers and confocal microscopes cannot match



Five measurement techniques integrated into one platform:

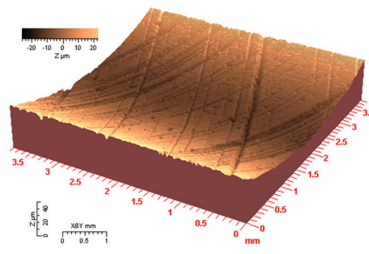
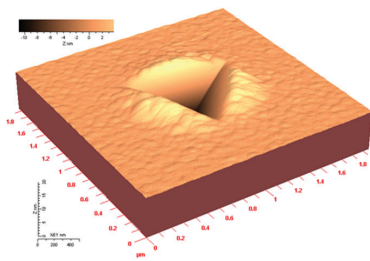
- Confocal Grid Structured Array - True Color Imaging, Film Thickness, Roughness, Step Height
- Film Spectrometer - Optically Transparent Film Thickness
- Shearing interferometer – Roughness, Step Height
- Michelson and Mirau Interferometers - Roughness, Step Height
- Interference Contrast - DIC Imaging



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Nano Analysis
Matching your needs precisely

Measuring **mechanical properties** is complicated?



Fast and easy Nanoindenters by KLA Tencor

- Versatile and powerful technology of measuring mechanical properties of materials at Mili down to Nano scale
- Precise measurements of: Scratch test, hardness and continuous stiffness measurement (CSM), wear resistance, loss factor, stress-strain curves, Young's modulus
- Laser heated stage option to eliminate thermal drifts
- Optional hook-up into SEM, FIB and AFM systems

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Materials Analysis



Matching your needs precisely

Exact sample composition result in a **short time**



X-ray analysis technologies by **Malvern Panalytical**

- High precision and accuracy
- Ease of use and flexibility to quickly switch between different applications
- Fast sample preparation
- Cost-effective - Low cost of ownership
- Nondestructive technique



New distribution

A worldwide leader in **material-coating technologies**
of complex semiconductor materials

MOCVD (Metal-Organic Chemical Vapour Deposition)

deposit ultra-thin, single crystal layers onto a semiconductor wafer.

It is the most important manufacturing process for III-V compound semiconductors, especially those based on gallium nitride (GaN).

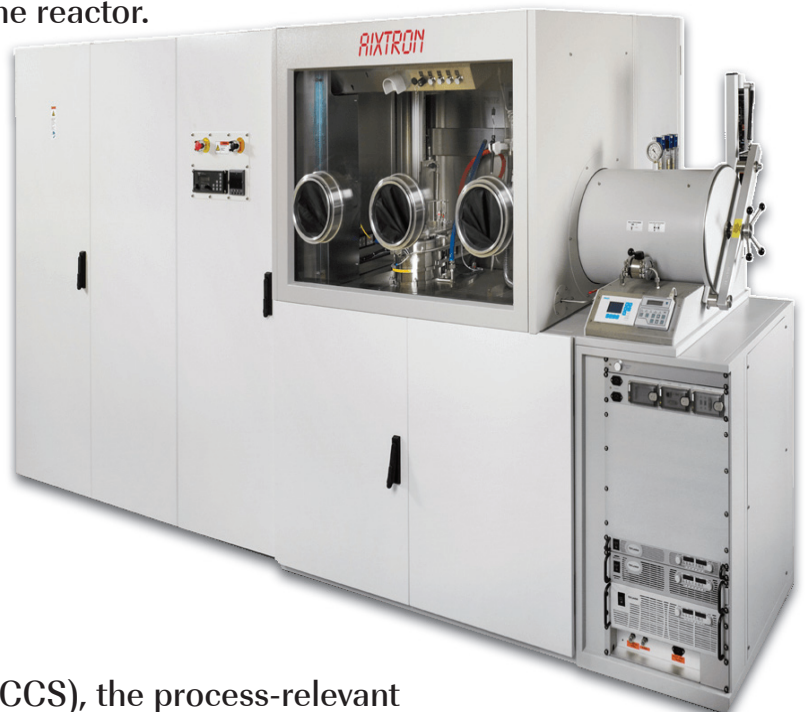
The MOCVD process also enables the growth of different layers of material on top of each other through the rapid exchange of gases in the reactor.

Planetary principle

The MOCVD mass production systems are based on the Planetary Reactor (based on the principle of a horizontal laminar flow reactor) concept. This ensures the sharpest transitions between different materials and incomparable control of the deposition rates in the area of individual atomic layers.

Showerhead principle

With Close Coupled Showerhead technology (CCS), the process-relevant gases are introduced into the reactor through the water-cooled showerhead surface across the entire coating surface. CCS concept allows a variety of susceptor substrate configurations.



AIXTRON

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Nano Lithography



Four modes. Two Beams. **One System**

FIB-SEM where **FIB** truly comes first.



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NANOFABRICATION

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