‘TEM / STEM
EELS / EDS’
Atomic Scale Imaging
Nanometer Scale Chemistry

NanoLab Delivers!

STRENGTHS / ADVANTAGES
- Fast turn (2 day) TEM prep & imaging
- 0.16 nm STEM resolution
- 0.17 nm TEM point resolution
- 11 Mega-pixel CCD camera
- Electron diffraction
- Analytical TEM with EDS & EELS
- Advanced image processing

EQUIPMENT
- FEI Tecnai TF-30 HR-STEM
- JEOL 3010 HR-TEM
- GIF Quantum SE - EFTEM & EELS
- Oxford X-MAX EDS - SDD 80 mm²
- FEI Helios 450 with Omni-Probe lift-out
- Gatan Orius SC1000 11 Mega-pixel camera
- BF, DF & HAADF detectors

ROUTINE ANALYSES
- High resolution STEM imaging
- High resolution TEM imaging
- STEM-EELS spectra imaging
- STEM-EDS spectra imaging
- Electron diffraction
- Nano-beam electron diffraction
- Tomographic tilting series
- Energy-filtered TEM element mapping
- Energy-filtered TEM imaging

ADVANCED ANALYSES
- Specialty work? - Give us a call.

GLOBAL USES
- Materials development
- Problem solving
- Failure analysis
- Reverse engineering
- IP verification

APPLICATIONS
- Nano-electronics
  - GOX thickness
  - Gate length
  - Killer pores
  - Defect analysis
  - Cu adhesion barrier
- Catalysts
- Ceramics
- Compound semiconductors
- Nano-biology
- Many more - let’s talk.

SAMPLE PREPARATIONS
- Dual-Beam FIB - UHR
- General or site specific
- In-situ lift-out after FIB
- Mechanical preparation
  - Wedge polishing
  - Plan-view prep
- Advanced treatments - let us help with your special needs.

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Free consultation by phone.
Work On-Site with us.
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