SURFACE PROFILER EQUIPMENMT

MODEL: AMBIOS TECHNOLOGY XP-2 PROFILOMETER

INSTALLATION PLACE:
Microscopy Laboratory (room No19-new building), Institute of Microelectronics

DESCRIPTION:
Advanced computer controlled Stylus Profiling System for morphology/topography characterization of samples. The XP-2 uses a diamond stylus to lightly contact the surface. The profiler incorporates an optical deflection height measurement mechanism and magneto static force control system.

SPECIFICATIONS

1. Sample Stage Diameter: 200mm (8")
2. Scan Length Range: 50mm
3. X-Y Stage Translation: 150mm x 150mm
4. Sample Thickness: ~32mm (1.25 inches)
5. Stage Positioning: motorized Vacuum Chuck: -250mm Hg
6. Vertical Resolution: 1.5Å at 10μm, 15Å at 100μm Lateral Resolution:100nm
7. Vertical Range: 400μm max Step Height Repeatability: 10Å on 1μm step,1 sigma SD
8. Max Data points per Scan: 50,000
9. Sample Viewing: Color Camera
10. Standard Magnification: 40-160X motorized zoom
11. Field of View: 1-4mm
12. Stylus Tip Radius: 2.5 microns Stylus Force Range: 0.05-10mg (programmable)
13. Software Leveling: Yes-cursor controlled or Auto-Leveled(for repeated scans)
14. Scan Filtering: Low-pass and High-pass adjustable filter
15. Stress Measurement: Yes
16. Standard Analytical Software: roughness, waviness, step height, peak to valley geometry parameters (i.e. area, slope, radius and perimeter) and other parameters like stress analysis, height histogram, skew and profile subtraction.

APPLICATIONS

Measurement of geometrical surface step-height, etch-depth, surface roughness and waviness. Suitable for polymer samples, photoresist, soft films and substrates can be measured without surface damage.

CERTIFICATION/ACCREDITATION

The facility is not certified or accredited.

CONTACT PERSON

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