



TOOL & FOUP EVALUATION

Facilities

- 1500 m² clean room (ISO class 3)
- Flow boxes (ISO class 5)

Analysis

- Particle analysis
 - in air
 - on wafer
 - within equipment environments
 - particles per wafer pass (PWP)
- Organic contamination
 - on wafer
 - at workspaces
 - material outgassing
- Inorganic contamination
 - on wafer

INVESTIGATING PARTICLE AND CONTAMINATION SOURCES

CONTACT

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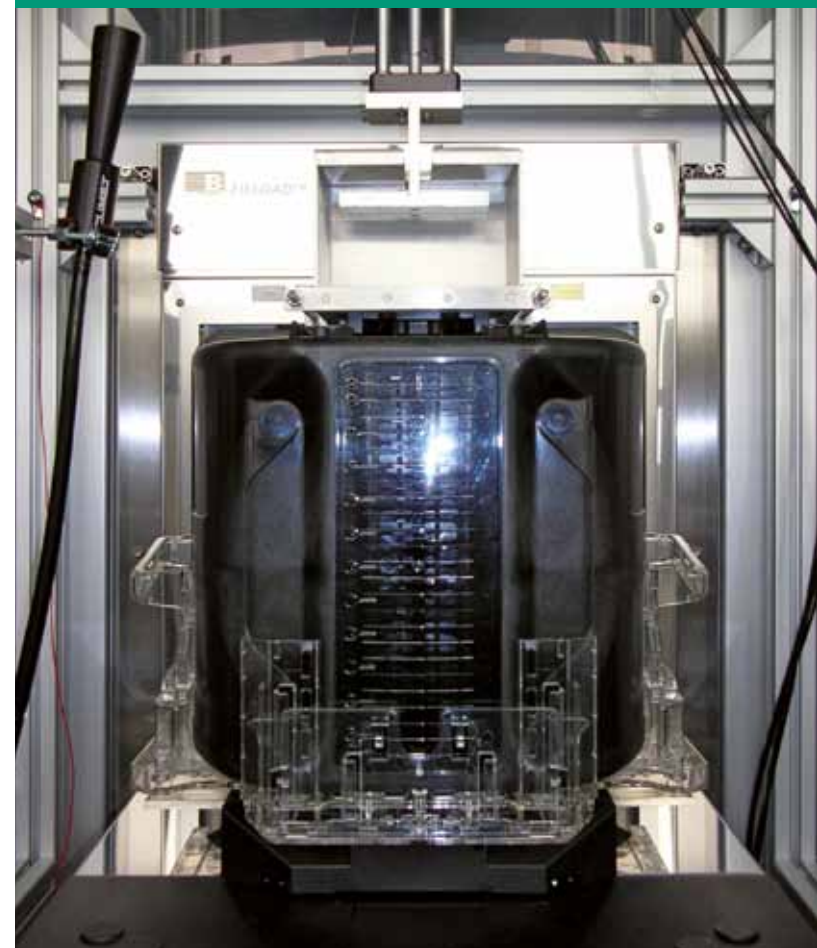
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COMPETENCE IN AIR ANALYSIS AND ENVIRONMENTAL CONTROL

AIR ANALYSIS FOR SEMICONDUCTOR APPLICATIONS





AIR SAMPLING & OUTGASSING TESTS

Equipment

- Gas chromatography mass spectrometer (GCMS)
- Thermodesorption unit for GCMS
- High performance gas chromatography (HPLC)
- Ion chromatography (IC)
- Inductively coupled plasma mass spectrometry (ICP-MS)
- Atomic absorption spectroscopy (AAS)
- UV-VIS spectroscopy

Methods

- Solid adsorption materials for air sampling
- Thermodesorption analysis for materials
- Impinger methods
- Extraction methods

ANALYSIS OF VOLATILE COMPOUNDS



PREPERATION OF TEST GASES

Equipment

- Gas mixing apparatus for the preparation of test gases
- Flow: 0.5 - 120 l / min
- Concentration: 100 ppm_v - 0.5 ppb_v
- Humidity: 0 - 90 %
- Acidic and corrosive gases (e.g., HF, HCl, HBr, Cl₂)
- Alkaline gases (e.g., NH₃)
- Organics (e.g., HMDS, PGMEA)

Application

- Filter efficiency tests
- Reference measurements
- Measurement equipment evaluation
- Method validation

FLEXIBLE TEST GAS SUPPLY



FILTER EFFICIENCY TESTS

Equipment

- Gas mixing apparatus
- Peristaltic pumps
- Vacuum pumps
- Adjustable mounting
- Multiple filter holder

Analysis

- Air sampling methods

Application

- Evaluation of filter materials and air purifying equipment

OPTIMIZATION AND EVALUATION OF FILTER MATERIALS