Vapour Phase Decomposition (VPD) + Inductively Coupled Plasma Mass Spectrometry (ICP-MS)

Leibniz Institute for high performance microelectronics

Technical Parameters

WSPS2 - VPD automation system:

- Open cassette stations
- **Robotic system:** Fully automatic wafer handling and processing
- **PAD-Fume:** Etching of surface and bulk Si
- **PAD-Scan:** scanning of liquefied wafer surface
- **Scan options:** Bevel scan (for wafer edges) and Hydrophilic surface scan

Element2:

- **High range of elements:** >33
- **Detection limit:** $1{\cdot}10^8$ at/cm^2
- **High dynamic range:** >$1{\cdot}10^9$ cps
- **High range of linearity:** $1{\cdot}10^8$ at/cm^2 - $1{\cdot}10^{12}$ at/cm^2
- **High mass resolution (HR):** MRP>10000

Application areas

- Sinks by blank monitor wafer
- Cleanliness of chemicals, UPW and DI Water
- CVD tools for TEOS-Oxide, SiN and SiON for layer cleanliness
- Implanters for baseline contamination (Ar-implant in thin Oxide)
- Metrology tools (bare silicon wafers)
- Cleanliness of cleanroom environments with monitor wafers (bare wafers)

Contact person

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