REACTIVE ION ETCHING (RIE) FACILITY

MODEL: REACTIVE ION ETCHER NE330

INSTALLATION PLACE: Cleanroom of "Nanotechnology and Microsystems Laboratory", Department of Microelectronics

DESCRIPTION: The RIE-machine NE330 is designed for batch wafer etching with ultra high resolution for materials like Silicon,Si_3N_4,SiO_2, III-V compounds and resists. It uses the reactive ion etching mode to give good anisotropy, selectivity and uniformity. It offers the advantage of providing good reproducibility and excellent stability of the etching processes.

SPECIFICATIONS

1. RF Frequency: 13.56MHz
2. RF Power: 0-500Watt
3. Maximum Vacuum:10^{-4}mbar
4. Pressure:5mTorr-100mTorr
5. Gases:
    a. Oxygen N55: 0-100sccm
    b. Electronique SF_6: 0-25sccm
    c. R23T Trifluoromethane (CHF_3): 100%: 0-50sccm
    d. Nitrogen: 0-50sccm

APPLICATIONS

1. Dry etching of thin film:
    a. Semiconductors (Si, GaAs)
    b. Oxides (SiO_2)
    c. Insulators (Si_3N_4)
    d. Photoresists and polymers
2. Modification of surfaces

CERTIFICATION/ACCREDITATION

The facility is not certified or accredited.

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