

Equipment spotlight:

# Reactive Ion Etcher



The AutoGlow 200 RIE tool

## Glow Research Reactive Ion Etcher and Plasma Clean

Added to the MTTC in 2024, the AutoGlow 200 by Glow Research is a versatile, tabletop plasma system designed for various scientific and industrial applications. It operates with a 300-watt, 13.56 MHz RF generator and features automatic tuning for easy and consistent processing. The system can perform both plasma and reactive ion etching (RIE) processes and supports.

### Key features

**Applications:** Suitable for materials science, microfluidics, MEMS, optics, microscopy, polymer science, biomedical, semiconductors and dental applications.

**Processes:** Capable of activation, ashing, cleaning, etching, photoresist removal, organic removal, and pre-bonding processes. Currently  $\text{CF}_4$  and  $\text{O}_2$  gasses are plumbed.

**Process control:** Features a selectable display for pressure, set power, reflected power and actual power. Includes two flowmeters for easy gas flow adjustment and a Pirani gauge for pressure monitoring.



An RIE port showing generated plasma.

## Applications

The AutoGlow 200 is perfect for:

**MEMS devices:** Ideal for the fabrication of micro-electromechanical systems with complex geometries.

**Nanotechnology research:** Supports cutting-edge research and development in nanotechnology.

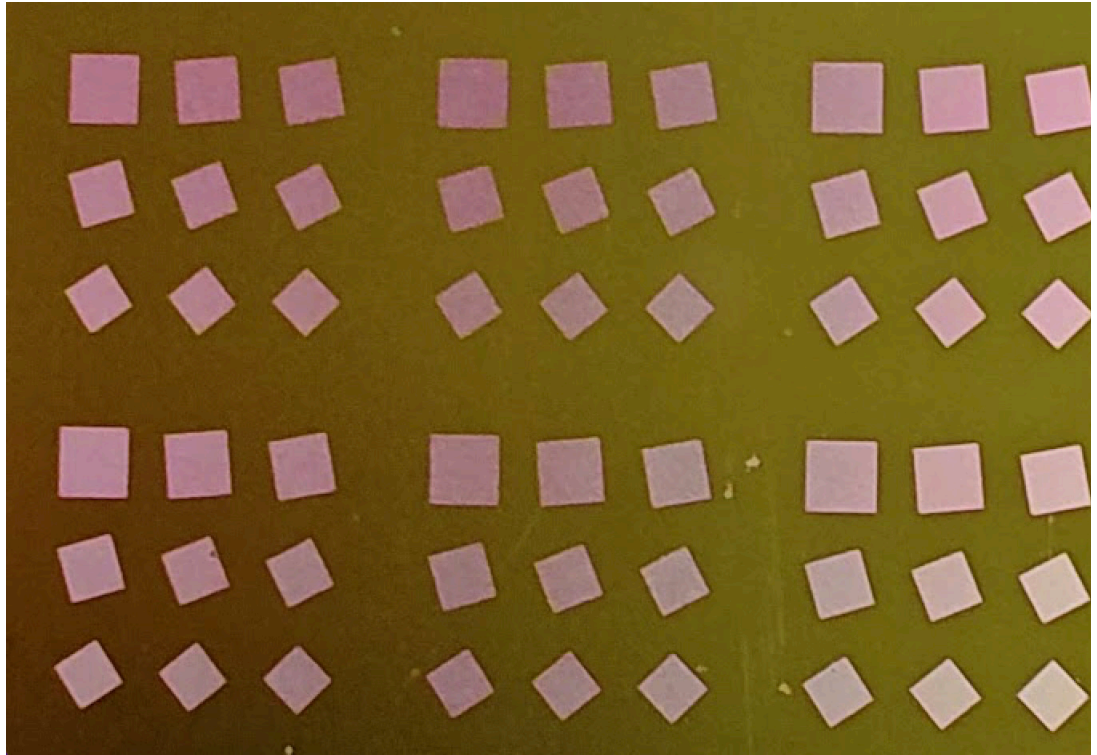
## Technical

### Materials compatibility:

Etching of SiN, Si, SiO<sub>2</sub>, polymers, glass are possible. O<sub>2</sub> plasma is used to clean materials of organics, descum ashing, removal of photoresist and polymers, and manner of surface preparation.

**Gas system:** Available process gasses include CF<sub>4</sub>, O<sub>2</sub>, and argon.

**Chamber design:** Made from high-grade, anodized 6061-T6 aluminum, the chamber is resistant to fluorine chemistries and is easy to clean. It accommodates up to 200mm wafers or 8" x 8" substrates.



A partially etched SiN pattern.

## Support and training

We offer comprehensive support and training to ensure you get the most out of our MTTC tools:

**We can run it for you:** Our staff can run your samples for you and assist in process development.

**Training programs:** If you will run your own samples, on-site training sessions are available to master the equipment.

## Schedule a tour today!

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