

CAPCE Microfabrication Laboratory

The microfabrication laboratory contains processing and characterization facilities for microfabrication of non-silicon materials with an emphasis on polymers. Acquisition of the following equipment is underway:

- Electro-plating station
- Atomic force microscope (for plastics)
- Laser cutting and drilling
- Multi-target thin film deposition system
- Surface tensiometer
- Continuous lamination system
- Micro-molding station

The new facilities (coming in the year 2000) will allow researchers to make steel, nickel, and quartz mold inserts for fast prototyping or large volume molding of miniature plastic parts with 2D and 3D features. The equipment will be shared with CISM (Center for Industrial Sensors and Measurements), the University of Cincinnati, and Case Western Reserve University.

Research will initially focus on the development of polymer based microfabrication technology, such as precision injection molding, embossing, and reactive molding, and its applications to bio- and chemical-MEMS. Other applications of interest are in the automotive, aerospace, electronic, telecommunication, and imaging industries. For more information contact Dr. Lee at lee.31@osu.edu or (614)292-2408.