



ANFF

Australian National Fabrication Facility

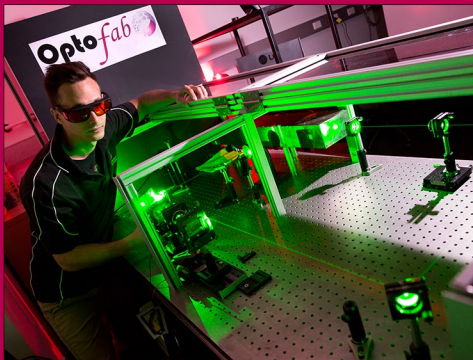
Providing micro and nano fabrication facilities for Australia's researchers

Laser Micromachining Facility - Macquarie University

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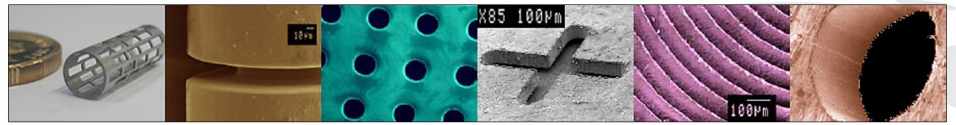


FLAGSHIP EQUIPMENT

- ◆ Picosecond Laser (UV, Visible, NIR)
- ◆ Nanosecond Laser (UV, Visible)
- ◆ High precision beam targeting systems

KEY CAPABILITIES

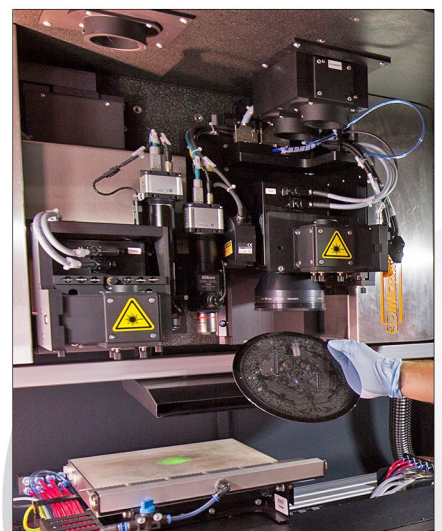
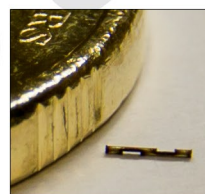
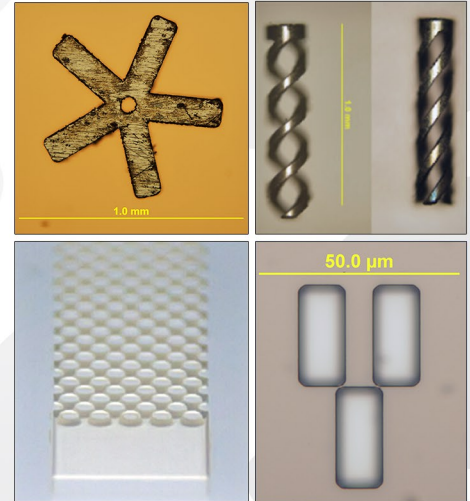
- ◆ Materials which can be processed include:
 - ◆ Metals
 - ◆ Ceramics
 - ◆ Polymers
 - ◆ Glasses
 - ◆ Crystals
- ◆ Typical feature resolutions:
 - ◆ 10 microns in metal
 - ◆ 5 micron in some crystalline & polymer materials



The Laser Micromachining Facility at Macquarie University provides expertise in the fabrication of a broad range of micro-features and micro-components. The lasers which make up the facility cover the ultraviolet, visible and infrared wavelengths and are suitable for processing the majority of metals, ceramics, polymers, glasses, and crystalline materials.

With over a decade of experience we have developed many unique capabilities and processes tailored to our customers' requirements. Our facilities and skilled operators can routinely produce feature resolutions down to 10 microns in metals and 5 micron in some crystalline materials with high repeatability and precision.

Our process development is underpinned by fundamental research into the interaction of laser light with materials. Laser wavelength, pulse duration, pulse energy, beam quality, process time, and thermal deposition must all be considered. The Laser Micromachining Facility at Macquarie University specialises in tailoring these parameters to individual processing problems with a view to both rapid prototyping and establishing long term manufacturing solutions.



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