

# Prototyping and Processing of novel materials

*Oxford Materials Characterisation Service (OMCS) can work with industry to prototype new novel materials through access to materials processing facilities*



OMCS can provide industry with a diverse range of equipment and a team of experienced staff to help prototype new novel materials and processes.

As part of the UK's leading Materials Science Department, OMCS is located in Oxford University Begbroke Science Park and is a point of contact for those wishing to access facilities and expertise within Oxford University Department of Materials.

OMCS takes a flexible approach to each client's needs, utilising its facilities and expertise in a variety of ways to best suit the customer for example:

- Consultancy
- In-house training for customers on facilities
- Project partnership

The site at Begbroke Science Park houses unique pilot-scale facilities for the prototyping, processing and manufacture of a variety of materials. These facilities include:

- Cleanroom Semiconductor Processing
- Light Metal Alloy Casting
- Materials Prototyping
- Nanoscale Materials and Processes
- Polymer Processing

The 150 m<sup>2</sup> cleanroom facilities are available for prototyping and proof-of-principle studies.

Instrumentation available within this facility include:

- A measurement suite
- A metal deposition suite, including thermal and e-beam deposition equipment
- Photolithography station
- Reactive Ion Etching / RIE
- Plasma-Enhanced CVD
- Wafer Microscope
- Rapid Thermal Annealing System.



Industrial scale metal alloy formation is also available to industry and research groups either by collaboration or hire.

A large scale roll-to-roll vacuum web coating facility that is capable of coating metals, ceramic and polymer layers onto a flexible substrate (max width 350mm) at web speeds of up to 300m/min is also available for commercial or research use. The combination of materials deposition allows for in-line deposition of complex structures including TFT devices and materials for thin film PV's.

## Oxford Materials Characterisation Service

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