



**Oxford
Microbeams
Ltd.**

www.microbeams.co.uk

Precision • Experience • Expertise

Established in 1986, Oxford Microbeams Ltd is the world's leading supplier of high energy ion micro-beam equipment and software, with over 40 systems sold in 5 continents.

OM is an approved supplier for the International Atomic Energy Agency [IAEA].

High precision magnetic quadrupole lenses
Precision slits • High stability power supplies
Beam scanning systems • Target chambers •
External beam systems • Data acquisition
electronics • Proton beam writing systems • Cell
irradiation systems • High rigidity focusing system
for MeV-SIMS • Fully integrated data acquisition,
processing and control software • Customised
designs

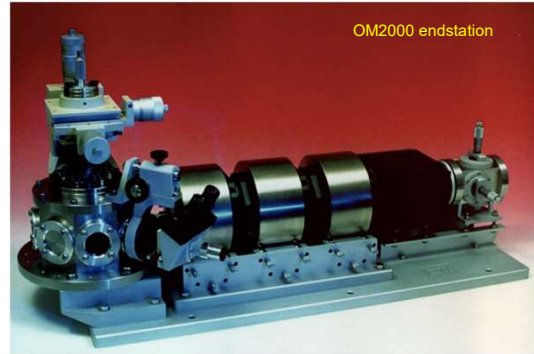
Application areas:

- PIXE and PIXE mapping
- RBS and RBS mapping
- Proton Radiobiology
- MeVSIMS mapping
- Targeted single ion irradiation
- Proton beam writing
- External beams for cultural heritage studies
- Scanning Transmission Ion Microscopy
- Heavy ion microbeams (to 150 MeV.amu/q²)
- Ionoluminescence microscopy
- Elastic Recoil Detection Analysis
- Ion induced secondary electron imaging
- Direct-write Ion Beam implantation and patterning of materials
- Channeling Contrast microscopy
- Ion Beam Induced Charge microscopy

Performance of OM systems:

OM2000 Oxford triplet endstation:
300 x 450 nm at 50pA (2MeV protons).
900 x 900 nm at 1 nA (2.5MeV protons)

Oxford triplet configuration of OM-52 lenses:
Spot sizes of 20 x 25nm have been achieved for low current applications, and 20nm high aspect ratio structures have been written using proton beam writing.



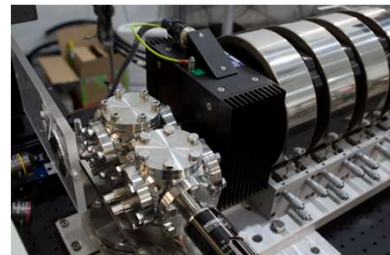
OM2000 endstation



OM-52 Miniature triplet



Vertical lens assembly



Radiobiology Endstation using OM post lens scan coil and Oxford triplet (photo courtesy of CIBA, Singapore)

OM DAQ₃ Data acquisition and control software

Now with interfaces for

- High speed digital pulse processors
- High speed TDC for ToF MeVSIMS applications

