

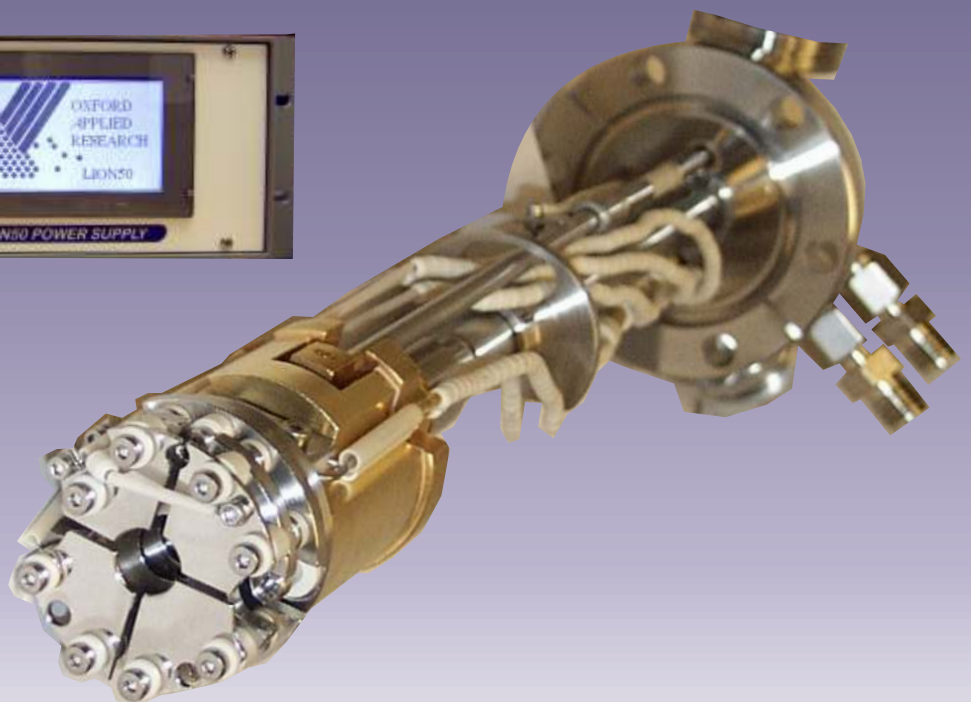
## Low Energy Ion Source- Llon50

Specimen cleaning, Ion spectroscopy. 30eV - 1keV

### The Llon50

The Llon50 is a low energy gas ion source which operates on the principle of electron impact ionisation. It is capable of producing ion beams with energies between 30eV and 1keV with very narrow energy spread. The source is compatible with a variety of gases, including reactive gases such as  $O_2$ . Applications include ion spectroscopy, particle detection/ calibration and substrate cleaning.

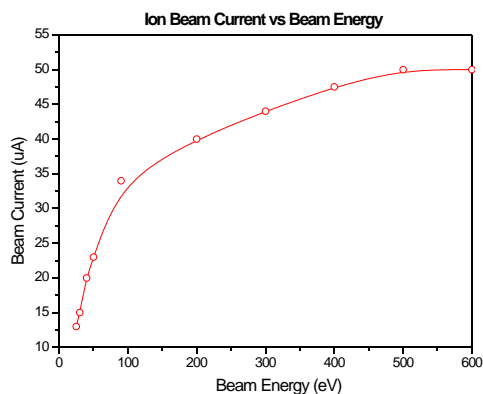
Ions are produced by low-damage electron-impact. The primary electron current is subject to ionisation enhancement processes, which allow up to  $30\mu A$  beam current to be generated at 100eV. The instrument incorporates highly efficient water cooling to ensure minimal outgassing during operation.



# Low Energy Ion Source

# Applications

- Ion spectroscopy
- Particle detection/calibration
- Substrate cleaning
- Surface modification
- Reactive ion etching



# Features

- Low ion-beam energy
- Narrow energy spread
- High ion-beam current
- Ultra-clean operation
- Spare filament
- Optional remote control via USB interface

## Specifications - LIon50

<b>Mounting flange</b>	NW35CF
<b>In-vacuum diameter</b>	34mm
<b>In- vacuum length</b>	200mm (standard)
<b>Ion beam energy</b>	30eV -1keV
<b>Total beam current</b>	>30µA*
<b>Ionising beam current</b>	200mA (Max.)
<b>Operating gas flow</b>	0-0.5sccm
<b>Beam divergence</b>	15° typical
<b>Services</b>	0.5 litres/min water cooling
<b>Power supply</b>	Single phase 110/220V AC

\* Gas and beam energy dependent. Value is for Ar at 0.1kV beam energy

**Oxford Applied Research Ltd.**  
 e-mail [sales@oaresearch.co.uk](mailto:sales@oaresearch.co.uk)  
 Tel +44 (0)1993 773575  
 Fax +44 (0)1993 702326

**Oxford Applied Research USA**  
 e-mail [oarusa@optonline.net](mailto:oarusa@optonline.net)  
 Tel 845 398 1962  
 Fax 845 398 1963

 **OXFORD  
APPLIED  
RESEARCH**  
 Crawley Mill, Witney  
 Oxfordshire, OX29 9SP  
 UK