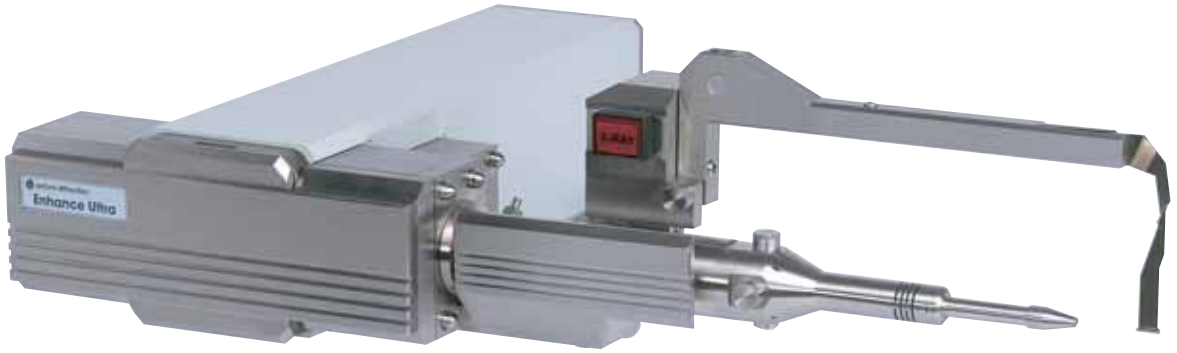
oxford diffraction
Now a part of Varian, Inc.

driving X-ray innovation

Enhance Ultra

High intensity copper X-ray source



- 300 micron beam diameter
- Superior data quality to a 5 kW rotating anode with multi-layer optics
- Virtually ***no*** downtime
- Very low cost of ownership
- Easy to align and use
- Compact size

Enhance Ultra is an integrated X-ray source producing a 300 micron high intensity X-ray beam suitable for protein crystallography at copper wavelengths. Enhance Ultra builds on Oxford Diffraction's patented Enhance technology and incorporates graded multilayer optics. Flux on the sample is comparable to a standard rotating anode (with multilayer optics), but from a sealed tube!

The Enhance Ultra source is incredibly easy and cheap to maintain, with no expert knowledge required. Since it is based on reliable sealed tube technology, with no moving parts in vacuum, Enhance Ultra is much less prone to break down than other generator technologies, resulting in negligible downtime. Routine maintenance involves exchanging the X-ray tube about once per year, a procedure which takes less than 30 minutes. Consequently, the cost of ownership of an Enhance Ultra is unbelievably low – up to 10 times less than for rotating anodes.

Enhance Ultra is specifically designed for home laboratory protein crystallography, and is extremely compact and easy to use. The source can be mounted on any of Oxford Diffraction's range of diffractometers such that the entire system footprint is only one square metre. Alignment with the sample is easy since the entire pre-aligned assembly is simply re-oriented on a mounting bracket. The Enhance Ultra has an integrated fast shutter and a specially designed beam-stop which can be rotated out of position for easy access to the goniometer during sample mounting.

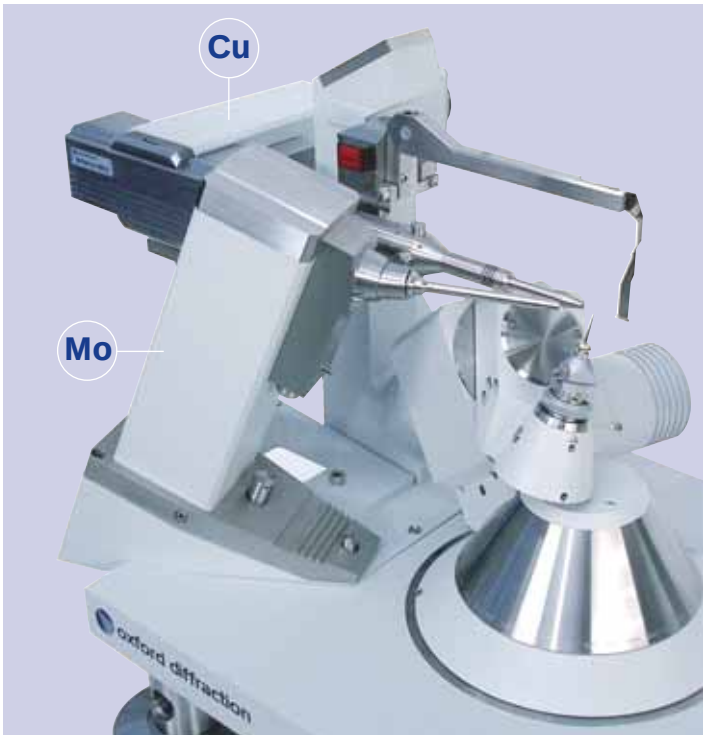
The Enhance Ultra requires cooling of the X-ray tube and this is provided by Oxford Diffraction's closed circuit X-ray tube water chiller unit.

Patent pending

Technical data

X-ray focal spot	300 micron
Maximum generator output	3 kW
Dimensions	326 x 456 x 84 mm
Weight	20 kg
Integrated fast shutter response speed	3 msecs

Upgrade to the ideal X-ray source for both protein and small molecule applications



Co-mounted Enhance Ultra (Cu) and Enhance (Mo) X-ray sources

- Hi-flux molybdenum source for small molecule and...
- Hi-brilliance copper source for proteins

Available to buy outright or as an upgrade, the Enhance Ultra can be co-mounted alongside Oxford Diffraction's hi-flux molybdenum Enhance thus providing an X-ray source which is ideal for both small molecule and protein applications.

For more information on Oxford Diffraction or its products please contact us at:

Europe
Oxford Diffraction Ltd
68 Milton Park
Abingdon
Oxfordshire
OX14 4RX
UK
Tel: +44 (0)1235 443630
Fax: +44 (0)1235 443631

Production facility
Oxford Diffraction Poland Sp. z o. o.
Rogowska 117B
54-440 Wrocław
Poland
Tel: +48 71 7835380
Fax: +48 71 7835381

North America
Oxford Diffraction, Inc.
2000 Kraft Drive, Suite 1103
Blacksburg
VA 24060
USA
Tel: +1 540 443 9272
Fax: +1 540 443 3672

Hong Kong
Oxford Diffraction (Hong Kong) Limited
Room 1303, 13/F,
Kwai Hung Holdings Centre
89 King's Road
North Point
Hong Kong
Tel: +852 2571 9188
Fax: +852 2571 9855

sales@oxford-diffraction.com
www.oxford-diffraction.com