



driving X-ray innovation



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## Crystallography range

*Choose your...*

X-ray source

Detector

Cooling device

Oxford Diffraction reserves the right to change product specifications without notice, in line with our policy of constant product improvement.

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# Typical system combinations and upgrade paths

## Small molecule and protein combined



Ideal for both *protein* and *small molecule*:

### Gemini A Ultra

- Co-mounted Enhance (Mo) and...
- High brilliance Enhance Ultra (Cu) X-ray source
- 135 mm Atlas CCD

## Small molecule



Ideal for maximum experimental flexibility :

### Gemini A

- Mo and Cu co-mounted Enhance X-ray source
- 135 mm Atlas CCD

upgradeable to

*Combined small molecule and protein system*



Ideal for multi-wavelength high resolution small molecule data:

### Gemini S

- Mo and Cu co-mounted Enhance X-ray source
- Sapphire CCD

upgradeable to

## Protein



Ideal for high brilliance protein crystallography:

### Xcalibur PX Ultra

- Enhance Ultra (Cu) X-ray source
- 165 mm Onyx CCD



Ideal for high resolution, high sensitivity data:

### Xcalibur S

- Enhance X-ray source (Mo or Cu)
- Sapphire CCD

*Only a small number of combinations are shown. You can always change the detector and/or add a second source.*

upgradeable to

# Building your ideal X-ray system is as easy as 1, 2, 3

Choose the **detector** by size, sensitivity and end application

Choose between a single and double **X-ray source**, wavelength and intensity

Combine these with our kappa goniometer to provide a **complete turn-key X-ray system**

# 1

## Onyx

- Ø 165 mm active area
- 2k x 2k Kodak CCD chip
- Superb for protein crystallography



## Atlas

- Ø 135 mm active area
- 2k x 2k Kodak CCD chip
- Ideal for high speed, high quality data collections



## Sapphire

- 92 mm diagonal active area
- 2k x 2k Kodak CCD chip
- Most sensitive detector
- Ideal for electron density, small molecule research



## Point detector

- Photon counting
- Ideal for high pressure experiments



Patented CCD design

# 2

## Enhance Ultra

- High intensity Cu radiation
- 300 micron beam
- Intensity of a 5 kW rotating anode with the best optics
- Sealed tube X-ray source with multi-layer optics
- Virtually **no** maintenance **nor** downtime



## Enhance

- Mo or Cu radiation
- 2.5 to 3 times greater intensity than traditional sealed tube sources
- 0.3, 0.5, 0.8 and 1.0 mm collimators available



## Enhance (Cu) and Enhance (Mo)

- Mo and Cu co-mounted Enhance X-ray sources
- Wavelength change at the flick of a switch

*Ideal for small molecule and proteins*



## Enhance (Mo) and Enhance Ultra

- Co-mounted high intensity Enhance Ultra (Cu) and Enhance (Mo) X-ray sources
- Wavelength change at the flick of a switch

Patented X-ray design

# 3



## Goniometer

- 4-circle kappa
- Universal platform – supports all Oxford Diffraction sources and detectors
- Flexible upgrade routes

## Full System

- Goniometer
- Detector
- X-ray source
- Full safety cabinet
- PC + LCD monitor
- CrysAlis™ (data collection and processing software package)
- CCD water chiller
- X-ray tube water chiller





## Optional extras

- Helijet – open flow helium blower
- Cryojet XL / HT – open flow nitrogen blower
- Liquid nitrogen auto-fill option



*Cryojet XL/HT mounted  
on a diffractometer*

## Service and support

Oxford Diffraction's reputation for service and support is second to none in the X-ray diffraction market, providing a timely and positive response to customer needs.

Professional and highly skilled, our team provide worldwide service and support to the crystallographic community.

