product review

The Oxford Instruments PX 210 is a new large area, fast readout, detector designed CCD at Argonne National laboratory specifically for macromolecular crystallography at synchrotron radiation sources. Its key features are: a very large active area $(210 \times$ 210 mm²), fast readout (1.8 seconds for full frame, 0.45 seconds for 2×2 binned frame), and high resolving power (69 µm input pixel size coupled with large area). These specifications make the



detector particularly appropriate for multiwavelength anomalous dispersion (MAD) phasing, fine slicing, large unit cell structures, and weak reflections. Oxford Instruments is able to supply this detector as a stand-alone system, or as a part of a complete turnkey protein crystallography end-station. For more information please ask for the new Synchrotron Detectors and Endstations catalog.

Oxford Instruments Accelerator Technology Group Osney Mead, Osford OX2 0DX, England. tel: 44 1865 269 500; fax: 44 1865 269 502

Oxford Cryosystems, the manufacturers of the Cryostream Cooler for X-ray crystallography, have teamed up with the Laboratory of Molecular Biophysics, Oxford University to launch a range of goniometer head add-ons designed especially for use in macromolecular cryocrystallography. These add-ons comprise the following: 105°, 150° and 195° extended detachable arcs and cryotongs for frozen sample manipulation and storage; high quality nickel top hats and stainless steel mounting pins for sample mounting and handling; and a nozzle alignment tool for the exact centering of the sample in the nitrogen cold stream. In addition to these items. Oxford Cryosystems also supply storage and transport equipment for frozen crystals, including storage dewars, transport dewars, shipping cases, cryovials, cryosleeves, cryocanes and safety equipment.

Oxford Cryosystems tel: 44 1993 883488; fax: 44 1993 883988, web: Info@OxfordCryosystems.co.uk

Nonius has pioneered the field of area detector based data collection with the real-time NoniusFAST system. Now, they are announcing the NoniusKappaCCD-LA system, an affordable integrated system for high quality data collection of macromolecular crystals in which all the building blocks have been improved with respect to traditional systems. It consists of the following items: a 6kW computer controlled rotating anode generator with improved anode cooling characteristics; graded MaxFlux™ optics for a focused X-ray beam with five-fold increased brilliance over traditional total reflection mirrors; a high speed kappa axis four-circle goniometer for complete freedom in crystal and detector positioning allowing you to align the crystal along any axis; a 135mm-diameter CCD detector for faster read out and better signal to noise ratio; and a completely new GUI controlled software for system control and data collection and an easy and straightforward interface to data processing packages.

Nonius B.V., P.O. Box 811, 2600 AV Delft, the Netherlands. email: info@nonius.com; web: http://www.nonius.com The **CLRC Daresbury Laboratory** is home to the UK's national synchrotron radiation facility, the SRS, and offers protein crystallographic services. Commercial organizations may pay for direct access to the facilities. Researchers from companies may buy raw access to the facilities and perform all their own work or may pay for the skilled staff to carry out data collection on their behalf. The Laboratory also has a well equipped structural biology laboratory for protein crystallization that can be made available. It may be possible to offer a complete protein crystallographic service to commercial organizations in some cases, from crystallization to structure solution. Many companies in the pharmaceutical industry have been purchasing access to the SRS for years and under the new flexible arrangements, smaller organizations can now also benefit from the application of synchrotron radiation to their research problems.

DARTS, CLRC Daresbury Laboratory, Warrington WA4 4AD, UK. tel: 44 1925 603141; fax: 44 1925 603124; email: darts@dl.ac.uk; web: http://www.dl.ac.uk/SRS/DARTS

The **Journal of Synchrotron Radiation** (JSR), covers the full range of research conducted by the synchrotron radiation community irrespective of spectral range or technique. Articles are published in the

general areas of instrumentation, methods and novel applications. The instrumentation topics include synchrotron radiation sources; beamlines and optics; detectors; electronics and data acquisition; and sample chambers and environment. The methods and applications topics are grouped within the categories of diffraction, spectroscopy, and imaging. JSR is ranked third out of 37 journals in the instrumentation field and recently published the refereed



proceedings of the 6th International Congress on Synchrotron Radiation Instrumentation (SRI '97) as a special conference issue. Next year JSR will publish the XAFS X proceedings.

Journal of Synchrotron Radiation email: as@iucr.org; web: http://www.iucr.org/journals

The newest CCD products from **Bruker AXS** (formerly Siemens Analytical X-ray Systems) such as the Bruker Mosaic CCD shown here employ a choice of 1K module, 2K module and array of 1K modules for largest imaging area. Systems are tailored to the application with interchangeable phos-



phors sensitive at different energies, vertical-mount goniometers with different stages, fast X-ray shutter, and extensive applications software. Bruker AXS now announces a new SMART 1500 CCD detector optimized specifically for synchrotron radiation, with a very fast one second readout (unbinned) and a large 147 mm diameter front end, which may be combined with the options above. Bruker CCD systems at ALS, APS, Daresbury, DESY, ESRF, MAXlab and NSLS are collecting data for diverse biological applications.

Bruker AXS, 6300 *Enterprise Lane, Madison, Wisconsin 53719, USA. tel: 1-800-234-XRAY (1-608-276-3060); fax: 1-608-276-3006; web: http://www.bruker-axs.com*