

International Union of Crystallography

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New Editor-in-Chief of IUCr journals

At the Seattle Congress, Professor John Helliwell was appointed as Editor-in-Chief of the IUCr journals on the retirement from this post by Professor Charlie Bugg. John Helliwell is at present Professor of Structural Chemistry at the University of Manchester, England. He gained a First-Class Honours degree in Physics at the University of York in 1974 and a DPhil in Molecular Biophysics at the University of Oxford in 1977. He was recently awarded a DSc in Physics by the University of York. He has held appointments as Lecturer at the Universities of Keele and York and as Senior and then Principal Scientific Officer at the SERC Daresbury Laboratory. He was Chairman of the IUCr Commission on Synchrotron Radiation 1989–1993 and Vice-President of the British Crystallographic Association 1989–1993. He has served on the Editorial Boards of *Acta Crystallographica* and *Journal of Applied Crystallography* and has been a Main Editor of *Journal of Synchrotron Radiation* since its inception in 1994.

New Commercial Products

Announcements of new commercial products are published by the *Journal of Applied Crystallography* free of charge. The descriptions, up to 300 words or the equivalent if a figure is included, should give the price and the manufacturer's full address. Full or partial inclusion is subject to the Editor's approval and to the space available. All correspondence should be sent to the Editor, Dr A. M. Glazer, Editor *Journal of Applied Crystallography*, Clarendon Laboratory, University of Oxford, Parks Road, Oxford OX1 3PU, England.

The International Union of Crystallography can assume no responsibility for the accuracy of the claims made. A copy of the version sent to the printer is sent to the company concerned.

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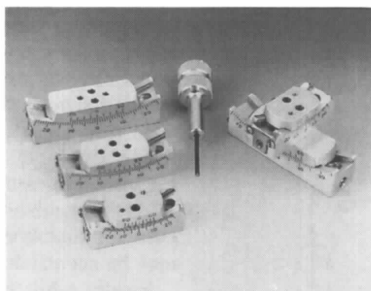
Micro-Goniometric Arc Assemblies

A line of compact microgoniometric arc assemblies that can be mounted virtually anywhere to facilitate the final positioning of laser, optoelectronic, fiberoptic and related equipment is available from Charles Supper Company, Inc., of Natick, Massachusetts.

Supper Precision Micro-Goniometric Arc Assemblies are offered in three sizes: 1.250 × 0.4877 in with ±25° travel, 1.2810 × 0.04877 in with ±24° travel and 1.84 × 0.4877 in with ±20°

travel. Precisely adjusted using a 6-spline drive key and lockable without loss of setting, these lightweight arcs can be used individually or stacked concentrically and read to 5' on a vernier scale.

Featuring a top mounting plate that accepts mirrors and other devices, Supper Precision Micro-Goniometric Arc Assemblies have machined aluminium bodies and permanently lubricated hardened stainless steel drive screws. Mounting holes in the vernier top and arc base can be drilled to customer specifications. Black anodizing with white scale markings is optional.



Supper Precision Micro-Goniometric Arc Assemblies

Supper Precision Micro-Goniometric Arc Assemblies are priced from \$175.00 (list) each. Literature and pricing are available on request.

Charles Supper Company, Inc., Donald E. Goodwin, VP Marketing, 15 Tech Circle, Natick, MA 01760, USA (e-mail: dgood10710@aol.com).

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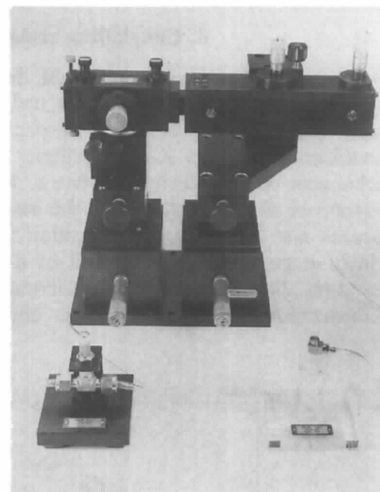
Double Mirror Focusing System

A new compact double mirror focusing camera that offers greater intensity than a monochromator, is easily adjustable and can be used with vertical or horizontal anode surfaces is being introduced by Charles Supper Company, Inc., of Natick, Massachusetts.

The **Supper Model 7616 Double Mirror Focusing System** provides a 250–300% increase in the intensity of a Cu K α beam, with no increase in the size of the focused beam. Featuring 8 and 16 cm mirrors, the entire beam path can be filled with He to minimize beam absorption and calibrated micrometers make mirror focusing simple and reproducible without the need for stepper motor control.

Each mirror mount in the Supper Model 7616 Double Mirror Focusing System can be adjusted for height and translation, coarse and fine mirror

angle, mirror bending and beam-defining apertures including forward slits that shape the focal spot and an exit aperture that removes scattered X-rays from the focused beam. Measuring only 29.2 (length) × 17.8 (width) × 24.8 (height) cm, it can be adapted to many configurations.



The Supper Model 7616 Double Mirror Focusing System

The Supper Model 7616 Double Mirror Focusing System is priced at \$19 400. Literature is available on request.

Charles Supper Company, Inc., Donald E. Goodwin, VP Marketing, 15 Tech Circle, Natick, MA 01760, USA (e-mail: dgood10710@aol.com).

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Crystal Office

Crystal Office is a user-friendly software package that includes Space Groups for Windows, Crystal Builder and Space Group Tables. This software package is designed to create crystal and surface structures and visualize space-group information. Features include:

(1) There are position, symmetry and reflection tables for all of the 230 space groups.

(2) Interactively create and visualize crystal structures with the tables. The Crystal Builder Dialog is designed to interactively build a crystal with the space-group tables.

(3) Visualize symmetry elements and Miller planes. All symmetry elements can be displayed with three-dimensional graphics. The symmetry and Miller planes are implemented with transparency to show precisely whether an atom is on a particular plane.

(4) Create multiple-crystal scenes and visually compare crystal structures. A

crystal object in *Crystal Office*, similar to a word or sentence in a word-processing program, can be easily copied or deleted. The editing features allow you to quickly create multiple-crystal scenes and make visual comparisons. Objects in a scene can be rendered by both mouse and keyboard.

(5) Visual measure. Interatomic distances and angles can be measured by simply clicking on atoms.

(6) Label scenes and individual atom/bonds. The atom/bond's labels are automatically rendered with graphic objects.

(7) Create and edit bonds. Covalent, ionic or van der Waals bonds are created utilizing the appropriate atomic radii. A bond's colour, size and other properties are editable.

(8) Visualize atoms with multiple models. There are options to represent an atom with different visual sizes and models. For example, you can show whether two atoms are covalently bonded by using the covalent radii to draw the atoms.

(9) Substitute atoms with molecules. This method, designed to make structural analysis and show molecular aspects, creates a crystal structure by substituting atoms with molecules.

This package is created to meet your daily research and educational needs. The complete package can be licensed at the price of US \$695/academic user. Site licensing is also available. The latest version, *Crystal Office 96*, runs in Microsoft Windows 3.1x, Windows 95 and Windows NT 3.5 or higher. For more information, please contact Atomic Softek..

Atomic Softek, 70 Longwood Road North, Hamilton, Ontario, Canada L8S 3V4 (e-mail: spacegrp@wchat.on.ca).

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Vacuum Compatible Detectors

Photek is pleased to announce the publication of a new edition of its **Vacuum Compatible Detector** datasheet. This major revision, as well as being in full colour, gives full specifications and details of the product range and enhanced specifications.

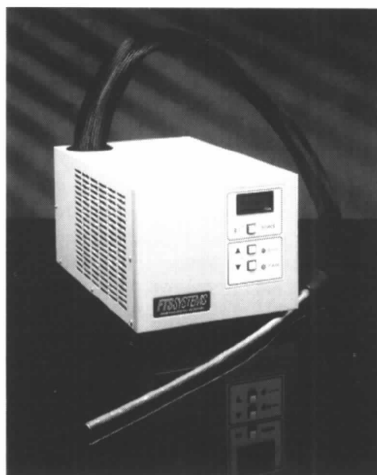
Photek, in addition to manufacturing the catalogue tubes described, is also a major supplier of a wide range of specialized image intensifiers designed and developed for a diverse range of research projects in the medical, scientific and engineering communities.

Ian Ferguson, Photek Limited, 26 Castleham Road, St Leonards on Sea, East Sussex TN38 9NS, England (e-mail: 100411.3324@compuserve.com).

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Cooling to 173 K

The FC55 and FC100 **cold probe refrigerated systems** provide ideal cooling when laboratories desire to eliminate dry ice and provide direct contact cooling of small vessels. Systems range from 173 to 223 K and offer flexible, coil and cartridge style probe tips. The systems require only a standard 120 V electrical supply and occupy only 10 × 20 in of bench space.



FTS Systems cold probe refrigerated system

Alan Kolb, Thermal Conditioning Division, FTS Systems Inc., PO Box 158, 3538 Main Street, Stone Ridge, NY 12484, USA (WWW: <http://www.ftssystem.com>).

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Nitrogen Gas Flow Cooler

A **nitrogen gas flow cooler** that does not require a pressurized dewar to provide a pure and dry gas stream for X-ray diffraction use and other low-temperature laboratory applications, is being introduced by Charles Supper Company, Inc., of Natick, Massachusetts.

The Oxford Cryostream cooler features an open system that extracts LN₂ from a nonpressurized dewar using a positive flow pump between the inlet and outlet to provide a continuous flow of nitrogen gas. Capable of cooling a sample from 80 to 375 K with ±0.1 K stability, this low-temperature gas stream generator uses only 0.6 l h⁻¹ of LN₂

and is unaffected by refilling of the liquid nitrogen supply.

Eliminating the icing problems associated with conventional LN₂ coolers, the Oxford Cryostream Cooler has a flexible delivery arm and cold head. Incorporating a programmable system manager and three-term (PID) temperature controller with an RS232 interface, this instrument has a set of built-in modes that allows it to be programmed to perform over 10¹¹ different temperature segments.



Oxford Cryostream cooler

The Oxford Cryostream Cooler is priced at US \$33240 complete and is distributed exclusively in North America by Charles Supper Company, Inc. Literature is available on request.

Charles Supper Company, Inc., Donald E. Goodwin, VP Marketing, 15 Tech Circle, Natick, MA 01760, USA (e-mail: dgood10710@aol.com).

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Microgoniometric Arcs Fine-Tune Position in Tight Spaces

A line of compact microgoniometric arc assemblies that can be mounted in tight spaces to permit the fine-tune positioning of crystals, photodiodes, lasers and related equipment is available from Charles Supper Company, Inc. of Natick, Massachusetts.

Supper UltraMicro Arcs provide precise angular adjustability for fine-tune positioning equipment manually using a drive key. Featuring ±15° travel, they are stamped with white vernier scales, offered with a 0.406" or 0.804" arc radius, and can be mounted individually or concentrically stacked, achieving a common centre.

Measuring only 0.500 in (width) × 0.440 in (height) × 0.750 in (length), Supper UltraMicro Arcs incorporate either dry or permanently lubricated non-magnetic stainless steel drive screws. Machined from aluminium and black anodized, they are drilled and tapped for 1–72 cap screws.



Supper Microgoniometric Arcs

Supper UltraMicro Arcs are priced at US \$410 (list) each and can be supplied stacked for US \$795. Literature is available on request.

Charles Supper Company, Inc., Donald E. Goodwin, VP Marketing, 15 Tech Circle, Natick, MA 01760, USA (e-mail: dgood10710@aol.com).

Books Received

The following books have been received by the Editor. Brief and generally uncritical notices are given of works of marginal crystallographic interest; occasionally, a book of fundamental interest is included under this heading because of difficulty in finding a suitable reviewer without great delay.

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Silicon carbide and related materials

1995. Edited by S. NAKASHIMA, H. MATSUNAMI, S. YOSHIDA and H. HARIMA. Institute of Physics Conference Series, No. 142. Pp. xxv + 1120. Bristol, Institute of Physics Publishing Ltd, 1996. Price £225.00. ISBN 0-7503-0335-2. The Proceedings of the Sixth International Conference on Silicon Carbide and Related Materials, held in Kyoto, Japan, 18–21 September 1995. The volume contains 271 conference papers, including reviews of advances in the field, and the latest research findings.

Defect recognition and image processing in semiconductors 1995.

Edited by A. R. MICKELSON. Institute of Physics Conference Series, No. 149. Pp. xii + 369. Bristol: Institute of Physics Publishing Ltd, 1996. Price £110.00. ISBN 0-7503-0372-7. The Proceedings of the Sixth International DRIP Conference, held in Boulder, Colorado, USA, 3–6 December 1995. This volume contains 61 of the 68 presentations offered at the conference.

Growth of crystals. Vol. 20.

Edited by E. I. GIVARGIZOV and A. M. MELNIKOVA. Pp. viii + 169. New York: Plenum Publishing Corporation, 1996. Price US \$95.00. ISBN 0-306-18120-7. This most recent volume in a series of translations from the Russian features 14 research papers in the three areas of heterostructure formation (five articles), growth from solutions (four articles) and growth from the melt (five articles). The articles are stated to 'cover a broad spectrum of current research in Russia and Ukraine'.