Notes and News

Announcements and other items of crystallographic interest will be published under this heading at the discretion of the Editorial Board. The notes (in duplicate) should be sent to the Executive Secretary of the International Union of Crystallography (J. N. King, International Union of Crystallography, 5 Abbey Square, Chester CH1 2HU, England).

J. Appl. Cryst. (1988). **21**, 76

Publish your Crystallographic Computer Programs

A large number of new crystallographic computer programs (or modifications to existing programs) presented at international and national conferences, summer schools, private demonstrations, or referred to only passingly in other publications remain unpublished. Consequently, potential users are deprived of valuable information and access to state-of-the-art computer code. The IUCr Commission on Crystallographic Computing is well aware of this problem and is particularly anxious to encourage authors of computer programs to publish their software. The journal of choice for crystallographic computer programs is:

Journal of Applied Crystallography – a publication of the IUCr – which provides two categories of publication concerned with crystallographic computer programs: *Computer Programs* is intended for complete articles giving in-depth information on the program and algorithm whereas *Computer Program Abstracts* provides a condensed format that contains only essential details.

In *Computer Programs*, a brief description of the purpose, strategy, computer language, machine requirement, input requirements and the type of results obtained should be included. Ordinarily, it is required also that the adequacy of the documentation shall have been proven by the successful use of the program by someone outside the authors' institution. Examples of *Computer Programs* are: *TREOR*, a semi-exhaustive trial-and-error powder indexing program for all symmetries [Werner, P.-E., Eriksson, L. & Westdahl, M. (1985). *J. Appl. Cryst.* **18**, 367–370]; *STRUPLO*84, a Fortran plot program for crystal structure illustrations in polyhedral representation [Fischer, R. X. (1985). *J. Appl. Cryst.* **18**, 258–262]. Notes for Authors may be found in *Acta Cryst.* (1983), A**39**, 174–186 and a checklist in *J. Appl. Cryst.* (1985), **18**, 1–2.

Computer Program Abstracts provides a rapid means of communicating up-to-date information concerning both new programs or systems and significant updates to existing programs. Following normal submission, a *Computer Program Abstract* will be reviewed by one or two members of the IUCr Commission on Crystallographic Computing. It should not exceed 500 words in length and should use the standard format given in *J. Appl. Cryst.* (1985), **18**, 189–190. Examples of publications in this category are: *PATMET* – program for determination of orientation and position of a known fragment in the unit cell [Wilson, C. C. & Tollin, P. (1986). *J. Appl. Cryst.* **19**, 411–412], *DREAM* – data reduction and error analysis routines for accurate single-crystal diffraction intensity measurements [Blessing, R. H. (1986). *J. Appl. Cryst.* **19**, 412].

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, Professor M. Schlenker, Editor* Journal of Applied Crystallography, *Laboratoire Louis Néel du CNRS, BP*166, *F-*38042 *Grenoble CEDEX, France.*

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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INRAD Forms New Optics Company

INRAD has formed a wholly owned subsidiary, **INRAD Optical Systems, Inc.**, that will specialize in the manufacture of precision optics and optical systems. Using INRAD's optical coating facility, the new company will provide finished optics for aerospace and defence applications. INRAD Optical Systems will complement and expand the parent company's present capabilities in these areas.

INRAD develops and manufactures crystals, crystal devices, and laser systems for the research, industry, and defence markets.

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INRAD'S Autotracker II now Available with BBB Crystals

INRAD now offers its **Autotracker II system with beta barium borate** (BBB). BBB produces the second and third harmonics of dye laser outputs more efficiently than most previously available materials. It also has a broad phase-matchable range, good ultraviolet transparency, and a high damage threshold.

INRAD's Autotracker II system extends the wavelength coverage of pulsed dye lasers using nonlinear frequency mixing to allow high-resolution spectroscopy in regions not easily reached by dye lasers alone.

INRAD, 181 *Legrand Ave*, *Northvale*, *NJ* 07647, *USA*.

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Philips 300 kV Transmission Electron Microscope

With the **transmission electron microscope CM30/STEM** Philips is completing their new generation of TEM/STEM instruments. Principal characteristics of this TEM/STEM are the 300 kV accelerating voltage, its further refined electron optics and the new operating concept – the **Microcontroller**.

The high acceleration voltage allows the investigation of specimens of greater thickness giving a deeper insight into the three-dimensional structure of the live-science or materials-science object. In high-resolution structure analysis the point resolution of 0·23 nm can be combined with local chemical analysis by X-rays or diffraction down to an area of 2 nm ∅.

The CM30/STEM is equipped with all necessary facilities to support the advanced technologies applied in fundamental and applied research. The list includes high-resolution imaging in TEM and STEM, small electron probes for local analyses in energy-dispersive X-ray spectroscopy, convergent-beam electron diffraction or electron energy loss spectroscopy.

Key to the operational concept of the CM30/STEM is the reduction of the number of control elements like knobs and buttons to the minimum of those required in a given operational condition. Control functions which vary between the different modes of operation are assigned to 'multifunction controls' while components which are standard in all modes like the focusing operation are firmly assigned to one input control. The concept ensures maximum flexibility for the experienced microscopist with highest degree of simplicity and effectiveness for the scientist using the instrument purely as tool in his activities.

Specific attention has been given to the on-line quantification of microscope data and images or diffraction patterns. An example is the facility for direct read out of lattice spacing from a diffraction pattern.

Chief component of the optical system is the patented **TWIN objective lens**, unsurpassed in its capability of providing the illumination and imaging conditions for high-resolution information.

Philips Industrial and Electro-acoustic Systems Division, Building HKF, PO Box 218, 5600 *MD Eindhoven, The Netherlands.*