

Documentation: The user will generally have a copy of the manual for the programs *MORGUE* and *PARAM*, but this will be supplied in hard-copy form if necessary. No other documentation is required to use and maintain the programs.

Availability: The programs are available free of charge for noncommercial users from the authors on magnetic tape (1600 b.p.i. in ASCII format), IBM-compatible floppy disk (all types) or through electronic mail. The blank tape or disk must be supplied by the user, along with the postage costs. The user should specify whether the *MORGUE* or the *PARAM* version is required.

Keywords: *MORGUE*, *PARAM*, neutron powder, structure refinement.

References

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Crystallographers

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This section is intended to be a series of short paragraphs dealing with the activities of crystallographers, such as their changes of position, promotions, assumption of significant new duties, honours etc. Items for inclusion, subject to the approval of the Editorial Board, should be sent to The Executive Secretary, 2 Abbey Square, Chester CH1 2HU, England.

Ben Post 1911–1994

Benjamin Post, Professor Emeritus of Physics and Chemistry and Research Professor of Physics at the Polytechnic University in Brooklyn, NY, and one of the leading figures in the post-war development of X-ray crystallography in America, died of cancer Wednesday 4 May 1994 at his home in Brookline, Massachusetts. He would have celebrated his 83rd birthday on 23 July 1994.

Professor Post received his PhD in physical chemistry from the Polytechnic University (then known as the Polytechnic Institute of Brooklyn) in 1949, studying with Clarence Hiskey and Isidore Fankuchen and others who made Poly (as it was fondly called by faculty and students), at that time, one of the world's leading research institutions in X-ray crystallography. This reputation was based on the presence of a number of internationally renowned leaders in the field. In addition to Fankuchen, Paul Ewald chaired the Department of

Physics, David Harker was Director of the Protein Structure Institute, Rudolph Brill was a Research Professor of Physics and Herman Mark, Director of the Polymer Institute, was ever present for advice.

Ben first joined Fan (as Fankuchen was known to all) as a Research Associate. Ben's outstanding qualities in both teaching and research were recognized by his being appointed Assistant Professor of Physics in 1954, Associate Professor in 1957 and Professor in 1960. In 1972, he was named Poly's first Professor of Physics and Chemistry; he retired with emeritus status in 1982. He also served as Visiting Professor at the University of Naples, The University of Stockholm, The University of Puerto Rico at San Juan, and the Weizmann Institute. Upon Professor Fankuchen's death, Ben became Director of the X-ray Laboratory. Retirements and, subsequently, deaths of the outstanding scientists named above, left Ben as the last of the world-leading group that once made a visit to Poly a must for foreign crystallographers when they visited the US. His death closes an era of concentration of X-ray greats that those of us who spent our formative research years at Poly will not see again.

The author of more than 100 scholarly papers, Ben's interests focused on the physics of X-ray diffraction, crystal structure analysis and powder diffraction. He held numerous offices in the American Crystallographic Association, including that of President in 1966. In addition, he was a member, and then Vice-Chairman, of the National Academy of Sciences' US National Committee for Crystallography. He was one of the first editorial staff of the ICDD X-ray Powder Diffraction File and remained an editor for over 30 years. He served on many technical subcommittees of the ICDD, received the Distinguished Fellow Award, and was a member of the board from 1982 to 1986. He also served as Associate Editor of *X-ray Spectrometry*.

In 1978, he published a solution to one of crystallography's central problems, the 'phase problem', when he developed the three-beam experimental technique for determining certain features ('phases') of the interactions between X-ray beams and atomic structure from an analysis of the intensity of the reflected X-ray beam. For this work, he received the ACA's Bertram E. Warren Award in 1982, an award given every three years for 'distinguished contributions to the physics of solids or liquids using X-ray, neutron, or electron diffraction techniques'. Indeed, *Physics News* in 1983, the annual report of the American Institute of Physics highlighting 'some of the interesting and newsworthy developments in physics

and related fields during the past year' included Ben's work as one of the three items reviewed in the section for crystallography.

Notwithstanding these professional accomplishments, he was probably best known among colleagues, students, and friends for his irrepressible sense of humor. He remarked before his death that many of his former students seem to have stronger recollections of the jokes and puns with which his classroom lectures had been spiced than of any crystallographic material he may have covered. Several of his public presentations, including his 1967 Past-President's address and his 1972 tribute to Isidore Fankuchen, have attained near-legendary status in the crystallographic community and continue to circulate in 'bootleg' taped versions, along with a printed collection of bilingual French–English puns.

Ben often remarked that, of all of his accomplishments, he was proudest of the legacy he left behind as a teacher. His former students constitute a far-flung network of teachers and researchers on all five continents and in many of the world's leading research institutions and industrial research laboratories. Ben will be deeply missed by all of them as well as by his many friends and colleagues. His enthusiasm, joie-de-vivre and, yes, puns will forever remain in the memory of those who knew him.

J. LAWRENCE KATZ
HUGO STEINFINK

International Union of Crystallography

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Nominations for the Ewald Prize

The International Union of Crystallography is pleased to invite nominations for the Ewald Prize for outstanding contributions to the science of crystallography. The Prize is named after Professor Paul P. Ewald, in recognition of his significant contributions to the foundations of crystallography and to the founding of the International Union of Crystallography. Professor Ewald was the President of the Provisional International Crystallographic Committee from 1946 to 1948, the first Editor of the IUCr publication *Acta Crystallographica* from 1948 to 1959 and the President of the IUCr from 1960 to 1963.

The Prize consists of a medal, a certificate and a financial award, and is presented once every three years during the triennial International Congresses of

Crystallography. The recipients to date are as follows:

Year	Place	Recipients
1987	Perth, Australia	Professor J. M. Cowley and Dr A. F. Moodie
1990	Bordeaux, France	Professor B. K. Vainshtein
1993	Beijing, China	Professor N. Kato

The fourth Prize, for which nominations are now being invited, will be presented at the XVII Congress in Seattle, Washington, USA, in August 1996.

Scientists who have made contributions of exceptional distinction to the science of crystallography are eligible for the Ewald Prize, irrespective of nationality, age or experience. The Selection Committee will give careful attention to the nominations of outstanding scientists who have not yet won a major prize. Either an exceptionally distinguished scientific career or a major scientific accomplishment may be recognized. Current members of the Selection Committee and the President of the IUCr are not eligible. No restrictions are placed on the time or the means of publication of the nominee's contributions. The Prize may be shared by more than one contributor, but not more than three, to the same scientific achievement.

Nominations for the Ewald Prize should be submitted in writing, preferably using the Ewald Prize Nomination Form and accompanied by supporting documentation, to the Executive Secretary of the International Union of Crystallography, 2 Abbey Square, Chester CH1 2HU, England, from whom copies of the Nomination Form and the names of the Selection Committee may be obtained. **The closing date for nominations is 31 August 1995.**

P. COPPENS
President

A. I. HORDVIK
General Secretary

Notes and News

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ECM16: Oxford Cryosystems Award

During ECM16 in Lund, Sweden, 6–11 August 1995, Oxford Cryosystems will be awarding a prize of £250 for the best poster describing low-temperature crystallography. The award will be made either for a description of low-temperature equipment or for any research in which low temperatures are a major feature. Judges will be selected by the Organizing Committee of ECM16 and the prize

will be presented during the conference banquet.

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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Zinc Germanium Phosphide for IR Generation between 2.6 and 11 μm

INRAD announces that it has developed **zinc germanium phosphide (ZPG)** having improved transmission characteristics in the near-IR, making it an excellent choice for generating tuneable IR with a near-IR pump. This nonlinear crystal was first introduced by INRAD at the CLEO 93 trade show and was made available to customers on a limited basis.

ZPG has a nonlinear coefficient (75 pm V^{-1}) more than twice that of silver gallium selenide (AgGaSe_2) and has a much higher thermal conductivity (0.18 W cm K^{-1}), which is important for generating high average power. It is transmissive from 0.67 to 13 μm , a wavelength region that is vitally important as the 'fingerprint' region for molecular species. ZPG has been demonstrated as the frequency converter in an OPO configuration, which opens the door to applications in remote sensing and countermeasures.

INRAD manufactures crystals, laser components, optical coatings, laser systems and instruments for scientific, defense, aerospace and industrial markets.

INRAD, Legrand Avenue, Northvale, NJ 07647, USA.

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−80°C Immersion Cooling

The new CFC-free mechanically refrigerated LFC80 Flexi-Cool coil-style probe provides up to 550 W of heat removal capacity while maintaining an alcohol bath temperature at −80°C. A microprocessor temperature controller permits the user to set and maintain bath temperature to 0.1°C between 0 and −80°C. The stainless steel coil probe configuration ensures maximum temperature uniformity within

the bath and makes the coil an ideal replacement for CO₂ or liquid nitrogen for cooling chemical reaction vessels, cold baths or vapour trapping.

FTS Systems, Inc., PO Box 158, Stone Ridge, NY 12484, USA.

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Ultrahigh Vacuum Chambers – a New Service from ITL

Instrument Technology Limited has identified a need for specialized high-vacuum and UHV chambers and has expanded its facilities by installing a new **2000 square feet Chamber Division.**

Casualties in the vacuum industry resulting from the recession mean that there are fewer companies with the specialized facilities and expertise to manufacture high-specification UHV chambers. ITL has assembled an experienced team with the capability to answer the demanding requirements of customers in science-based industries and research and development.

High-vacuum and UHV chambers up to 2 m³ are typically manufactured from 304L or 316L stainless steel to customers' specifications and drawings. A design service is offered whereby customers can discuss their applications with ITL's design engineers who will then submit drawings for approval before manufacture.

Chambers are supplied fully leak tested and chemically cleaned to UHV standards. Non-magnetic mu-metal liners can be supplied where required. Complete vacuum systems with all necessary fittings and accessories from ITL's extensive range can be assembled. ITL's latest vacuum components catalogue includes a section introducing the facilities of the new Vacuum Chamber Division.

Instrument Technology Limited, Castleham Road, St Leonards-on-Sea, East Sussex TN38 9NS, England.

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New ITL Catalogue with more than 2000 Vacuum Components

The new **1994/5 Vacuum Components Catalogue from Instrument Technology Limited** provides vacuum process engineers and scientists with a 105-page guide to ITL's comprehensive range of KF, ISO and CF components.

In addition to the essential range of basic construction fittings in a choice of high-quality stainless steels, the