

# General Announcements

## Grants-In-Aid from the JCPDS-Joint Committee on Powder Diffraction Standards

Each year the JCPDS-International Centre for Diffraction Data extends financial support in the form of Grants-in-Aid to a limited number of scientists for the provision of X-ray powder data. These grants are intended to supplement existing funded projects involving the preparation and recording of data from new materials. First time grants are usually of the order of \$2,000 to \$5,000 for projects resulting in 10–25 new patterns. Proposals addressing the immediate needs of the powder diffraction community will be given highest priority, especially projects involving organic compounds and materials used in forensic investigations. Materials involved with any new and evolving technologies are also of specific interest.

Grants-in-Aid proposals will be considered from any qualified investigator who can demonstrate expertise in the preparation of high quality powder diffraction patterns, or in the synthesis of high purity materials, provided that such materials are of interest to the Grants-in-Aid Committee. All Grant-in-Aid recipients are required to prepare bi-annual reports on progress and extension of a Grant beyond a given year is contingent on satisfactory performance. Proposals should be submitted in accordance with specified guidelines and new proposals are reviewed in January of each year. A final decision is generally reached in March. All Grants become effective the beginning of the JCPDS fiscal year, currently 1st April.

Guidelines for the preparation of Grant proposals can be obtained from the JCPDS and proposals for grants should be addressed to:

Secretary, JCPDS-International Centre for  
Diffraction Data  
1601 Park Lane  
Swarthmore, PA 19081, U.S.A.

## New — Mineral Powder Diffraction File

The JCPDS-International Centre for Diffraction Data is continuing to improve the highly successful Mineral Powder Diffraction File. Now available is a new 2 volume set containing approximately 3,475 diffraction patterns covering 2,800 mineral species and also over 770 minerals newly described since 1980. All data have undergone a comprehensive computer review utilizing the NBS\*EXAIDS83 system and have also been reedited with special reference to cell, space group, Z, calculated density, indices of refraction, mineral group, chemical formula, mineral nomenclature, polytype, symbols and indexing.

The Data Book contains copies of the Powder Diffraction File data card in Sets 1–35 of the Powder Diffraction File arranged in alphabetical order. Also included is both an index in PDF number sequence and a mineral group index. The all inclusive Search Manual contains a Hanawalt numerical section, a Fink numerical section, a chemical

name section and an alphabetical section by mineral name. The new Mineral Powder Diffraction File in book form will prove to be a valuable asset, not only to libraries and laboratories engaged in mineralogy, but to all individuals and organizations involved in powder diffraction analysis.

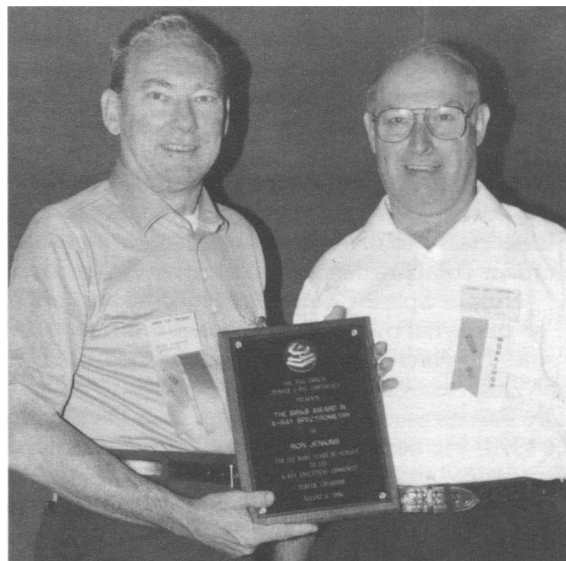
Contact the International Centre for additional details. Place your order today to ensure early delivery. Price \$550.

Sales Department  
JCPDS — International Centre for Diffraction Data  
1601 Park Lane  
Swarthmore, PA 19081, U.S.A.  
(215) 328-9400

## Jenkins Receives First Birks Award

During the plenary session of the 35th Annual Denver Conference on Applications of X-Ray Analysis, August 4–9 1986, Dr. Ron Jenkins was presented the Birks award in X-Ray Spectrometry. The Birks award is named for Laverne S. Birks who, before his retirement, served for many years in the X-Ray Optics Division of the U.S. Naval Research Laboratory, in Washington, D.C. Mr. Birks was active from the very early days of 'modern' XRF and is well known to the X-ray community. The Birks award is to be presented every second year for services to the field of X-ray Fluorescence Analysis. The award was presented by John Gilfrich, a long term colleague of Mr. Birks.

The first recipient of the Birks award is also well known to the XRF community and in addition to being a regular speaker at X-ray conferences, schools and seminars, Dr. Jenkins has published seven books, several book chapters and around 150 papers on the use of X-ray techniques for materials analysis. Dr. Jenkins recently left Philips Electronic Instruments to become Principal Scientist at the International Centre for Diffraction data in Swarthmore, Pennsylvania.



*Ron Jenkins, right receives Birks award from John Gilfrich*

## William Parrish to Receive the J. D. Hanawalt Award

The JCPDS — International Centre for Diffraction Data takes pleasure in announcing that Dr. William Parrish, IBM Corporation, Research Division, San Jose, California, has been selected to receive the J. D. Hanawalt Award for excellence in the field of Powder Diffraction. The presentation of the award will take place at the XIV General Assembly and International Congress of Crystallography, Australia, August 1987.

Dr. Parrish was awarded his Ph.D. degree in 1940 at the Massachusetts Institute of Technology. During the period 1939–1942, he served as a Research Associate at MIT and an Instructor in Mineralogy and Crystallography at the Pennsylvania State University.

Following X-ray diffraction work on quartz oscillator plates, for which he was awarded a War Department Citation, Bill joined Philips Laboratories in 1943 and for 25 years was Chief of the X-Ray and Crystallography Section. Dr. Parrish was responsible for developing many of the instruments and methods which became commercial products widely used for powder diffraction analysis. His most important achievement was the invention of the X-ray diffractometer using a new X-ray optics geometry which gave high intensity and resolution with good profile shape. It is the basic instrument for powder diffraction, and it is estimated there are about 12,000 to 15,000 throughout the world making it the most widely used X-ray crystallographic instrument.

An extensive systematic research program produced many important advances such as the introduction of scintillation and proportional counters with electronic pulse amplitude discrimination, the rotating specimen device, methods for the alignment and calibration of the diffractometer; the development of diffractometers for transmission specimens, for Seemann-Bohlin geometry and for use of soft X-rays with vacuum path. The use and applications of these developments are described in a large number of papers, many of which are contained in his book, "X-Ray Analysis Papers" (Centrex Publishing Co., Eindhoven, 1965).

In the early 60's, Bill became interested in space exploration and proposed a program to the National Aeronautic and Space Administration to construct a low power, compact powder diffractometer to be flown to the moon to analyze the lunar surface by remote control. The tests were successful but rapid progress in the manned Apollo program made it necessary to divert the instrument to the biological containment compartments at the Lunar Receiving Laboratory, Johnson Space Center. In 1968, he was appointed Chief of the Materials Characterization Branch, NASA Electronics Research Center, to develop structural methods for analyzing electronic materials.

Dr. Parrish joined the IBM Research Division in San Jose in 1970. He became Manager of Crystallography and Microstructure, a department set up to develop X-ray diffraction and fluorescence methods for materials characterization, particularly for thin films.

This group has been responsible for the development of software for the automation of data collection and treat-

ment from powder diffractometers, and this work has included novel approaches for both mathematical deconvolution of X-ray diffracted line profiles, and for automated search/matching in phase identification.

In 1977, Bill became interested in the use of synchrotron source radiation and, in cooperation with Professor Mike Hart, developed diffraction topographic methods for the study of materials used in magnetic bubble memories. More recently, he has developed a high resolution powder diffractometer for use with synchrotron source radiation and is now actively involved in the application of this instrumentation to current problems in materials analysis.

In addition to authoring about 300 papers covering nearly all aspects of X-ray powder diffraction, Bill organized and edited the first World Directory of Crystallographers. Over the years, he has served on many committees of the International Union of Crystallography and the American Crystallographic Association. He is well-known all over the world through his publications and lucid lectures and, today, is still a regular attendee at most of the important meetings and symposia in the X-ray crystallographic field.

Dr. Parrish was born in Philadelphia, PA in 1914. His wife, Lillian, is a concert pianist and teacher. They have two sons.



*William Parrish*

### Back issues of **Standard X-ray Diffraction Powder Patterns**

The National Bureau of Standards has on hand a limited supply of back issues of NBS Circular 539, Sections 1–10, as well as NBS Monograph 25, Sections 1–19. Individual copies may be obtained at no charge as long as supplies last.

Please contact: National Bureau of Standards  
Building 223, Room A209  
Washington D.C. 20899, U.S.A.