

# ICDD Crystallographic Scholarship Awards

## International Centre for Diffraction Data Crystallography Scholarship Awards

The science of crystallography has played a key role in the development of X-ray diffraction, electron diffraction and neutron diffraction for the elucidation of the atomic structure of matter. Crystallography is an interdisciplinary branch of science taught in departments of physics, chemistry, geology, molecular biology, metallurgy, and materials science. To encourage promising graduate students to pursue crystallographically-oriented research, the International Centre has established a Crystallography Scholarship Fund. While the Ewald Prize is awarded every three years to an internationally recognized crystallographer, little effort has been made by science departments to cultivate aspiring crystallographers. Convinced of the beneficial, scientific impact of the proposed scholarships for crystallographically-oriented research, the ICDD Chairman has solicited funds from private and industrial sectors to reach the goal of \$250,000. Approximately one-half of this goal has been reached. The ICDD has awarded two scholarships for the calendar year 1992 and intends to award two additional scholarships in 1993.

*Qualifications for the applicants:* A graduate student with major interest in crystallography (crystal structure analysis, crystal morphology, modulated structures, correlation of atomic structure with physical properties, systematic classification of crystal structures, phase identification and materials characterization). There are no restrictions on country, race, age, or sex. The term of the scholarship is one year with one renewal if applied for by the recipient and if approved by the ICDD at the end of the first year on

the basis of the student's written accomplishments during the first year.

### *Submit:*

a. A one-page proposal by the graduate student describing the type of crystallographic research to be partially supported by scholarship.

b. A supportive letter from the sponsoring professor of an accredited university or an institute of technology.

### *Restrictions on the scholarship fund:*

a. The scholarship stipend of \$2,000 is to be used by the graduate student to help defray tuition and laboratory fees. A portion of the stipend may be applied to registration fees to accredited scientific meetings related to crystallography.

b. No more than one scholarship will be awarded to any one accredited institution per year.

c. The funds of the scholarship are not to be used for travel.

The awarding of the scholarships shall be administered by a committee consisting of the ICDD Chairman, the Chairman of the ICDD Technical Committee, and the Chairman of the ICDD Education Subcommittee. One or more accredited professors (with no conflicts of interest) may be invited to assist in the selection of successful candidates.

Applications should be mailed, prior to 31 October 1992, to:

Secretary, International Centre for Diffraction Data  
1601 Park Lane  
Swarthmore, PA 19081-2389, USA



You are invited to join

# ICDD

Members and Staff

at the OPENING MIXER  
of the 1992 Denver Conference

August 2, 1992

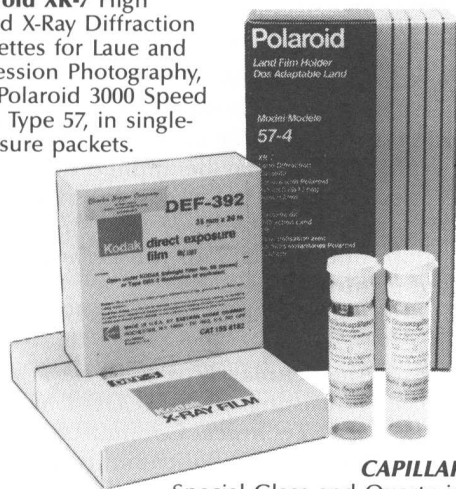
5:00 - 7:00 p.m.

at the Sheraton Colorado Springs  
Hotel

## Capillary Tubes and Laboratory Supplies for X-Ray Diffraction Use

**Kodak** Direct Exposure Film especially developed for X-ray diffraction analysis. Available in 35mm x 20m rolls and in 50 sheet boxes.

**Polaroid XR-7** High Speed X-Ray Diffraction Cassettes for Laue and Precession Photography, and Polaroid 3000 Speed Film, Type 57, in single-exposure packets.



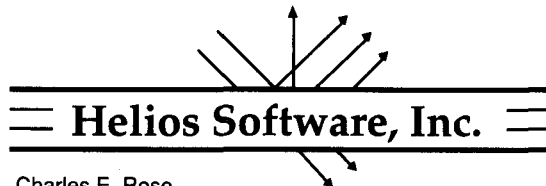
### CAPILLARY TUBES

Special Glass and Quartz in 15 sizes from 0.1mm to 3.5mm O.D. Uniform 89mm length and funnel shaped at the top. 0.01mm wall thickness.

Manufacturers of Fine  
X-Ray Diffraction Equip-  
ment For Over 45 Years

*Charles Supper Company*

INCORPORATED  
15 TECH CIRCLE, NATICK, MA 01760, U.S.A.  
TELEPHONE: (508) 655-4610  
1-800-323-9645



Charles E. Rose  
P.O. Box 44-1215  
W. Somerville, MA 02144

Tel. 617-776-2943  
FAX 802-785-2042

- MacPDF™ is a Macintosh Search/Retrieval program for the PDF-2. It is a product of Helios Software and is now in use in Japan, Europe and the U.S.A.
- MacPDF now offers software localization for foreign language environments.
- Full Boolean capabilities available Spring 1992.

*Powder Diffraction* makes this page available for brief announcements of services offered by its readers or by other interested persons.

- Space Cost \$150 (no agency discount). This space will permit the display of a business card or other similar size text. The business card will be reproduced at no charge.
- Free space: Up to 12 lines of text immediately below the announcement.

For details write or call Mary M. Rossi, Advertising Manager, *Powder Diffraction*. ICDD, 1601 Park Lane, Swarthmore, Pennsylvania 19081  
215-328-9403 FAX 215-328-2503

## Advertisers in Powder Diffraction June 1992 Volume 7 Number 2

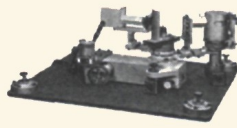
Company	Page Number
Charles Supper Company	X
Charles Supper Company	XVIII
Dapple Systems	XIV
Fein-Marquart Associates	I
Gem Dugout	XIV
ICDD - PC-PDF CD-ROM	XV
ICDD - For 1991/1992	XIV
ICDD - Metals and Alloys	XII
ICDD - Denver Announcement	XVII
ICDD - Revised Sets	VIII
ICDD - Short Courses	VII
inel Instrumentation Electronique	IV
Ital Structures	XII
KeveX Instruments	XI
Materials Data Inc.	IX
OMNI Instruments, Inc.	VI
OMNI Instruments, Inc.	VII
Philips Electronic Instruments, Inc.	Back Cover
Reflection Imaging	X
Rigaku, U.S.A.	Inside Back Cover
Scintag, Inc.	V
Seifert X-Ray Corporation	XVI
Siemens	Inside Front Cover
Sietronics Pty. Ltd.	XIII
SPEX Industries, Inc.	II



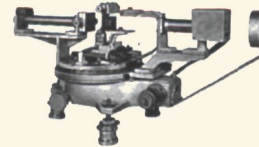
35 KW/mm<sup>2</sup>  
X-Ray Generator



PSPC Micro  
Diffractometer



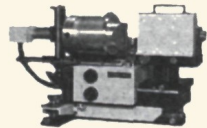
Double Crystal  
Topographic Unit



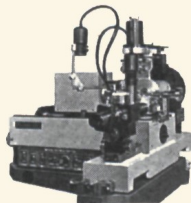
Scanning  
Micrographic Camera



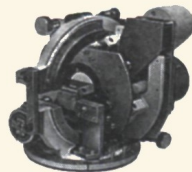
1500° High Temp  
Attachment



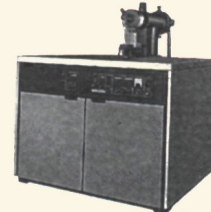
Dual Axis SASG



Microdiffractometer



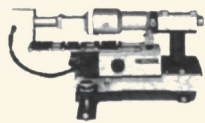
Pole Figure  
Attachment



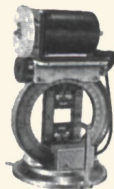
Microfocus  
X-Ray Generator



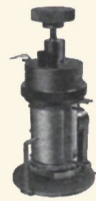
2500° High Temp  
Attachment



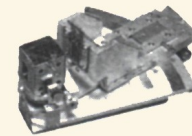
Small Angle Scattering  
Goniometer



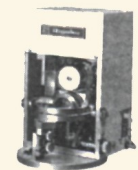
Fiber Specimen  
Attachment



H. T. Fiber Elongation  
Attachment



Selectable  $\lambda$   
Monochromator



Ry Attachment

## OUR X-RAY DIFFRACTOMETERS OFFER THE MOST APPLICATIONS



We have sold more x-ray diffractometers than any of our competitors, and one reason is clear. We offer the largest selection of accessories and can, therefore, meet more applications than anyone.

Shown on this page are just a few of the 97 major accessories, fixtures and attachments available with our line of x-ray diffractometers. For a more complete listing and descriptions, call Dr. Robert Wilson at (508)777-2446. Or write Rigaku USA, Inc., Northwoods Business Park, 200 Rosewood Drive, Danvers, MA 01923.

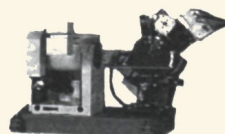
**Rigaku**



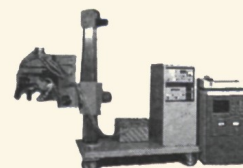
Stress Attachment



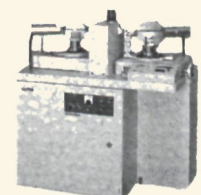
Multiple System  
Configurations



PSPC Micro Area  
Stress Analyzer



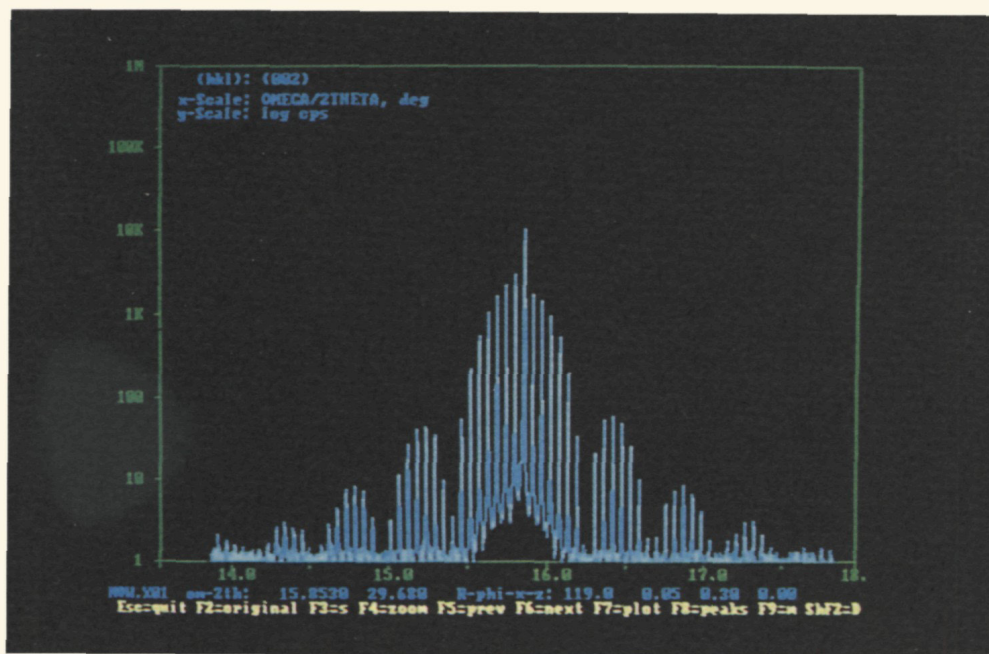
PSPC/MSF Mobile  
Stress Analyzer



Piezo Goniometers



# There's only one way to bring High Resolution X-ray Diffraction into your lab.



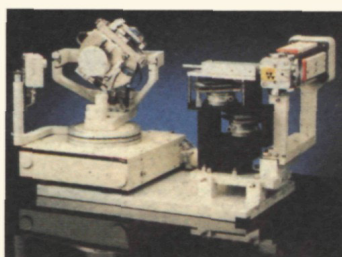
## The Philips MPD1880/HR.

This is the X-ray diffractometer that can do more for your research than any other system on the market today. It brings you that rare combination of engineering excellence in a rugged, high-performance four-crystal optical configuration that can stand up to the demands of a working lab.

The five-crystal diffraction capability provides a choice of goniometer configurations and sample cradles. That gives you more versatility in the selection of sample material to be examined or scattering geometries your protocols require. Together with the high-dynamic range sealed-xenon proportional counter, you can count on extremely sensitive measurements. And the automated sample stage allows independent theta, 2-theta, chi and phi rotation, as well as automated X-Y translation.

One of the unique features that makes the MPD1880/HR so accurate and so flexible is the Philips four-crystal monochromator. The dislocation-free, dual <440> cut germanium crystals provide a wavelength definition range so small that instrumental broadening of the sample Bragg peaks is effectively removed from your analytical considerations. The user-selectable beam is the highest quality commercially available anywhere.

The choice of horizontal or vertical goniometers allows the



MPD1880/HR to be configured as a stand-alone system, with a dedicated X-ray tube, or as part of a multi-goniometer installation – sharing a common source with a powder, texture, or stress goniometer for complete microstructural characterization. A step size of one arc second is standard.

For fast alignments during rocking curve measurements, peak search and centering is computer controlled. A complete range of software, including rocking curve simulation, is available so your MPD1880/HR comes with massive capability built-in.

### Features:

- Patented Philips four-crystal monochromator.
- Vertical or horizontal configurations.
- Computer-controlled sample cradles.
- X-Y stage for sample mapping.
- DOS-based software library.

For additional information contact: Philips Electronic Instruments Company, 85 McKee Drive, Mahwah, NJ 07430. Telephone (201) 529-3800.



# PHILIPS