

Commercial Announcements

American Council of Independent Laboratories Announces the 21st Edition of its Directory.

The 21st Edition of the American Council of Independent Laboratories' Directory is now available. One of the many applications of powder diffraction is characterization of samples. Readers of *Powder Diffraction* may be unaware of the ACILI Directory. This directory lists services and locations for over 350 member laboratories throughout the United States. Services provided by these laboratories include: testing, certification, calibration, analyses, consultation, inspection and contracted research. Indexes, in the back of the list, reference companies providing specific services. X-ray diffraction is listed as a separate category under spectroscopy and is referred to more than 20 companies. This Directory should be in libraries of any company contracting for services. Other companies providing similar services and which are not listed in the Directory should consider membership in this council. Copies of the 1990-1991 Directory of Members are available for \$15.00 each from: American Council of Independent Laboratories, Inc. Attn.: 1990-1991 Directory, 1725 K Street, N.W., Suite 412, Washington, D.C. 20006. Shipping is free by regular 4th class mail. Other means of shipping may be arranged. The price is available only until December 1991.

Philips Electronic Instruments Shows New Advanced Analytical Instrumentation at the 1991 Pittsburgh Conference.

The new systems exhibited include spectrometers and scanning electron microscopes as well as supporting software.

FPD 900 Series Powder Diffractometers. The new Fast Powder Diffractometer (FPD) 900 high-precision diffraction systems have been specifically designed for flexible experimentation in advanced materials research, geological and pharmaceutical applications. The FPD Series incorporates Position Sensitive Detector (PSD) technology which allows the analyst to produce high-quality diffraction data on extremely small amounts of material at very high rates of speed. Extremely flexible in its design, the FPD 900 Series can be configured in a variety of ways to meet the specific needs of the user. System configurations include a choice of incident beam monochromators, theta-theta geometries, and solid state energy dispersive detectors. All FPD 900 Series systems are fully compatible with Philips APD 1700 Digital Equipment Corporation-based or Philips PC-APD personal computer-based software packages.

PW 1800 Diffraction System. Based on a recently developed goniometer advancement that combines high performance with ease of use and sturdy construction, the PW 1800 is designed for automated qualitative/quantitative powder analysis in research and industrial applications. All diffractometer functions are automatically controlled by a built-in array of five microprocessors. They respond to commands stored in memory, entered via a keyboard or from an off-site remote computer. This simplicity of operation makes a wide range of analytical applications possible. These include applications where X-ray diffraction may not have been previously considered. Because the PW 11800 combines the latest generator and technology in an integrated system, it provides both simple operation and high throughput. It is recommended for use in an R&D environ-

ment as well as cement production, geology, mining and metallurgical processing and pharmaceutical manufacturing, among other industries.

Philips Automated Laboratory Management System. This System provides a comprehensive software package that covers a full spectrum of laboratory activities and can be tailored to meet the specific needs of individual laboratories. Being a modular system, it is equally suitable for industrial laboratories, for independent test houses, or for busy research establishments. Reports created through P.A.L.M. can be customized to individual needs and can be automatically transmitted to up to eight different stations. The standard P.A.L.M. Kernel module contains wide-ranging facilities for day to day sample management and the retrieval of management information on many aspects of laboratory performance. Additional features available to expand reporting capabilities include: Reporting and Statistics, Charge Correction, Quality Search, Cost Accounting and ORACLE, a relational database for advanced search and reporting. P.A.L.M. can be interfaced with the Philips PW 1400 series sequential X-ray spectrometers as well as the PW 1600 series simultaneous X-ray spectrometers.

Philips PC-APD Software Package. This package has been developed for IBM XT/AT/PS2 or compatible computers and provides an easy to use, comprehensive qualitative/quantitative program specifically designed for use with Philips IPD Integrated Powder Diffractometers, MPD 1800 Multi-Purpose Diffractometers, and CPD Compact Powder Diffractometers. Providing an economical, yet powerful means of system automation for powder diffractometry applications, the PC-APD software package features extensive use of menus and input forms to make it simple and quick for the user to set up automatic analysis programs without the need to consult lengthy operating manuals. In addition to its speed and ease of use, the PC-APD software package now incorporates Philips CD-ROM PLUS 40 diffraction database to allow the user highly flexible search and match capabilities.

APD 1700 Package. Comprised of a large and still growing series of automatic and interactive modules, the APD 1700 offers powerful yet easy to use data processing capabilities for a wide range of X-ray diffractometry applications. Specifically designed to complement Philips' microprocessor controlled diffractometer systems, APD1700 runs on a DEC VAX and PDP computers employing the multi-user, multi-tasking VMS and RSX operating systems. A single computer may thus be employed for several instruments, while users can work simultaneously on setting up analyses, making measurements, and interpreting results. In addition to providing advanced facilities for automated phase identification, quantitative powder diffraction analysis, profile fitting, texture, and residual stress management, the package includes options for line profile analysis, crystallographic studies and 3-dimensional graphics. The ability to introduce user-defined databases and special routines gives further flexibility to adapt the functioning of any installation any installation to a laboratory's specific needs.

Commercial Announcements

Helios Software Announces MacPDF™, Version 1, a Search Retrieval Package for the PDF-2 Powder Diffraction Database

Helios Software, Inc., is pleased to announce the release of MacPDF™ version 1.0, a Search/Retrieval package for the PDF-2 Powder Diffraction database on the Macintosh. If you have a Mac Plus or any newer model, you will now be able to access the PDF-2 database directly with your Macintosh. All you will need in addition to the Macintosh is a CD-ROM reader such as the Apple CD-SC, about 12 Megabytes free on your hard disk (for indexes), and the PDF-2 database on CD-ROM provided by the ICDD. (MacPDF has been developed with the full knowledge and encouragement of the ICDD).

MacPDF™ is built upon a solid platform which will provide an advanced foundation for product development and innovation far into the future. For example, MacPDF™ is a true Macintosh application, programmed from the ROMS up, so to speak, not an MS-DOS application ported to the Macintosh. It is completely Multi-Finder compatible, and is developed in an environment which will allow it to take full advantage of the Macintosh graphically-based multi-windowing environment in all future development.

Helios Software is committed to maintaining and upgrading MacPDF™; indexes providing access to future PDF-2 database sets (sets 41 and above) will be available at or soon after publication by the ICDD of these sets. Upgrades will include new indexes and any bug fixes; fees will be comparable to those charged by the International Centre, as a percentage of the base price of the application. Currently, indexes for sets 38, 39 and 40 are available; contact Helios Software to determine availability of indexes for earlier sets.

We are currently working on the next stage of the application, which will incorporate complete Boolean search capability utilizing all available indexes, and testing MacPDF™ under Apple's exciting new System 7.0.

Capabilities for version 1.0 include:

- **File IO** – Users can create their own subfiles of PDF Cards on hard disk ... Files are saved from lists of cards in memory; full clipboard capabilities for these lists – cutting, copying, and pasting cards to and from lists.
- **Printing** – ImageWriter ... LaserWriter.
- **Card Display** – Single display window for any PDF Card, even if it is stored in multiple cards in the data base ... Pattern lines in scrolling list; all visible from the one card.
- **Search/Retrieval** – By PDF Number, mineral name, chemical name, (organic & inorganic) & by 3 Strongest lines.
- **Graphical display** – Graphing of 'stick figure' patterns by clicking 'Graph' button from open PDF Card ... User-specifiable wavelength at which to graph the stick figures.

Future versions of the application will include the ability to communicate directly with other applications, by saving cards, search results, stick figures, etc., as TEXT or PICTs; currently, the user can incorporate images of cards or stick figures into word processing, graphics and desktop publishing applications by saving screen dumps and loading them into these applications.

Helios Software, Inc., Box 44-1215, W. Somerville, MA, 02144. (617) 776-2943.

Capillary Tubes and Laboratory Supplies for X-Ray Diffraction Use

Kodak Direct Exposure DEF 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.

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Attend an ICDD Short Course & Workshop



Advance your PDF Skills

- Learn to identify/characterize crystalline substances using powder diffraction data.
- Build proficiency in interpretation of experimental powder data – especially using the *Powder Diffraction File*.
- Hands on work sessions ... manual & computer search methods ... comprehensive work book provided.

Search Match Methods

Late Fall

West Coast

Clinics – The Pennsylvania State University

XRD June 17-21, 1991 (Basic) June 24-28 (Advanced)

XRF July 18-12, 1991 (Basic) July 15-19 (Advanced)

For further information contact:

Ms. Josephine Felizzi

JCPDS-ICDD

1601 Park Lane, Swarthmore, PA 19081

USA (215) 328-9400 Telex: 847170

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