

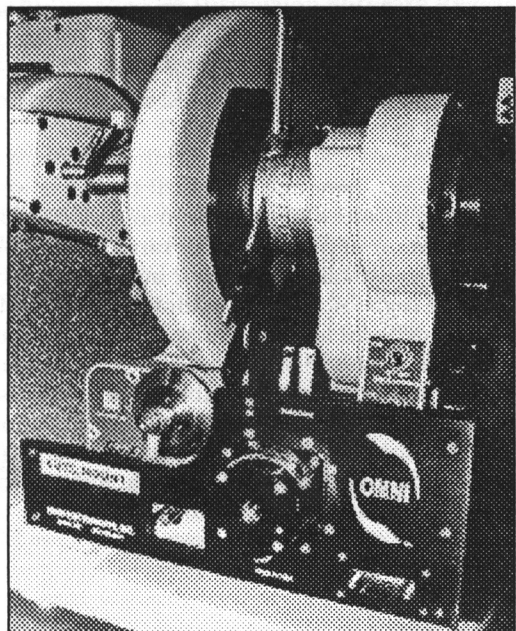


# THE FIRST STEP TO...

## INSTRUMENT AUTOMATION

**DON'T SPEND A FORTUNE ON A NEW X-RAY INSTRUMENT!  
AUTOMATE YOUR OLD ONE FOR A FRACTION OF THE COST!**

### AUTO-MOUNT™



**S**ince 1981, Omni Instruments™ has built a reputation in X-ray instrument automation that is second to none. We offer a complete line of automation, instruments, and accessories that are designed with the user in mind:

- Our modular component designs give users repair options— through Omni's repair depot exchange program or manufacturer's direct. Both are affordable alternatives to field service repairs.
- Designed-in versatility allows us to fill individual requirements with custom configurations.
- All Omni products are designed and manufactured in the U.S. from the highest quality materials available.
- Customer satisfaction is our most important product. That's why we offer a 100% money-back guarantee and a full one year warranty on parts and labor on every product we make.

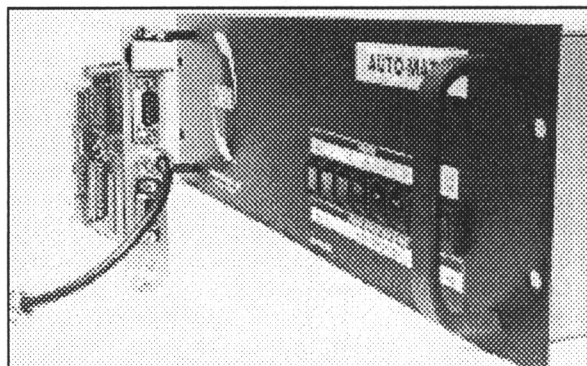
The Auto-Mount™ is our patented method for mounting a stepping motor and optical sensors to Philips XRD and XRF instruments.

- Quick and Easy to Install (about 15 minutes)
- No Realignment or Down Time
- Stepping Motor and Tool Kit Included
- Adjustable Optical Limit Sensors
- Standard 15 pin "D" Connector
- Factory Pre-assembled

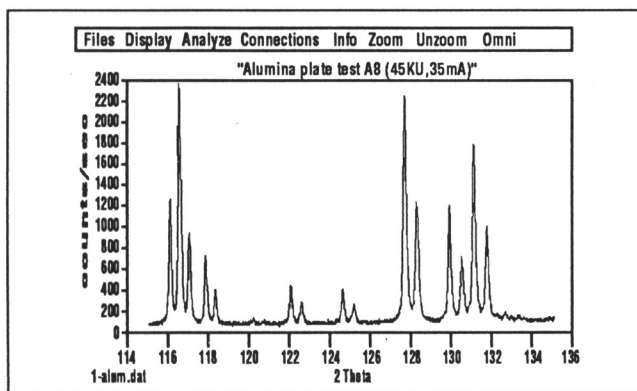
### AUTO-MATE™

The Auto-Mate™ is a motion control and data acquisition system specifically designed for XRD and XRF instrument automation.

- Models for Philips, Siemens, GE, Diano, Packer, Huber and Others
- 1 to 12 Axes of motion, Circular and/or Linear
- Bipolar Bilevel Motor Drivers with POWER-SAVE™
- Multiple Mode Counters/Timers
- Off Line and Interactive Scans
- Conventional and Zones Scans
- On Screen User Selectable Setup Parameters
- Modular 5.25" Rack Mount or Table Top Package
- No NIM Bin Required



### AUTO X-RAY™



Auto-Xray™ is an integrated graphics and analysis software package for the IBM PC:

- Mouse Driven Pull Down Menus and Pop Up Windows
- Zoom, Pan, Multiple Spectra, Auto Labeling
- Smoothing, Base Subtract, D, I, Area, etc.
- Edit and Store Run Parameters and Data
- Auto and Manual Peak Search
- User Selectable Setup Parameters
- Printer and Plotter Hardcopy
- Search/Match and Custom Software
- Compatible With All Other Search/Match and Analysis Software



# THE RIGHT SOLUTIONS.

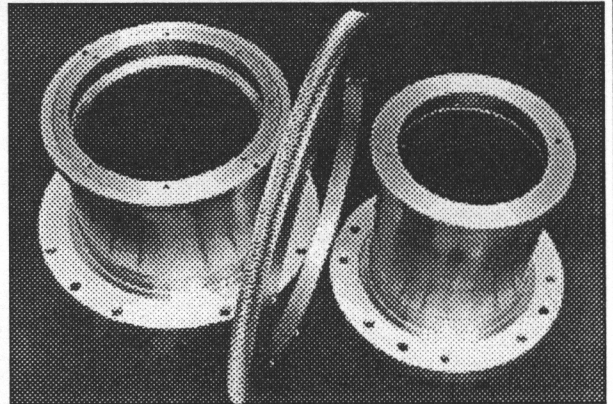


## PRECISION INSTRUMENTS

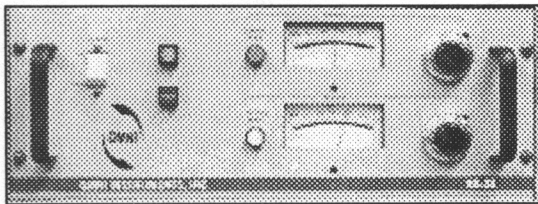
### Mechanical and Optical

Precision bearings, gears and optical components:

- Custom Precision Goniometers of All Sizes:  
Theta/2Theta, Theta/Theta, 4 Circle, 6 Circle, Linear XYZ Tables, etc.
- Detector Arms, Optical Mounts and Movements
- Worm Gears and Drives
- Position Encoder Systems
- Remanufactured Goniometers:  
Philips, GE, Diano, Siemens, Picker, Huber, others...
- Laser Diffraction Systems



## X-RAY ACCESSORIES

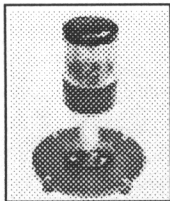


### XR-3K™ X-ray Generator for XRD and XRF

- 3KW High Frequency Switching Power Supply
- Very High Stability and Regulation
- Rack Mount Modular Packaging
- XRD / XRF Switch
- Federal Connector
- No Oil Tank

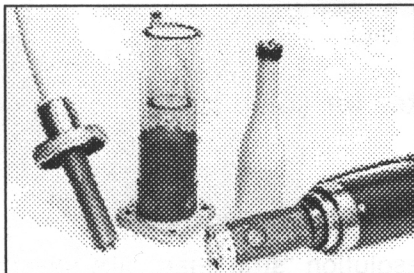
### XL-1™ X-rays On Safety Light

- AC and DC Models Available
- Direct Lamp, Double Interlock Available



### Tubes, Cables, and Connectors

- Factory New XRD and XRF Tubes
- Factory Warranties and Service
- 7V to 13V Conversion Kits and Systems
- Tube Towers and Shutter Controls

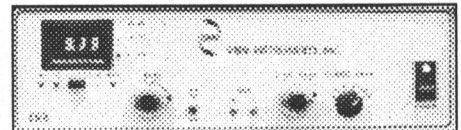


## DETECTOR SYSTEMS

### IDES™

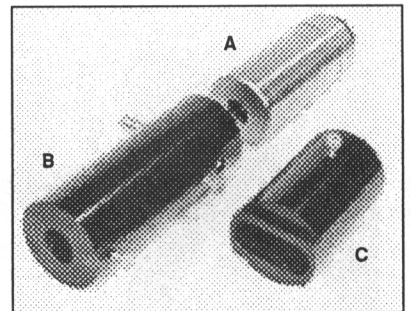
An integrated detector electronics interface system:

- H.V. Detector Power Supply
- Detector Pre-Amplifier
- Linear Amplifier
- Pulse Height Analyzer
- Digital Rate Meter
- Rack Mount or Table Top
- No NIM Bin Required



### Detectors (A)

- Scintillation and Peltier Technology
- Different Crystal sizes
- Different Window Types
- Proportional Detector Retrofit Systems

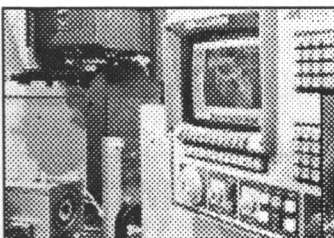


**DM-P™ (B):** detector mount for the Philips Powder XRD

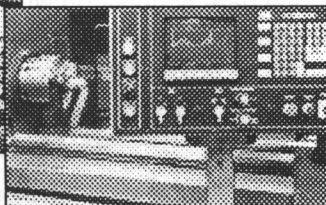
**DM-K™ (C):** detector mount for the Philips Kratky Camera

- Radiation Shielding Between Monochromator and Detector
- Remove and Replace Detector Without Disturbing Alignment
- Easier Alignment of Monochromator and Detector Path
- Other Models Available

## MACHINE SHOP SERVICES



- CNC Turning Center
- CNC 4 Axis Milling Center



- Manual Engine Lathes
- Digital Vertical Milling Machine
- Digitizing Center

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# Theta.XRD<sup>TM</sup> ThetaPlus<sup>TM</sup>

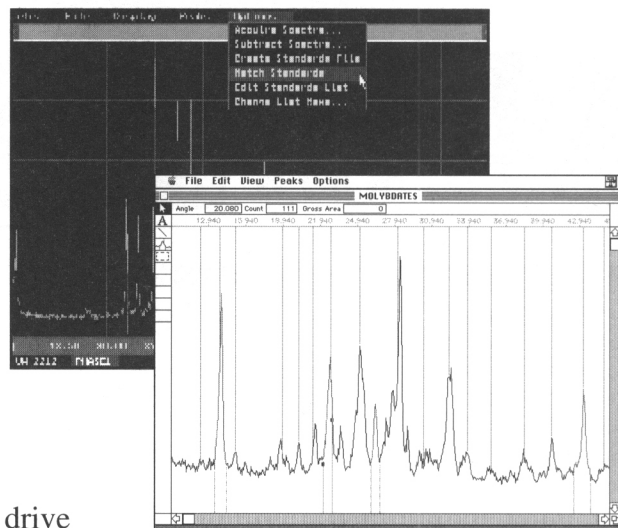
X-ray Diffractometer Automation  
from Dapple Systems

Enhance the analytical performance of your x-ray diffractometer. Choose **Theta.XRD** for IBM PC compatibles or **ThetaPlus** for the Macintosh II series computers.

Both provide:

- Precise stepping motor control of the two-theta drive
- Automatic peak height and d-spacing calculation
- Time-saving search/match operation
- Clear and efficient operator interface

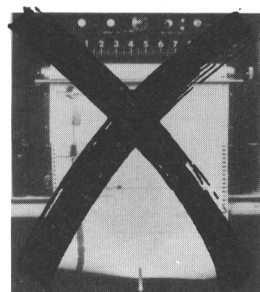
Assure continued reliable operation from your existing system, at a fraction of the cost of replacement. To learn more about the best way to automate your x-ray diffractometer, call or write today.



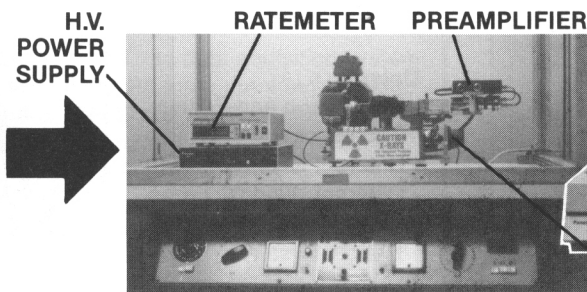
355 W. Olive Avenue, Suite 100  
Sunnyvale, CA 94086  
Tel: (408) 733-3283  
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PD19

## DIFFRACTOMETER AUTOMATION FOR ONLY \$4600



Why Struggle with This?



When You Should be Using This!



Let your PC operate your diffractometer for you!

	CHART RECORDER	SDAC-10
<b>OPERATION:</b>	Manual	Automated (unattended).
<b>OUTPUT:</b>	Strip chart spectrum with written notes	High resolution "strip chart" like spectrum printout. Data stored on disk for future processing.
<b>DATA PROCESSING:</b>	Manual measurements	Data ready for import to data analysis program.
<b>ADVANTAGES:</b>	None	Unattended data acquisition with multiple section scans. Ideal for production analysis.

Basic system consists of a digital ratemeter, fast computer interface with stepping motor driver, stepping motor, and menu driven acquisition software, all for only \$4600.

PD20

For more information, call (303) 449-2288 or write MIT Corp. 2434 30th Street, Boulder, CO 80301



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PD21

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**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.



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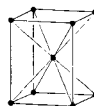
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(NIST/Sandia/ICDD)

Crystallographic & chemical data on over  
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## NIST Crystal Data File

Crystallographic & chemical data on over  
149,000 crystalline materials\*

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\*Available for IBM-PC compatibles & VAX

PD23

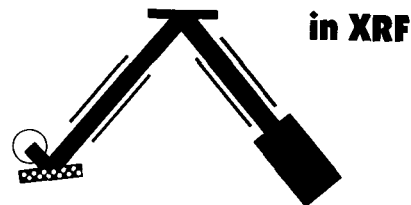
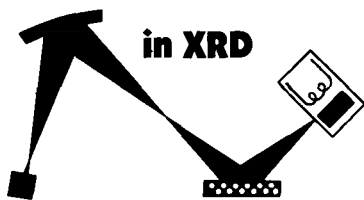


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### In our Three Day Short Course you will ...

- Learn to identify/characterize crystalline substances using powder diffraction data.
- Build proficiency in interpretation of powder patterns of unknown materials, using the *Powder Diffraction File*.
- Have hands-on work sessions in manual and computer search methods ... Comprehensive work book provided.

### Our Clinics consist of two one-week courses each, in either XRD or XRF...

- 1st week ... Fundamentals of discipline, emphasis on instrumentation, specimen preparation & data acquisition ... Qualitative & simple quantitative analysis methods.
- 2nd week ... Advanced methods in XRD and XRF, respectively, with emphasis on computer-based methods of data collection & interpretation.

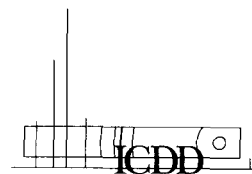
**Short courses:** West Coast, November, 1991 ... Florida, March, 1992

**XRD & XRF Clinics:** June/July 1992. Venues to be announced in early 1992

For information contact ... Ms. Josephine Felizzi ... Mario Fornoff  
(Short Courses) (Clinics)

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PD25

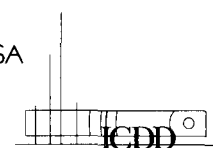
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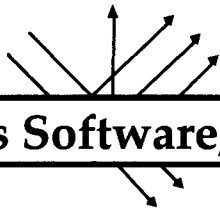
Mary M. Rossi, Assistant to the Managing Editor  
Powder Diffraction  
ICDD International Centre for Diffraction Data  
1601 Park Lane  
Swarthmore, Pennsylvania 19081 USA

Telephone: 215 328 9403  
FAX: 215 328 2503





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Siemens	Inside Front Cover	PD1
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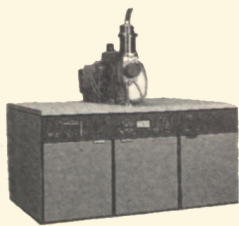
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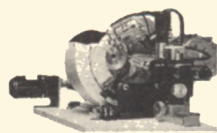
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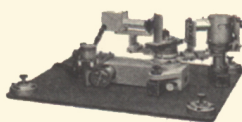




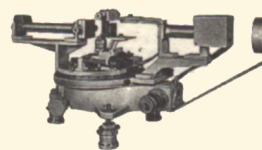
35 KW/mm<sup>2</sup>  
X-Ray Generator



PSPC Micro  
Diffractometer



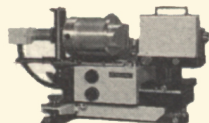
Double Crystal  
Topographic Unit



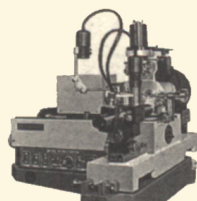
Scanning  
Micrographic Camera



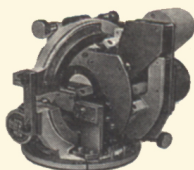
1500° High Temp  
Attachment



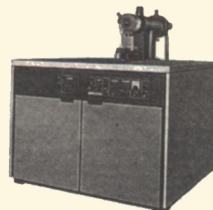
Dual Axis SASG



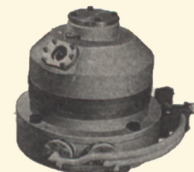
Microdiffractometer



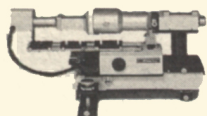
Pole Figure  
Attachment



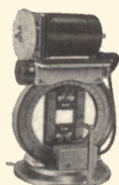
Microfocus  
X-Ray Generator



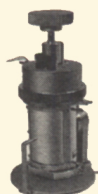
2500° High Temp  
Attachment



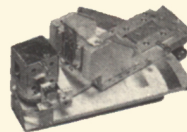
Small Angle Scattering  
Goniometer



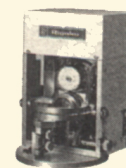
Fiber Specimen  
Attachment



H. T. Fiber Elongation  
Attachment



Selectable  $\lambda$   
Monochromator



Ry Attachment

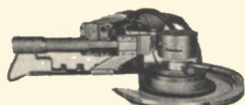
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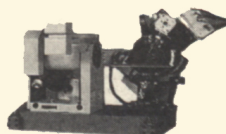
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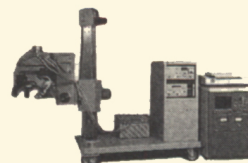
Stress Attachment



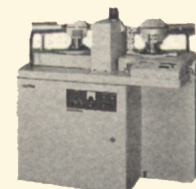
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PSPC Micro Area  
Stress Analyzer



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Piezo Goniometers



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**They didn't look at the price, either—under \$50,000\* installed.**

When it comes to price, performance and ease of installation in an X-ray diffraction system, nothing beats the Philips PW1840. We specifically designed the PW1840 to deliver fully automated, cost-effective qualitative and quantitative analysis in a system that won't take much space in your lab—or much of a bite out of your budget.

The PW1840 can be installed quickly on an ordinary counter-top. Its logical, fail-safe operation and reliable performance allows staff members to become productive with it, just as quickly.



Combining rugged construction, simple operation, an unique solid-state detector with integral electronic aperturing and a self-adjusting divergence slit, the PW1840 has been designed to withstand long hours of operation

in labs with reliability and safety.

Those same qualities that make the Philips PW1840 Compact Powder Diffractometer such a vital bench-top tool for the commercial and research facility, work just as effectively in the university or technical school.

For more details or a demonstration of the Philips PW1840, contact Philips Electronic Instruments Company, 85 McKee Drive, Mahwah, NJ 07430. Telephone (201) 529-3800.

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