

Pictured above: On the left is a triple sample Guinier powder camera, on the right a temperature programmable Guinier camera, shown mounted on a sealed tube X-ray generator.

FOR YOUR DIFFRACTION APPLICATIONS, OUR EQUIPMENT LINE INCLUDES:

- X-Ray Generators: Conventional Sealed Tube and Rotating Anode Types
- Ambient Temperature, Temperature Programmable Analytic Guinier Cameras
- CAD-4 Single Crystal Diffractometer, FAST Area Detector.
- Specialty Cameras
- EXAFS Systems
- Much More



For Information Please Contact **ENRAF-NONIUS** Or Your Local **ENRAF-NONIUS** Agent

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PD22

PORTABLE IMAGE X-RAY INTENSIFIER



FEATURING . . .

- REAL TIME CAPABILITIES FOR . . .
X-RAY IMAGING
X-RAY TOPOGRAPHY
LAUE CRYSTAL ORIENTATIONS
- RAPID ALIGNMENT OF . . .
CONVENTIONAL TOPO CAMERAS
COMPLEX X-RAY OPTICS

OFFERING . . .

- DIGITAL IMAGING
- INTERFACE/IBM PC
- CUSTOM DESIGN SERVICES



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PD23

Powder Diffraction File 27-28

Now available in book form sets

Inorganic Volume:

2882 numeric diffraction patterns of inorganic phases, metals, alloys and minerals.

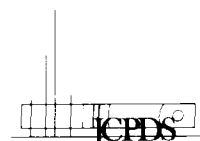
Organic Volume:

992 numeric diffraction patterns of organic and organometallic phases.

Crystallographic evaluation data made with program NBS* EXAIDS83. Figure of merit for completeness and accuracy of interplanar spacings is assigned to each indexed pattern.

For further information write or call:

JCPDS
International Centre for Diffraction Data
1601 Park Lane, Swarthmore, PA 19081
USA (215) 328-9400



PD24

Do you need to expand your x-ray diffraction analysis capabilities?

IC Laboratories can expand your analytical capabilities without increasing your overhead. In qualitative or quantitative x-ray diffraction analysis—from clays to zeolites, from coal to thin films—IC Labs can give you rapid turn-around of results (as little as 48 hours). We have one of the most highly automated commercial laboratories in the U.S. and the personnel with the knowledge to address your applications.


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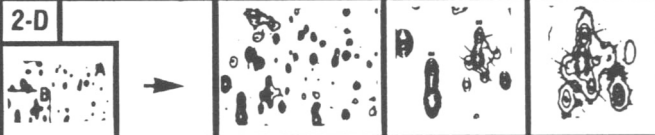
X-RAY DIFFRACTION



DENSITOMETRIC TRACING
 (Various computer programs for analysis)




2-D



Peak	(X, Y)	Size	Base Area	%Size	Amount
#1	(115, 29)	39141	478	14.3	1.2298
#2	(140, 46)	33828	-74	12.4	1.0664
#3	(4, 50)	3890	146	2.2	-1992
#4	(96, 81)	5137	124	1.9	-1634
#5	(163, 100)	35202	358	12.9	1.1094
#6	(228, 100)	7873	193	2.9	-2494
#8	(124, 111)	17103	243	6.2	-5332
#9	(16, 120)				

PICTORIAL

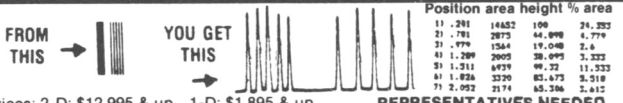


Quantitate

1-D

MOLECULAR WEIGHT	Automatic DNA-SEQUENCING	SUPERIMPOSITION
PEAK # POS. MOL. WT.	DATA1 (A)	Graph & Quantitation Difference
1 .07 61.07	DATA2 (T)	
2 .23 77.64	DATA3 (C)	
3 .28 85.08	DATA4 (G)	
4 .37 97.55		
5 .44 107.84		

FROM THIS → YOU GET THIS



Position	area	height	% area	
11	281	14652	100	21.252
21	781	2873	44.899	4.779
31	979	1564	19.048	2.6
41	1289	2005	38.693	3.222
51	1311	6929	69.32	11.532
61	1626	3320	85.673	5.518
71	2052	2174	65.386	2.615

Prices: 2-D: \$12,995 & up 1-D: \$1,895 & up REPRESENTATIVES NEEDED.

1-D Complete System (Laser scanner, computer, disk drive, monitor, printer) \$6,990

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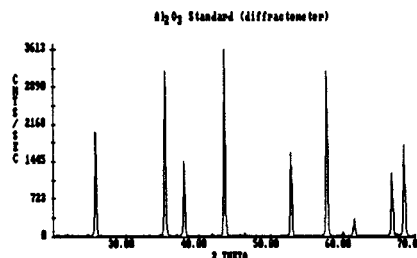
PD26

Materials Data, Inc. Has Software for Your IBM-PC!

Micro-Peak Data reduction including smoothing, background subtraction, peak finding, graphical compare and more.

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PD27

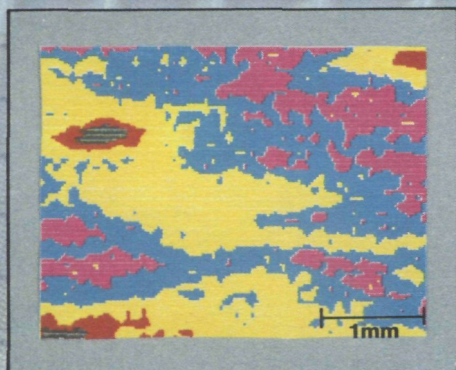
world's first . . . near real-time

DARC

DIGITAL AUTOMATED ROCKING CURVE

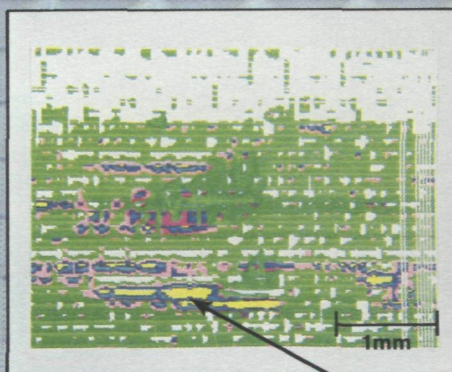
X-RAY TOPOGRAPHY SYSTEM

HgCdTe - epi

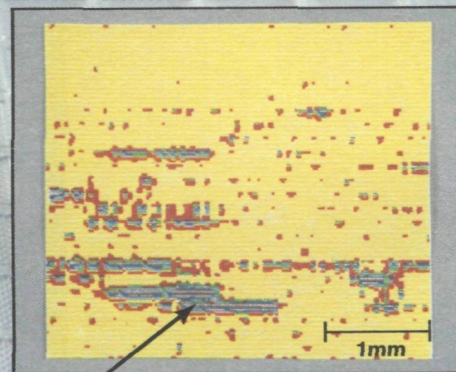


Subgrain Structure

GaAs - wafer



Pre-filter



Post-filter

Dislocation Bundles

- **DEFECT MAP ENTIRE WAFER**
- **NON-DESTRUCTIVE, NON-CONTACTING**
- **ON LINE CAPABILITY**
- **CALL OR WRITE FOR DETAILS**



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PD28

INTRODUCING

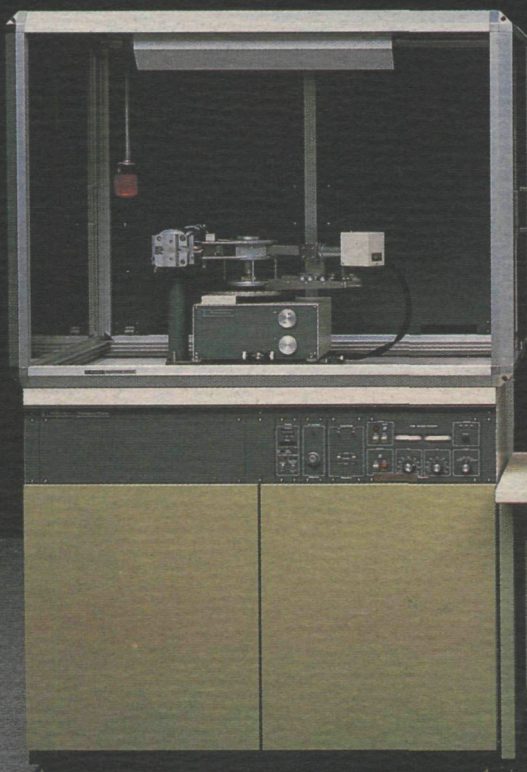
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PUTTING POWER INTO POWDER ANALYSIS

Philips automated XRD systems have the power to make your powder analyses quicker, easier and much more reliable. Unlike conventional wet chemical methods, which often rely on sample solubility (and not all samples are soluble!), XRD analysis is non-destructive. So you can be sure of more reliable, detailed results. And your sample remains intact for other complementary analyses. Furthermore, sample preparation is very fast. Airborne dust, for example, can be collected on inexpensive paper filters, ready for immediate analysis. Data collection is also fast, taking minutes rather than hours. All of which adds up to quicker results... and significant cost savings.



When it comes to data processing, our comprehensive software range is more than a match for any application. Qualitative analytical software rapidly and accurately identifies major and minor constituents. And quantitative analyses are accurate down to trace levels – even with very small samples. Other software modules include line profile and crystallographic analyses. In all cases, report generation is automatic, which cuts out one more tedious, time-consuming task for you. And that's another example of the power of Philips XRD. For more information, contact your local Philips organization... you'll find it's well worth the effort!

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