# Powder Diffraction

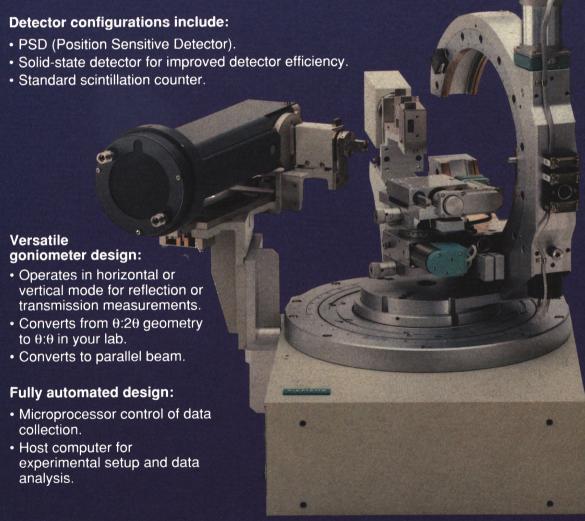
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Volume 5 Number 4 December 1990

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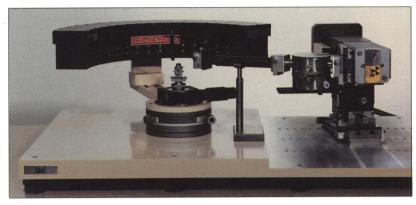
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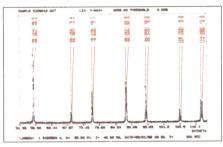
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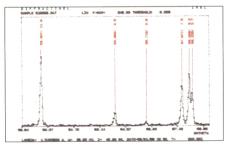
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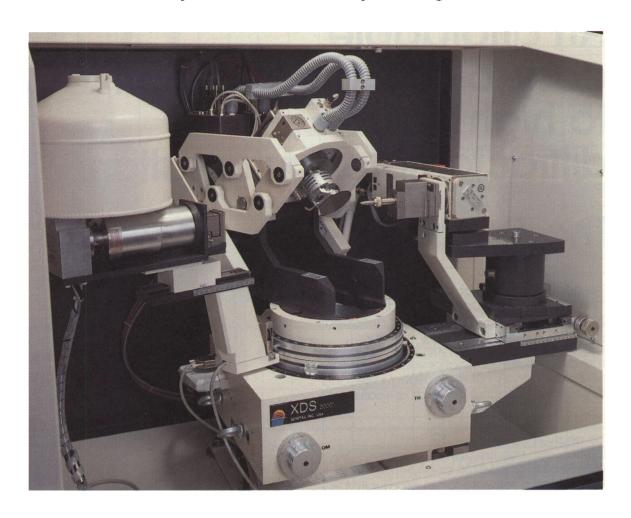
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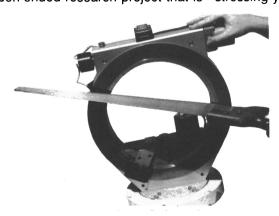
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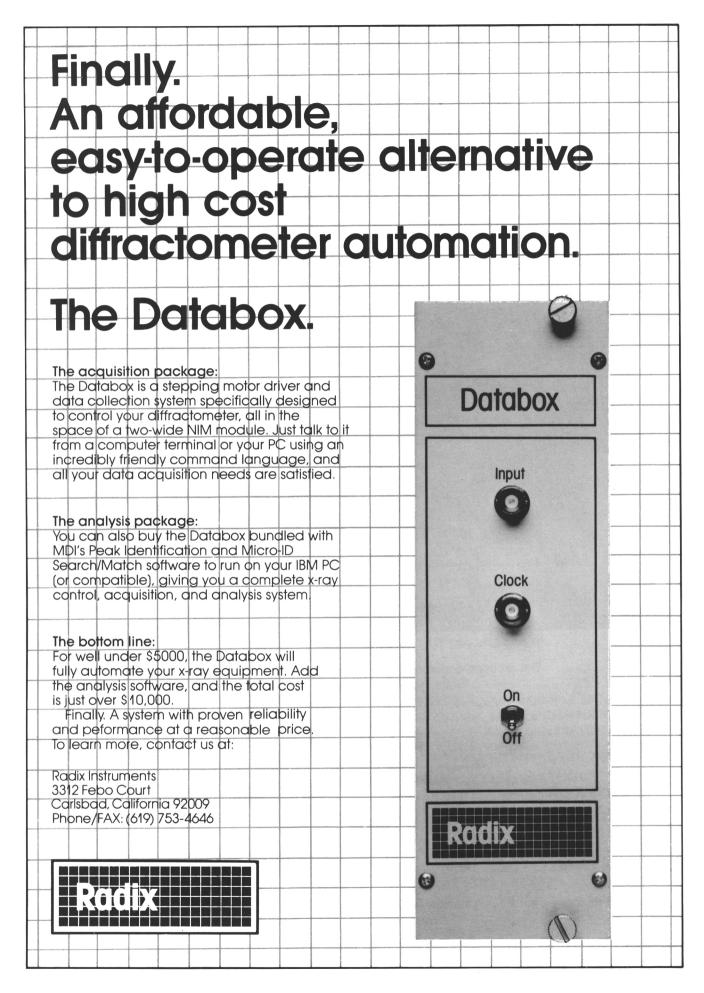


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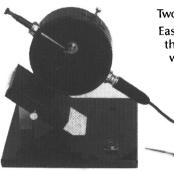


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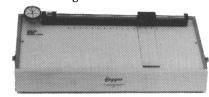
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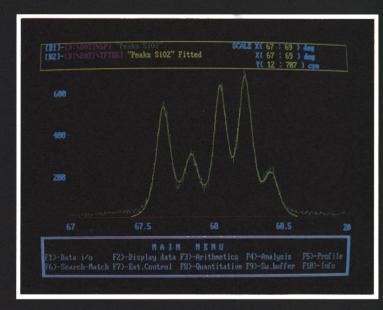
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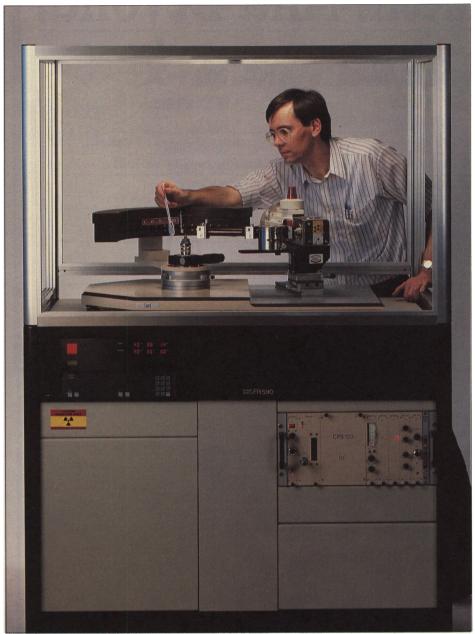
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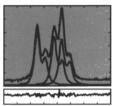
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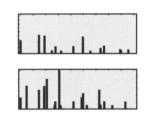
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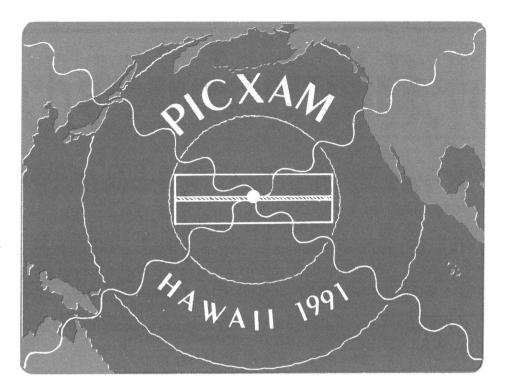
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### Second Announcement...

The first international congress on X-ray Analytical Methods for Materials Analysis will be held in Honolulu, August 12-16, 1991, at the Hilton Hawaiian Village.

# Congress Theme...

The major thrust of this meeting will be related to the practical aspects involved in X-ray methods for materials analysis. This will be in keeping with the tradition of the Australian X-Ray Analytical Association (AXAA), the Denver X-Ray Conference and the X-Ray Chemical Analysis Group of the Japan Society of Analytical Chemistry.

To be discussed will be the use of X-ray methods based on Powder Diffraction, Fluorescence, Surface Analysis, Absorptiometry, Column Electron Diffraction and Thin Film Characterization by X-ray Diffraction, and Trace Analysis and Thin Film Characterization by X-Ray Fluorescence.

A two day pre-congress workshop program will be held at the University of Hawaii at Hilo, on August 8 and 9.

#### PICXAM is organized by:

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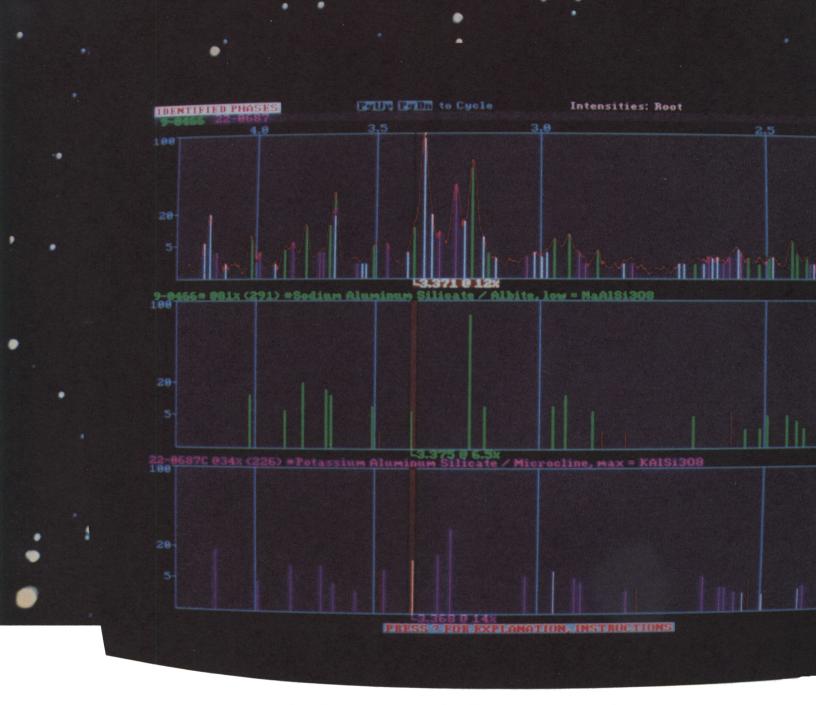
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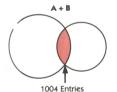


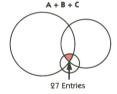


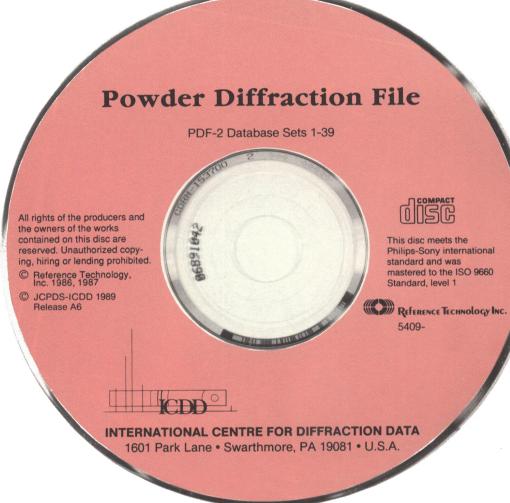
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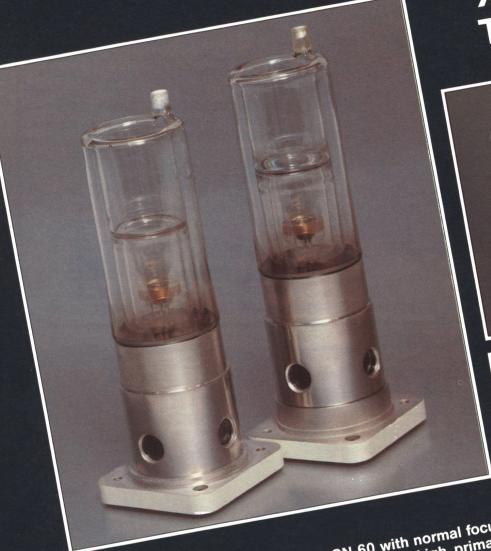
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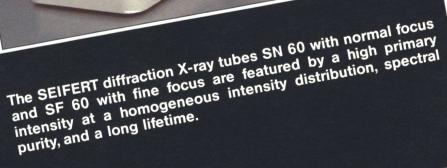


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#### **Editorial**

#### Continuation of the SUNY Clinic in X-Ray Fluorescence Analysis

In June of 1991, the International Centre for Diffraction Data, ICDD, will sponsor the continuation of the Albany Clinic on X-Ray fluorescence analysis. The success of the Clinic on X-ray powder diffraction offered in 1990 and the large number of requests for the corresponding course on X-ray fluorescence has prompted the ICDD Board of Directors to approve and encourage this project.

Many laboratories make use of elemental information obtained by X-ray fluorescence analysis, XRF, to supplement the data obtained from X-ray powder diffraction experiments, XRD, for qualitative and quantitative phase identification. The ability of both the wavelength dispersive and energy dispersive methods to yield information on both "elements present" as well as "elements absent" greatly simplifies the identification of probable phases, in addition to providing semi-quantitative elemental information which may augment the calculations in determining the phase abundances. The use of both XRF and XRD data is greatly enhanced by the commonality of equipment components. As an example, the same high-voltage generator can be used to power either an XRF tube or an XRD tube. There is similar duplication in the detector counting and recording chains. Some manufacturers have even designed combination XRD/XRF units which obtain both measurements without shifting the sample. In the United States, roughly two thirds of all industrial laboratories which employ XRD methods also use XRF.

Thus, the application and use of XRF methods are generally well appreciated in the powder diffraction community and because of this general interest, the ICDD has decided to include courses in XRF as part of the 1991 "X-Ray Clinic", thus perpetuating the scheme employed by the now defunct SUNY X-Ray Clinic. When the SUNY Clinic was discontinued after the 1989 session, the ICDD agreed to continue at least the XRD portion. The first of these ICDD-sponsored XRD Clinics was held at The Pennsylvania State University in June of 1990. In sponsoring both XRD and XRF disciplines, the ICDD hopes to cater to an obvious need in the materials analysis community. It also demonstrates the ongoing commitment of the International Centre to education in the X-ray analysis field.

Further information on the 1991 Clinics may be obtained by contacting Mario Fornoff at ICDD headquarters. The phone number is (215) 328-9400.

Ron Jenkins Principal Scientist, ICDD