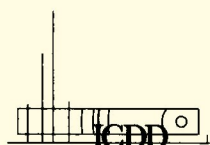


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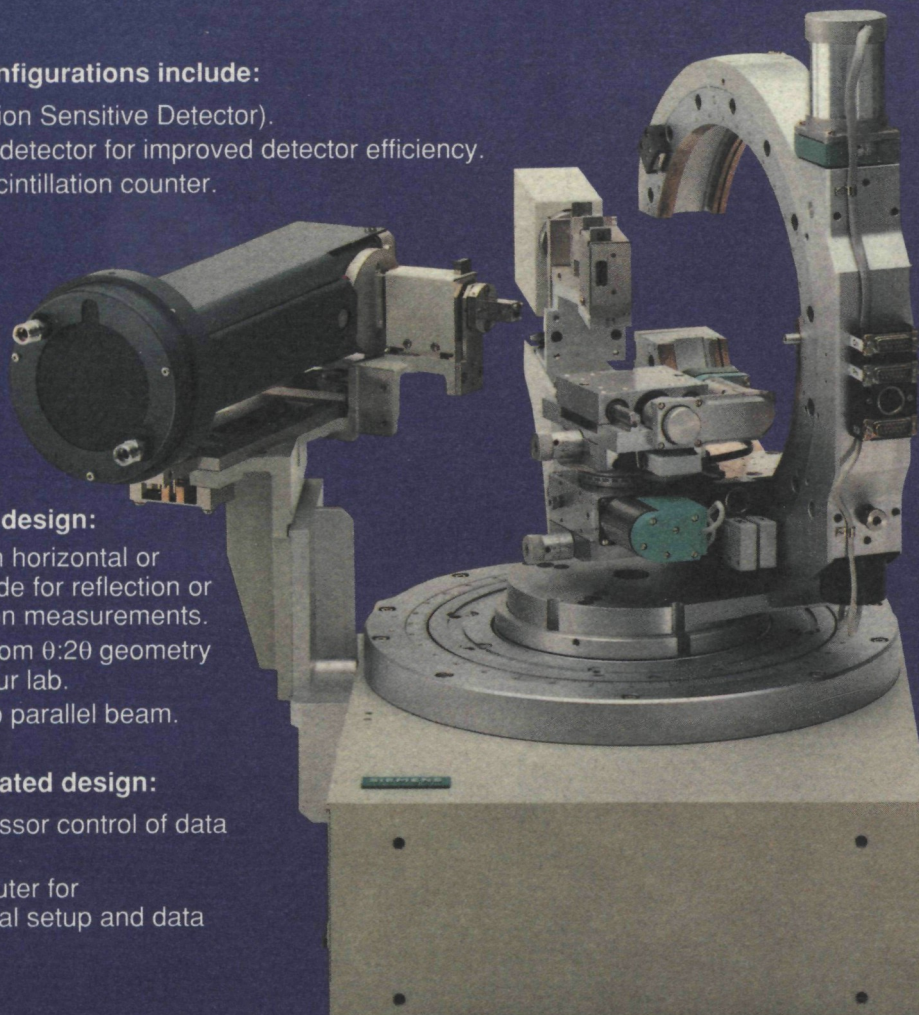
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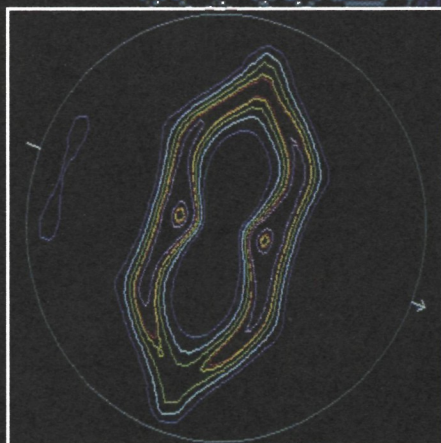
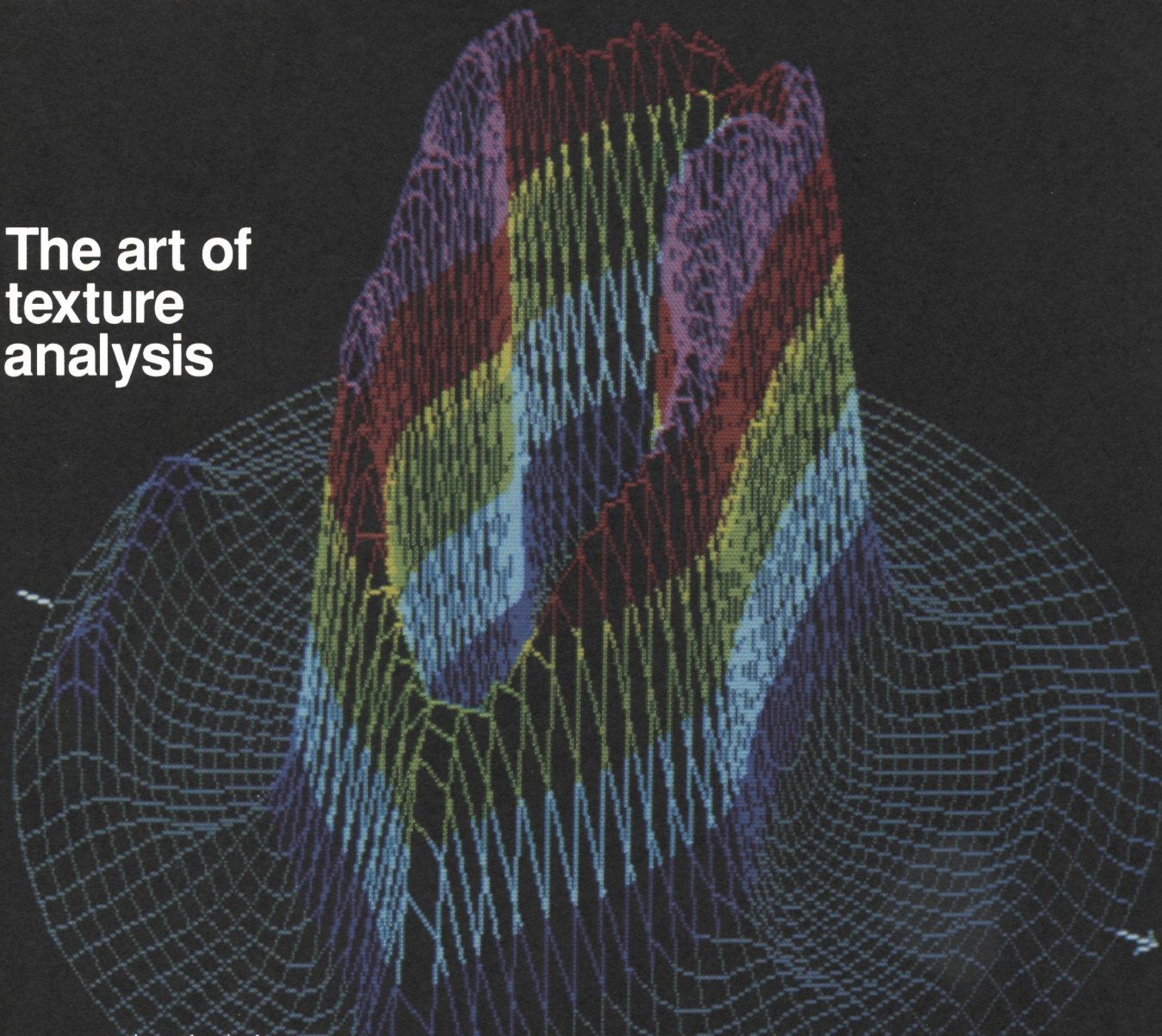
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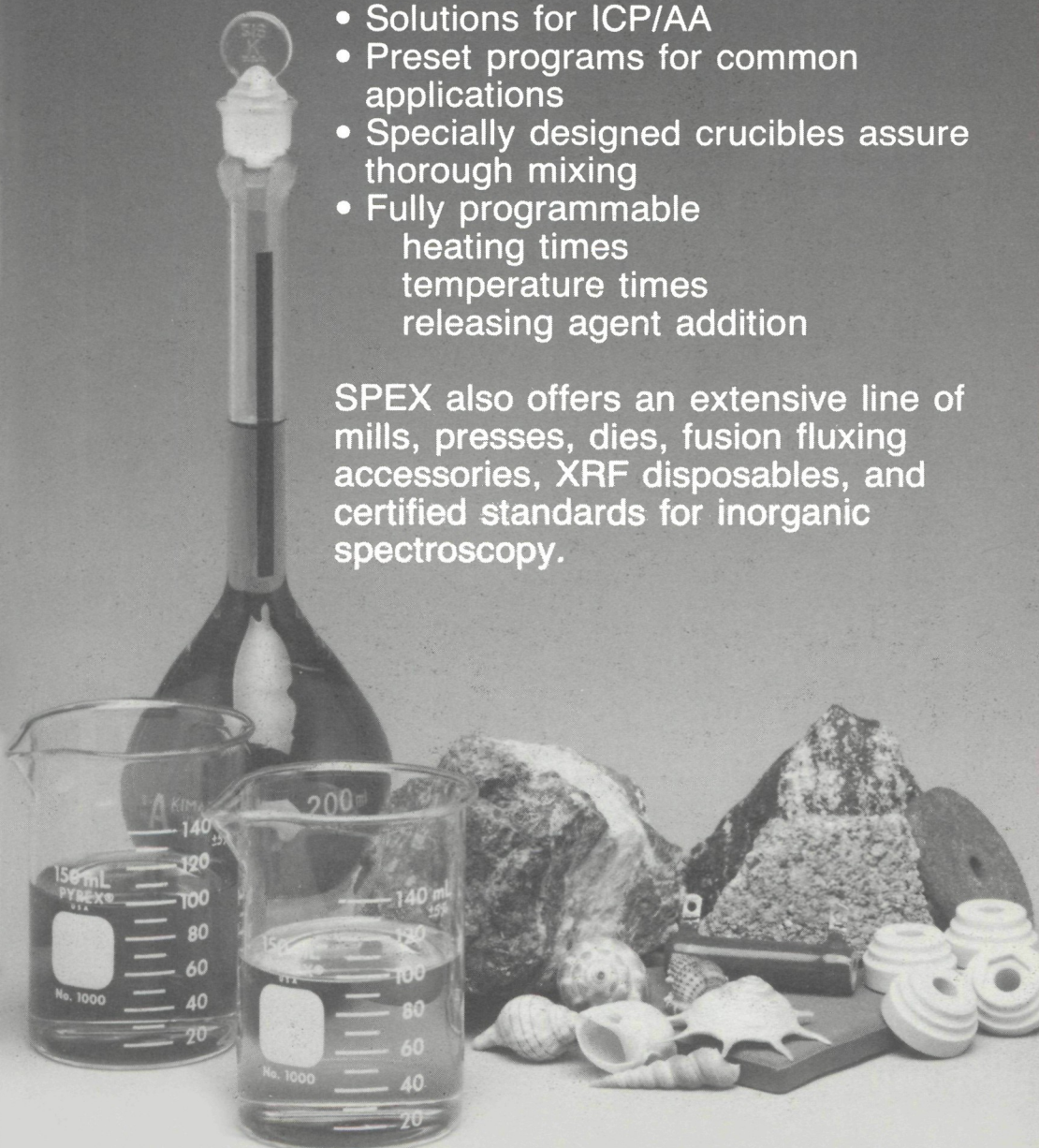
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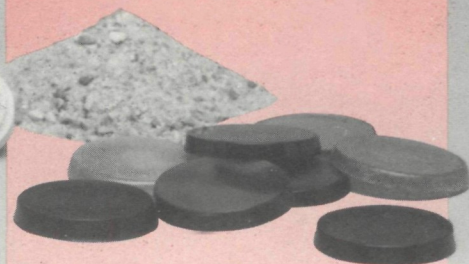
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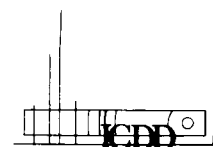
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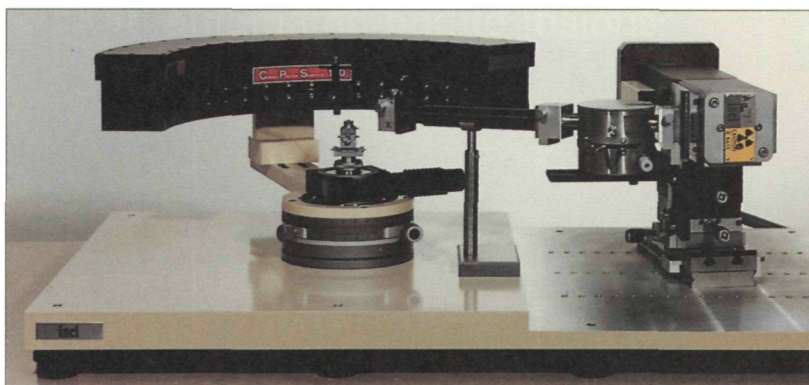
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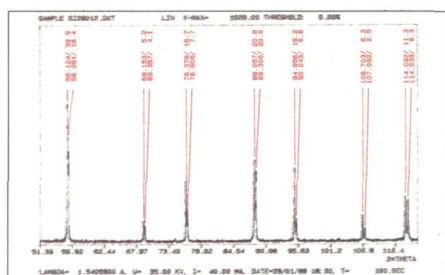




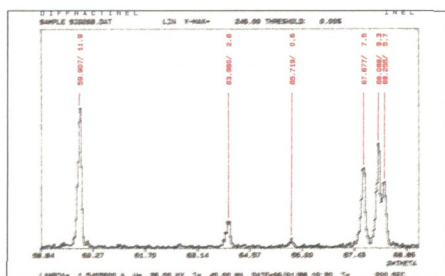
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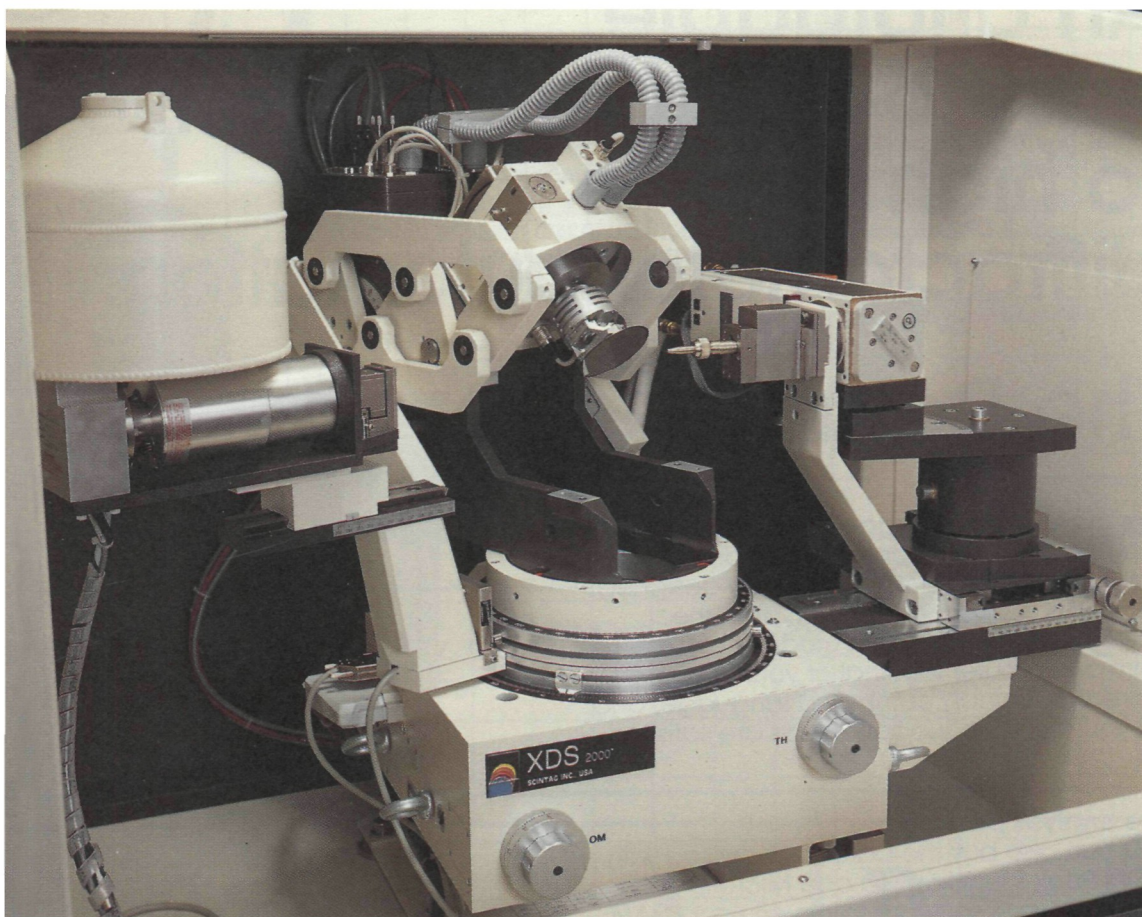
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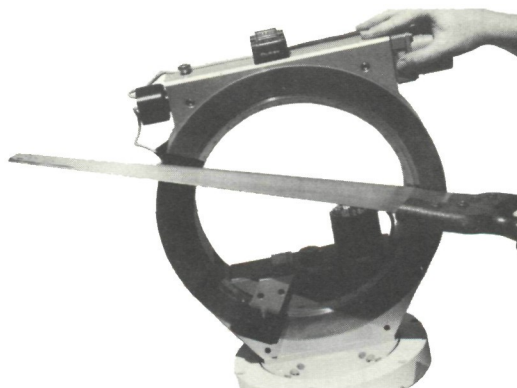


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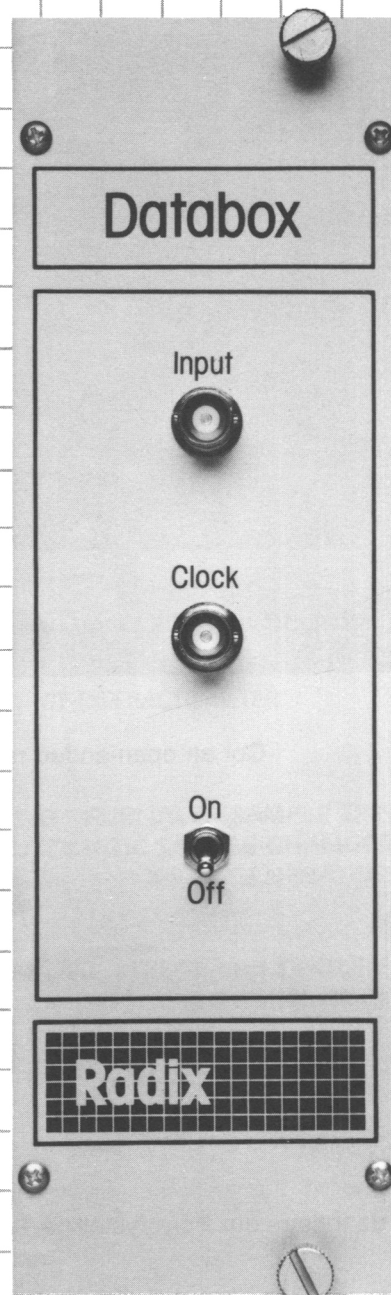
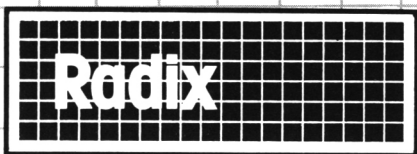
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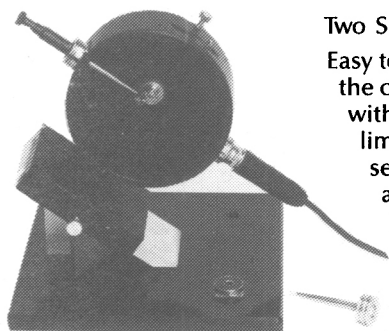
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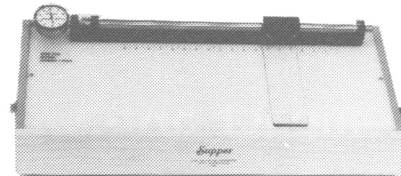


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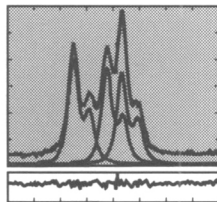
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PD7

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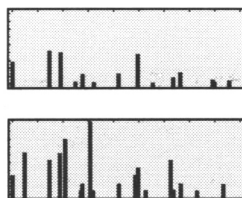
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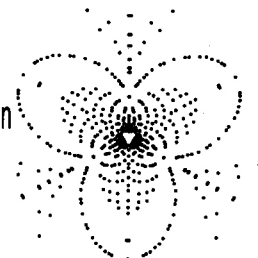
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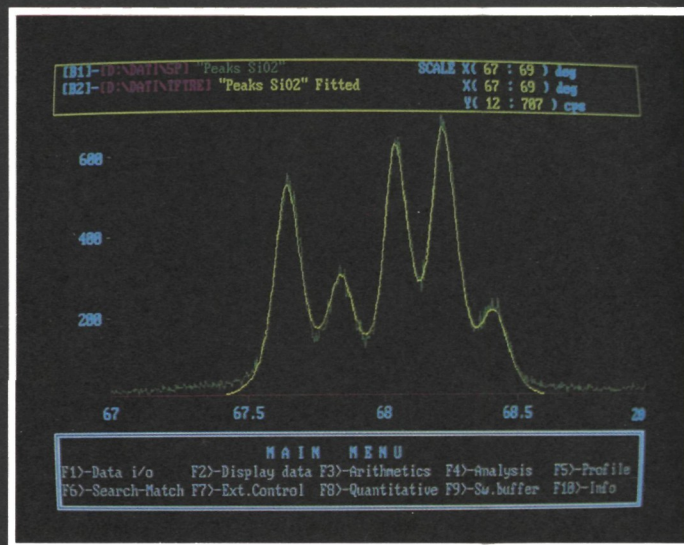
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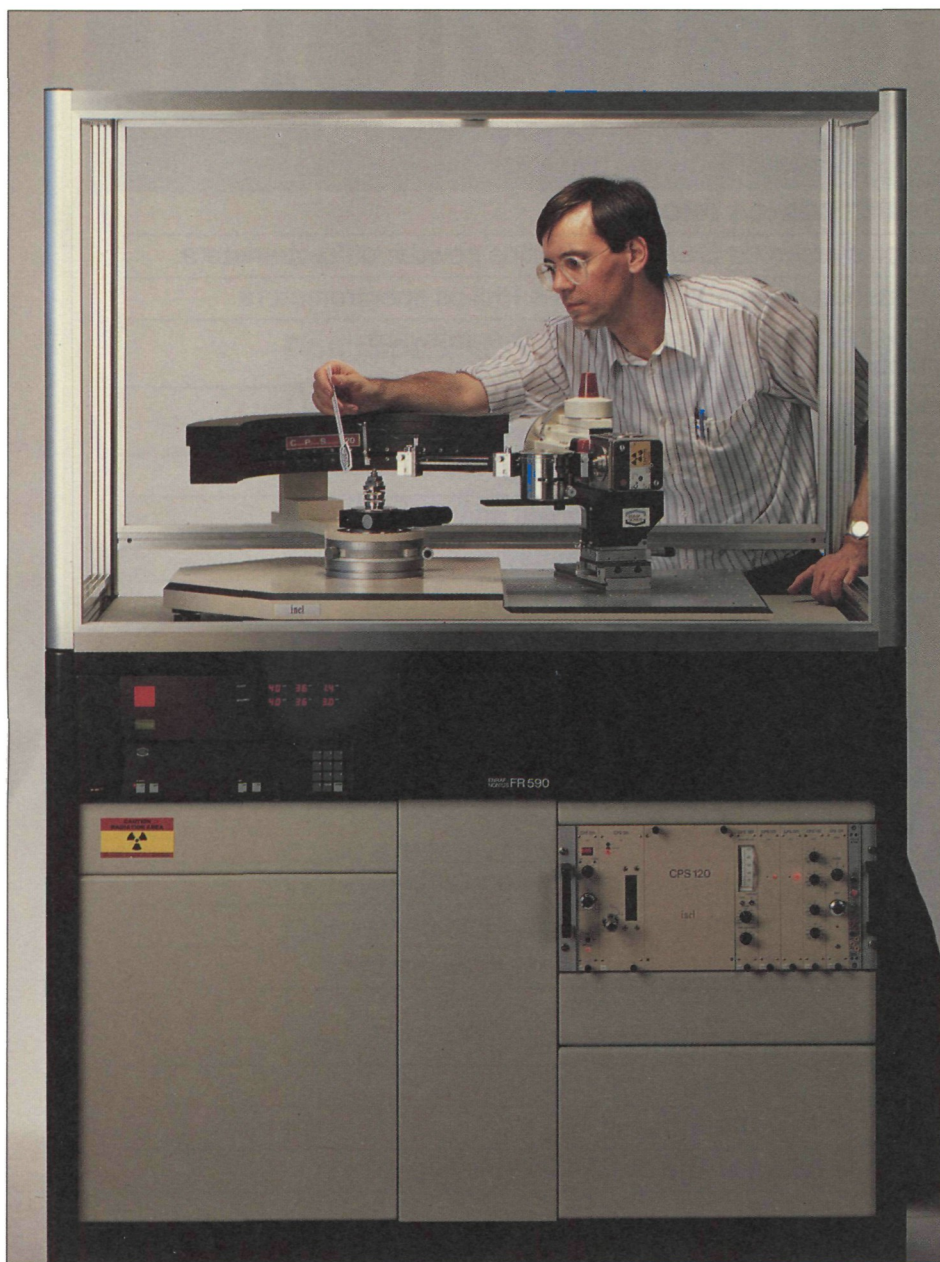
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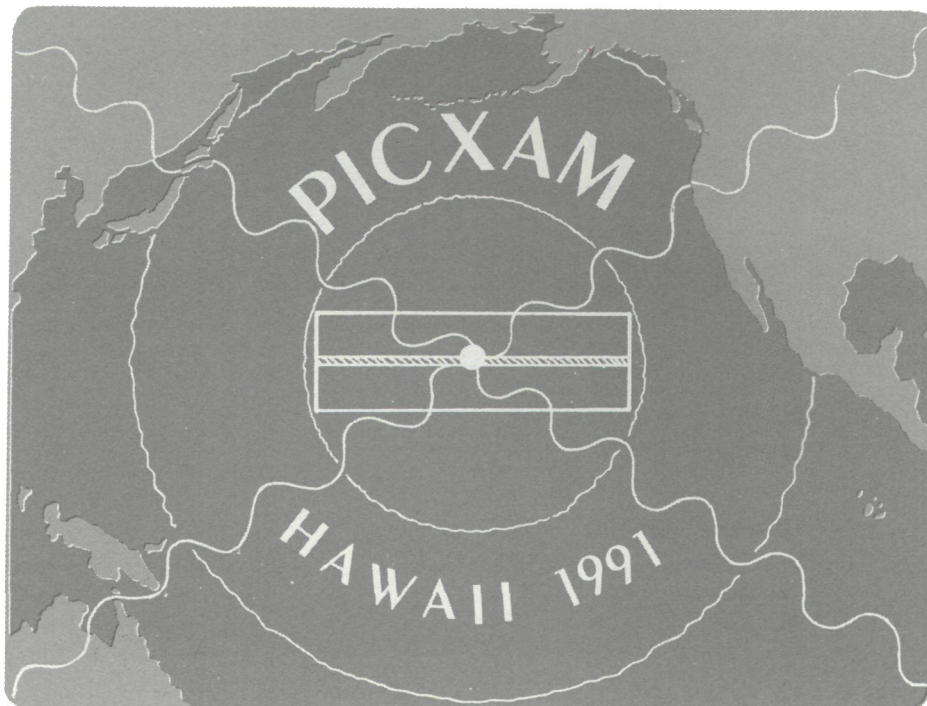


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XIII





## 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:**

The Australian X-ray Analytical Association  
The Denver X-ray Conference  
X-ray Chemical Analysis Group/  
Japan Society for Analytical Chemistry

### **PICXAM is cosponsored by:**

The International Centre for Diffraction Data  
The University of Denver  
The University of Hawaii

## **PICXAM**

## **Pacific-International Congress on X-Ray Analytical Methods**

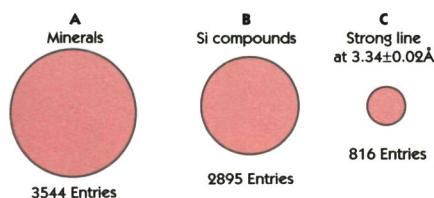
PD15



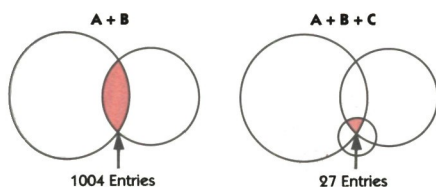
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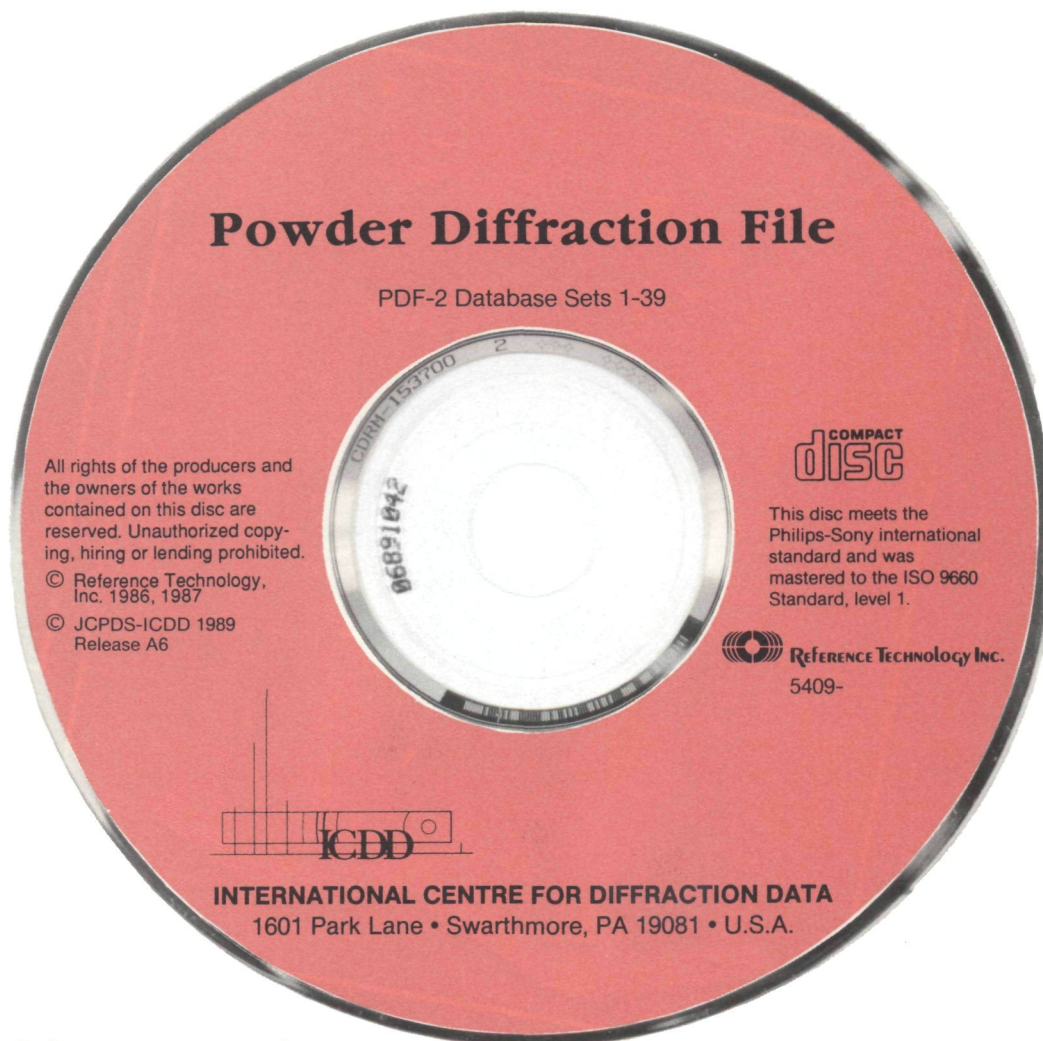
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# Editorial

## IUCr Satellite Meeting on Powder Diffraction

I recently had the privilege to attend the meetings of the International Union of Crystallography in Toulouse and Bordeaux, France. The XV Congress in Bordeaux contained little of interest for the powder diffractionist, but the satellite meeting, which was held at Université Paul Sabatier in Toulouse, covered powder diffraction very thoroughly.

The topical emphasis of the satellite meeting was divided into five sections: 1. Accuracy in Data Collection, High Resolution Diffraction and Standard Reference Materials; 2. Sample Characteristics from Powder Data by means of Pattern Fitting and Other Methods; 3. Practical Aspects of Structure Determination from Powder Data: Indexing, Structure Solution, Refinement; 4. Recent Applications, Particularly Time- and Temperature-Resolved Studies of Materials; and 5. Advances in Phase Identification and Quantitative Analysis: Crystallographic Databases. These topics allowed for a wide range of papers to be presented orally and by poster.

Topic 1 concentrated on instrumentation, primarily at centers for advanced study, and new specialized equipment. The projects to certify standards were also reported. Topic 2 emphasized the advancements in whole-pattern fitting and the use of profile analysis to determine structural defects, crystallite size and size distributions, texture and strain measurements. Topic 3 emphasized phase characterization from indexing new data sets to solving structures. This topic initiated a strong debate on the accuracy of structures determined from powder data indicating that many "single-crystal" types still do not accept the power of powder diffrac-

tion. Topic 4 covered rapid developments in short-time measurements which allow phases to be characterized on the time scale of seconds permitting kinetic studies of reactions and phase changes. Topic 5 emphasized the use of the whole pattern in phase identification and quantitative analysis which are becoming more routine for use in analytical laboratories. One hundred posters were also presented on these same topics illustrating specific applications of the techniques discussed orally. Unfortunately, the papers which comprised this meeting will not appear together in a Proceedings issue.

The meeting was well attended with over 280 registered. Almost all active countries in powder diffraction were represented. The local Organizing Committee chaired by Jean Galy did a commendable job with the arrangements, and the Program Committee under Daniel Louër prepared an excellent program. Travel support for the invited speakers was provided by the JCPDS-International Centre for Diffraction Data which was a co-sponsor of this meeting. In addition, the French catered excellent food both at the meeting and in the local restaurants.

The success of this meeting shows that powder diffraction is alive and well. In fact, the President of the International Union of Crystallography, Mario Nardelli, told me that the Commission on Powder Diffraction was the most active commission next to the Commission on Journals.

Deane K. Smith  
Editor-in-Chief