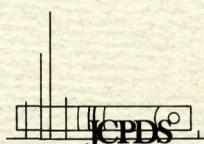


# Powder Diffraction

P.M. de Woolf and J.W. Visser	Absolute Intensities - Outline of a Recommended Practice	202
B.L. Davis and D.K. Smith	Tables of Experimental Reference Intensity Ratios	205
T.G. Fawcett <i>et al</i>	Establishing an Instrumental Peak Profile Calibration Standard for Powder Diffraction Analyses: International Round Robin Conducted by the JCPDS-ICDD and the U.S. National Bureau of Standards	209
A. Castro, I. Rosines, M.C. Sanchez-Martos	Refinement of Structural Parameters for Polycrystalline CdSb <sub>2</sub> O <sub>6</sub> : A Comparison of Two Methods	219
L.A. Zellmer <i>et al</i>	Synthesis and Unit Cell Parameter Refinement of 25 Tungsten Bronze Ferroelectrics	222
G.T. Mamott <i>et al</i>	A Dynamic High Temperature XRPD Study of the Calcination of Zirconium Hydroxide	234
C.E. Bamberger	Fruits of Serendipity in Research of Titanium Compounds: from "Sodium Titanide" to Titanium Nitride Whiskers	240
T. Calvet <i>et al</i>	Crystal Data for p-Dibromobenzene/p-Chloriodobenzene "Molecular Alloys"	242
D.R. Santos Bittencourt	X-Ray Powder Diffraction Data for Sodium Octyl Sulfate, Sodium Decyl Sulfate and Sodium Dodecyl Sulfate	244
W. Wong-Ng <i>et al</i>	Standard X-Ray Diffraction Powder Patterns of Fourteen Ceramic Phases	246
F.X. Kayser	Laboratory Note. Obtaining Powders with the Aid of a Slow Speed Diamond Saw	255
	Departments	256
	Calendar of Meetings	257
	Meeting Reports	258
	JCPDS-ICDD Subcommittee Activities	259
	Short Courses and Workshops	260
	Commercial Announcements	261
	Computer Comments	263
	Volume 3, 1988 Contents	265
	Author Index	267



Volume 3 Number 4 December 1988

Powder Diffraction An international journal of materials characterization

A detailed photograph of a Siemens D 500 X-ray diffractometer. The machine is a complex, multi-axis system with a large circular goniometer. A red digital display at the top shows the number '015.928'. The lighting is dramatic, with blue and green highlights on the metallic surfaces.

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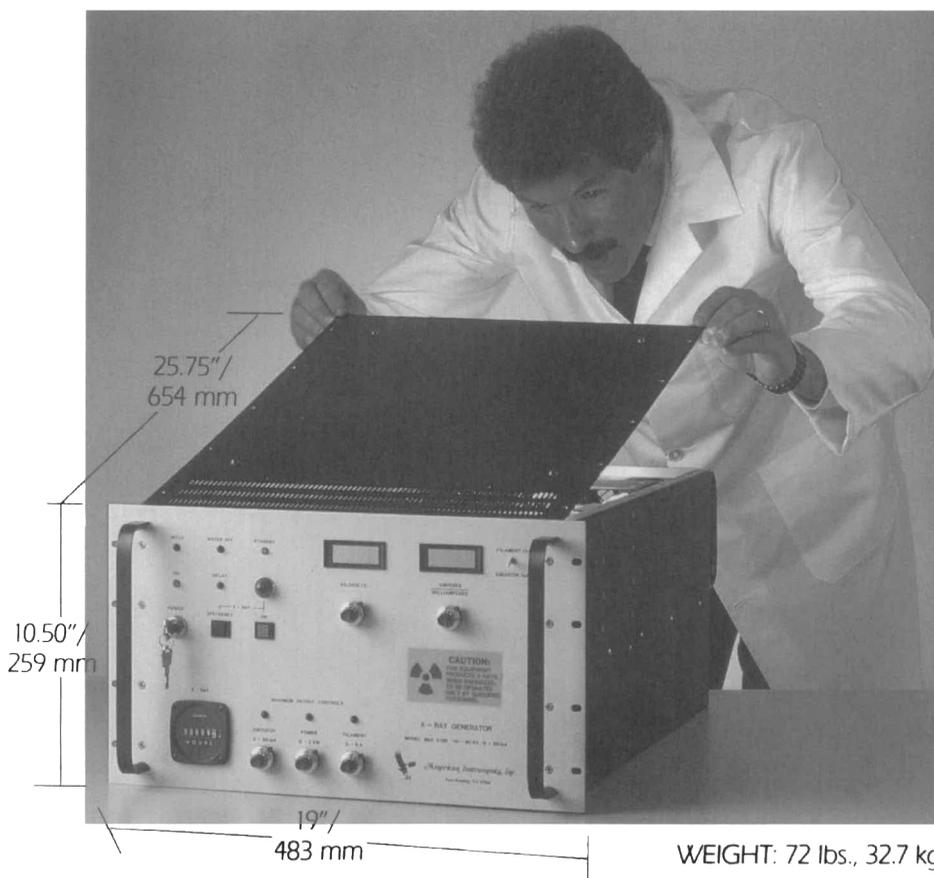
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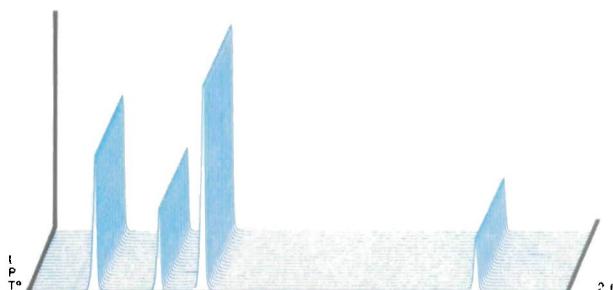
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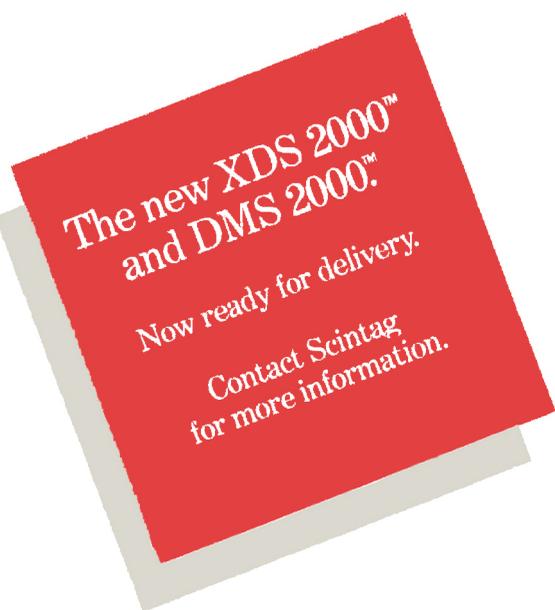
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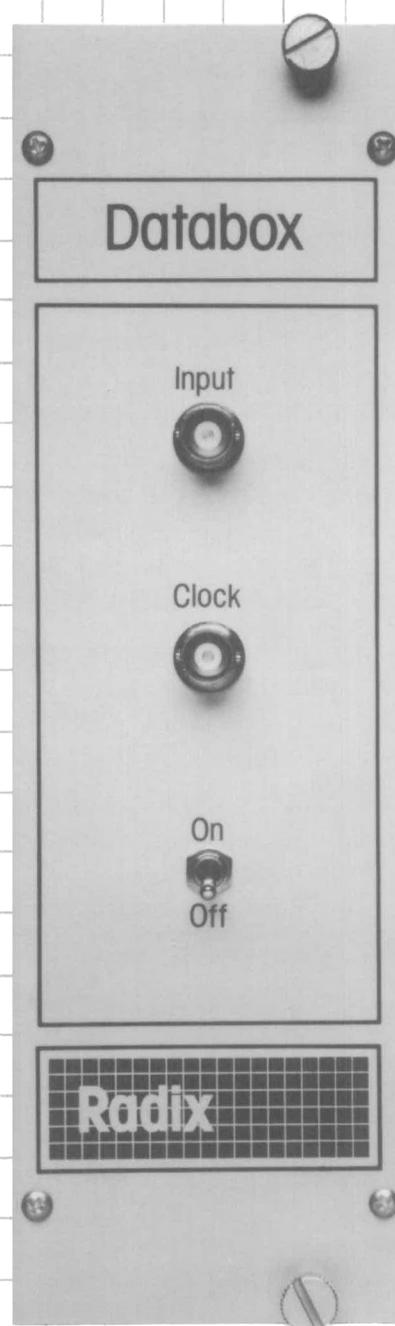
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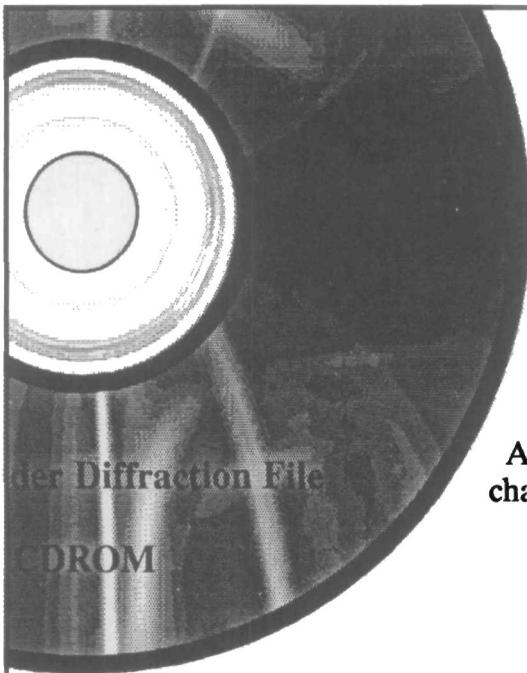
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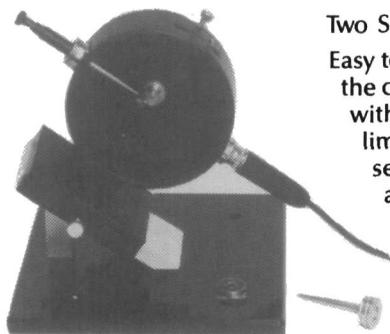


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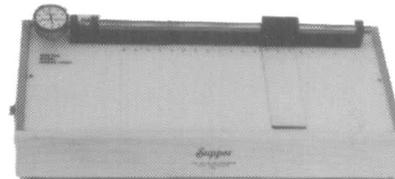
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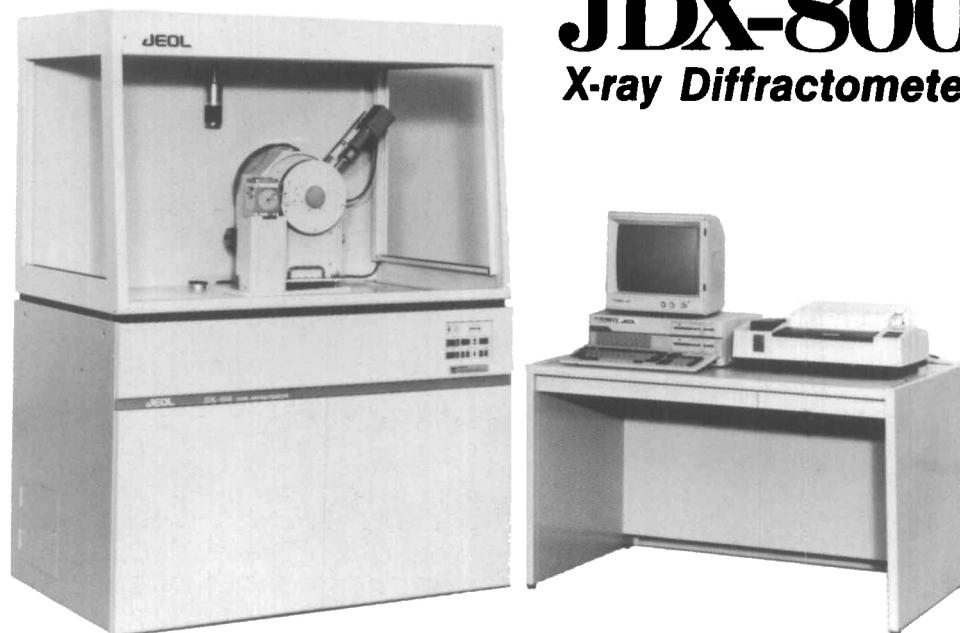
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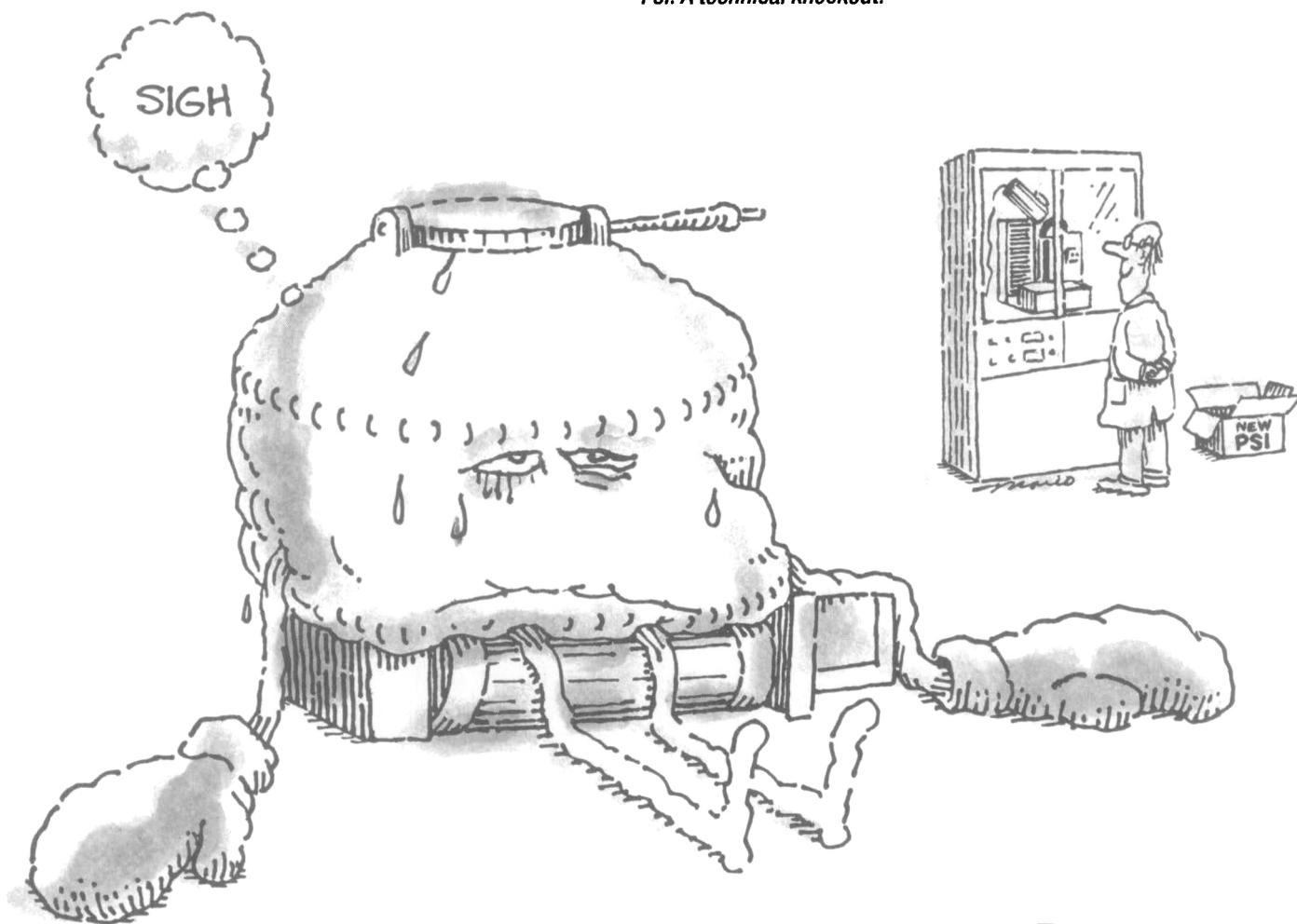
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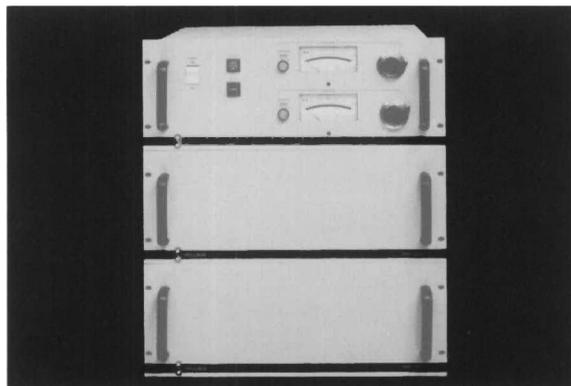
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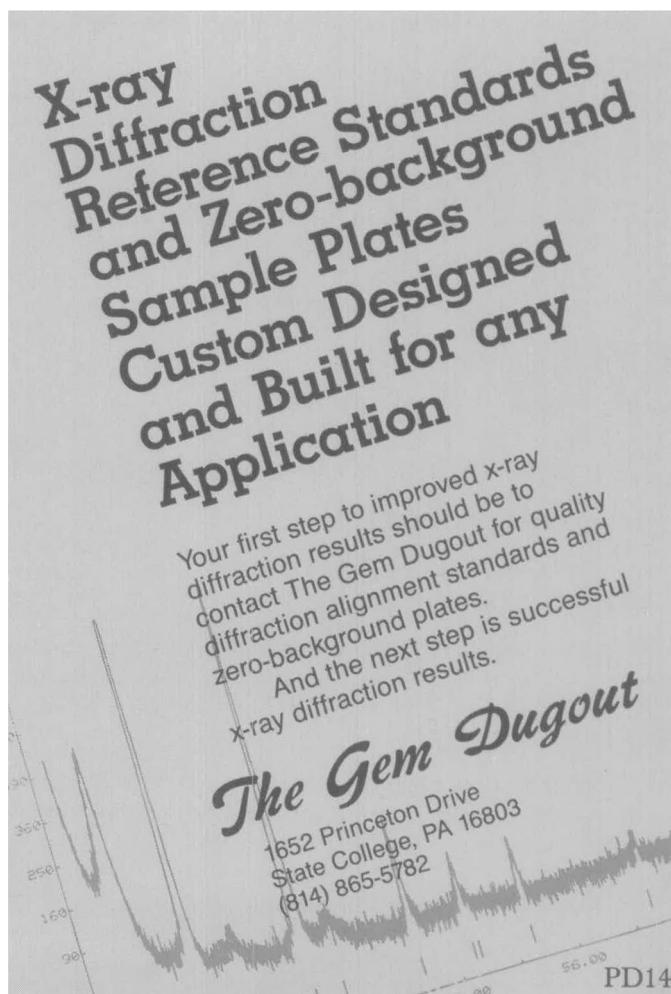
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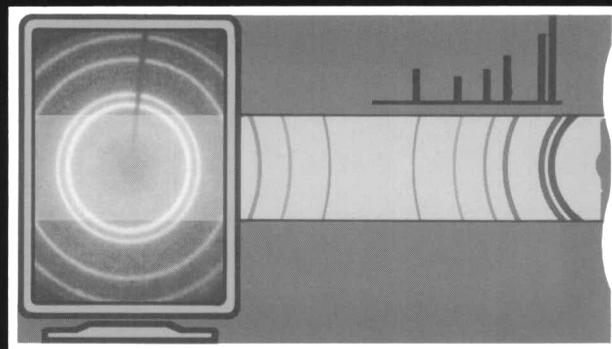
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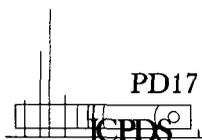
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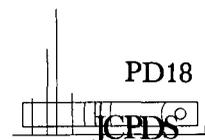
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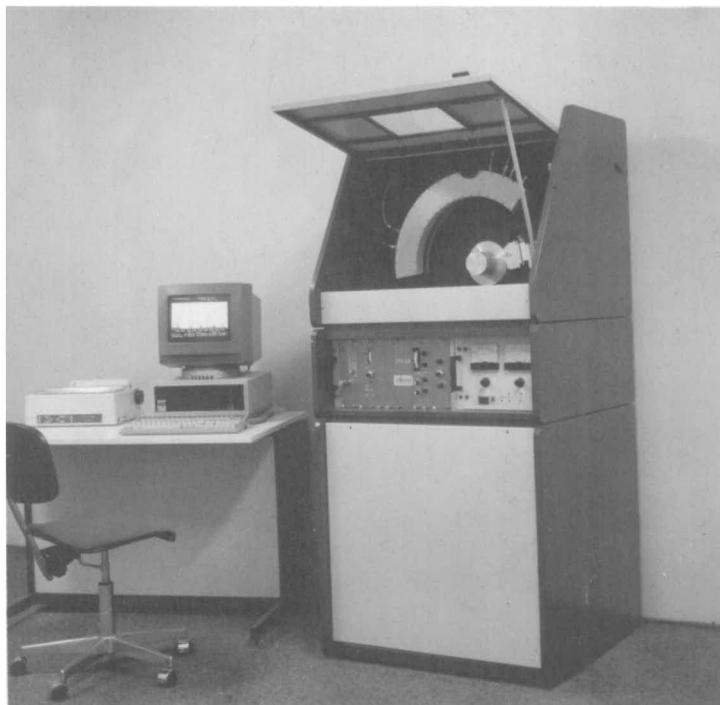
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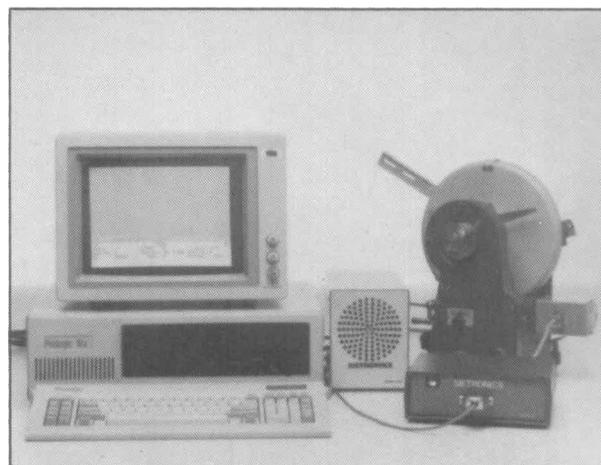
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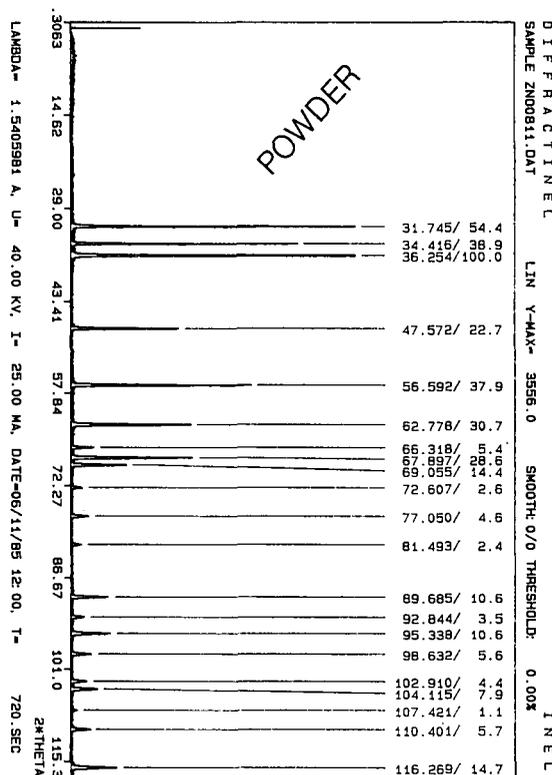
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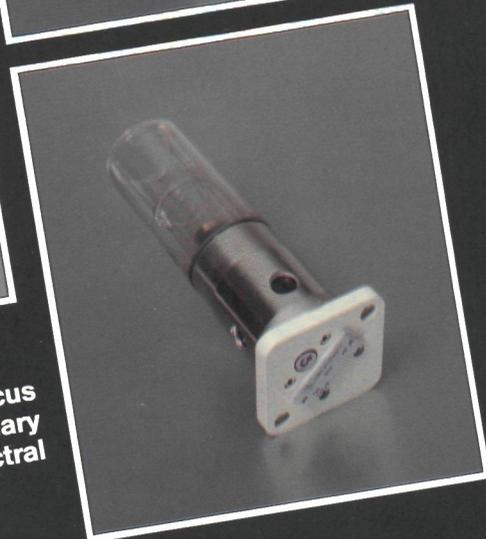
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# Editorial

## Conference on Applied Crystallography Cieszyn, Poland

It has been my pleasure to attend the XIIIth Conference on Applied Crystallography organized by the Silesian University in Katowice and the Institute of Ferrous Metallurgy in Gliwice. My attendance was sponsored by the Polish Academy of Sciences and the International Centre for Diffraction Data. It was a good meeting and an interesting experience in East-West relations, and I would like to pass on some of my observations.

The meeting was truly international with thirteen countries represented besides the host country. The total attendance was one hundred and fifty two where the visitors made up almost half of this number. Twenty seven papers were presented orally and seventy four were presented as posters. All the presentations were in English as the common language of science. All the presentations were clear and understandable, and I was impressed at the quality of the English spoken by all attendees. (I must add that this observation was made by someone who does not speak any language other than English and feels guilty of this limitation.) Conversations often were more difficult, but those who knew the two languages often helped in translating. During the presentations questions asked in English were not always easily understood by the speaker, but this problem was not too common. There was an excellent interchange of ideas in some of the discussions, the part of any paper which I often enjoy the most.

The tenor of the papers was mostly concerned with metallurgy but there were many on applications of powder diffraction to more general topics. Topics included texture, crystallinity and microstrain, phase quantification, radial distributions, precision determination of lattice constants and the extraction of weak diffraction data from patterns with considerable background from the other components. Many of the papers talked about phase transformations in alloy systems and I got the impression that they interpret all as being martensitic. Although I think I know what should be considered as martensitic, I am convinced that there is no universal agreement on the definition. Transitions involving shear adjustments in iron and nickel are clearly martensitic whereas I find it difficult to accept polytypic transformations as such especially when they have been shown to be reversible over narrow temperature boundaries. Con-

troversy is the seed for growth, and such differences of opinion ultimately enhance our overall understanding of such complex behavior.

One problem was the last minute cancellation of papers when the speaker was unable to attend. The proportion of "no shows" was moderately high, about 20%, and was due mostly to speakers not obtaining approval for travel due to shortage of funding. It is evident that the problem of travel support is universal and few scientists are able to afford the travel expenses personally. This problem seems to be independent of the country of the speaker, but the decisions for support are often made earlier in the West than in the East. There is no evidence to suggest that the decisions are at all political.

One observation which was quite apparent at the meeting was the desire of the Eastern scientists to communicate with those in the West both to transmit their results and to learn from those working on related problems. Their studies are limited by the availability of appropriate research equipment in some instances, but they have done some very high level research. Their desire to achieve answers to pertinent problems lacks nothing. They need the forum of interchange of information and can contribute as much as they receive. This meeting was a good forum for such an interchange, but more are needed. Unfortunately, this interchange is made difficult because of the limitations on travel between East and West. Hopefully, this situation will improve with time.

Proceedings for this meeting have been published and some copies are still available from the sponsor. Requestors should contact:

Institute of Physics and Chemistry of Metals  
Silesian University  
Bankowa str.12  
40-007 Katowice, Poland

The price is \$50.

I would like to publicly thank my sponsors for the opportunity to attend this meeting. I hope my experiences will encourage others to participate in East-West meetings whenever possible. The meeting lasted three days, but the contacts will last forever.

Deane K. Smith