

# Powder Diffraction

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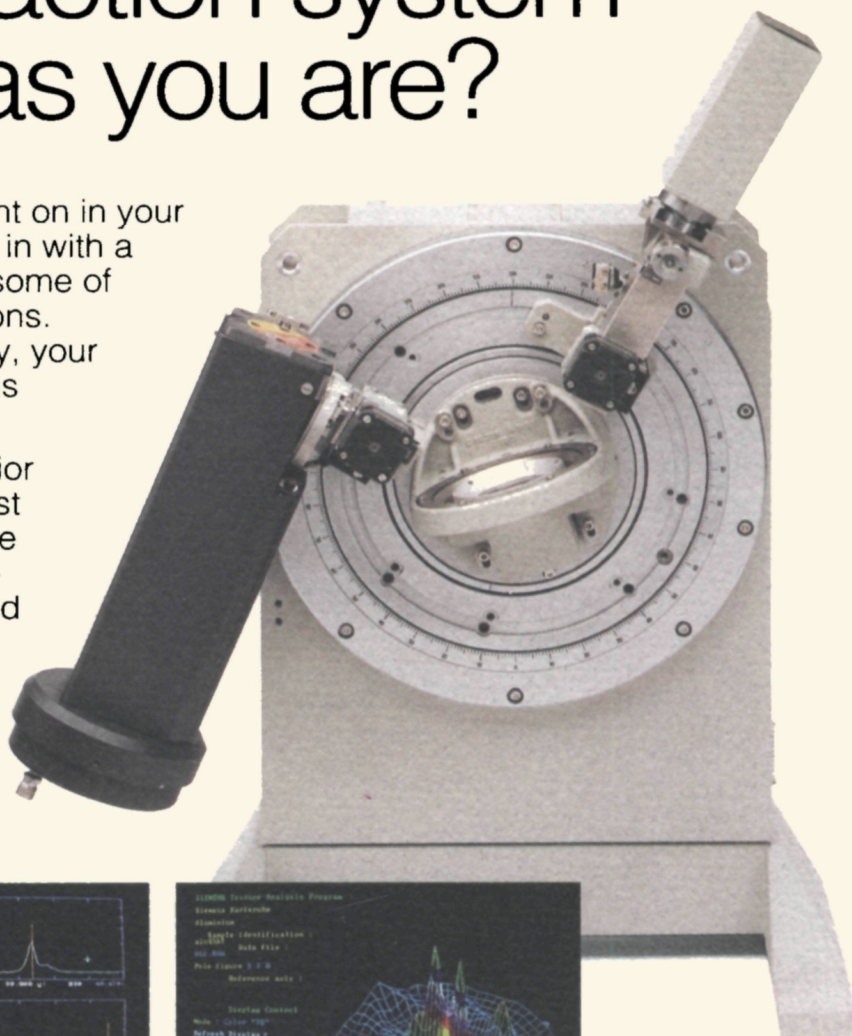
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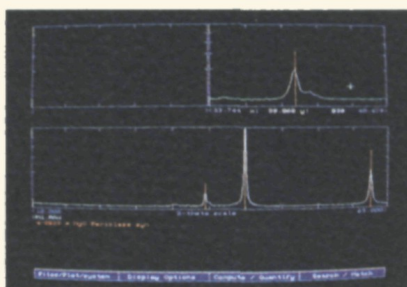
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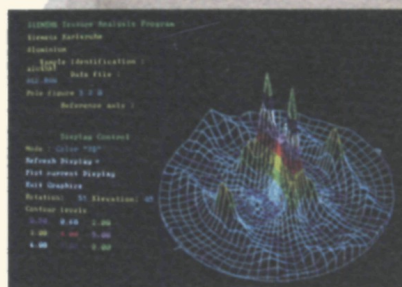
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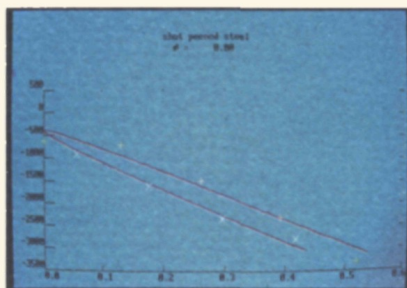
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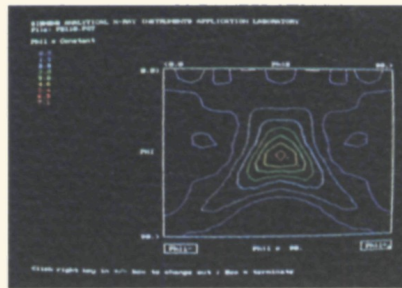
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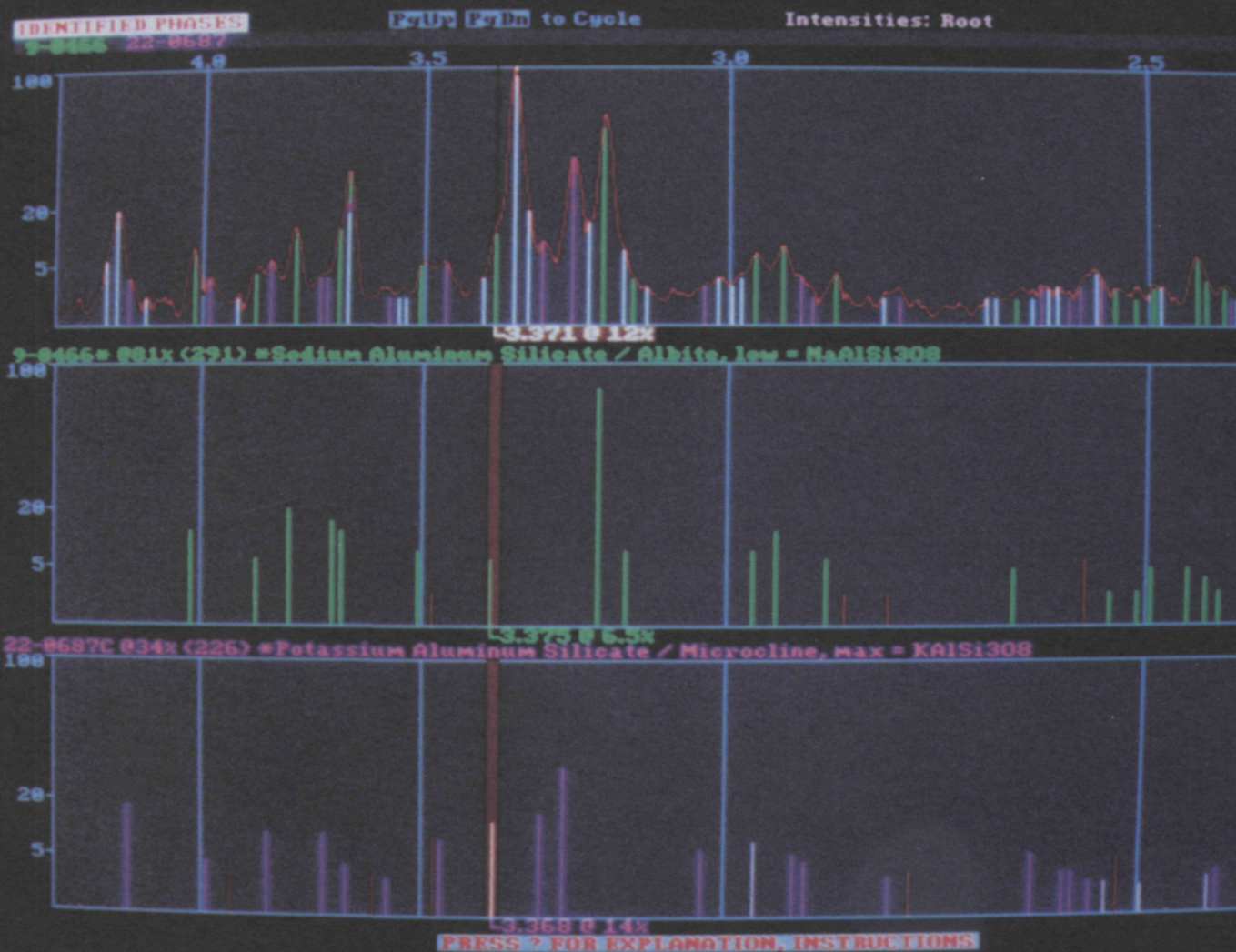
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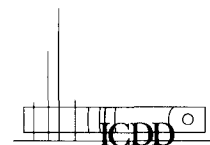
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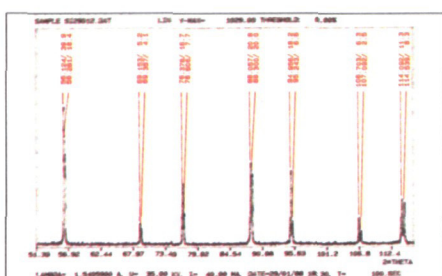
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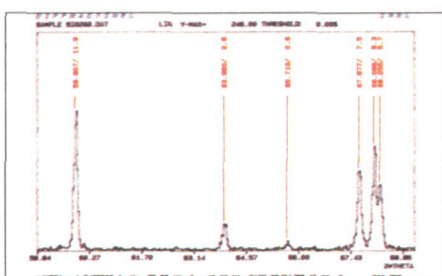
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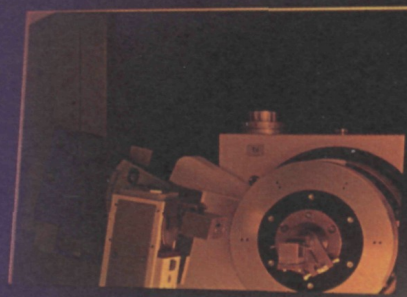
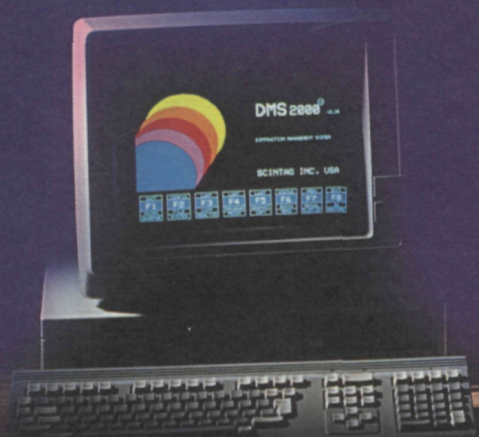
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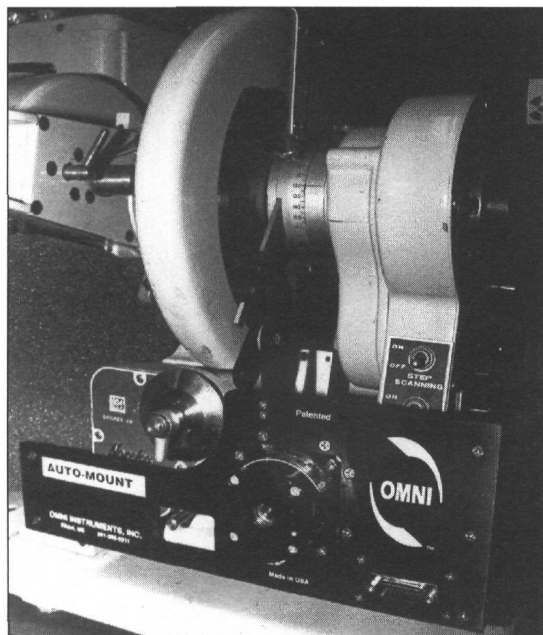
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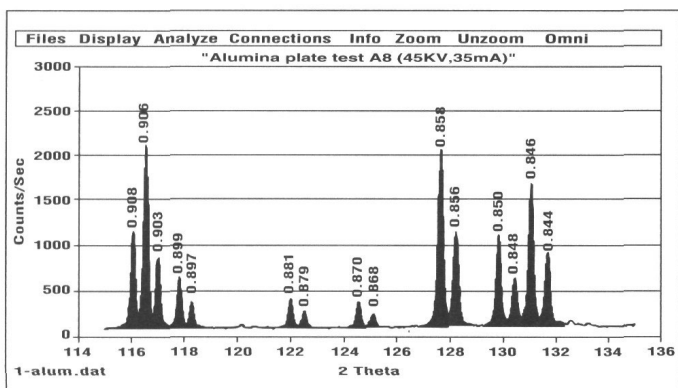
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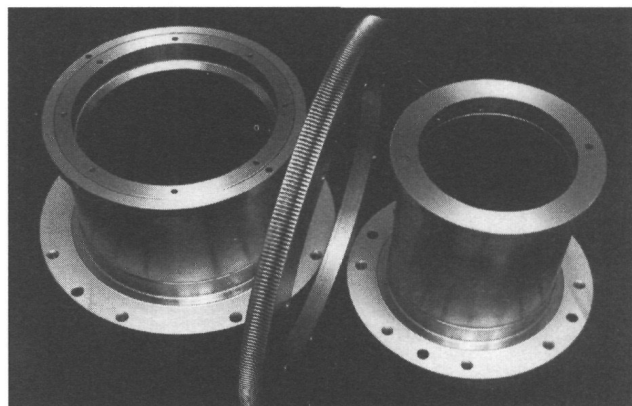


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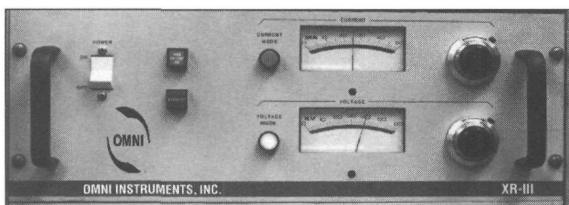
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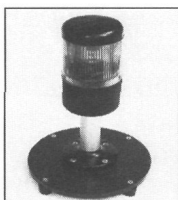


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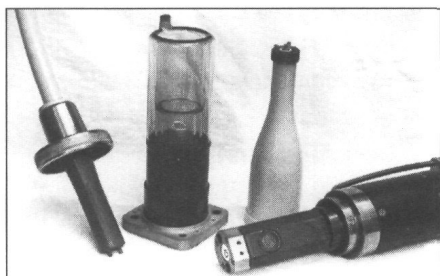
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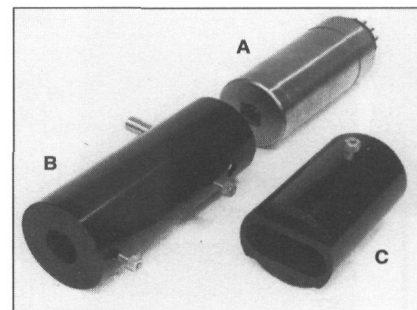
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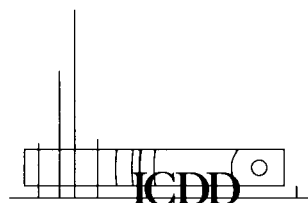
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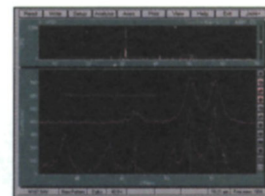
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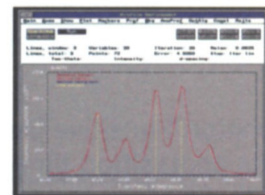
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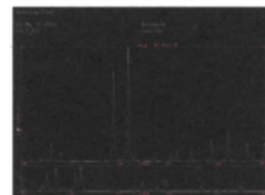
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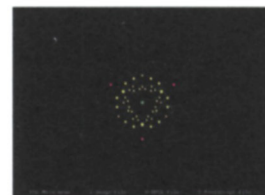
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Course lecturer: Ron Jenkins of JCPDS-ICDD.

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### **F**undamentals of X-ray Powder Diffraction— June 7-11, 1993:

covering theoretical discussion of instrumentation (both diffractometer and camera methods), specimen preparation, data acquisition, and qualitative phase analysis.

### **F**undamentals of X-ray Fluorescence— June 21-25, 1993:

covering theoretical discussion of instrumentation for wavelength and energy dispersive spectrometry, specimen preparation, and simple quantitative methods.

### **A**dvanced Methods in Powder Diffraction— June 14-18, 1993:

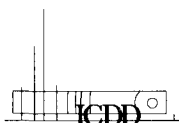
with emphasis on computer-based methods of data collection and interpretation, both for qualitative and quantitative phase analysis.

### **A**dvanced Methods in X-ray Fluorescence— June 28-July 2, 1993:

with an emphasis on quantitative methods and use of automated X-ray spectrometers.



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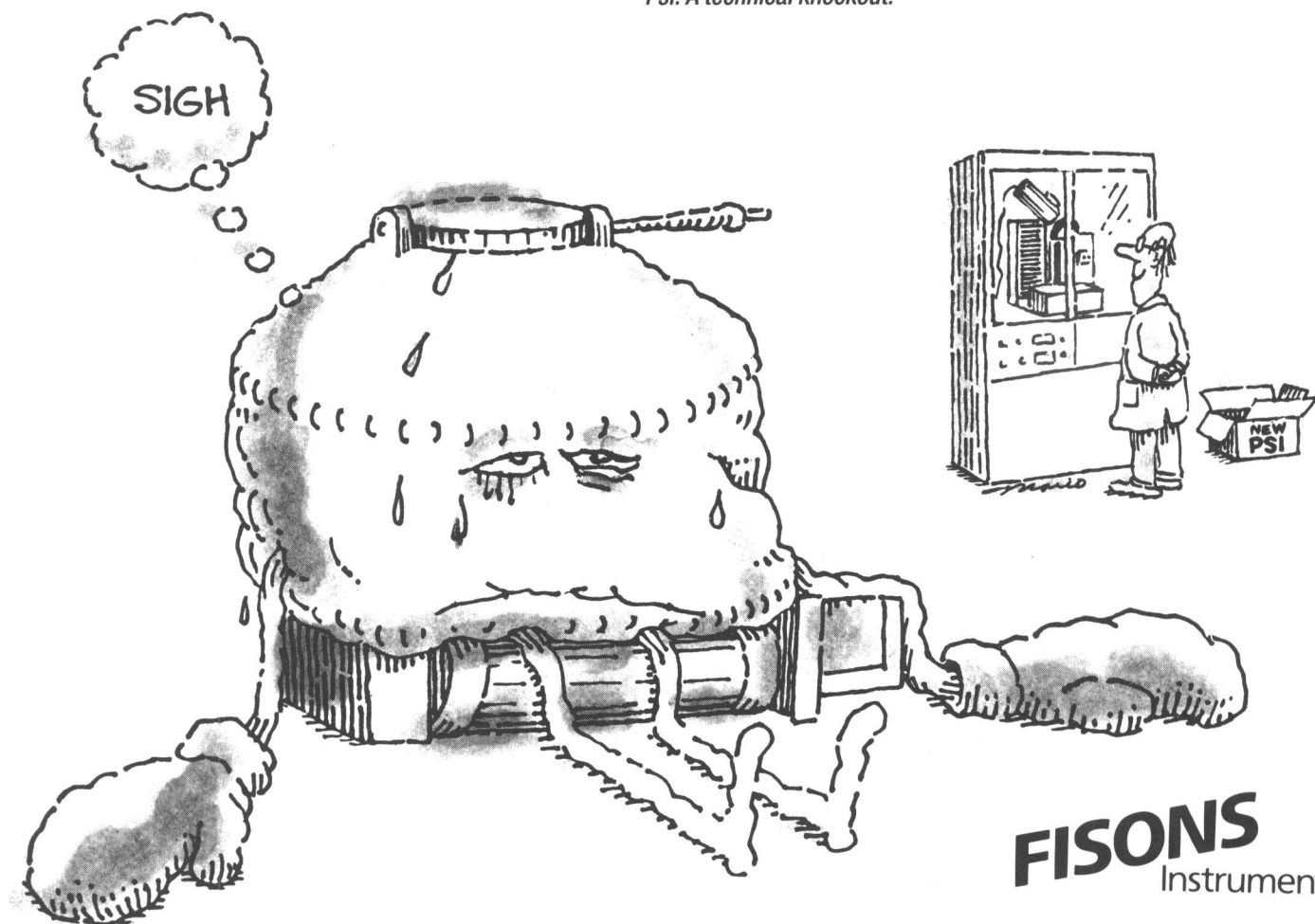
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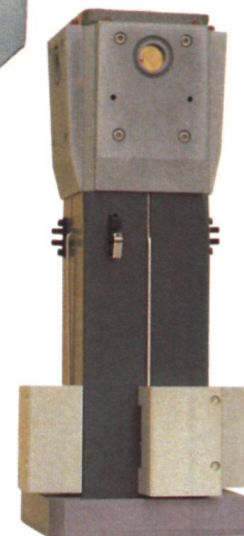
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- high efficiency
- reduced weight and size.

COMPACT 3K5 is normally available in three configurations:

- standard 19": rack mounted
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- inserted in a working table, with tube shield and X-ray proof cabinet.



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Tube shield

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• Power	: 3 kW
• Max voltage	: 60 kV
• Max current	: 60 mA
• Stability	: +/-0.01%
• Filament volt.	: 0/13 volt
• Digital meters	: kV and mA
• Shutter controls	: remote
• Water safety flow switch	
• Weight	: 40 kg
• Dimensions W,H,D	: 48x22x60 cm

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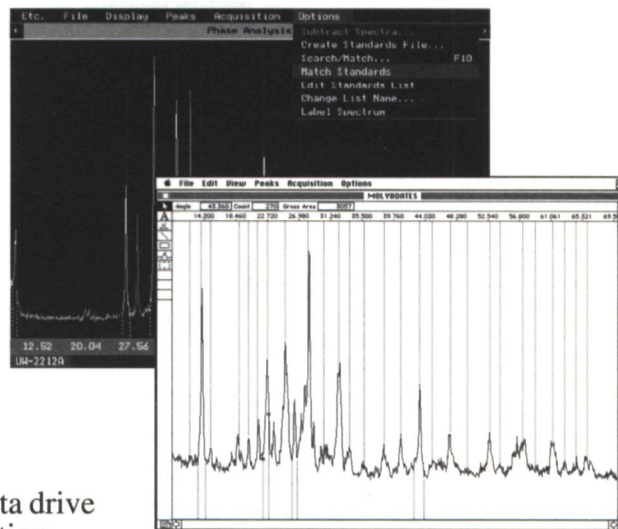
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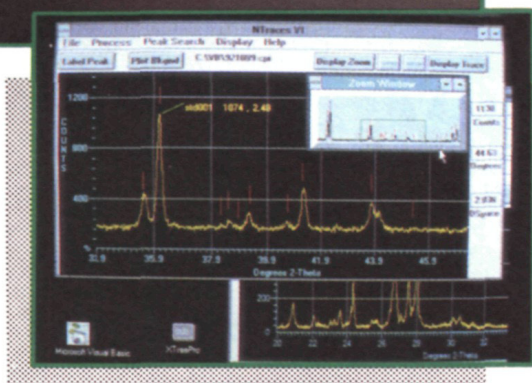
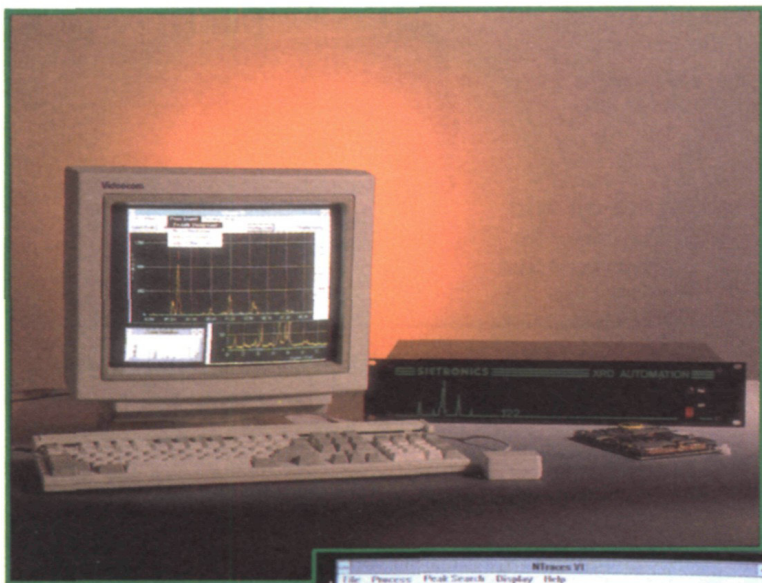


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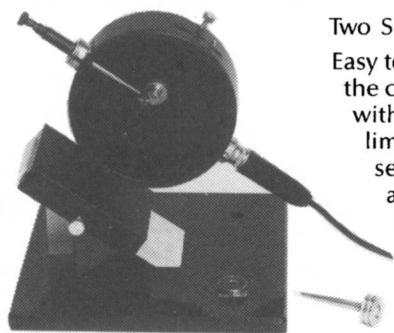
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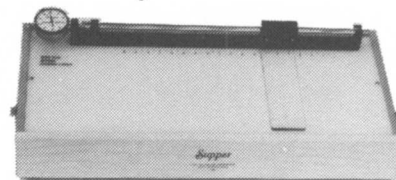
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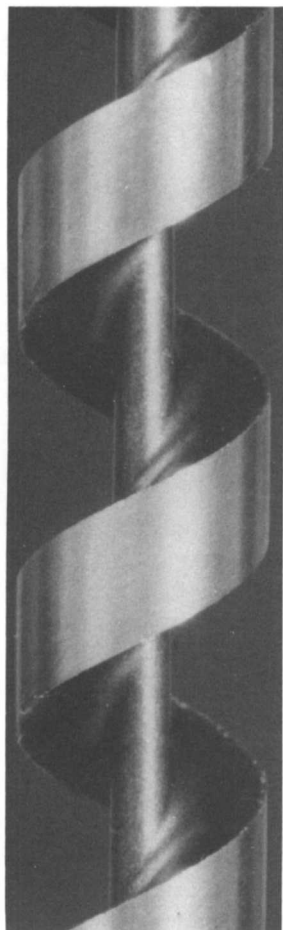
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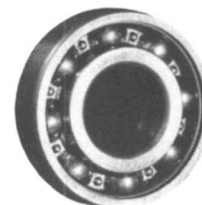
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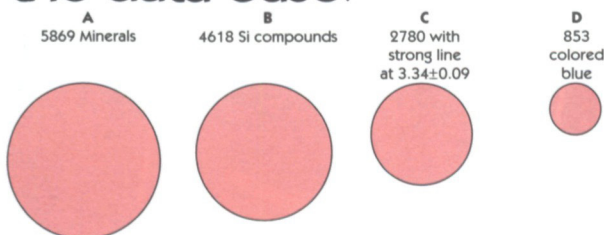




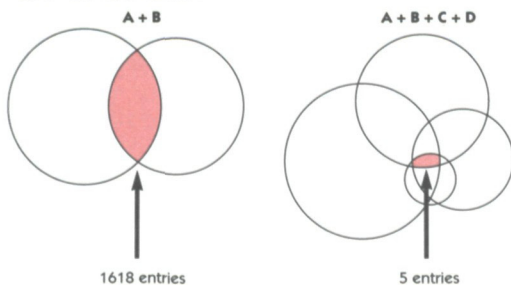
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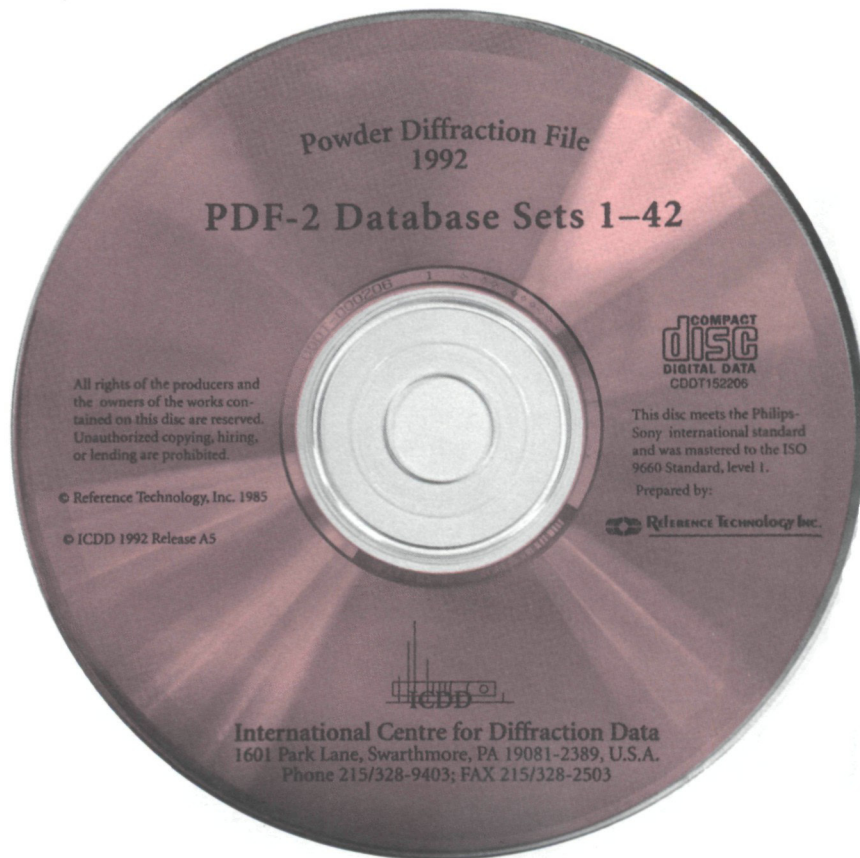
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# Editorial

## New Notes for Authors

With this issue you should have received the new, revised, Notes for Authors. These notes are the result of our new association with the American Institute of Physics and seven years of experience with the preparation, editing and evaluation of manuscripts by the *Powder Diffraction* staff. The Editors urge all authors to read these Notes and to follow the guidelines closely in preparing future manuscripts. Together with the AIP Style Manual, all the questions which authors encounter may be answered.

There are several sections of the Notes that need to be emphasized based on the experience of this editor. Perhaps the most abused part of a manuscript is the figures. High quality figures require extensive thought and considerable time to prepare. Including too much information is one major mistake which is often made. Poor lettering and labeling are another problem. Glossy prints of photographs and line drawings provide the best medium for transmitting figures. Computer printouts from line printers are, in general, unacceptable unless the figure is transferred to a publication quality graphics device. The paper should be the special grade that is designed for graphics. The lines should be crisp and sharp with good black/white contrast. Hand drawn line graphics are acceptable if they are prepared on quality paper. Brittle papers must not be used. The photo off-set techniques used today are remarkable, but they cannot compensate for the lack of quality in the original.

Tables are also a problem. To achieve a presentable appearance, there must be uniformity in the layout of the tables. Authors must follow the standard formats to achieve this uniformity. Tables should be prepared to be set in either full or half page widths. The Notes and the AIP Style Manual are very clear on the requirements, and these sources must be consulted when preparing tables. Very large tables should be prepared in camera-ready form where possible to help avoid the potential errors which may occur if the table has to be reset.

The typing of manuscripts which have been submitted to *Powder Diffraction* over the last seven years has varied considerably. Manuscripts should be prepared for editing and correcting. They should be double spaced, and the headings and layouts should conform to the style of the papers described in the notes. It is not useful to right justify the text, nor is it advisable to hyphenate words just to have the text look perfect. Type fonts should conform to the standards that have already been established. Remember, the readers will not see the submitted text, only the copy processors in the editorial office. Ease of processing takes precedent over visual elegance. Special care must be taken in the preparation of equations. Unusual characters must be identified, and subscripts and superscripts must be clearly marked. Equations are the hardest part of the text to set and to proof.

The only acceptable language for publication in *Powder Diffraction* is English. Authors are responsible for the ultimate text of the manuscript, and they should strive to write in the most acceptable English possible. It is recognized that many authors do not have English as their native language, and the staff of *Powder Diffraction* will assist in the last stages of manuscript preparation. However, it is not possible to prepare correct English text if the original is unintelligible. If

necessary, authors should request the assistance of a colleague who can help clarify the text before it is submitted.

All manuscripts must be submitted in triplicate. Two copies are to be used for the review, and the original is retained as the master on which final corrections are made before submission to the technical editors. The authors are in a better position to prepare all the copies to assure that they are clean and representative of the original. I have actually had one manuscript supplied hand written. It was meticulously prepared, and none of the reviewers complained. Some manuscripts supplied were too light to copy properly, especially those prepared on a dot-matrix printed with an old ribbon. Authors must confirm the readability of the text before submitting the paper.

References are rarely prepared in the proper format, and authors are urged to consult the Notes and to use the proper procedure both within the text and in the reference list. I have always been an advocate that the title is part of the reference along with inclusive pages. Beginning in 1993, the full title will be required for all articles in periodicals as well as for books and reports.

A surprising number of papers are submitted without an abstract or with a very poor abstract. The abstract is one of the most important parts of a paper and is often the only portion that is read fully. It is the part that is reproduced by abstracting services or quoted in abstract publications. Preparing a good abstract requires some thought. Within the 300 word limit, the author should summarize the primary contributions of the text including numerical results. It should state what was accomplished not that the results exist in the text. Phrases such as "is discussed" or "is presented" are to be avoided. A list of keywords is now essential. The author is the best person to select these keywords that will be used by computer entry services that search on topics.

Powder data are unique to *Powder Diffraction* in that encouraging the publication of good new data was one of the reasons that the journal was founded. The publication of data without proper documentation, however, is a disservice to our science; so authors are required to provide supporting documentation on the material, its preparation, the conditions of the acquisition of the data, and the evaluation of the accuracy of the data. Appendix II of the Notes provide a check list of the information that must be supplied in the text that accompanies the powder data. Papers that do not have this information will be delayed until the information is supplied. This procedure is not designed to discourage the submission of data but rather to encourage the preparation of well-documented, accurate data which will become the primary reference for the material under study.

An executed copyright transfer form is required before any paper can be processed for publication. It is permissible and encouraged to make a copy of the copyright form in the Notes and supply it with the manuscript at the time of first submission.

The new Notes for Authors will be the basic reference for preparation of manuscripts for many years. Please use it and continue to submit the interesting and valuable papers for which *Powder Diffraction* is now well known.

Deane K. Smith  
Editor-in-Chief