

Ten Years of *Powder Diffraction*

Powder Diffraction has celebrated its 10th birthday. The Journal was conceived in 1984 with a goal of promoting the experimental aspects of the technique throughout the world. It is time to review the accomplishments of these 10 years.

Initially, *Powder Diffraction* started with the Editor-in-Chief, a Department's Editor, a Managing Editor, a Publication Manager, and financial support from the International Centre for Diffraction Data. Two personnel changes and the need for additional assistance in processing manuscripts has led to the addition of an Editor for Diffraction Data and three Geographical Editors for the technical articles, a new Editor for the International Report section, and the Publication Manager being replaced by a whole organization, the American Institute of Physics.

The total number of manuscripts received in the 10 years is more than 613. Of this number, 490 or 81% have been accepted and published. A few manuscripts processed by our Australian, European, and Japanese editors which were not accepted are not counted in this total because they were not logged into the record system. About half the papers were devoted to the experimental and theoretical aspects of powder diffraction and half were devoted to evaluating and improving powder data. Seven papers were reprints of classic articles from the early literature including a translation from the original German of the 1917 Runge article on analytical indexing of powder diffraction data. Three papers were biographical stories of historical interest on the three principal editors of the International Centre for Diffraction Data, *Powder Diffraction File*. Other articles were devoted to Charles Barrett, Donald Hanawalt, and Isadore Fankuchen, early pioneers in powder diffraction methods.

One of the early justifications for creating *Powder Diffraction* was the reluctance of other journals to continue the publication of powder pattern data. Manuscripts containing powder diffraction data continue to be accepted, but the emphasis now is on systems of compounds that have considerable technical importance, and authors with individual data sets are encouraged to submit the data directly to the International Centre for Diffraction Data. In the 10 years of publication, 667 patterns have appeared in articles in *Powder Diffraction* and another 91 patterns were submitted directly to the International Centre for Diffraction Data.

Powder Diffraction has maintained communication with the journals of the International Union of Crystallography, primarily the *Journal of Applied Crystallography*. Several manuscripts, whose topics seemed more appropriate for the other journal, were transferred among the editors. Lists of papers in progress are exchanged between the editors of these journals on a regular basis.

One of the original goals of *Powder Diffraction* was to maintain the subscription rate sufficiently low to encourage the diffractionist in the laboratory to subscribe personally. The initial subscription price for personal subscriptions was \$32.50 for North America and \$48.50 for overseas delivery. These rates were raised reluctantly to \$55.00 and \$75.00,

respectively. Library and institution rates are \$95.00. These rates are still far less expensive than most technical journals. One reason for being able to maintain this low rate has been the continued support and early subsidies from the International Centre for Diffraction Data. At present, subscriptions go to 48 countries throughout the world.

Another reason for being able to maintain the low subscription rates is the frugal arrangements we have maintained with our publishers. Initially, we used publishing houses in Vermont; but as the costs from these publishers increased, the publishing was shifted to the American Institute of Physics. This move has proved beneficial both in keeping the printing expenses to a minimum and allowing access to the many business services of AIP. We interact with the other AIP journals to discuss publication problems and the future trends. Resulting innovations will appear in *Powder Diffraction* as they can be implemented. One example is the incorporation of the articles of *Powder Diffraction* in the AIP abstract service *Articles in Physics*. Readers may have already noted a small change in the cover design in 1995 and a change in the paper which resulted in cost savings.

The international nature of *Powder Diffraction* is emphasized by the publication of a Chinese edition. As soon as the final version is completed in layout, a copy is forwarded to Professor Shao-Fan Lin of Nankai University. He translates the articles into Chinese and prints copies for distribution in China.

Advertising has been encouraged in *Powder Diffraction* primarily for dissemination of information on new products as a service to our readers. The profile of the subscribers produces an ideal audience for manufacturers of equipment for the diffraction laboratory. In addition, advertising has helped defray some of the costs for producing the journal and keeping the subscription rates low.

It has been a busy 10 years for *Powder Diffraction*, and many of the original goals have been achieved. Many fine papers have appeared in the ten volumes, and the quality of diffraction data has been improved considerably by published articles. As trends in diffraction analysis change, *Powder Diffraction* needs to respond to the changes. The emphasis on the Rietveld technique will certainly lead to enhanced coverage of this topic. All modern methods are directed toward analysis of the raw digitized data rather than derived *d-I* tables, and *Powder Diffraction* needs to be the leader in the exchange of information on new innovations.

Readers are encouraged to submit suggestions for the future activities for *Powder Diffraction* at any time. This journal is your journal, but we can only respond to your concerns if we hear from you.

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