

The 25th anniversary of *Powder Diffraction*

This March 2011 issue celebrates 25 years of the *Powder Diffraction* journal. Over the past 25 years, this journal has published more than 1000 technical articles, contributed by thousands of authors from around the world, in over 100 issues.

JCPDS-International Centre for Diffraction Data recognized in the 1980s that there was no dedicated journal serving as a forum for developments and applications of powder diffraction methods. A survey indicated that powder and related papers were published in several hundred publications around the world. The need for a single international journal devoted to powder diffraction was apparent. Discussions took place regarding publishing a journal about powder diffraction at the 1981 IUCr Congress at Ottawa, 1983 combined meeting for ACA and DXC at Snowmass, Colorado and again at the 1984 IUCr Congress at Hamburg, Germany. These meetings led to the realization that such a journal should not only be a forum for data dissemination but also include technical and theoretical articles on the applications of X-ray, neutron, and electron powder diffraction techniques in characterization of materials. Thus, the *Powder Diffraction* journal was created by JCPDS-International Centre for Diffraction Data.

The first editorial board for *Powder Diffraction* consisted of Dean Smith as editor-in-chief, Ron Jenkins as managing editor, and Ron Anderson as department editor. To effect the dissemination of new ideas, methods of powder diffraction, and improvement in the quality of data characterizing materials, an editorial advisory board with 40 members was also formed. The board members were renowned diffractionists and crystallographers from the U.S. (17 members), Europe (17), Australia (2), Canada (1), China (1), Japan (1), and Israel (1).

The first issue of *Powder Diffraction* was published in March 1986. The 12 papers in that issue were on XRD data (or patterns) and related topics on phase identification (4 of 12 papers), search/match (3), XRD data (3), and data-collection methods (2). A great majority of these papers were contributed by the authors from the U.S., with a couple from Canada and Japan (one each).

Several changes were made in the first 13 years of *Powder Diffraction* under the leadership of Dean Smith (first editor-in-chief), including several editorial staff changes, a change in publisher, and a change in philosophy by encouraging XRD data papers to emphasize the theory and practice for improving techniques and accuracy. The international nature of *Powder Diffraction* was also emphasized by publishing a Chinese edition translated and distributed by Professor Shao-Fan Lin of NanKai University of China.

I assumed the leadership of *Powder Diffraction* in March 1999 and made several changes. In early 2000s, a final decision made by the editor-in-chief on the acceptance of a tech-

nical article was added as an additional step into the editorial process. After an article was peer-reviewed by referees and tentatively accepted by its assigned editor, the editor-in-chief made a final decision on whether the paper was ready for publication. This editorial policy has been found to be effective in ensuring the quality and the uniformity of the articles published in this journal.

In 2003, the *Powder Diffraction* journal and the Organizing Committee of the Denver X-Ray Conference agreed to annual publications of selected *Advances in X-Ray Analysis* papers in this journal. This collaboration has resulted in more content for *Powder Diffraction* subscribers and more readerships of *Advances in X-Ray Analysis* papers as well as increased exposure of the best of X-ray analysis to the broader international community.

In 2008, papers presented at an international X-ray conference were published as an annual supplement to *Powder Diffraction*. The papers were selected, reviewed, and edited by a local committee of the conference and then submitted to this journal for final review and editing. By publishing representative papers from a conference, participants can showcase their research and findings to a larger international audience and our journal readers can learn more about advances in X-ray analysis conducted by scientists from the international scientific community.

Since 2009, the use of Peer X-Press (PXP) for the *Powder Diffraction* journal has been implemented. PXP is an automated paper submission and processing system. PXP is a fast and easy tool for our authors to submit papers to this journal through the Internet. The system allows the authors to easily track the status of their work and contact the journal if assistance is needed.

Following the suggestion by editors Brian Toby and Jim Kaduk, *Powder Diffraction* established a new section on Crystallography Education starting in 2008. The section provides tutorial and instructional articles covering topics not normally found in books or manuals.

The addition of a figure from a published article showcased on the cover of each journal issue was implemented in 2001. This was done to attract reader interest and to recognize the outstanding visual work by the authors. An appreciation plaque is presented to thank the authors who made contributions to the figure.

The contents of the technical articles published in *Powder Diffraction* have gradually shifted from XRD data and related topics to mostly powder crystal structures and materials characterization. The majority of contributions have been shifted from U.S.-based authors to authors in other countries. This makes the journal a truly international publication of materials characterization.

Reader support is very important to this journal. Our readers are encouraged to help promote this publication by

submitting their work in the journal, citing *Powder Diffraction* articles in their publications, and by subscribing to the journal.

The primary goal of this journal is to meet the needs of the powder diffraction, crystallography, and materials science communities. Suggestions from our readers on how this goal can be achieved more effectively are welcome.

Finally, we thank the ICDD Executive Director, Tim Facwett, and the ICDD board of directors for their encouragement and support for this journal. The support of all of our readers for the past 25 years is greatly appreciated.

Ting C. Huang
Editor-in-Chief