

Peer Review and Reviewers

Powder Diffraction is a peer-reviewed journal, and the review process is an important part of maintaining the high quality of the manuscripts that are accepted and published. This review assists the editors in judging the value of the manuscript within the scope of the journal and assists the authors to present the manuscript in the very best form for transmitting the information. All reviews must be treated as confidential, and the information in the manuscript must be considered as privileged and proprietary to the reviewer, the editor, and the author.

Working with authors and reviewers over the last ten years has been an enlightening experience. This editorial is based upon the experiences of this editor in processing over 400 manuscripts for this journal.

The peer review process has very definite goals. Its primary goal is to screen the manuscript for accuracy of the material being presented—is it technically sound and up to date? It should also consider the value of the material in enhancing our knowledge of the subject and whether *Powder Diffraction* is the appropriate medium for publication of the article leading to a recommendation for the disposition of the manuscript. Secondary goals include: recommending modifications in the text that improve the clarity and conciseness of the presentation including the abstract and title; culling unnecessary text and figures that detract from the theme of the article and recommending additions that would assist the reader in understanding the presentation; identifying information that may have been missed by the authors; and evaluating completeness of the experimental methods employed. All reviews should be done in a constructive manner to assist the author to improve the study and manuscript even if the recommendation is to reject the paper. Reviewers should suggest other reviewers for sections that are not within their field of specialization.

Most authors look forward to working with the reviewers to improve the manuscript. Very few authors feel that their work is above review. Good scientists realize that no one individual can possess all the knowledge even on a rather narrow topic, and a good review brings out new thoughts in even the most carefully prepared article. In fact, it has been my experience that the better the scientist, the more receptive the author is to reviewer recommendations. Sometimes authors will suggest specific reviewers they know will be critical and constructive.

Reviewers may also recommend modifications in the language and grammar, but it is not the role of the reviewer to rewrite the text. It is, however, of considerable assistance to the author and editor when suggestions are made. Unfortunately in an international journal such as *Powder Diffraction*, not all authors are equally fluent in the required English language. It is the responsibility of the author to prepare the text in acceptable English, but in many non-English speaking countries there is little assistance available from colleagues to achieve this goal. Thus reviewers can be helpful if they do rewrite parts of the text. However, if the manuscript is unacceptable for technical reasons, the time to rewrite the text is unjustified. *Powder Diffraction* has the help of an experienced technical science writer who has assisted several authors in the English once the technical value of the paper has been established.

Most reviewers are responsive to the need to keep the review time as short as possible. It is the goal of every peer-

reviewed journal to process manuscripts as quickly as possible, but it is the reviewer who controls the timing. Reviewers need a minimum of three weeks to do an adequate review and longer if the text requires numerous changes. Unfortunately, some reviewers forget they have the manuscript and need a reminder which usually comes after four weeks. If a reviewer then returns the paper without an adequate review, there is the need to find a new reviewer and another month of time elapses. Reviewers vary considerably. Some reviewers always need reminders, and there are reviewers that never even acknowledge the receipt of the manuscript. Some prolific authors refuse to review. Some of the most thorough reviewers are not necessarily prolific authors.

An author's response to extensive review recommendations and even rejection is usually one of acceptance. Editor decisions are based on the recommendations of the reviewers. Occasionally, the author will feel that personality conflicts, rather than scientific evaluation, lead to a rejection. In such cases, more reviews may be requested. This editor has not seen any case where a paper was rejected based on personal reasons, even though a few authors have felt that some reviewers will always reject their work. Some manuscripts have been seen as many as four different reviewers. For various reasons, some authors indicate individuals whom they do not wish to review the manuscript, and such requests are always honored.

A difficult situation for the editor is when one reviewer approves a manuscript and a second one rejects it. The editor must then evaluate the reviews to make the final judgment. Where the reviews are thorough, the decision is usually clear. It is not uncommon that the rejection arguments are more justified than the acceptance ones. In such cases, the author sees all reviews and can respond to the criticisms with a modified manuscript for a second review. Outright rejection is rare. It is usually the author who withdraws the paper in response to the reviews.

One of the pet peeves of this editor is reviewers who only supply one copy of their review even though three forms were supplied and there is a specific request for three copies. This editor then has to find a copy machine and generate the needed additional copies. The signed copy is for the manuscript file. The other two copies are returned to the author with instructions to send one back with the revised manuscript. There is no problem with preparing the review on a separate sheet from the supplied form as long as three copies are supplied of every page.

It would be impossible for editors to evaluate the numerous manuscripts submitted to any journal without the assistance of the review process. This editor is sincerely appreciative of the effort that goes into a good review and thanks the many reviewers of manuscripts that have been processed for *Powder Diffraction*.

Deane K. Smith
Editor-in-Chief