CHEMISTRY OF MATERIALS

VOLUME 17, NUMBER 1 JANUARY 11, 2005

Editorial

Challenges in 2005

This space is occupied at the beginning of each calendar year by an editorial in which a variety of issues are addressed. Among these, traditionally, are a "state of the journal" assessment, announcements of policy changes, a review of the past year's highlights and forecasts of future developments.

The current "state of the journal" might be described by borrowing a phrase from a well-known American thinker, Mr. Lawrence P. Berra, who once remarked that "It's déjà vu all over again." The journal continues to grow in nearly every important category as it has since its inception in 1989. Figures 1 and 2 display some of the more important trends. The number of submissions, Figure 1, has increased exponentially (the solid line is indeed an exponential fit) from the beginning, while the number of published papers has followed a linear increase. For the interval 2003−2004 the number of submitted papers increased by18% from 2057 to 2430*. (*This number is extrapolated from the 11 month total). Overall, this increase of ~373 papers can be quantified in practical units as being greater than the capacity of one additional editorial office to handle, while the actual number of editors has been held constant. This has increased the stress on the peer review system and on both reviewers and editors alike. As announced in many previous editorials and re-emphasized last year,[1] the inevitable result has been a sharp increase in the rejection rate, often by pre-screening in the editorial offices. Our anticipation was that this practice would raise the level of the accepted manuscripts, the "rising tide" metaphor of the 2004 editorial.[1] There is some evidence, Figure 2, for this in the substantial increase in the Impact Factor for 2004, from 3.967 to 4.374. This more than 10% increase, the largest single annual jump in the history of Chemistry of Materials, also exceeds that for any other comprehensive journal which serves the materials chemistry community.[2] All of the above appears to be qualified good news—the international

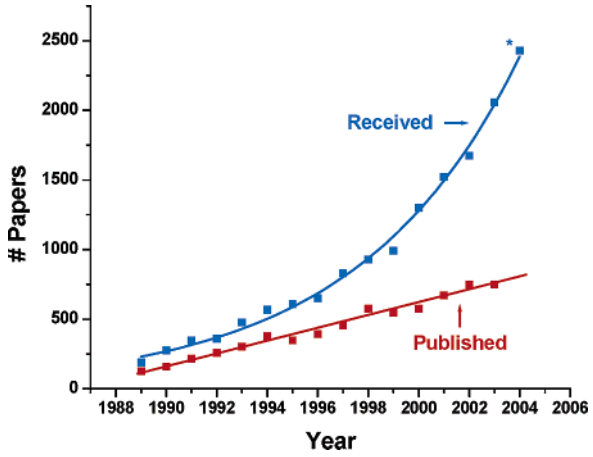

Figure 1. Manuscripts received and published at Chemistry of Materials from 1989 to 2004.

interest in materials chemistry continues to grow and more authors are choosing Chemistry of Materials as the venue for publishing their most significant results. Of course the journal could not function without the aid of the large number of reviewers who have responded promptly with well-reasoned and carefully prepared commentary on the submitted manuscripts and we thank you very much. The efforts of the Editorial Advisory Board, who are often called upon to adjudicate difficult and exceptional cases, are also acknowledged with gratitude.

Important announcements for 2005 begin with the addition of Professor Frank Caruso from the Centre for Nanoscience and Nanotechnology, Department of Chemical and Biomolecular

(1) Buhro, W. E. *Chem. Mater.* **2004**, *16*, 1.

(2) Information obtained from the Institute for Scientific Information Journal Citation Reports, at the ISI Web of Knowledge, http://isi10.isiknowledge.com/. By "comprehensive journal" is meant one which publishes a range of articles, not exclusively brief communications or reviews.

10.1021/cm0410034 CCC: $30.25
Published on Web 01/04/2005

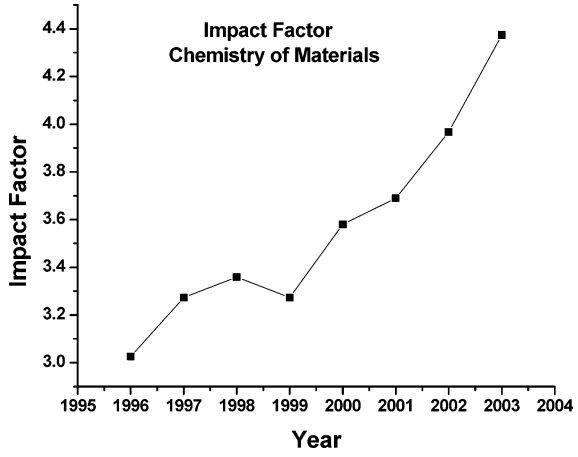

Figure 2. Impact Factor for Chemistry of Materials from 1996 to 2003.

Engineering, University of Melbourne, Melbourne, Australia, as our seventh Associate Editor. Professor Caruso's expertise in the nanomaterials area is welcome as this is, of course, one of the fastest growing areas of materials chemistry. He is also the second editor from outside of North America which reflects the growing international participation in the journal. Papers from North America now account for only one-third of the total published. As well, for 2005 we are moving to the exclusive use of the PARAGON system for electronic submission of manuscripts and have announced, on our web site and in the print issues of the journal, that hard copy submissions will no longer be accepted. This was necessitated by the increased work load on our staff stemming from the increased number of submissions and the additional demands on staff time associated with handling hard-copy submissions. The guidelines for submission of crystallographic data have also been updated (see the link on the Chemistry of Materials web page). Finally, we would like to encourage the submission of timely review articles. Several excellent reviews were published recently, covering topics such as lithium ion conductors and oxides exhibiting the second-order Jahn−Teller distortion. The print copies of the issues that contain these reviews feature an illustration on the front cover that highlights the review topic.

The major highlight of 2004 was the publication of the special issue on "Organic Electronics" which constituted the November 16, 2004 issue. We wish to thank Professor Samson A. Jenekhe of the Departments of Chemistry and Chemical Engineering of the University of Washington for an admirable performance as guest editor. This issue contained several timely reviews and many full articles providing a perspective on this rapidly developing field. Suggestions of topics for Special Issues are always welcome and are given careful consideration by the editors.

Finally, what are the prospects for the future of Chemistry of Materials? Perhaps we can seek guidance again from Mr. Berra who has advised, "When you come to a fork in the road, take it."[3] What he meant of course is that, given the realities depicted in Figure 1, a multi-pronged approach will be required to reduce the stress on the peer review system and ensure its survival.

Authors, reviewers, and editors all have distinct responsibilities. We urge authors to pay careful attention to the instructions for submitting manuscripts. Inclusion of a statement which makes a clear case for a "significant advance" in the relevant area of materials chemistry is now, essentially, a requirement. Submission packages which omit such a statement will almost always be deemed incomplete by the editors and may lead to rejection of the manuscript. Authors should refrain from submitting papers which report only incremental advances in favor of more comprehensive articles. Convenient access to databases makes it relatively easy for editors to identify cases of incremental publication. Unfortunately, instances of duplicate submission of manuscripts to more than one journal and various forms of plagiarism have been on the rise. These are unethical practices and are dealt with severely. Authors are urged to ensure that the quality of the written English meets international standards. Papers which are so poorly written that the meaning is lost will continue to be returned without review. For those who are not native English speakers, already more than 60% of our authors, the advice of someone competent in the language should be sought before submitting a manuscript.

Reviewers, who are already no doubt experiencing a high level of fatigue, must nonetheless work through the pain and recognize their responsibilities to the peer review system. If you submit articles to Chemistry of Materials you should be willing to review papers. Reviewers are requested to safeguard the quality of papers to be published. The case for a "significant advance" should be judged to have been made. Again, we request that the category of "major revision" be used sparingly. Papers requiring new experiments or computations, major re-interpretation of data, etc., should be rejected.

Editors must use their best judgment in sheperding manuscripts through the peer review process. The developing problem of reviewer fatigue must be addressed. While it is possible to expand the reviewer base, it is unlikely that this approach will be adequate to keep pace with the exponential growth in submissions. This necessitates the increased pre-screening of submissions to identify those which are unlikely to survive the review process. This saves the valuable time of both the potential referees and the authors themselves.

The year ahead will be challenging but we look forward to the task of grasping Mr. Berra's fork and the editors and staff at *Chemistry of Materials* wish our authors, reviewers, and readers a successful 2005.

John E. Greedan
Associate Editor

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(3) Berra, Y. with Kaplan, D. "When You Come to a Fork in the Road, Take It", National Baseball Hall of Fame, Cooperstown, NY.