

CHEMISTRY OF MATERIALS

VOLUME 19, NUMBER 1

JANUARY 9, 2007

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Editorial

Chemistry of Materials: #1 in Materials Science

This annual “New Year Editorial” provides an opportunity to look back on the year that has passed and forward to the one ahead. In all respects 2006 was another banner year for *Chemistry of Materials*, and the new one promises to be even better. You will find in this issue a “Call for Papers” for a planned “**Special Issue on Templated Materials**” in 2008. This will be the seventh in a continuing series of special issues intended to highlight and summarize research progress in particular fields of materials chemistry. It will include Short Reviews, Articles, and Communications. As was the case for the previous special issues, this promises to be a landmark survey of recent progress in a popular and important area of fundamental research and technology in materials chemistry. Toward the end of 2007, authors will notice a new interface for manuscript submission. Our journal, along with most other ACS journals, will move to a new manuscript submission and evaluation system, called the **ACS Paragon Plus** Environment. This new system, which involves changes at the author, reviewer, and editor interfaces, will ultimately enable a faster and more efficient processing of manuscripts.

During 2006 *Chemistry of Materials* continued to experience a substantial **growth in submissions**, and we are on track for reaching ca. 3100 submitted papers by year’s end. In response to this increase in submissions, three additional Editors were added, and we have intensified our efforts to prescreen manuscripts before sending them out to reviewers.

In December 2005, Peter Battle (Oxford University) joined our group of Editors, and in the last year Ferdi Schüth (Max Planck Institute in Mülheim) and Susan Kauzlarich (University of California at Davis) also came aboard. We welcome these **new Editors** and their staff, whose offices are fully “up and running” now and assisting greatly in our efforts to provide a timely evaluation of submitted papers.

The considerable growth in manuscript submissions that we have experienced is indicative of the overall growth in and

internationalization of scientific research that has occurred in the last two decades.¹ In materials chemistry and for *Chemistry of Materials* in particular, the growth in high quality papers from outside the United States has been quite evident, with over 70% of the papers published coming from outside the United States. Much of this new growth has come from East Asia, particularly China which, at the time of this writing, was virtually tied with Japan as the largest contributor of papers to *Chemistry of Materials* outside of the United States, in 2006.

Last summer, I had the opportunity to **visit China** along with three other ACS Editors and members of the ACS Publications staff. We met a number of scientists from leading institutions, learned about their excellent research programs, and discussed publication policies and trends. In response to the growth of submissions from China and in recognition of the contributions to materials chemistry made by these particular individuals, two Chinese scientists were added to our **Editorial Advisory Board** in 2007, along with six other scientists from the United States, Canada, Germany, and the United Kingdom. Currently 43% of our Editorial Advisory Board and 5 of our 11 editorial offices are from outside of the United States, reflecting the truly international character of current materials chemistry research and the perspective of this journal.

In addition to our Editorial Advisory Board members, most of whom are also active reviewers, we are grateful to the many other individuals who serve us and our authors as reviewers. Despite the large and growing number of reviewers, the increased rate of submissions to this and other journals has presented a major challenge to the peer review system. In an effort to respond to this challenge and provide some relief to our overburdened reviewers, in 2003 we instituted a **prescreening policy** to determine which papers should be sent to external reviewers for further evaluation. Papers that do not meet the

(1) *Chem. Eng. News* **2006**, 84 (Nov 27), 26.

criteria that we have set for publication, particularly our “significant advance” criterion (see journal Web site), are rejected at this stage. In 2006, this amounted to over 40% of the papers that we received. After peer review of the remaining papers, less than 30% of the total number received were accepted for publication.

As a direct result of this focus on publishing only high quality papers that significantly advance research and/or technology in materials chemistry, our Impact Factor continued to rise in 2006, to 4.818 from 4.103 in 2005. When one considers the fact that the majority of our published papers are full papers (Articles) and that we published approximately 900 papers in 2006, this IF value is quite remarkable for a full spectrum journal such as ours. In fact, with 33,648 total citations in 2005, a 27% increase over 2004, ***Chemistry of Materials* was again ranked as the #1 journal in materials science by ISI**, with more citations and citations per paper over the past 10+ years than any other journal in this category.

Those of you who see the print edition of our journal or look at the **cover illustrations** that appear periodically on the journal Web site may have noticed that the previous default “faux crystals” cover is no longer being used. In response to a suggestion from an Editorial Advisory Board member, we are now using illustrations from papers that have been published in the journal during the preceding several months as the “default cover”, which now changes every two months. However, our policy of giving authors of review papers the opportunity to submit a cover illustration for the issue in which their review appears remains in effect. Thus, the number of new covers that will appear annually will typically exceed six. We welcome the submission of artwork by authors for our consideration as possible cover illustrations, which will be chosen on the basis of both the quality and the significance of the paper, as judged by the reviewer comments received, and the visual appeal of the illustration.

Some of you may have read the letter that Elsa Reichmanis and I published in C&EN² regarding the increasing frequency of violations in **ethical guidelines** for authors that we, and other journal editors, have encountered in recent years. These ethical violations have taken numerous forms, ranging from simulta-

neous submission of the same manuscript to more than one journal and plagiarism of one’s own or others’ previous publications to fragmentation of research results in an attempt to maximize the number of publications. Such behavior represents a violation of the informal contract between the authors, the reviewers, and the editors of scientific publications and demeans the entire peer review process, while increasing the load on the editorial staff and reviewers. The consequences for the offending authors have included banning from publication in the journal for a given period or, in less serious cases, placing the author’s name on a “watch list” for special scrutiny of their subsequent submissions. Our Editors now routinely carry out literature searches for prior related publications by the submitting author (and co-authors), and the failure to reference and/or properly acknowledge these prior publications can result in outright rejection of the paper and placement of the author on our “watch list”. To avoid problems of this sort, authors are urged to read the newly revised version of the ACS Ethical Guidelines that appears in this issue and on the Web sites of all ACS journals. Please also read the **instructions for authors** on the Paragon Web site, which now requires the use of a template for all Communications and urges authors to include a concise statement about the significance of the reported findings and to suggest the names of potential reviewers. These statements help us in our screening process to determine if a paper merits evaluation by external reviewers.

The Editors of *Chemistry of Materials* would like to take this opportunity to thank the authors for their manuscript submissions that we depend upon for our existence as a journal, the reviewers who have given so generously of their time to evaluate and improve these papers, the Editorial Advisory Board for their advice and assistance, and the publications staff in Columbus along with the journal-support staff in Washington, D.C. Last, but by no means least, we thank our editorial staff: MeeLi Leith, Jayne Taylor, Sharon Gardner, Rob Johnson, Susan Davis, Maureen Shaw, Anne Ward, Gabrielle Trapp, Wilma Pröbsting, Angela Potter, Dru Dunton, and Suzanne Merten.

Best wishes for a happy and successful New Year.

Leonard V. Interrante

Editor-in-Chief

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(2) *Chem. Eng. News* **2005**, 83 (Jun 27).