

## Happy Trails!

As many of you know from the recent announcements in *Chemical and Engineering News* and our journal's homepage, *Inorganic Chemistry* will have a new Editor-in-Chief in 2013. More about that later. The change in editors also means that this is my last issue as Editor-in-Chief, which gives me an opportunity to reflect on the past dozen years of editing *Inorganic Chemistry*. During that time, the journal has experienced substantial growth with more submissions than ever before from a community that has become increasingly global; our submissions come from every corner of the world with greater and greater international participation. The same can be said about American Chemical Society journals in general. The statistics that are published by ISI each year show that, within our journal's category, *Inorganic Chemistry* ranks as the most cited journal and possesses the highest impact factor of any journal in which the primary reporting of new science is its principal mission. The change in these metrics over the past 12 years has been gratifying and gives evidence of the vitality of inorganic chemistry and its intersection with other areas of chemistry as well.

In 2011, *Inorganic Chemistry* celebrated its 50th anniversary. I wrote at that time about the journal's history and the changes we have seen in the discipline over that time. I think that analysis is germane today. As I wrote then:<sup>1</sup>

*"Fifty years is an even longer time in science than in human chronological terms because of the importance of technology and the science that spawns it in today's world. Every year increasing numbers of new results are generated and published. Reflection, however, reveals that many of today's advances have roots in the science of yesterday and yesteryear. When Inorganic Chemistry first appeared, the basis of electron transfer was first being probed experimentally and theoretically, leading to inner- and outer-sphere mechanisms and Marcus theory with its inverted region prediction, but electron transfer in metalloenzymes was a generally untouched area of research. In theoretical chemistry, simple molecular orbital theory (Hückel and semiempirical Wolfsberg–Helmholz) was just being applied to metal complexes such as the vanadyl ion and mononuclear metal carbonyls when Inorganic Chemistry started, but none of the power, sophistication and ease of use of today's density functional theory (DFT) existed. Today, DFT calculations are found in a large fraction of our submissions, often when the paper is predominantly experimental in nature.*

*Substitution and ligand modification reactions were being probed mechanistically at the outset of the journal, yielding ideas and concepts that are still in use today. In structural chemistry, X-ray crystallography was an arcane affair—data collection from many photographs with intensities read visually or by a densitometer followed by lengthy refinement procedures due to the limited availability of central computers (downtime was frequent). Structures that are now determined routinely in a few hours would often take several months.*

*Discrete metal clusters constituted a rather limited set of compounds when Inorganic Chemistry began, and the extraordinary structure and quadruple bond of  $\text{Re}_2\text{Cl}_8^{2-}$  had not yet been discovered nor had alkylidene, alkylidyne, carbene, and carbyne complexes. While cyclopentadienyl (Cp) complexes such as ferrocene and some  $[\text{CpM}(\text{CO})_x]_n$  compounds had been reported by 1961, the carbollide analogues were still a few years in the future. Also, while some palladium-catalyzed reactions were known, the incredible named coupling reactions that have impacted synthetic chemistry in a profound manner had not yet been discovered. The list goes on and on. Each of you likely knows of a different seminal discovery in inorganic chemistry or closely related science that saw its first light of day after Inorganic Chemistry was initially published."*

As I prepare to join the ranks of past *Inorganic Chemistry* Editors, I want to recognize again my predecessors: Bob Parry, who led the journal into existence; Ed King, who took it from quarterly to monthly and added Associate Editors while expanding its scope; and Fred Hawthorne, my immediate predecessor and the legendary editor of this journal for 32 years. Under Fred's reign, the journal grew and expanded into areas such as bioinorganic chemistry, organometallic chemistry, and solid-state chemistry, all burgeoning fields during the 1960s and 1970s.

There are a number of specific changes and accomplishments that have taken place during my editorship. The first was a change so that each issue would feature a cover highlighting the chemistry of an article contained therein. I thank the creators of those covers for their efforts and their tolerance of my pickiness that I think yielded a first-rate product. The success of the cover artwork also led to a second accomplishment, our annual *Inorganic Chemistry* calendar, which many of you found both useful and stimulating. It was also a joy for me to see the calendar on display in many offices, including those of students. The third was the institution of Forums, which featured research articles on overarching themes from leaders in the field to nucleate attention of *Inorganic Chemistry* readers on a cutting edge theme while bringing new readers to the journal to show them the value of the inorganic chemistry underpinning that area. The Forums have included some of our most cited papers and, most importantly, have helped in the teaching of inorganic chemistry as an active and robust science to undergraduate and graduate students.

During the past 12 years, our submissions have nearly doubled and the number of Associate Editors has increased accordingly. However, it is not the increase in the number of Associate Editors that I want to recognize but their quality and ability. They are a truly special group of expert scientists who are leaders in our field and are well respected by the global *Inorganic Chemistry* community. A recent photograph of the *Inorganic Chemistry* editors in 2011 is shown below. Both the total number of

Received: October 11, 2012

Published: December 17, 2012



citations per year and the journal impact factor have increased greatly over the past decade to 82,190 and 4.601, respectively, based on the most recent data reported by ISI for 2011. *Inorganic Chemistry* is the highest rated journal for the primary reporting of new science in its field, and the gap between our journal and its closest competitor has never been wider. At the beginning of *Inorganic Chemistry*'s golden anniversary year in 2011, I wrote:

*"Inorganic Chemistry's growth of the past decade is impressive, and analysis of that growth reveals a number of factors that are to me profound, exciting, and challenging. The first is the information technology revolution that, for us, began with the web publication of the journal (and all ACS journals) in 1996. The change from how we obtained, used, and searched the "literature" is one of total transformation. When I started as Editor, the transformation was in full swing, and we immediately instituted electronic submission. Few thought that paper journals would completely disappear, but today we are very close to that point as the information revolution continues. All of us access the literature, search for relevant articles, and save papers of interest electronically without ever leaving our desks. These saved articles are themselves searchable electronically! The web version of a published manuscript originally just mirrored its print version, but the electronic version of the paper today possesses functionality and interactivity that the print version could never engender—and more is coming.*

*During the past few years, smart phones, e-readers and iPads have raised new transformative possibilities. We can now access the latest developments via ASAP articles, and the literature in general, through an iPhone or an iPad, and share them with colleagues near and far instantly. Social networking (of which yours truly is a nonparticipant) meets scientific research. The information revolution also raises the issue of archiving, with which many librarians are wrestling, as we redefine libraries. How will our "written history" be preserved? In the future, how and where will we be able to access the experiments, data, and procedures done in the laboratory today and in the past? Where we head in the future on the electronic use and accessibility of the literature is something I cannot predict, but I expect it to be mind-boggling. The one constant I can take out of this revolution is change, and the rate of that change is accelerating.*

*A second major change is the continued globalization of the chemistry community. The majority of *Inorganic Chemistry*'s authors are now from abroad, with the greatest growth in foreign authorship over the past decade coming from Asia, especially the People's Republic of China. What we are witnessing is a seismic shift in who and where research is done. Personally, it is a delight to see that we are truly a global community. In 2009, I visited eight institutions in China with several Associate Editors of the journal, and we held a regional Editorial Advisory Board meeting at Peking University. It was great to meet and discuss with the participating chemists their interests and concerns regarding scientific communication and to see first-hand the impressive levels of research activity in China.*

*With the increased papers from greater numbers of places, we are also seeing a change in what inorganic chemistry is considered to be. In many respects, it is an expansion of inorganic chemistry's footprint in science. One emphasis, only nascent 2 decades ago, is the size of inorganic systems that we*

*study. While we continue to have a molecular perspective, the systems we study have increased to nano- and even mesoscale with metal-organic frameworks (MOFs), self-assembly, and supramolecular chemistry. Another emphasis is on chemistry related to real and overarching problems such as energy for sustainable development. In inorganic chemistry, this may focus on solar energy conversion, photochemistry, electron transfer, and catalysis, as well as new materials and how to use them in addressing different aspects of the energy challenge.*

*The third expanding emphasis in inorganic chemistry is biological. For years, *Inorganic Chemistry* has had a tagline in its title, "including bioinorganic chemistry", that showed how important papers dealing with biologically related inorganic chemistry and inorganically related biological chemistry were considered to be. Research in this cutting-edge multidisciplinary area continues to increase as it deals with the many challenges to improve human health."*



The *Inorganic Chemistry* editors in 2011: (from left) Bill Tolman, Kim Dunbar, Ed Solomon, Ken Poeppelmeier, Vivian Yam, Alan Balch, Jim Mayer, Rich Eisenberg, and Vince Pecoraro.

One really special treat for me was celebrating *Inorganic Chemistry*'s 50th anniversary as its Editor. In celebration of that milestone, we held a five-session symposium at the Fall ACS Meeting in Denver, CO. The talks featured a diversity of inorganic chemistry (broadly defined) that all found stimulating, and that even with the breadth of science presented, would readily fit within the pages of our journal. The symposium affirmed the vitality of the field and how it continues to change and impact other areas of chemistry and disciplines of science. The symposium was also followed by a special dinner in which Fred Hawthorne spoke about the earlier years of the journal. Another special anniversary year feature was a set of interviews I conducted called the "Voices of *Inorganic Chemistry*". The interviews were with leaders in our field who helped make the field of inorganic chemistry what it is today and who, through their efforts, helped nurture *Inorganic Chemistry* to its current status as the leading journal in its field. I greatly enjoyed doing the interviews and am proud of how they turned out. I have received many positive comments about them including three that stick out in my mind. One was from a college teacher who assigned her class to pick one of the interviews and write a paper about the science discussed. The second was from a high school teacher who said that his class really enjoyed finding how a particular leader in the field came to do chemistry. The third was from

someone in Iran who genuinely enjoyed the interviews and thought that their appeal extends well beyond any national boundaries. There are 12 of these interviews, and they are available at <http://pubs.acs.org/page/inocaj/multimedia/voices.html> and can also be accessed via YouTube and the ACS Channel.

Now, a few words about the new Editor-in-Chief: He is William B. Tolman, who is Distinguished McKnight University Professor and Chair of the Department of Chemistry at the University of Minnesota. Bill joined the *Inorganic Chemistry* family as an Associate Editor in 2007, and I am delighted that he will succeed me. I could not think of a finer choice. Bill's research is in two different areas: bioinorganic chemistry, where he is looking at the binding and activation of small molecules (O<sub>2</sub>, NO, etc.) with metal complex analogues of metalloenzyme sites, and metal complex catalysis of the polymerization of cyclic esters and related monomers to form biodegradable polymers. Bill is a genuine leader in inorganic chemistry and in service to the community. Bill and I traveled to China together in 2009 to discuss the opportunities and challenges of publishing front-line research in *Inorganic Chemistry*, and Bill did a wonderful job in the give-and-take discussions at the universities and institutes that we visited. I know that you will give Bill the warm support that I have had from all of you over the past 12 years. I should also mention that Bill tweets and that you will be able to follow him and *Inorganic Chemistry* on Twitter (@InorgChem) and the ACS web site.

So, in closing, let me thank the many people who helped bring every issue of the journal to fruition. The numbers include not only the journal assistants to all of the editors but the entire production staff in Columbus, OH, and the ACS Publications Division in Washington, D.C., who do a tremendous job in fulfilling one of the Society's core functions of communicating what is happening in chemistry and allied fields. On a personal note, when I started my editorship, my chief journal assistant was Arlene Bristol, who actually began her career working with Drs. Albert Noyes and Marshall Gates in the late 1950s when *Journal of the American Chemical Society* was being edited at the University of Rochester, Rochester, NY. After more than 50 years, Arlene is still with me as we prepare to close the Rochester office of *Inorganic Chemistry*. A special thanks to Arlene, who many of you know from her emails, and to Kirstin Campbell, who has worked tirelessly on the *Inorganic Chemistry* covers for 8 years. Finally, I thank and salute the most important people in the success of *Inorganic Chemistry*. It is all of you as readers, authors, and reviewers, who through your efforts continue to keep our journal true to its mission in the best possible way. Now, happy trails!

Rich Eisenberg

## ■ AUTHOR INFORMATION

### Notes

Views expressed in this editorial are those of the author and not necessarily the views of the ACS.

The authors declare no competing financial interest.

## ■ REFERENCES

- (1) Eisenberg, R. *Inorg. Chem.* **2011**, *50*, 1–3.