

# The Width and Depth of Inorganic Research: Review Articles in *Inorganic Chemistry*

With this issue, Review articles are being introduced as a new article type in *Inorganic Chemistry*. You may wonder why we are doing this after being around for more than 60 years without Reviews. Other journals already publish Reviews on topics in inorganic chemistry. On closer inspection, however, you will find that most of the specific platforms for these Reviews are Review-only journals or either cover the whole spectrum of chemistry or even the natural sciences and thus devote only a relatively small part of their pages to inorganic chemical research.

We believe that comprehensive overviews of intrinsically inorganic topics are instrumental—for your own research, for teaching, or for your studies. Some journals for inorganic chemistry do publish Review articles, so why not offer that in the namesake journal for the field?

With this question in mind, the *Inorganic Chemistry* Editorial Team got to thinking that, although we publish research from all groups and rows of the periodic table, Reviews have been a missing element in the journal and our readership. *Inorganic Chemistry* publishes Viewpoints, a type of perspective article, but these are somewhat different from Reviews. Viewpoints are written as personalized discussions of a developing subject or field, with the intent of inspiring future research efforts, which includes a critical assessment of recent advances that one might see in a Review and goes further with a discussion of the future outlook and direction of the field. Viewpoints typically are restricted to 5–10 pages in journal-printed length.

We therefore devoted significant time discussing what we are looking for in a good Review. We do not want *Inorganic Chemistry* Reviews to be just ordinary reviews spilling out cursory snippets of work that has been done and ending with a reference list that goes on forever. We would like for Reviews to provide historical context, presenting how the field developed and the current status of research, laying out ongoing challenges and being forward-looking to discuss opportunities. We would like for Reviews to have a clear connection to inorganic chemistry aspects [within our broad scope](#), critically evaluating the recent work of multiple groups, thus not only the author's work. In this way, we aim to create an exceptional library of articles on exciting contemporary inorganic chemistry that will grow over the years to become an invaluable source of chemical knowledge.

Review articles in *Inorganic Chemistry* have no strict page limit, although we encourage authors to stay focused, with an article length of up to 10 000 words, to enable both enjoyable and at the same time very informative reading. The work should be a concise survey of the literature with a logical

organization and written at a level that makes the material easily accessible to our wide readership through clear text and figures—although authors are free to present the topics with their own personal flavor and perspective. We also encourage authors to be judicious in citing the literature, focusing on the most seminal or recent articles, limiting the overall number of their own publications, being mindful of personal biases, and striving to provide an inclusive perspective.

We would like to emphasize that this new article type will be in line with some recent developments in the journal's philosophy. We offer the opportunity to write dialogue-type Reviews to emphasize inclusive and interactive scientific publication. This can be realized by combining two or more Reviews on the same or a closely related topic from different perspectives, such as experimental and theoretical points of view, solid-state and molecular points of view, or fundamental research and application-oriented points of view. We also welcome paired articles written by authors of different career stages or from different geographical backgrounds, thereby highlighting research activities that are found in their specific scientific environments. In this way, we want to cross the boundaries between different but related groups of researchers and strengthen the interaction and communication between them—in the sense of our goal to strengthen a community of chemists that sees itself as one big family. The interaction of scientists for this purpose can go so far as to jointly write a Review rather than a pair of Reviews—but that is entirely up to you as our authors.

Our first Review article is being published by an eminent scientist in the field of inorganic chemistry: We are both happy and proud that Omar Yaghi gave us the honor of publishing a Review article from his group on “Structural Chemistry of Zeolitic Imidazolate Frameworks” (ZIFs) in *Inorganic Chemistry*. In their article ([DOI: 10.1021/acs.inorgchem.3c02322](https://doi.org/10.1021/acs.inorgchem.3c02322)), Yaghi, Zhiling Zheng, Zichao Rong, and Ha Nguyen elaborate on this subclass of reticular structures, which—as the name indicates—are based on tetrahedral four-connected networks of zeolites and minerals. More specifically, in ZIFs, transition-metal ions are linked by imidazolate-type molecules. The pore

size, pore shape, surface area, and functionality of these materials can be precisely controlled, similar to metal–organic frameworks (MOFs). However, the design and synthesis of new ZIF structures and also their differentiation from other crystalline solids are issues that remain to be addressed, which is part of the discussion in this Review. Yaghi and colleagues present a survey of synthetic approaches for a wide range of ZIFs and their crystal structures. Furthermore, they outline the structure–property relationships of this class of solids and highlight several intrinsic features along the way in explaining how ZIFs stand out from MOFs and discrete molecular cages. As we intended for Reviews, the authors ultimately point to future developments for this class of porous crystalline materials.

Be on the lookout for additional Reviews on various topics in *Inorganic Chemistry*, several are in the final stage of publication, currently under review, or in preparation. Submissions are by invitation only from the Editor-in-Chief, but we encourage authors to submit proposals for Review articles (E-mail: [eic@inorg.acs.org](mailto:eic@inorg.acs.org)) if you are an expert in a field that you think would be a valuable addition to this article series. We are happy to discuss your proposals with you—and we look forward to your next submissions to the journal!

We hope you enjoy reading this first Review article published in *Inorganic Chemistry* as much as we do!

**Stefanie Dehnen**