

## Exceptional technical, educational, and diffraction data articles are included in this issue of PDJ

This issue of *Powder Diffraction* (PDJ) has a broad scope for quality papers. To provide some organization there are several groups of papers in this issue.

The first two papers are additions to the Special Section on Metal Organic Framework (MOF) papers. They are the third group of MOF papers to be published in PDJ, adding to those published in the March and June issues. Together, the growing collection of papers provides a focused Special Section that demonstrates the importance of not only powder diffraction but also combining powder diffraction with other characterization and computational methods to better understand properties of MOFs. The development of new MOFs is very dependent on understanding the crystallographic structure and particularly the shape and size of the channels (or tunnels) that gas molecules such as CO<sub>2</sub> can move through. Researchers considering submitting a contributed paper on an MOF should contact Dr. Craig Brown ([craigy@udel.edu](mailto:craigy@udel.edu)) and Dr. Winnie Wong-Ng ([winnie.wong-ng@nist.gov](mailto:winnie.wong-ng@nist.gov)) to see if their research could complement the PDJ Special Section on MOFs.

Three additional Technical Articles (TAs) in this PDJ issue cover a diverse set of topics related to powder diffraction software, structural and optical property analyses, and the challenging problem of quantification of crystalline and amorphous content. The first is the paper on PreDICT, a graphical user interface to the widely used DICVOL14 indexing software program. The second is a detailed paper on the structural and optical properties of Ba(Co<sub>1-x</sub>Zn<sub>x</sub>)SiO<sub>4</sub> compounds. The third TA discusses the measurement of crystalline and amorphous components in inhalable dust collected on aerosol-sampling filters.

The Crystallography Education Article “History of the Reciprocal Lattice” by Mohammad Fathi is a very interesting paper reviewing the early work on the reciprocal lattice. I expect all readers of PDJ will feel it is very worth studying.

The next group contains three New Diffraction Data and Data Report Articles that provide very high-quality powder diffraction reference data and in two cases the crystal structure of important pharmaceutical compounds.

This issue of PDJ closes with an International Report on the To.Sca.Lake 3 Summer School on total scattering analysis and the Calendars of Forthcoming Meetings and of upcoming Short Courses and Workshops.

Last, during the 2019 March meeting of the International Centre for Diffraction Data a PDJ Advisory Board was established with the primary goal of building on the past and making PDJ increasingly valuable to the readers and the wide community of applied materials researchers using X-ray, neutron and electron diffraction and related diffraction techniques for tomography, X-ray fluorescence, pair distribution analysis, as well as instrumentation and software analysis tools. The Advisory Board looks forward to receiving your comments on how to evolve *Powder Diffraction* so that it is of greater value to our readers and authors. I look forward to receiving your thoughts on this important long-range effort. Please e-mail me at [camden.hubbard@me.com](mailto:camden.hubbard@me.com). Your input would be greatly appreciated by the Advisory Board and me.

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