Editorial

This issue of *Powder Diffraction* (PDJ) contains two papers from the most recent proceedings of *Advances in X-ray Analysis*. These papers were presented at the August 2020 Denver X-ray Conference that was held virtually. Each of these papers contains notable advances in theory and computational methods for analyzing X-ray powder diffraction data. The first paper is "Equatorial Aberration for Powder Diffraction Data Collected by Continuous Scan of a Silicon Strip X-ray Detector" by Takashi Ida. This paper addresses how to eliminate the small, but undesirable aberrations in data collected using the now widely used silicon strip detectors. The second paper is "Review of the Direct Derivation Method: Quantitative Phase Analysis with Observed Intensities" by Hideo Toraya. This paper shows that the weight proportion of a component phase can be determined by dividing the total sum of observed diffracted intensities by the scattered intensity per unit weight.

Both proceeding papers present novel ways to address the limitation of the powder diffraction methods, instrumentation, or analysis methods. I invite you to study these important contributions to PXRD data handling and analysis methods. This issue also contains a Crystallographic Education report on ICDD's adoption of a webinar type virtual session to make widely available instruction in using the Powder Diffraction Database (PDF) and JADE Software. While such webinars were in use before the pandemic, particularly by many instrument manufacturers, it is clear that the advances in collaboration tools are supporting and expanding ways to share information.

Over the last 18 months, the rapid growth of applications for remote collaboration worldwide that enable interacting virtually has been fascinating to follow (and challenging to keep up with). ICDD, the proprietor of this Journal, has adopted and used a wide variety of such tools in support of their activities. It is not surprising that nearly all other organizations I interact with have also adopted virtual meeting platforms, increased use of webinar tools for workshops and education, expanded use of the World Wide Web, and in general have adopted virtual collaboration and learning tools as essential technologies to meet their organizational goals.

While face-to-face contact has rapidly and widely been replaced by computer screen-to-screen connections, overall the consensus is that they were quite successful. One "benefit" to going virtual, frequently pointed out by conference organizers, has been the greater international participation in the meetings. As with other new and improved technological solutions to transform meetings, education and training will continue to evolve and be particularly refined. Today I find, as many of our PDJ readers do, that nearly every society I follow is holding workshops, conferences, and educational seminars virtually. Projecting the future is challenging, but I believe that even as vaccination rates continue to increase and even if there are no new COVID-19 variants that sidestep the vaccinations, nearly all methods, instrumentation and educational workshops, conferences, trainings, etc. will adapt to a hybrid setting where some attendees might attend in person, but the majority continue to attend virtually.

Altogether, the widespread adoption of computer technology methods, equipment, and familiarity will enhance scientific meetings and educational sessions. This trend continues to impress me due to the quality of the new tools and the fast adoption by the communities. This trend, of course, is not limited to the field of powder diffraction nor crystallography but rather is being adopted across essentially all fields, or if viewed from a broader perspective, across all facets of intellectual, business, and personal interaction. I look forward to the continuing rapid changes and improvements and thru that building an improved way for scientists around to world to learn and collaborate.

Camden Hubbard
Editor-in-Chief, *Powder Diffraction*

 0885-7156/2021/36(3)/147/1/$18.00
https://doi.org/10.1017/S0885715621000452 Published online by Cambridge University Press