

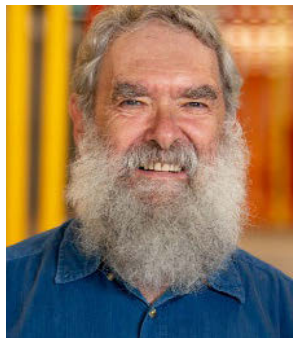
of development of the ISO/REMCO guidance, and in particular for the production of high purity reference materials. The ISO Committee for Reference Materials (ISO/REMCO) has actively been updating its guidance documents over the past eight years. Since the conversion of



Angelique Botha

the third edition of ISO Guide 34 to the international standard ISO 17034 to address the conformity assessment of reference material producers, the work of the committee has focused on the revision of ISO Guide 35 and the development of up-to-date guidance for the users of reference materials. In 2014, a guidance document, ISO Guide 80, for the in-house preparation of quality control materials was published by the committee. The third edition of ISO Guide 33 *Reference materials—Good practice in using reference materials* was published early in 2015. While the previous edition focused on the use of certified reference materials, the new one relates to all types of reference materials and their uses. The prospects for the future work of the committee include the development of more field specific guidance. At the beginning of 2018 a proposal was approved for the development of a guidance document for the production of qualitative reference materials (ISO Guide 85). Two new proposals (ISO Guide 86 and ISO Guide 87) were also approved for the development of harmonized guidance for the preparation of high purity reference materials for small organic molecules as well as metals and metalloids, respectively.

The lecture of D. Brynn Hibbert, School of Chemistry, UNSW Sydney, Australia, (<https://orcid.org/0000-0001-9210-2941>), was on metrology and the law: presenting chemical measurements to the courts. In Australia, an expert is bound to help the court no matter who is paying. Expert conferences are encouraged so that complex science can be presented to allow the “trier of fact” to make a properly informed decision. In particular, for example, the issue is often one of conformity



D. Brynn Hibbert

assessment—is the driver over the legal limit for alcohol? Three examples from the author’s case book will show how reliable measurements have been crucial to providing justice. First, a racing horse is not allowed to have more than 100 ng/mL of cobalt in its urine. In a landmark case the court accepted a statistical distribution of cobalt mass concentrations that allowed calculation of the probability of an ‘ordinary horse’ having a mass concentration greater than the legal threshold. Second, illegal ‘meth labs’ are found in most countries. While the identity of the product (‘ice’ or N-methylamphetamine hydrochloride) is often not in dispute, the amount of drug synthesised determines the length of the custodial sentence. Measurement of purities, and thus mass of drug, requires proof that the sample analysed was representative of the item seized. Estimation of potential yields from seized precursors also has a bearing on indictable amounts. Finally, in a recent cold-case murder, the author successfully argued against the admissibility of lead isotope analysis results that matched bullets in a body to bullets in a box of bullets in the possession of one of the accused. Was the method properly validated? And does the chemical match actually prove the body bullets came from the box?

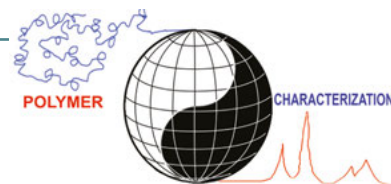
The number of the participants from different countries and continents varied during the Webinar from about 130 to 200. They had a possibility for questions, and the interaction with the lecturers was interesting. The Zoom event was recorded and published on YouTube, <https://www.youtube.com/watch?v=3mZM-v6hwDMY>. Corresponding links are available on IUPAC webpage <https://iupac.org/event/metrology-quality-and-chemometrics/> and CITAC website www.citac.cc (Conferences & Workshops).

Reprint from CITAC News April 2021, p. 72, <https://iupac.org/event/metrology-quality-and-chemometrics/>

International Polymer Characterization Conference—POLY-CHAR 2020 (Venice)

by Chin Han Chan, Holger Schönherr, and Valerio Causin

POLY-CHAR 2020 [Venice] is an International Polymer Characterization Conference, under the auspices of the Scientific Committee of POLY-CHAR and IUPAC.



Conference Call

This event, which was originally scheduled for May 2020, but was postponed due to the pandemic, was held, for the first time in virtual format, from 12–14 April 2021. This conference was hosted by the University of Padova, Italy.

Due to the worldwide travel restrictions, it was not possible to meet physically, *i.e.* to experience lectures and discussions in a real conference hall, to exchange ideas over a coffee during the breaks and to discuss together next to the posters. The extra work needed for the scientific research activities coupled with e-teaching or even e-research was absolutely enormous during the pandemic emergency. The scientific committee as well as the organizing committee of POLY-CHAR were extremely grateful for the participation of many excellent speakers from interdisciplinary fields (*e.g.* physicists, chemists, materials scientists, biologists *etc.*) from all 5 continents, sharing their research findings from theoretical to experimental as well as from fundamental to applied aspects of polymers. The areas of expertise explored in the program spanned from materials science to medicine, from nutrition to forensic science, from nanotechnology to 3D printing, *etc.* Participants were heroic in overcoming the time-zone differences, attendance was always very high and, even if in virtual form, attendees kept this fabulous POLY-CHAR saga active. Of course, everybody's wish was that travel restriction will be lifted soon.

A total of 8 plenary speakers, 27 invited speakers, 57 oral speakers, 8 poster presenters and 100 participants from 27 countries with 75 international participants participated in POLY-CHAR 2020 [Venice].

The conference presentations were organised under the core themes of:

- Polymers and the environment: Recycling and land remediation
- Applications of polymers: food, forensics, adhesives, coatings and preservation of cultural heritage
- Characterisation of polymers
- Mechanics of polymers—Nanoindentation
- 3D printing
- Polymer physics, theory and simulations
- Synthesis of polymers
- Biopolymers, biomedical materials and biotechnology
- Nanomaterials and smart materials

The **POLY-CHAR prizes for the Best Oral Presentations** were awarded to:

- Veronika Gajdosova, Institute of Macromolecular Chemistry, Academy of Sciences of the Czech Republic, for her work on *Antioxidant and*



Group photo of the virtual conference

pro-oxidant activity of phenolic stabilizers during photooxidation of polyolefins revealed by microscopic methods

- Anna Liguori, University of Bologna and INSTM, Italy, for her work on *Hybrid composite scaffolds for spinal interbody fusion*
- Zhiqiang Zeng, University of Science and Technology of China, China for his work on *Investigation of multifunctional triphenylamine Schiff-base compounds towards electrochromic applications*

Two **IUPAC Awards for Best Student Posters** were presented to:

- Zrinka Buhin Šturlić, University of Zagreb, Croatia for her work on *PCL/nano-ZnO protective coatings for metals*;
- Yu Jeong Bae, Kyungpook National University, Korea for her work on *Structural characteristics and properties of silk/rayon webs and non-woven fabrics*.

One **POLY-CHAR Prize for the Best Student Poster** was awarded to:

- Laura Dehondt, Tweed Research Center, Onyx Développement SAS, Groupe Nutriset, France for her poster *Optimization of the starch extraction in Cyperus Esculentus to increase the digestibility of a tigernut-based juice*

The next POLY-CHAR conferences were planned as follows: *virtual* POLY-CHAR 2022 [Siegen & Halle], Germany in May 2022 and POLY-CHAR 2023 [Auckland], New Zealand in January 2023.

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