risk assessment, including good modelling practices, scenario development, and local requirements. In addition, they were able to network with the experts present, and each participant received copies of the presentations. As with the previous workshops, the participants agreed that much useful information was given which enabled them to understand better the complexities of ecological risk assessment. Thanks are due to IUPAC, ACS-AGRO and CropLife International for supporting the Workshop.

For further information contact Task Group Chair J.B. Unsworth, <unsworjo@aol.com. > www.iupac.org/project/2016-025-1-600

IUPAC 2017 - World Chemistry Congress and IUPAC General Assembly

by Bipul Behari Saha

The 46th World Chemistry Congress (IUPAC 2017) was held in São Paulo, Brazil, 9-14 July 2017. The 49th General Assembly was also held in the same venue on 7-13 July. The program was organized by the Brazilian Chemical Society. More than 3500 delegates from 66 countries attended the Congress, the theme of which was "Sustainability & Diversity through Chemistry."

The joint opening ceremony of General Assembly and Congress was held in the Golden Hall on 9 July. The opening address was delivered by Prof. Adriano Andricopulo of Brazilian Chemical Society. It was followed by a musical program directed by Prof. Ramos, and then Prof. Aldo J. G. Zarbin declared the opening of IUPAC 2017. The IUPAC President's address was delivered by Prof. Natalia Tarasova. The 2016 and 2017 IUPAC–Solvay International Awards for Young Chemists were presented by Prof. Richard Hartshorn, Secretary General of IUPAC, and Prof. Natalia Tarasova. It was followed by the presentation of the "Distinguished Women Awards" by Dr. Carolyn Ribes and Prof. Angela Wilson.

Congress Scientific Programme

The World Congress had an excellent scientific programme, with symposia covering 12 major areas:

- Analytical and Food Chemistry
- Chemistry Education

Golden Hall or Multiverse?

Everyone who attended the Congress had something to say about their experience in attending or presenting a lecture in the Golden Hall. The Golden Hall is a multipurpose arena that was set with a central circular stage that can accommodate up to 8 speakers simultaneously while the surrounding audiences are not delineated in space and can fl w around simply by tuning in a specific audio channel on their individual headset. Raychelle Burks, a Young Observer from USA, tweeted about it several times and referred to it as the "multiverse"!

CI asked Angela Wilson to share her experience:

Angela Wilson: I found the presentation opportunity in the Golden Room to be empowering and convenient, while also being quite unusual. I moderated a panel in the room, and then had my talk in another technical section right after that. It was very simple to move from one to another in the same room.

An aspect that was empowering was the large audience. The opening ceremony was exciting in that venue, having an audience surrounding nearly all sides of the stage.

The room was also interesting in terms of the technical presentations. I enjoy challenges and competitions, so not knowing exactly who was listening to you, nor who may turn their channel to listen to your presentation from the nearby sections, was interesting and invigorating. I viewed this as an opportunity to show others who might not necessarily go to my talk about my work. In fact, there were a number of people who were in the sections next to where I was presenting talk to me about my work afterwards. These individuals were not theoretical/computational chemists, and they thanked me for introducing them to some areas of theoretical/computational chemistry—they said that some of my slides caught their attention, so they had switched channels to listen to my presentation.

What was somewhat off-putting, however, was that even with the headset on, I could hear the other speakers talking. Hearing my own voice through the headset during my talk was also a bit odd. So, it took a great deal more focus than in a typical room to give a talk and answer questions without getting distracted. As the talks did not start and end at the same time, when there was applause, the speakers at the sections near to that part of the room needed to

- Chemistry for Industry Innovation
- Chemical Synthesis
- Energy, Water and Environmental Sciences
- Analytical Chemistry and Environment
- Green Chemistry and Biotechnology
- Inorganic and Structural Chemistry
- Macromolecules and Materials
- Medicinal Chemistry and Chemical Biology
- Nanoscience and Technology
- Natural Products and Biodiversity

The programme featured keynote and invited lectures, oral presentations, and posters in each area.

Plenary lectures included three Nobel Laureates: Prof. Robert Huber, Prof. Ada E. Yonath, and Sir J. Fraser Stoddart. Six further plenary lectures were delivered by Prof. Katharina Landfester (Max Planck Institute for Polymer Research, Munich), Prof. Clare Grey (University of Cambridge, UK), Prof. Mei-Hung Chiu (National Taiwan Normal University, Taiwan), Prof. David MacMillan (Princeton University, USA), Prof. Frances Separovic (University of Melbourne, Australia), and Sir Tom Blundell (University of Cambridge, UK). In addition, there were over 36 keynote and invited Lectures and a large number of oral and poster presentations. Selected papers from the 46th World Congress will be published in an issue of *Pure and Applied Chemistry*, with Professors Adriano Andricopulo and Pedro Camargo as guest editors.

Several Special Symposia were also held during the Congress:

- **"Research Data, Big Data and Chemistry"**, organized by David Martinsen and Leah McEwen. In this symposium, importance of "Big Data" in chemistry was discussed in detail. The July 2017 issue of *Chemistry International* set the stage for the symposium and selected papers will be featured in *Pure and Applied Chemistry*.
- **"Women in Chemistry"**, organized by Carolyn Ribes and Vanderlan da S. Bolzani. In this program, winners of "Women Chemists Awards" shared their experiences with generations of chemists.
- **"Environmental Chemistry"**, a series of three symposia coordinated by the Chemistry and the Environment Division of IUPAC:
  - "E –waste – an emerging global environmental challenge"

pause— otherwise, it was difficult to hear the speakers.

From the perspective of an audience member, I enjoyed being able to see slides from three different presenters at one time. It was nice to be able to catch some slides from other fields, and have the opportunity to switch to what other nearby speakers were discussing. This provided me with a unique opportunity to catch my "usual" talks, while also having the opportunity to hear talks that I would not normally attend due to time conflicts.

I must admit, however, that the experience also felt surreal at times, with so many conversations on so many different technical "languages" all going on at one time (and, depending upon where you were seated, you could hear more than one topic!)—Defini ely a very different feeling!

Angela K. Wilson, wilson@chemistry.msu.edu, is John A. Hannah Distinguished Professor at the Department of Chemistry of Michigan State University. In IUPAC, she is President of the Physical and Biophysical Chemistry Division. At the Congress, she had an invited lecture entitled "Quantum Chemistry Strategies for Transition Metals and Beyond" and on the same afternoon was the moderator of a panel featuring Women in Chemistry.

The Golden Hall during parallel sessions; center stage is the Women in Chemistry panel, with three panelists seated and standing is the moderator, and on the far right stage is Angela Wilson during her invited lecture.

- "Fate of Pesticides in Latin American Environments"
- "Global Environmental Challenges of Nanomaterials"

- **"Young Researchers in Chemistry"**, a symposium organized by a group of talented young chemists representing IYCN

IUPAC General Assembly

The IUPAC General Assembly (GA) is the occasion for meetings of the statutory bodies of the Union, specifically of the Council, Bureau, Division Committees, and Standing Committees and was in São Paulo attended by about 300 members and national delegates. The Council is the primary IUPAC governing body to which the Bureau, Executive Committee, Standing Committees, Divisions, Commissions, and all other IUPAC bodies are responsible. Council is composed of delegations from the National Adhering Organizations (NAO) and each NAO appoints its delegates for every Council meeting. Regular meetings of the Council take place every two years as part of a General Assembly.

Council delegates (about 160 in attendance from 47 NAOs) moved smoothly through the numerous agenda items under the orderly guidance of Secretary General Richard Hartshorn and President Natalia Tarasova.

The Council elected members of the Bureau, as well as Prof. Chris Brett (Portugal) as the next Vice President. The Council also voted for the venue of the following sites for future Congresses: in 2021, the 48th World Chemistry Congress and 51st General Assembly will be held in Montréal, Canada, 13-20 August; in 2023, the 49th World Chemistry Congress and 52nd General Assembly will go to The Hague, Netherlands, 20-25 August.

The full text of the Council Agenda is accessible online at https://iupac.org/2017-iupac-general-assembly/ and the list of actions taken by the Council is reported p. 40.

During the General Assembly, all the Divisions and Standing Committees met and reviewed ongoing projects and discussed other matter pertaining to their section. Each presented at Council and written reports are available in the Council Agenda Book.

The 2017 Distinguished Women in Chemistry recognized in São Paulo (L to R): Vanderlan Bolzani (Women in Chemistry Special Symposium coordinator), Ingrid Montes, Misako Aida, Veronika Meyer, Yvonne Mascarenhas, Angela Wilson (Symposium co-chair), Zafra Lerman, Frances Separovic, Carolyn Ribes (Symposium co-chair), Concepcion Gimeno, Thisbe Lindhorst, Lifeng Chi, and on the far right, IUPAC President Natalia Tarasova. The gentleman in the back row is IUPAC Secretary General Richard Hartshorn. For background information about these awards, see iupac.org/iupac-2017-distinguished-women

World Chemistry Leadership Meeting (WCLM)

In the WCLM forum, members of the National Adhering Organizations (NAO) have an opportunity to come together and discuss emerging issues. This year, the theme of WCLM was "IUPAC's role in developing interdisciplinary/collaborative work in the chemistry community and beyond". The programming, led by Hemda Garelick and Chris Ober, was supported by the active participation of many IUPAC members, including Jan Apotheker, Valdimir Gubala and Pietro Tundo.

This year again, the WCLM activities were designed to engage with the Young Observers. In addition, the International Younger Chemists Network (IYCN) was also involved in bringing younger energy to many activities in IUPAC. The WCLM team will report separately.

IUPAC Centenary

In July 1919, chemists from France, Italy, Belgium, UK and USA met in Paris and founded IUPAC. There are plans to celebrate IUPAC centenary in 2019 and with this in mind, IUPAC100 Management Committee has been formed with Mary Garson and Laura McConnell as co-chairs. A number of events are being planned which includes periodic table competition, Green Chemistry Summer School, proposals from young chemists, IUPAC100 World Chemistry Leadership Meetings etc. The 2019 anniversary represents an opportunity to celebrate the role and contributions of chemistry within society, today and into the future, and is not solely a celebration of the IUPAC birthday. National events to celebrate IUPAC100 are encouraged. (see more p.35)

Closing Ceremony

After one week of hectic activities, IUPAC 46th World Chemistry Congress and 49th General Assembly came to an end on 14 July. It was a grand success due to hard work by the Brazilian Chemical Society and IUPAC Secretariat.

At the closing ceremony, Professor Nicole Moreau, former IUPAC President, invited the audience to gather in Paris for IUPAC 2019 and on the occasion of IUPAC Centenary.

Dr Bipul Behari Saha, <drbsaha@rediffmail.com> is an Indian delegate, member of the IUPAC Committee on Chemistry and Industry (COCI). He is Director of R&D at L R Research Laboratories, Nagarjuna Ageichem Limited, Hyderabad, India.

View the Photo Gallery at iupac2017.org

Up for Discussion

A forum for members and member organizations to share ideas and concerns.
Send your comments by e-mail to <edit.ci@iupac.org>.

From Young Observers to Young Actors: A Message to IUPAC from a few Young Observers

For many years, IUPAC has opened its doors to the younger chemists as observers to its activities, welcoming them in the midst of their General Assemblies. This is a unique opportunity for younger chemists to acquaint themselves with the work of the Divisions and Committees at an early stage and with limited commitment. In an article published in 2002, the *Young Observers* (YOs) program was characterized as "a way to seek innovative scientists" and "bring new expertise to IUPAC" [1]. Since 2013, the *World Chemistry Leadership Meeting* (WCLM) has invited all young observers to its symposium. In 2017, with a clever combination of "speed-networking" round tables, brainstorming and projects-crafting during the symposium, there is strong hope that a significant proportion of young observers will return as IUPAC active members during future meetings in Paris (2019) and Montréal (2021).

We were all very interested in participating in these activities, useful to newcomers, and we would like to thank IUPAC2017 organizing team as well as the symposia conveners for the excellent program that was put together to the mutual benefit of IUPAC members and younger chemists.

This being said, almost all division members we met expressed their concern about our generation not being involved enough with the Union. We often heard