

### Chemistry Education

by Judith Poë

The 23rd International Conference on Chemistry Education, Developing Learning Communities in the Chemical Sciences, was held 13-18 July 2014 in Toronto, Canada. The conference, last held in Canada in 1989, attracted over 450 registrants from 40 countries.

Delegates at the opening ceremony were treated to a performance of drums, song and dance by the Tribal Vision dance company, a family group from the Six Nations of the Grand River Territory in Ontario who travel the world to build a deeper understanding of First Nations culture. Welcoming addresses were followed by the presentation of the IUPAC Distinguished Contribution to Chemistry Education Award to Morton Hoffman, professor emeritus at Boston University and long-time U.S. National Representative to and conference coordinator for the IUPAC Committee on Chemistry Education (CCE) (See *Chemistry International* November-December, 2014, pxx). Mei-Hung Chiu and Jan Apotheker, Chair and Secretary of the CCE, respectively, presented certificates of appreciation to the conference co-chairs, Judith Poë and Andrew Dicks. Certificates of participation were presented to delegates who had attended 15, 10 and 5 previous ICCEs: 15 - David Katz and Zafra Lerman; 10 - Lilliana Mammino; 5 - Mei-Hung Chiu, Chin-Cheng Chou, Morton Hoffman, Jorge Ibanez, Masakiro Kamata, Rachel Mamlok-Naaman, and Ting-Kueh Soon. Concluding the opening session was the Viktor Obendrauf Plenary Lecture by Bassam Shkhashiri of the University of Wisconsin, a past-president of the American Chemical Society, whose address was highlighted by vibrant demonstrations.

Five additional plenary lecturers included Nobel laureate, John Polanyi of the University of Toronto, who addressed How Discoveries are Made and Why it Matters; Hsin-Kai Wu of the National Taiwan Normal University, who presented her research on the use of representations in chemistry teaching; Diane Bunce of the Catholic University of America, a recipient of the ACS George C. Pimentel Award for Chemical Education, who spoke on the use of teaching technology for research into learning; and Jorge Ibáñez of the Universidad Iberoamericana, founder of the Mexican Green and Microscale Chemistry Center, who described the minimization of energy expenditure in electrochemical systems.

Eight keynote speakers were distributed over the twenty six technical symposia. Nicholas Leadbeater contributed to the symposium Practical Green Chem-



*Tribal Vision Dance performing at the Opening Ceremony*

istry in the Laboratory; Michele Zema highlighted the International Year of Crystallography; David Fung, Past-Chair of the Chemical Institute of Canada, spoke on The Integration of Chemical Sciences and Social Responsibility; Cary Supalo described innovations to facilitate science learning for blind or low vision students; Stacey Lowery Bretz contributed to Research on Teaching and Learning in the Chemical Sciences; Pippa Lock described the integration of chemistry to a year-one, interdisciplinary science program; Yu-Ling Cheng contributed to the Service Learning symposium with her talk, Global Challenges: A Mechanism for Developing Global and Interdisciplinary Competencies; and Myra Hauben inspired her audience with tales from her work with science teachers and students in Cambodia. Enhancing the technical program were two poster sessions with a total of 100 posters as well as nine hands-on workshops on topics ranging from green chemistry to the use of learning outcomes. In addition there were ten commercial exhibitors.

The social program included a welcome reception sponsored by the University's Faculty of Arts and Sciences, a Downtown Chemistry Walk lead by Leslie Barton, and a mid-week dinner cruise on Lake Ontario. Student delegates were treated to dinner and a tour of the Mill Street Brewery courtesy of the Toronto Section of the Chemical Institute of Canada.

During the week of the 23rd ICCE, new friends were made, old acquaintances renewed and the innovations and camaraderie of the chemistry education community were shared. Ting-Kueh Soon, CCE National Representative from Malaysia invites you to the 24th ICCE to be held in Kuching, Sarawak, Malaysia in 2016, to continue this conversation.

<https://storify.com/ICCE14/icce-2014-toronto>