

FEATURE

The 20th ENQA and 8th CIAQA Brought Together Researchers to Discuss Innovations in Analytical Chemistry

The 20th National Meeting of Analytical Chemistry (20th ENQA) and the 8th Ibero-American Congress of Analytical Chemistry (CIAQA) were held in Bento Gonçalves, State of Rio Grande do Sul (RS), Brazil (BRA), from September 25 to 28, 2022. Reviewing a little of the history of ENQA, we note that after 23 years ENQA was once again held in the State of Rio Grande do Sul – the preceding one was held in the city of Santa Maria (RS) in 1999 – and this is the third time that ENQA and CIAQA have been held jointly – the 2005, 2009, and 2018 editions were held in the Brazilian cities of Niterói (RJ), Salvador (BA), and Caldas Novas (GO), respectively. The 21st ENQA and the 9th CIAQA will be held jointly in Belém, State of Pará (BRA) in 2024.



Opening and Welcome Ceremony presided over by (from left) Prof. Dr. Wendell K. T. Coltro, (Director of the Analytical Chemistry Division – Brazilian Chemical Society), Prof. Dr. Érico M. M. Flores, Chair of the 20th ENQA and 8th CIAQA, and Prof. Dr. José N. G. Paniz (Director of the Center of Natural Sciences of the Federal University of Santa Maria). Photo: ENQA

The 20th ENQA & 8th CIAQA welcomed 813 registrants from 23 Brazilian states and Federal District, as well as guest speakers from Austria, Argentina, Canada, Colombia, France, Spain, Czech Republic, England, Poland, Portugal, and Uruguay. A total of 515 posters, 74 lectures, 4 workshops, 9 short courses, and more than 54 oral presentations were given at the meeting.

The event was organized by the Federal University of Santa Maria (RS), with the support of the Federal University of Pelotas (RS) and Franciscan University (RS).

Opening Conference

The event's opening lecture was given by Prof. Dr. Jörg Feldmann (Karl-Franzens-Universität, Graz, Austria), and its theme was "New analytical approaches to study bioaccumulation in whales". Prof. Feldmann has held the chair of analytical chemistry at the University of Graz (Austria) since 2020 and is currently the Head of the Institute of Chemistry at that university. He spent 23 years as a professor of environmental chemistry and director of TESLA (Trace Element Speciation Laboratory) at the University of Aberdeen, Scotland, UK. He is an elected Fellow of the Scottish Academy of Science and Society (Royal Society of Edinburgh) and a Fellow of the Royal Society of Chemistry.



Opening lecture by Prof. Dr. Jörg Feldmann (Karl-Franzens-Universität Graz, Austria). Photo: ENQA

"ENQA is the largest analytical chemistry congress in South America and organizing it has been a huge challenge. The initial proposal was to hold the 20th ENQA & 8th CIAQA in 2020, but this was not possible because of the COVID-19 pandemic. I would like to thank all the members of the organizing and support committee and all those who were with us at the event who, despite all the difficulties, showed great dedication, making it possible to achieve great success," said Prof. Dr. Érico Flores, Chair of the 20th ENQA & 8th CIAQA.

Among the attendees at the 20th ENQA & 8th CIAQA, 141 were postgraduate students, 294 professors, researchers, and professionals, 342 undergraduate students, as well as guests, technicians, and exhibitors. The organizers of the event pointed out that the majority (53%) of the total number of registrants were female.

For the second time at ENQA & CIAQA, there was a session dedicated to women entitled, "Women in Analytical Chemistry", which was attended by more than 500 people. Topics covered included the panorama of female participation in analytical chemistry research in the different regions of Brazil, the challenges faced by women in this area, and examples of their success.



Session “Women in Analytical Chemistry”. Photo: ENQA

Tribute Session

The event also included a tribute session for the following researchers: Fernando Mauro Lanças (USP-São Carlos, BRA), Jiří Dědina (CAS, CZE), Marília Oliveira Fonseca Goulart (UFAL, BRA), Maria Valnice Boldrin Zanoni (Unesp, BRA), Marco Aurélio Zezzi Arruda (Unicamp, BRA), Ralph E. Sturgeon (NRC CAN), and Ayrton Figueiredo Martins (UFMS, BRA).



Prof. Dr. Érico Flores (left), Chair of the 20th ENQA & 8th CIAQA, presenting the award to Prof. Dr. Marco Aurélio Zezzi Arruda (right). Photo: ENQA

Carol Collins Medal

Prof. Dr. Carol Collins (in memoriam, 1931-2022) was one of the few women to be included in the list of full members of the Brazilian Academy of Sciences. In 2012, she received the title of Professor Emeritus from the State University of Campinas (Unicamp, SP, BRA). She also received the same title from the National Council for Scientific and Technological Development (CNPq).

She was a pioneer in her field of analytical chemistry and helped to set up and consolidate lines of research in the area of chromatography, forming one of the main Brazilian schools in the area, which enabled her to publish two books that are very popular in Brazil: "Introdução a Métodos Cromatográficos" (1987) and "Fundamentos de Cromatografia" (2006), both published by Unicamp.

The Carol Collins Medal was established in 2016, during the 18th ENQA held in Florianópolis, SC, Brazil, by the Analytical Chemistry Division of the Brazilian Chemical Society (SBQ) in recognition of Prof. Collins' important legacy to analytical chemistry. The Carol Collins Medal is an honor in the field of Brazilian Analytical Chemistry, awarded at each edition of ENQA to a researcher with a nationally and internationally recognized contribution to science, technology, and human resource training.

The winner of the 2022 Carol Collins Medal was Prof. Dr. Boaventura Freire dos Reis, Full Professor at the Center of Nuclear Energy in Agriculture at the University of São Paulo (CENA-USP, SP, BRA). Prof. Reis holds a degree in Physics from the São Paulo State University, Unesp (1975), a Master's degree in Science and Nuclear Energy in Agriculture from CENA (1978), and a Ph.D. in Chemistry from the Unicamp (1986).



Prof. Wendell Coltro (left), Prof. Boaventura Freire dos Reis (center), and Prof. Érico Flores (right). Photo: ENQA

Interaction between academia and industry

ENQA also provided direct contact between academic participants and leading companies in the field of analytical chemistry. Among the companies present at the event were:

- Thermo Fisher Scientific Inc. (NYSE:TMO), the world leader in serving science, offers an unmatched combination of innovative technologies, purchasing convenience, and comprehensive services and pharmaceutical services through its industry-leading brands, including Thermo Scientific, Applied Biosystems, Invitrogen, Fisher Scientific, Unity Lab Services, Patheon, and PPD.

Learn more at <https://www.thermofisher.com/>

- Agilent Technologies Inc. provides laboratories worldwide with instruments, services, consumables, applications, and expertise, enabling customers to gain the insights they seek. Agilent has a strong presence in analytical instrumentation for laboratories and research centers, companies, and governments. The majority of Agilent research is located in the United States in Santa Clara, California, with additional locations in Europe and Asia.

Learn more at <https://www.agilent.com/>

- Nova Analítica's objective is to promote and guarantee customer satisfaction, meeting, or exceeding expectations with the quality of its products and services. To achieve this, Nova Analítica is committed to supplying the best equipment and accessories for laboratories, manufactured by internationally renowned companies, and to providing technical and commercial support to meet the needs of each customer, however specific or complex they may be.

Learn more at <https://www.analiticaweb.com.br/>

- Waters Corporation is the world's leading specialty measurement company focused on improving the health and well-being of people through the application of advanced analytical technologies and industry-leading scientific expertise. Waters has continually pioneered chromatography, mass spectrometry, and thermal analysis innovations.

Learn more at <https://www.waters.com>

- Shimadzu provides a broad range of analytical instruments indispensable for research, development, and quality control in a variety of fields. Their high-level sophisticated instruments include chromatographs, spectrometers, and elemental and surface analysis systems. They also provide a broad range of high-precision physical testing and measuring technology that is essential for product development and quality assurance.

Learn more at <https://www.shimadzu.com/>

The companies Allcrom, Metrohm, Anton Paar, Astro34, dpUNION, PerkinElmer, and HORIBA were also present.



Participants socialize in the sponsoring companies' exhibition area. Photo: ENQA

Closing Ceremony

At the closing ceremony of the event, the following researchers were honored with awards:

Prof. Dr. Francisco Jose Krug (CENA-USP, SP, BRA) received the 'Adilson José Curtius' medal, awarded to the most prominent researchers in the field of atomic spectrometry in Brazil.

Prof. Dr. Ivano G. R. Gutz (IQ-USP, SP, BRA) received the "Eduardo Neves" medal, awarded to the most prominent researchers in the field of electroanalytical chemistry in Brazil.

Young Talent in Analytical Chemistry Award

The Brazilian Journal of Analytical Chemistry (BrJAC) created the Young Talent in Analytical Chemistry Award to recognize outstanding young researchers in (bio)analytical chemistry. The winner of the 2022 award was Prof. Dr. Bruno Campos Janegitz from the Federal University of São Carlos (UFSCar, SP, Brazil). The award was presented during the event's closing ceremony.

Prof. Janegitz gave a brief interview to BrJAC and described his early career. He provided advice for those starting a career in analytical chemistry.

A short interview with Prof. Dr. Bruno Campos Janegitz

BrJAC: How did it feel to receive the Young Talent in Analytical Chemistry Award?

Prof. Janegitz: It was a pleasant surprise and one that made me extremely happy, as it is a nationally recognized award.

BrJAC: How did you begin your career?

Prof. Janegitz: I began my studies at the Federal University of São Carlos (UFSCar), São Carlos Campus, under the guidance of Professor Orlando Fatibello-Filho, with whom I worked for almost 10 years. Those were years of great learning.

BrJAC: What advice can you give to someone starting a career in analytical chemistry?

Prof. Janegitz: Have a lot of willpower, and don't give up on your dreams and goals, because the road is long, but the fruits will come.

BrJAC: What are your plans for the future?

Prof. Janegitz: Internationalizing, acquiring new and modern equipment, and expanding the research lines of my research group, the Laboratory of Sensors, Nanomedicine, and Nanostructured Materials at UFSCar.

BrJAC: What are you currently working on?

Prof. Janegitz: We are currently developing electrochemical sensors and biosensors for various purposes, including clinical, food, and environmental analysis.



Prof. Dr. Bruno Campos Janegitz, winner of the “Young Talent in Analytical Chemistry” award 2022. Photo: ENQA

Text written by Lilian Freitas, BrJAC Publisher

Source: ENQA 2022