

FEATURE

COLACRO XX Brings Together 450 Participants and Becomes One of the Most Significant Events in Latin American Chromatography



Opening ceremony. Photo: Gabriele Maciel

The 20th Latin American Congress on Chromatography and Related Techniques (COLACRO XX), held from October 28 to 31, 2025, in Campos do Jordão (SP, Brazil), marked one of the most relevant editions in its history. With 450 participants from various countries across Latin America, Europe, and North America, the event has reaffirmed its strategic role in advancing separation techniques and sample preparation.

The organizer of the event—Professor Fernando Lanças, from the São Carlos Institute of Chemistry at the University of São Paulo (IQSC-USP)—emphasized that the congress has fulfilled its mission of promoting scientific excellence and integration among academic communities: "COLACRO achieved its audience goal and exceeded expectations in terms of scientific quality. This demonstrates the strength and relevance of the congress, even in the face of the challenges of resuming in-person events after the COVID-19 pandemic and the economic difficulties that many Latin American countries are facing."

Considered one of the five most important international events in the field, COLACRO XX provided a space for scientific convergence, promoting in-depth discussions on current challenges and emerging technologies that are shaping the future of analytical chemistry.

The scientific program was one of the highlights of this edition. The plenary lectures, delivered by world-renowned experts, addressed the most advanced topics in separation science.



Lecture by Professor Luigi Mondello. Photo: Gabriele Maciel

The professors who presented plenary lectures and their respective titles were:

- Luigi Mondello (Italy)—*Cryogenic Zone Compression after Gas Chromatography Separation to Enhance Sensitivity*
- Elia Psillakis (Greece)—*The Journey from Green Sample Preparation to Sustainable Analytical Chemistry*
- Valérie Pichon (France)—*Environmentally Friendly and Selective Sample Preparation Methods for Target Analytes in Complex Samples*
- Paola Dugo (Italy)—*Comprehensive Two-Dimensional Liquid Chromatography for the Characterization of Food and Natural Products*
- Elena Stashenko (Colombia)—*Listening to Insect–Soil–Plant Chemical Conversations with Chromatographic Techniques*
- José Manuel Nogueira (Portugal)—*Emerging Sustainable Trends in Passive Microextraction Techniques*

Hence, COLACRO XX provided a platform for researchers from throughout the world to discuss cutting-edge science that integrates sample preparation, chromatographic multidimensionality, advanced spectrometry, and new materials applied to instrumentation.

In addition to the plenary sessions, there were several satellite workshops. The traditional Workshop on Recent Advances in Sample Preparation (WARPA)—a regional reference in this field—brought together experts who discussed microextraction, new green solvents, portable instrumentation, and the integration of artificial intelligence in sample preparation. In parallel, the Brazilian Symposium on Chromatography and Related Techniques (SIMCRO) and other specialized symposia addressed topics such as GC \times GC, LC \times LC, electrophoresis, new materials, microfabrication, and chromatography applied to food, pharmaceuticals, the environment, and biotechnology, expanding the technical depth of the congress.

COLACRO XX also reinforced its role in training generations of researchers by awarding several traditional and highly prestigious honors. The medal ceremony was a symbolic moment of the event.

The COLACRO Medal

The COLACRO Medal is one of the most prestigious honors awarded to researchers in the field of Separation and Related Techniques worldwide. It recognizes individuals who have made outstanding international contributions to the development, promotion, and application of separation techniques. The medal is traditionally awarded during the Opening Ceremony. This year's recipients were:

- Prof. José Manuel Nogueira (Portugal)
- Prof. Leandro W. Hantao (Brazil)

The CIOLA Medal

The CIOLA Medal honors the memory of one of the pioneers of instrumental chromatography in Brazil, Professor Dr. Remolo Ciola. It recognizes either a senior researcher who has made significant contributions to the development of the field in Brazil or a *young researcher* (under 35 years of age at the time of nomination) with proven creativity and productivity in the area. The CIOLA Medal is sponsored by Nova Analítica. This year's recipient was:

- Prof. Luiz Antônio D'Ávila (Brazil)

The WARPA–Janusz Pawliszyn Medal

The WARPA–Janusz Pawliszyn Medal is awarded during the WARPA to a researcher who has made a significant contribution to the development and application of contemporary sample preparation techniques. The award is named after Prof. Dr. Janusz Pawliszyn, a pioneer in micro-techniques for sample preparation, particularly solid-phase microextraction (SPME). This year's recipient was:

- Prof. Ednei Gilberto Primel (Brazil)

Awards for Posters and Oral Presentations

The five best posters presented at the event were recognized and awarded by a group of researchers appointed by the Scientific Committee. They made their selections based on established evaluation criteria. The young researchers were recognized for innovative studies in:

- Miniaturized techniques
- GC-MS and LC-MS
- Green sample preparation
- Food and beverage analysis
- Environmental chemistry
- Toxicology and forensics

This recognition of undergraduate and graduate students reinforces COLACRO's role in training new Latin American scientific leaders.



Exhibitor area. Photo: Luciene Campos

Although primarily a scientific congress, COLACRO XX also saw strong participation from analytical instrumentation companies, which sponsored the event and presented technological solutions aligned with the topics discussed. Among the companies sponsoring, supporting, or traditionally involved with COLACRO were Nova Analítica, Agilent Technologies, Waters, Shimadzu, Merck, Sciex, and others. The presence of these companies reinforced the essential connection between scientific research and technological innovation, allowing researchers to engage directly with state-of-the-art instruments, consumables, and software.

COLACRO XX was more than just a commemorative edition—it was a confirmation of Latin America's scientific strength in separation techniques and sample preparation. With 450 participants, dozens of international lectures, specialized workshops, and an extensive network of collaborations, the congress has reaffirmed its status as one of the world's leading scientific forums in the field.

Text: Lilian Freitas – BrJAC Publisher

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