

FEATURE

The 10th Analitica Latin America Congress Consolidates Brazil as a Scientific Hub



Lecture given during the 10th Analitica Latin America Congress.
Photo: Analitica Latin America

From September 23 to 25, 2025, the 10th Analitica Latin America (ALA) Congress was held in São Paulo, bringing together around 90 participants and reaffirming its position as the leading scientific meeting on analytical chemistry in Latin America. Held alongside the ALA Fair—the largest event in the analytical chemistry sector in Latin America—the ALA Congress fostered dialogue among academia, industry, and research institutes in an environment focused on innovation, sustainability, and technological development.

The 2025 edition of the ALA Congress introduced an unprecedented change to the event's scientific structure: Each day's agenda was curated by a different institution, reinforcing both the scientific and technical depth and the diversity of topics and specializations.

- Day 1 (September 23) was curated by the Organizing Committee of the ALA Congress.
- Day 2 (September 24) was curated by the Brazilian Chemical Society (SBQ).
- Day 3 (September 25) was jointly curated by the Organizing Committee of the National Meeting of Analytical Chemistry (ENQA) and the Ibero-American Congress of Analytical Chemistry (CIAQA)

This new configuration reinforced the ALA Congress's role as a strategic space for collaboration across diverse fields of contemporary analytical chemistry.

Theme of the First Day: Instrumental Advances and Critical Applications

The first day, led by the Organizing Committee of the ALA Congress, highlighted emerging research in electrochemistry, detection methods, and quality control. Davi Marques de Farias (USP) presented the opening lecture, *“Tunable Mass Transport and Enhanced Electrochemical Performance of CO₂ Laser-*

Engraved Electrodes,” showcasing advances in high-performance electrode engineering. Next, Alexandre Cunha, from ELGA LabWater – Veolia, discussed the role of ultrapure water in analytical reliability and the execution of critical methods—a central theme for research laboratories, quality control, and industrial development. The program continued with discussions on ion chromatography, flow cytometry automation, macromolecule separation, and advanced international detection methods. The Federal Council of Chemistry (CFQ) also held a roundtable discussion on cannabis inputs.

Theme of the Second Day: The SBQ Emphasizes Basic Science, Metrics, and Sustainability

The program for September 24 was organized by the SBQ, an entity recognized for its historical role in consolidating chemistry in Brazil. It presented topics of significant contemporary importance:

- Green analytical chemistry applied to food
- Sample preparation for halogens and complex chemical species
- Metrics and validation of analytical methods
- Environmental geochemistry applied to monitoring
- Ionic effects and nanoparticles in plants
- Rare earth fractionation in natural samples

The lectures spanned from theoretical foundations to emerging environmental applications, reinforcing the relevance of analytical chemistry in understanding natural processes, supporting public policies, and overcoming regulatory challenges.



Attentive participants listening to another lecture held during the 10th Analitica Latin America Congress. Photo: Analitica Latin America

Theme of the Last Day: The ENQA and CIAQA Project the Frontiers of Analytical Chemistry

The ENQA and CIAQA jointly curated the final day, expanding the international scope of the ALA Congress. The strategic topics included:

- Emerging contaminants and microplastics in aquatic environments
- Ionic adsorption for the petroleum industry
- Functional microneedles for diagnosis and controlled release
- Multimodal platforms for non-target chemical speciation
- Laser-induced breakdown spectroscopy (LIBS) applied to the recovery of metals from electronic waste

This Ibero-American integration highlights the growing internationalization of the field of analytical chemistry and Brazil's active participation in global scientific agendas related to energy, the environment, diagnostics, and the circular economy.

Scientific Highlights and Integration

The 10th ALA Congress emphasized three key pillars of scientific advancement:

- Institutional integration, marked by shared curatorship among the ALA Congress, the SBQ, the ENQA, and the CIAQA. This collaboration united specialists from various research fields, creating a comprehensive and diverse scientific landscape.
- Technical innovation and interdisciplinarity, expressed through discussions on electrochemistry, spectrometry, LIBS, separations, green chemistry, automation, and microtechnologies—demonstrating the continuous and multifaceted expansion of the field.
- The connection between research, industry, and public policy, reinforced through the participation of companies, researchers, and regulatory bodies such as the CFQ, underscoring analytical chemistry's potential to address strategic societal challenges.

In this context, the 10th ALA Congress reaffirmed Brazil's position as a scientific hub, supported by established research groups, robust infrastructure, and strong links with industry—consolidating analytical chemistry as a driving force for innovation, sustainability, and scientific development in Latin America.

Awards



The three winners of the awards given to the best scientific posters presented at the 10th Analitica Latin America Congress. Photo: Analitica Latin America

A committee of experts evaluated the best scientific papers presented at the ALA Congress. Three winners received prizes of up to R\$2,500 and gained visibility at one of the largest analytical chemistry events in Latin America.

- **First place** went to Davi Farias for “*Tunable Mass Transport and Enhanced Electrochemical Performance of CO₂ Laser-Engraved Electrodes*.” This study presents advanced electrochemical platforms for sensing molecules of interest, with potential applications in environmental monitoring and public health.
- **Second place** was awarded to Higor B. de Oliveira, for research on X-ray fluorescence as a characterization technique in producing a domestic sludge reference material—a contribution to standardization and rigorous analytical control.
- **Third place** went to “*Catalytic Exploring Digital Videos for the Sequential Determination of Copper and Sucrose in Cachaça*.” This project proposes an accessible analytical method for small producers, enabling monitoring of copper contaminants and sucrose levels to improve artisanal quality control.

Tribute to Professor Lauro Tatsuo Kubota Moves Participants



Bachelor's degree in Industrial Chemistry (UFPB, 2007), Master's and PhD in Chemistry (UFSCAR, 2009, 2013), Post-Doctorate (USP, 2016), Professor of Higher Education - Adjunct C3 (2017-current, UFPE). Postdoctoral (2025, Clemson University), CNPq Level 2 Productivity Scholar (2024-current). Collaborative research projects with Clemson University (2022-)

Ceremony for the "Lauro Kubota Award for Young Talent in (Bio) Analytical Chemistry". Photo: Analitica Latin America

A moving tribute marked the morning of September 24. During a special coffee break hosted by the *Brazilian Journal of Analytical Chemistry* (BrJAC), with support from Nova Analítica, Metrohm, and NürnbergMesse, family members, colleagues, and researchers gathered to celebrate the distinguished career of Professor Lauro Tatsuo Kubota, one of the most influential figures in analytical chemistry in Brazil.

The ceremony highlighted Professor Kubota's importance as a scientist, educator, and academic leader. Recognized for his pioneering contributions to electrochemistry, sensor development, and scientific innovation, he left a lasting legacy that has shaped generations of researchers and strengthened Brazil's presence on the international stage of analytical chemistry.

In addition to the fond memories shared, the ceremony featured the presentation of the *Lauro Kubota Award for Young Talent in (Bio)Analytical Chemistry*, an award created to inspire young researchers and to perpetuate Professor Kubota's lifelong commitment to scientific excellence. The moment was marked by emotion, respect, and recognition, reaffirming the profound impact of his life and work on the national scientific community.

The award will be presented annually. This year's recipient was Prof. Dr. Vagner Bezerra dos Santos, Adjunct Professor at the Federal University of Pernambuco. The award was presented by Prof. Marco Aurélio Zezzi Arruda and Luciene Campos, Editor-in-Chief and Sales Manager of BrJAC, respectively.

Analitica Latin America Expo 2025: Technological Innovation, Applied Science, and Market Expansion Mark the Biggest Edition of the Decade

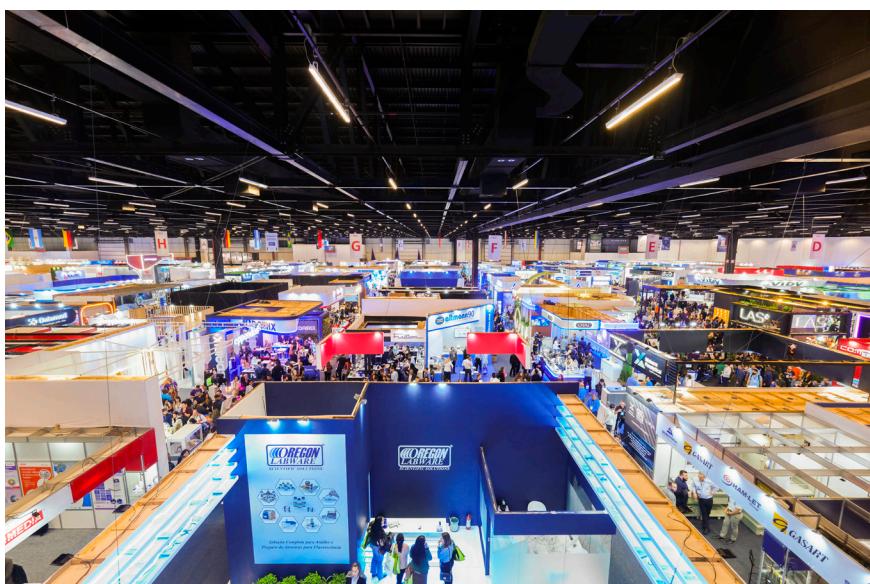
The ALA Expo 2025, also held from September 23 to 25 at the São Paulo Expo Center, established itself as the largest and most representative trade fair in the analytical chemistry sector in the past decade. This edition of the ALA Expo registered 14,330 visitors—a 50% increase compared to the previous year—and welcomed 450 international professionals, reflecting a 30% growth in foreign participation. This broad and highly qualified audience included technical and university students, young researchers, laboratory managers, industry professionals, and specialists in analytical chemistry. With 350 exhibiting brands, the event served as a showcase for innovations in analytical instrumentation, laboratory technologies, and advanced solutions for sample preparation, automation, and quality control.



Aerial view of the Analitica Latin America Expo 2025. Photo: Analitica Latin America

The booths featured technologies ranging from high-performance spectrometry and chromatography systems to sample-preparation robots, drone-mounted sensors, artificial intelligence (AI)-driven platforms, and portable systems for environmental and industrial analyses. The growing presence of sustainable technologies—such as green solvents, eco-efficient materials, and low-energy methodologies—confirmed the sector's alignment with global Environmental, Social, and Governance (ESG) standards. Within the first two hours of the opening day, the exposition had already generated R\$13.5 million in business, underscoring the commercial dynamism and strategic importance of Brazil's analytical sector.

The ALA Expo also served as a technological advancement platform for educational institutions. A notable example is the group of students from the National Service for Industrial Training (SENAI), who encountered equipment more sophisticated than that available in their own educational units—highlighting the event's crucial role in training future professionals.



The Analitica Latin America Expo exhibition area brought together established Brazilian companies as well as global leaders in analytical instrumentation. Photo: Analitica Latin America

The exhibition pavilion brought together established Brazilian companies and global leaders in analytical instrumentation, including Bio Scie, Metrohm Brasil, Agilent Technologies, Nova Analitica, Shimadzu, Thermo Fisher Scientific, Waters, PerkinElmer, Bruker, Sciex, Eppendorf, Merck, and Bio-Rad, among others. This diversity of exhibitors underscores the consolidation of the ALA Fair as the main continental meeting point for manufacturers, distributors, researchers, and end users.

The ALA Expo demonstrated a mature integration among academic research, industry, and technological development. In addition to the technical exhibition, the program featured seminars, lectures, and networking events that brought together university researchers, application engineers, regulatory specialists, representatives of public and private laboratories, and suppliers of equipment and automation solutions. This collaboration reinforces the ALA Expo as a strategic environment for identifying trends, establishing partnerships, prospecting technologies, and discussing solutions to contemporary analytical challenges.



The Analitica Latin America Expo has reaffirmed itself as the main barometer of the future of analytical instrumentation in Latin America. Photo: Analitica Latin America

The ALA Expo 2025 leaves a significant legacy: It strengthens Brazil's position as a hub for analytical science, boosts the laboratory innovation ecosystem, and expands international connections.

Future dates for the event have already been confirmed:

- 2026: The Analitica Road Show in Santiago, Chile
- 2027: The 19th Edition of the Latin America Analytical Expo in São Paulo (September 28–30)

With record numbers, a wide variety of exhibitors, and a strong emphasis on technological innovation, the ALA Expo has reaffirmed itself as the main barometer of the future of analytical instrumentation in Latin America.

Text: Lilian Freitas – BrJAC Publisher

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