

## EDITORIAL

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It is with great pleasure that I introduce the 50<sup>th</sup> issue of the *Brazilian Journal of Analytical Chemistry* (BrJAC), which once again reflects the vitality, diversity, and innovation of our community. The contributions gathered here span fundamental reflections, methodological advances, and applications that resonate with both academic research and industrial practice.

We begin with an interview with Professor **José Alberto Fracassi da Silva**, whose career and insights exemplify the dedication and creativity that continue to shape analytical chemistry in Brazil and beyond.

The **Point of View** article by **Josué Carinhanha Caldas Santos** addresses the controversial topic of thimerosal, an organic mercury compound historically used as a vaccine preservative.

The Letter by **Wendel Andrade Alves** highlights the promise of polymeric microneedles as analytical interfaces for biosensing and controlled drug release. This concise yet forward-looking piece underscores how analytical chemistry intersects with biomedical innovation, pointing toward exciting future challenges.

Our Review article, authored by **Amanda Mohr and colleagues**, provides a comprehensive overview of the greenness metrics used to evaluate analytical methods. In an era where sustainability is no longer optional but essential, this synthesis offers valuable guidance for researchers and practitioners committed to greener laboratories and more responsible science.

Several original contributions further demonstrate the innovative spirit of our community: updates to quantitative models in validation and routine comparative chemical methods; optimization and validation of ultrasound-assisted extraction for phosphorus analysis in cane syrup; a green and lean method for ivermectin analysis, certified by multiple sustainability metrics; an advanced microwave-assisted digestion method for rare earth element analysis in environmental matrices; and a comparative study of calcination and thermogravimetry techniques for quantifying carbon black in polymeric resins.

Together, these contributions illustrate the breadth of analytical chemistry today: from sustainability metrics to biomedical interfaces, from food chemistry to environmental monitoring, and from methodological refinement to industrial applications. They remind us that analytical chemistry is not only a technical discipline but also a driver of societal progress, sustainability, and innovation.

On behalf of the editorial team, I thank all authors, reviewers, and readers for their commitment to advancing our field. May this issue inspire new ideas, collaborations, and applications that continue to strengthen the role of analytical chemistry in addressing global challenges.



**Viktor G. Mihucz** is Professor at the Institute of Chemistry, ELTE Eötvös Loránd University, Budapest, Hungary. His research group specializes in analytical chemistry, with particular emphasis on inorganic trace analysis. Current lines of research include: (i) development and application of ICP methods for elemental analysis, (ii) indoor air quality monitoring with a focus on trace element determination, and (iii) food chemistry studies related to food safety and plant-based diets. His work contributes both to fundamental understanding and to practical applications of analytical chemistry.

