

EDITORIAL

About this Issue

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This BrJAC issue starts with an interview with Edenir R. Pereira Filho, an Associate Professor at the Federal University of São Carlos (UFSCar). His research spans multiple sectors, including spectroanalytical methods for direct solid sample analysis, especially electronic waste. He is also an expert in designing experiments using chemometric tools and has a YouTube channel to share his research group's contributions. He finished his pleasant interview with an important comment: "Treat your students with special care."

The point of view shows an interesting and relevant discussion on the limit of detection (LOD) and the use of significant digits. The author's conclusion is clearly stated: "The LOD must be reported with a single digit, which is significant but uncertain". I completely agree with such a claim and reinforce that as scientists that handle numbers, we have to be aware that all measurements contain some kind of uncertainty, and significant figures show us what that uncertainty is.

Nanomaterials have been increasingly studied for medical applications, and one crucial aspect that has drawn attention is the safety concerns of handling and using nanoparticles. Do the benefits outweigh the risks? Accordingly, the letter presents a thorough discussion on nanostructured materials and provides an update on the challenges associated with nanomaterials production with a focus on nanomedicine.

Analytical chemistry has always been associated with the needs of society, and two reviews address issues involving environmental analysis. One of them gives an overview of arsenic speciation methods and the challenges represented by contamination in soil, water, and food supplements. The other reports the analysis of compounds using minimal or no sample preparation. Such an approach includes the development of less invasive and more continuous testing, resulting in devices that cover the trend of point-of-care (POC) analysis.

Two exciting articles have been included in this BrJAC issue. The first reports on the synthesis, characterization, and application of zeolitic imidazolate frameworks for adsorption processes. The authors have demonstrated that their material presents excellent adsorption capacity and can be successfully employed to remove arsenic species from aquatic environments. The other article describes a thorough study on a cost-effective sorbent (a lignin-based bio-alkyd resin) prepared from the reaction between oxidized lignin with a mixture of palmitic acid and glycerol. Molybdenum (in the form of a Mo/thiocyanate complex) can be selectively extracted from complex samples (mice liver, pharmaceuticals, water, and fertilizer samples) for further spectrophotometric detection with enhanced sensitivity.

As for technical notes, the issue presents two attractive studies. The first shows how the combination of threshold QTOF-MS measurements and quantum-chemical calculations allows for the understanding of the increased stability of sodiated sucralose compared to the protonated one. Neodymium and praseodymium can be found in permanent magnets at very low levels, and a method to determine both metals with high accuracy and precision is presented in the other work.

It is exciting to see the growing interest of researchers worldwide for BrJAC, as shown in this issue. The articles reveal that analytical chemistry is a long-standing example of an interdisciplinary approach to scientific research, pushing the field into emerging topics of societal importance. I hope you enjoy reading!



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