Brazilian Journal of Analytical Chemistry
2024, Volume 11, Issue 43, pp 1-2
doi: 10.30744/brjac.2179-3425.editorial.zezzi.arruda.N43

BrJAC

EDITORIAL

Towards to Sustainability

Marco Aurélio Zezzi Arruda

Full Professor at the Dept. of Analytical Chemistry, Institute of Chemistry at the University of Campinas (IQ-Unicamp) Campinas, SP, Brazil

BrJAC Editor-in-Chief

The Horizon 2030 program of the United Nations presents a proposal for sustainable development and 17 goals for transforming our world.[1] Various actions and public policies are now striving to attain these objectives, with (bio)analytical chemistry, due to its nature, playing a fundamental role not only in industry but also in education and research.[2] Nowadays, within this concept, the appeal of a methodology continues to be sensitive, precise and accurate in terms of analytical chemistry but the analytical characteristics are also targeted towards the principles of environmental sustainability. Thus, in the literature, it is common to find that methods where the three Hs were used (i.e. High sample/reagent volumes, High risks and Hard work) are now being substituted by methods involving the three Rs (i.e. Reduce, Reuse and Recycle). It is easy to rationalize that the multitude of applications in different research areas (e.g. chemistry, human health, biology, environment, etc.) tend towards minimalist concepts that may involve all analytical sequences. Additionally, to attain the 'greenness' metrics of a method, different greenness assessment tools are available in the literature, such as GAPI or AGREE,[2] and metrology and chemometrics may help to attain this objective.

Within the context of sustainable development, this volume of the BrJAC is prone to a diversity of applications towards sustainability that involve methods employing small volumes, low-cost sensors, minimalist techniques and the importance of teaching metrology, among others. It is time to enjoy the reading of this issue and take into consideration the important aspects for the next application of our research work, which may involve environmental protection, circular economy and resource sustainability, the so-called sustainability triad (Environment, Economy and Society). Onwards to sustainability!

(1) United Nations. Dept. of Economic and Social Affairs. *Transforming our world: the 2030 Agenda for Sustainable Development*. Available at: https://sdgs.un.org/2030agenda [Accessed on March 15, 2024.].

(2) Płotka-Wasylka, J.; Mohamed, H. M.; Kurowska-Susdorf, A.; Dewani, R.; Fares, M. Y.; Andruch, V. Green analytical chemistry as an integral part of sustainable education development. *Curr. Opin. Green Sustainable Chem*. **2021**, *31*, 100508. http://dx.doi.org/10.1016/j.cogsc.2021.100508

Cite: Arruda, M. A. Z. Towards to Sustainability. *Braz. J. Anal. Chem.* 2024, *11* (43), pp 1-2. http://dx.doi.org/10.30744/brjac.2179-3425.editorial.zezzi.arruda.N43

Marco Aurélio Zezzi Arruda, a Fellow of the Royal Society of Chemistry (FRSC), has a degree in Industrial Chemistry from the Methodist University of Piracicaba (1987), a Master's degree in 'Nuclear Energy in Agriculture' from the Center for Nuclear Energy in Agriculture at the University of São Paulo (1990), a Doctoral degree in 'Advanced Analytical Chemistry' from the University of Cordoba (1995) and a postdoctoral degree from the Center for Nuclear Energy in Agriculture (1995-1996). He is currently Full Professor at the Department of Analytical Chemistry of the Institute of Chemistry at the University of Campinas (IQ-Unicamp). He also coordinates the Sample Preparation, Spectrometry and Mechanization Group (GEPAM) and is a member of the advisory board of the Brazilian Institute of Science and Technology (INCT) for Bioanalytics.