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Editorial: Quantitative Vibrational Spectrometry in the 21st Century

This special issue of *Spectroscopy Letters* is an effort to depict the state of the art of research on quantitative vibrational spectrometry. We are absolutely convinced that the IR range of the electromagnetic spectrum offers tremendous new possibilities to solve real analytical problems.

In addition to the high sensitivity offered by spectrometry methods based on measurements in the UV-visible range, vibrational measurements now provide unique tools to obtain fast multicomponent information, in some cases without any previous sample pretreatment. Thus they offer routine solutions in process and quality control.

To prepare the special issue, we looked in the literature published in recent years to obtain information about the techniques, the methodologies, and the research teams who have contributed to enlargement of the research in the area. The scientometric study, which opens the issue, tries to provide a picture of the main research topics. From the aforementioned information, we invited active research groups to participate in this issue, and it is clear that the 11 research papers contributed come from the efforts of several of the most active invited authors. I apologize for the lack of complete data on the research teams, which is due to the use of a reduced number of scientific publications summarized in the Analytical Abstracts database.

This issue includes five papers on NIR, one paper based on both NIR and MIR, three manuscripts focused on the use of MIR and one additional study using MIR and Raman, and one paper on dynamic IR linear dichroism.

Concerning the use of quantification strategies, five papers used PLS, one cluster analysis and PCA, two multivariate curve resolution, two classical least squares, one differential spectra measurements, and one the Delaunay triangulation method.

The inclusion of a sequential injection analysis study and the fact that four papers are focused on food analysis (meat, alfalfa, oils and olives, or cassava starch), two on properties of technological products [rubber or poly(ester urethane)], one on soils, one on pesticide formulations, and one on uranyl arsenates must be also noticed; and vibrational studies are applied for the evaluation of processes like esterification or fermentation.

In short, this special issue provides a good idea about the present and future perspectives in this area and is an offer for all the authors involved in this research field to consider *Spectroscopy Letters* as a meeting point and a reference for the dissemination of their experimental results.

I extend many thanks to all contributors to this special issue. We hope that you enjoy the following pages.

Miguel de la Guardia
Associate Editor