

## Editorial

The Editor is very happy to announce the first issue of **Eclética Química Journal** of 2020, which contains varied and interesting subjects for the readers. The first article combines the color parameters of digital images with artificial neural networks (ANN) to predict the bulk density in leguminous grains of different traits. The challenge of estimating physicochemical properties of dry grains includes variations in shape, texture, and size and similarity of grains colors to the naked eye. The study allowed to obtain a very good correlation between the reference values and values predicted by the ANN. In the sequence, the synthesis, characterization using different physicochemical techniques, and theoretical calculations on the optimized structures of the Ni(II) mixed-ligand complexes are presented and discussed. The Schiff bases are coordinated to the Ni(II) ion via the two deprotonated phenolic oxygen and azomethine nitrogen atoms. The presented complexes, according to biological studies, demonstrated to have antibacterial and antioxidant properties. Following, a satisfactory method for identification and quantification of a widely used medicinal plant, species *Harpagophytum procumbens* DC, is described using high-performance liquid chromatography allows the quality control of commercial products. The importance of this medicinal plant is promptly recognized due to the anti-inflammatory properties, which are attributed to an iridoid glycoside. Afterwards, it is well known that the continuous research endeavors for the optimization of mineral resource utilization efforts, justified by the primacy of the mineral industry and the need to fulfill the demand of the global market. In this sense, mineral characterization may be the first step, which was here achieved by grain-size analysis of coarse and fine aggregates of verdeto rock and the methodology used represents a contribution to the mineral characterization. This issue of EQJ is closed with the description of how to obtain of exact bound state energy spectrum of the Schrödinger equation with energy dependent molecular Kratzer potential, using asymptotic iteration method. Particularly, the influence of the energy-dependent Kratzer potential on some diatomic molecules is described.

The Editor and his team thank all the authors for their effective contributions, and the reviewers for their excellent evaluation of the manuscripts, wishing everyone a prosperous year in 2020.

Assis Vicente Benedetti  
Editor-in-Chief of EQJ