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Editorial

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# Editorial

The Editor of Eclética Química Journal proudly announces the second issue of 2022. In this issue the readers find a first article describing a chemoenzymatic approach for the synthesis of eight α-*N*-heterocyclic ethyl- and phenylacetamides and screening of twenty nitrile hydratases. The authors evaluated different proportions of ionic liquids and polyethylene glycol as potential green solvents to substitute aqueous buffered solutions to avoid a retro-Strecker reaction of α-aminonitriles and the effect of temperature to optimize the process. The use of unconventional reaction media and low temperatures reduced the nitrile hydratases activity. The absolute configuration of the compounds was determined by electronic circular dichroism spectroscopy and the racemic levetiracetam derivatives showed non inhibitory effect on cholinesterase. Follow, it is presented a quick and straightforward methodology to separate lactic acid and glycerol by high-performance liquid chromatography (HPLC). Glycerol is a by-product of biodiesel obtention and its conversion to lactic acid makes the glycerol industry more profitable, since lactic acid is applied in the textile, cosmetic and food industries, in the synthesis of polylactic acid and as precursor of solvents in green chemistry. A central composite design (CCD) was proposed to study the influence of experimental variables on glycerolysis reaction and HPLC was used to separate and quantify lactic acid. The next article describes the adsorbent efficiency of sugarcane bagasse biochar for removal of caffeine, ciprofloxacin, and norfloxacin from wastewater. The biochar, without chemical and physical activation, was obtained from sugarcane by torrefaction at different temperatures from 260 to 290 ºC and characterized by different spectroscopic, microscopic and thermal analysis techniques besides point of zero charge, pH, elemental composition, and surface area determination. The biochar prepared at 280 ºC showed the best stability and higher performance in the adsorption of pharmaceutical compounds. Complete this issue, considerations to elucidate some understanding about two metastable phases found in a rapid quenched alloy from Ni-Nb-Zr system during the solidification process. Metastable phases are formed when materials are produced out of the equilibrium conditions, and there is no universal knowledge related to the formation of these phases, but the understanding of metastable phases formation can produce and improve promising technological materials. The hypothesis discussed consider free energies of formation among phases which compete to nucleate, stability of crystalline phases at nanoscale and atomic pair preferences during the nucleation.

The Editor and his team wish to express their sincere thanks to the authors and reviewers for their outstanding collaboration and kindly invite you to submit your manuscript to **Eclética Química Journal**.

**Assis Vicente Benedetti**
**Editor-in-Chief of EQJ**