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Editorial

The Editor of Eclética Química Journal, Editorial Board and Staff proudly announce the first issue of vol. 47 of 2022 in the hope that we can all live a milder year in terms of pandemic which should allow us to dedicate even more intensely to scientific research. Opens the issue a study describing the effect of temperature on the relative hydrocarbon concentrations in the biofuel obtained from hydrocracking of Cerbera manghas oil using Ni-Zn/HZSM-5 as catalyst. The main properties of the catalysts were investigated, and the hydrocracking process was conducted in a pressure batch reactor. The predominant products in the biofuel were pentadecane and heptadecane with different proportions depending on the reaction temperature. Thus, the gasoil produced from Cerbera manghas oil could be an alternative promising transportation fuel. Follows, a theoretical study of the electronic and optical properties of PCrV oligomers, since the best compound can be chosen among different ones objecting to increase the efficiency of the organic photovoltaic cell. Different R radicals were added to derivatives of 2.7-divynil-carbazole to reduce the HOMO-LUMO gap energy and the calculations allowed to suggest the PCrV-BiTTP, PCrV-TTP, PCrV-TTN molecules as good candidates for applications in organic solar cells. It is well known that conventional treatments are generally not effective for removing micropollutants as antibiotics and other classes of drugs present in wastewater. In the next paper, the degradation of the ciprofloxacin antimicrobial in aqueous solution is described applying degradation advanced processes such as direct photocatalysis and photoperoxidation using Fe_{3-x}O_{4-y}-TiO₂ particles as catalyst. The readers can find details about catalyst preparation and characterization, and kinetics of the micropollutant degradation process with greater degradation percentages. Some nutraceutical compound may exhibit many pharmacological properties, but its efficacy is limited due to low solubility, for instance, quercetin. So, a possible way to improve the solubility is the cocrystallization screening using different cocrystal formers as described in the last article of this issue. Mechanochemical method afforded cocrystals of quercetin with picolinamide and isonicotinamide while benzamide and pyrazinoic acid gave physical mixtures with quercetin.

The Editor and members of Editorial Board of Eclética Química Journal want to pay a tribute to the effort developed by Authors and Reviewers during the last year and we hope and trust that in the 2022nd year the mutual collaboration will lead to everyone's progress.

Assis Vicente Benedetti Editor-in-Chief of EQJ