# Special Issue

# Advanced Biofuels: Microalgae, Drop-In and Bioelectro Approaches

## Message from the Guest Editors

Advanced biofuels, such as microalgae, drop-in, and electro biofuels, have been extensively investigated as alternatives to conventional plant-based biofuels (e.g., biodiesel, bioethanol). These biofuels are considered to be promising solutions for how to meet growing biofuel demand and have recently have highlighted in both industrial and academic fields as a way to substantially reduce CO2 emissions in the transportation sector. Microalgae show higher areal biomass productivities than traditional energy crops and can utilize directly high concentrations of CO2 from industrial flue gases. Oxygen-free and/or catalytically-upgraded biofuels are required to improve both fuel quality and blending rates. The application of bioelectrochemical conversions for the obtainment of value-added chemicals and biofuels via electrofermentation could contribute to the practical replacement of the fossil-fuel-based refinery process. This Special Issue covers recent advances in microalgae, drop-in, and electro biofuel technologies, including (bio)catalyst screening/development, pretreatment, (bio)reactor/process optimization, biofuel conversion, biorefinement, and scale-up.

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## Deadline for manuscript submissions

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## Editor-in-Chief

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