Liquid biofuels from blue biomass

Marine (blue) biomasses, such as macroalgae, represent a huge unexploited amount of biomass. With their various chemical compositions, macroalgae can be a potential substrate for food, feed, biomaterials, pharmaceuticals, health care products and also for bioenergy. Algae use seawater as a growth medium, light as energy source and they capture CO2 for the synthesis of new organic material, thus can grow on non-agricultural land, without increasing food prices, or using fresh water. Due to all these advantages in addition to very high biomass yield with high carbohydrate content, macroalgae can be the well suited candidates as feedstock for biofuel production in the future. The aim of our studies is to examine the possibility producing liquid biofuel (ethanol and butanol) from macroalgae.