ISGC 2022

N°654 / OC
TOPIC(s) : Industrial chemistry / Alternative solvents

Overviewing the downstream processes being applied in the valorization of macroalgae

AUTHORS
Sónia VENTURA / UNIVERSITY OF AVEIRO - CICECO, CAMPUS UNIVERSITÁRIO DE SANTIAGO, AVEIRO

PURPOSE OF THE ABSTRACT

Macroalgae are recognized as rich raw materials considering their composition in a large range of bioactive compounds, namely pigments, proteins, lipids, polysaccharides, and long fatty acids, all of which have been applied over the years in several fields of commercial activity.
Despite the high economical value of some of the compounds accumulated in macroalgae cells, their commercialization has still not reached its maximum, due to the high costs of the downstream processes being applied up to date. These are normally related with the processes' complexity. Some use large amounts of organic solvents while others use to much sophisticated equipment or specialized human resources, compromising the compounds' sustainability and profitable commercialization. In this work some of the most efficient downstream processes will be analysed as well as the main commercial sectors targeted.

Acknowledgments
This work was developed within the scope of the project CICECO-Aveiro Institute of Materials, UIDB/50011/2020 & UIDP/50011/2020 financed by national funds through the FCT/MEC and when appropriate co-financed by FEDER under the PT2020 Partnership Agreement.

FIGURES

FIGURE 1

FIGURE 2

KEYWORDS

Macroalgae | Alternative solvents | Downstream processes | Environmental & economic impact

BIBLIOGRAPHY