

# Algal Biorefinery: An Integrated Approach // 9783319228136 // Springer, 2015 // Debabrata Das // 2015 // 467 pages

Algal Biorefinery - An Integrated Approach for Sustainable Biodiesel Production. EL LIBRO. 2 White Paper on Internationally Compatible Biofuels Standards Final[1]. SzIBR will demonstrate integrated scale-up of Solazyme's novel heterotrophic algal oil biomanufacturing process, validate the projected commercial-scale economics of producing multiple advanced biofuels, and enable Solazyme to collect the data necessary to complete design of the first commercial-scale facility. Solazyme's technology transforms high-impact, domestic, renewable lignocellulosic feedstocks to oil-based fuels that leverage and remain fully compatible with the petroleum economy, at costs comparable with petroleum.

Integrated algal biorefineries from process systems engineering aspects: A review. *Bioresource Technology* 2019,291 , 121939. <https://doi.org/10.1016/j.biortech.2019.121939>.

Christos Galanopoulos, Philipp Kenkel, Edwin Zondervan. Superstructure optimization of an integrated algae biorefinery. *Computers & Chemical Engineering* 2019,130 , 106530. <https://doi.org/10.1016/j.compchemeng.2019.106530>.

Integrating uncertainties to the combined environmental and economic assessment of algal biorefineries: A Monte Carlo approach. *Science of The Total Environment* 2018,626 , 762-775. <https://doi.org/10.1016/j.scitotenv.2017.12.339>.

Haiyan Pei, Liqun Jiang. 14 "Biorefinery of algae: Technical and economic considerations". In C. Gonzalez-Fernandez & R. Muñoz (Eds.), *Woodhead publishing series in energy. Microalgae-based biofuels and bioproducts: From feedstock cultivation to end-products* (pp. 327 - 345 ). Scale-up problems for the large scale production of Algae . In D. Das (Ed.), *Algal biorefinery: An integrated approach* (pp. 125 - 149 ). Cham, Switzerland : Springer International Publishing. [https://doi.org/10.1007/978-3-319-22813-6\\_6](https://doi.org/10.1007/978-3-319-22813-6_6). Crossref Google Scholar. Demuez, M. , Mahdy, A. , Tomàs-Peja, E. , González-Fernández, C. , & Ballesteros, M. ( 2015 ). Enzymatic cell disruption of microalgae biomass in biorefinery processes . Debabrata Das Editor. *Algal Biorefinery: An Integrated Approach*. Algal Biorefinery: An Integrated Approach. Debabrata Das Editor. Algal Biorefinery: An Integrated Approach. Editor Debabrata Das Department of Biotechnology Indian Institute of Technology Kharagpur, India. Co-published by Springer International Publishing, Cham, Switzerland, with Capital Publishing Company, New Delhi, India. Algal bioengineering laboratories may find this book a ready reference for their routine use. We hope this book will be useful to our readers! Kharagpur, India. This review discusses an integrated algal biorefinery (IABR) based on a combination of microalgae rich in proteins, carbohydrates, and lipids, development of multi-product biorefinery from microalgae has become a promising approach towards commercialization of microalgae-based products. This review discusses an integrated algal biorefinery (IABR) based on a combination of four microalgae-to-products chains for the production of biofuels, biopower, and byproducts. Two systematic analytical approaches by life cycle assessment (LCA) and techno-economic assessment (TEA) are used to quantify the economic and environmental benefits.