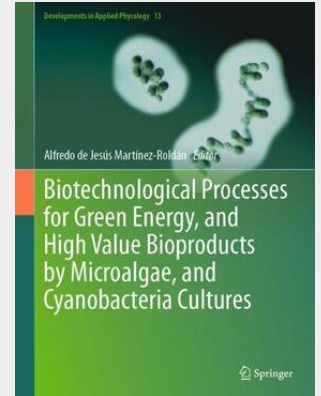


Martínez-Roldán

## Biotechnological Processes for Green Energy, and High Value Bioproducts by Microalgae, and Cyanobacteria Cultures

Microalgae and cyanobacteria are a very diverse group of photosynthetic microorganisms with many applications. Some of them are related to the accumulation of molecules involved in specific metabolic pathways such as pigments, fatty acids, polyunsaturated fatty acids, carbohydrates, amino acids, etc. Also, there are uses of the biomass related to the exploitation of physiological necessities such as the absorption of essential nutrients (the removal of nitrogen and phosphorus from wastewater, the capture of CO<sub>2</sub> from the fixation of nitrogen, etc.). Nevertheless, the evaluation in financial and life-cycle aspects is necessary to ensure the industrial application of the processes. The objective of the book is to analyze innovative applications of microalgae and cyanobacteria to develop environmental-friendly processes for removal of pollutants, wastewater treatment, production of high-value products or bioenergy, and finally evaluate the feasibility of the processes both in economic and sustainability aspects.

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