About the Book

For realizing the commercial potential of algae, a biorefinery has been envisioned that could to extract maximum benefits out of algal biomass. A refinery concept promotes harvesting of multiple products from the feedstock so as to make the process economically attractive. For last few decades, algal biomass has been explored for various products such as fuel agricultural crops, pigments, pharmaceuticals, bioremediation etc. to meet the huge demand of algal biomass, a greater emphasis has been given on large scale production of algal biomass in closed or open photo bioreactors . Different nutritional conditions for algal growth have been explored like photoautotrophic, heterotrophic, mixotrophic and oleaginous. The present book critically discusses different aspects of algal production system and several drawbacks related to microalgal biomass production viz, low biomass yield energy consuming harvesting, dewatering, drying and extraction process. These provide a background of the state-of-the-art technologies towards algal cultivation, CO sequestration and large scale application of algal cultivation systems. This book is aimed at a wide audience mainly undergraduates, postgraduates, 2 energy researchers, scientists in industries and organizations, energy socialists, policy makers, research faculty and others who which to know the algal boirefinery as also wish to get abreast with the latest developments.

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