



CO₂ Biofixation by Microalgae: Automation Process (Focus)

Sihem Tebbani, Rayen Filali, Filipa Lopes, Didier Dumur, Dominique Pareau

Download now

[Click here](#) if your download doesn't start automatically

CO₂ Biofixation by Microalgae: Automation Process (Focus)

Sihem Tebbani, Rayen Filali, Filipa Lopes, Didier Dumur, Dominique Pareau

CO₂ Biofixation by Microalgae: Automation Process (Focus) Sihem Tebbani, Rayen Filali, Filipa Lopes, Didier Dumur, Dominique Pareau

Due to the consequences of global warming and significant greenhouse gas emissions, several ideas have been studied to reduce these emissions or to suggest solutions for pollutant removal. The most promising ideas are reduced consumption, waste recovery and waste treatment by biological systems. In this latter category, studies have demonstrated that the use of microalgae is a very promising solution for the biofixation of carbon dioxide. In fact, these micro-organisms are able to offset high levels of CO₂ thanks to photosynthesis. Microalgae are also used in various fields (food industry, fertilizers, biofuel, etc.). To obtain an optimal CO₂ sequestration using microalgae, their cultivation has to be carried out in a favorable environment, corresponding to optimal operating conditions (temperature, nutrients, pH, light, etc.). Therefore, microalgae are grown in an enclosure, i.e. photobioreactors, which notably operate in continuous mode. This type of closed reactor notably enables us to reduce culture contamination, to improve CO₂ transfer and to better control the cultivation system. This last point involves the regulation of concentrations (biomass, substrate or by-product) in addition to conventional regulations (pH, temperature). To do this, we have to establish a model of the system and to identify its parameters; to put in place estimators in order to rebuild variables that are not measured online (software sensor); and finally to implement a control law, in order to maintain the system in optimal conditions despite modeling errors and environmental disturbances that can have an influence on the system (pH variations, temperature, light, biofilm appearance, etc.).

 [Download CO₂ Biofixation by Microalgae: Automation Process ...pdf](#)

 [Read Online CO₂ Biofixation by Microalgae: Automation Proces ...pdf](#)

Download and Read Free Online CO2 Biofixation by Microalgae: Automation Process (Focus) Sihem Tebbani, Rayen Filali, Filipa Lopes, Didier Dumur, Dominique Pareau

From reader reviews:

Helen Green:

Here thing why this CO2 Biofixation by Microalgae: Automation Process (Focus) are different and trusted to be yours. First of all studying a book is good but it really depends in the content of computer which is the content is as yummy as food or not. CO2 Biofixation by Microalgae: Automation Process (Focus) giving you information deeper and in different ways, you can find any book out there but there is no e-book that similar with CO2 Biofixation by Microalgae: Automation Process (Focus). It gives you thrill examining journey, its open up your own eyes about the thing which happened in the world which is possibly can be happened around you. It is easy to bring everywhere like in park your car, café, or even in your way home by train. For anyone who is having difficulties in bringing the printed book maybe the form of CO2 Biofixation by Microalgae: Automation Process (Focus) in e-book can be your choice.

Joe Garner:

Reading a e-book can be one of a lot of pastime that everyone in the world enjoys. Do you like reading book and so. There are a lot of reasons why people love it. First reading a publication will give you a lot of new facts. When you read a book you will get new information simply because book is one of several ways to share the information or even their idea. Second, looking at a book will make anyone more imaginative. When you examining a book especially fictional works book the author will bring you to definitely imagine the story how the people do it anything. Third, you are able to share your knowledge to other people. When you read this CO2 Biofixation by Microalgae: Automation Process (Focus), you are able to tells your family, friends and also soon about yours reserve. Your knowledge can inspire average, make them reading a guide.

William Sanders:

Reading can called mind hangout, why? Because when you find yourself reading a book especially book entitled CO2 Biofixation by Microalgae: Automation Process (Focus) your thoughts will drift away trough every dimension, wandering in every single aspect that maybe mysterious for but surely might be your mind friends. Imaging just about every word written in a book then become one contact form conclusion and explanation this maybe you never get before. The CO2 Biofixation by Microalgae: Automation Process (Focus) giving you a different experience more than blown away your mind but also giving you useful facts for your better life in this particular era. So now let us explain to you the relaxing pattern the following is your body and mind will be pleased when you are finished reading through it, like winning a game. Do you want to try this extraordinary shelling out spare time activity?

James Shockley:

CO2 Biofixation by Microalgae: Automation Process (Focus) can be one of your beginner books that are good idea. Many of us recommend that straight away because this reserve has good vocabulary which could increase your knowledge in vocabulary, easy to understand, bit entertaining however delivering the

information. The writer giving his/her effort to put every word into satisfaction arrangement in writing CO2 Biofixation by Microalgae: Automation Process (Focus) yet doesn't forget the main level, giving the reader the hottest and also based confirm resource details that maybe you can be one of it. This great information may drawn you into completely new stage of crucial pondering.

**Download and Read Online CO2 Biofixation by Microalgae:
Automation Process (Focus) Sihem Tebbani, Rayen Filali, Filipa
Lopes, Didier Dumur, Dominique Pareau #ITMU6FQAOVD**

Read CO2 Biofixation by Microalgae: Automation Process (Focus) by Sihem Tebbani, Rayen Filali, Filipa Lopes, Didier Dumur, Dominique Pareau for online ebook

CO2 Biofixation by Microalgae: Automation Process (Focus) by Sihem Tebbani, Rayen Filali, Filipa Lopes, Didier Dumur, Dominique Pareau Free PDF d0wnl0ad, audio books, books to read, good books to read, cheap books, good books, online books, books online, book reviews epub, read books online, books to read online, online library, greatbooks to read, PDF best books to read, top books to read CO2 Biofixation by Microalgae: Automation Process (Focus) by Sihem Tebbani, Rayen Filali, Filipa Lopes, Didier Dumur, Dominique Pareau books to read online.

Online CO2 Biofixation by Microalgae: Automation Process (Focus) by Sihem Tebbani, Rayen Filali, Filipa Lopes, Didier Dumur, Dominique Pareau ebook PDF download

CO2 Biofixation by Microalgae: Automation Process (Focus) by Sihem Tebbani, Rayen Filali, Filipa Lopes, Didier Dumur, Dominique Pareau Doc

CO2 Biofixation by Microalgae: Automation Process (Focus) by Sihem Tebbani, Rayen Filali, Filipa Lopes, Didier Dumur, Dominique Pareau Mobipocket

CO2 Biofixation by Microalgae: Automation Process (Focus) by Sihem Tebbani, Rayen Filali, Filipa Lopes, Didier Dumur, Dominique Pareau EPub