

Global Algal Fuels Market

<https://marketpublishers.com/r/GB1A1192C64EN.html>

Date: June 2011

Pages: 250

Price: US\$ 425.00 (Single User License)

ID: GB1A1192C64EN

Abstracts

With the advances in technology, it has now become possible to generate fuel from even the trash that you throw out on a daily basis. One such novel innovations of technology in the recent years has been the capability to produce fuel from the common pond scum - or algae.

In the last couple of years, algae has caught the interest of researchers worldwide because of its ability to be used as biofuel. The potential of algae as a source of biofuel is tremendous, particularly because of the exponential growth rate that algae has. It has the capacity to double in quantity almost overnight and it can be harvested on a daily basis. Not to mention the fact that harvesting algae as biofuel takes away the many challenges posed by food crops that are being harvested for biofuels today.

In a scenario where energy demands, particularly for transportation, is increasing on a daily basis, the potential of algae to be turned into fuel is being touted as the next big thing in the energy industry, with supporters already hailing algae as the fuel of the future.

In this industry landscape, Taiyou Research presents an analysis of the Global Algal Fuels Market. With the race on around the world for commercializing algae as a source of fuel, Taiyou Research focuses on the aspects of algal fuel that makes it such an attractive option for investors today.

This research report - Global Algal Fuels Market - covers the following:

In order to understand how algae can be processed to fuel, it is important to have an understanding of the basics of algae. This is where this report begins - with the analysis of what are algae, classification of algae, types of algae, the

lifecycle of algae, algae cultivation, etc.

The production of biological hydrogen from algae is analyzed, along with an analysis of the history of algaculture, the issues with bioreactor design, basics of algal biohydrogen production, and applications of the hydrogen that is produced. The introduction of copper to increase the consistency cycle is also looked.

Fuel production from algae - the primary focus of the report - carries out an in-depth analysis of algal fuel production. The section begins with an analysis of the extraction processes for bioproducts, the lipid extraction processes including accelerated solvent extraction, hydrothermal liquefaction, heterotrophic production, etc. Production techniques and strategies are analyzed along with a focus on production infrastructure.

Analysis of products and co-products includes biodiesel, biodiesel production from algae through direct liquefaction, ethanol, hydrocarbons, and mixed alcohols. The advantages and challenges facing the production of algal fuels are discussed.

Investment in the industry and what investors need to know in order to invest in algal fuels is discussed in the report, along with an economic analysis of fuel derived from algae.

The technical processes involved in the conversion of algae to biofuels such as the direct production methods of biofuel, processing of whole algae into fuels with the help of gasification, pyrolysis, direct hydrothermal liquefaction, and the conversion of algal extracts are analyzed.

A section is focused on the analysis of fuels that are derived from algae. These include biodiesel, biobutanol, biogasoline, methane, straight vegetable oil, traditional transport fuels, and jet fuel.

The production of biodiesel from microalgae is analyzed, along with an cost analysis of microalgae production and biodiesel processing.

The role algae plays in carbon capture is looked at, along with the competitive landscape of algae versus other traditional and unconventional fossil fuels are analyzed.

A country-wise market analysis includes the analysis of algal fuels in India, Europe, United Kingdom, United States, and others.

A future perspective of algal fuels is included, including an analysis of whether algae is really the fuel of the future.

Emergence of algal biotechnology, which is fast becoming a lucrative market on its own, is looked at in the report.

The practical use of algae being put to use as fuels is analyzed in the various case studies including the use of algal fuels by Qantas Airways, and others.

Major companies involved in the production of algal fuels such as Algae Fuel Systems, Algenol, Bio Fuel Systems, etc., are analyzed.

The report is a complete analysis of the global algal fuels market.

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