

## **BIOFUELS FROM ALAGE - A REVIEW**

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### **Abstract**

The extensive use of fossil fuels in the last few decades has led to global warming and pollution, due to the emissions of green house gases and carbon .Therefore, it is mandatory to discover and implement alternative eco- friendly sources of fuels like biofuels. Traditionally the biofuel feedstock is crops like corn, sugarcane and soya. However diverting food crops towards a source of fuel is not viable due to an exponentially growing world population. Algae are an increasingly promising feedstock for biofuel production. Biofuels that can be synthesized from algae are biodiesel, biogas, and bioethanol and hydrogen gas. In the production, algae cultivation and then it's harvesting are the primary steps. Various operations such as centrifugation, flocculation, floatation, sedimentation and filtration have to be carried out for the same. Production of biodiesel and biogas using this technology has been discussed in this paper. The unit operations and process conditions needed in the entire synthesis have also been given. Also the energy consumption per stage is stated. Since algae biofuel is a relatively new alternative to conventional petroleum based fuel, it is not yet economically viable. However, it is a promising area for research and development.