

EXTRACTION OF ALGAL OIL BY USING MICRO ALGAE FOR THE PRODUCTION OF BIO DIESEL

S. LAKSHMAN KUMAR¹, Dr. A.V.N. SWAMY², Dr. D.SUBBA RAO², Dr. MURALIDHAR²

1. Research scholar Department of Chemical engineering university of JNTUA Anantapur 515002, india

2. Department of Chemical engineering university of JNTUA Anantapur ,515002, india

E-MAIL ID : sampathbiotech48@gmail.com

ABSTRACT

Energy is the burning issue in the upcoming year when every country requires huge amounts of to sustain their economical progress as the world is rapidly motorized engine. It requires a huge amount of oil to pump it and the oil price is continuously increasing for last few years. Due to the intense consumption of natural energy sources.

The micro algae which are one of the most abundant organisms in the world got final attention because of its highest capacity to produce bio fuels in per acre as compared to other power crops and more yielding capacity (58,700L/h). These tiny organisms doesn't require big lands or farmhouses. They can be grown in open ponds, plastic bags, glass vessels and photo bioreactors. The micro algae have emerged as high lipid content to produce the bio diesel.

Botryococcus braunii is a green pyramid shape planktonic micro algae of the order chlorococcales (class chlorophyceae) it is of potentially great importance in the field of biotechnology. It has been shown to grow best at a temperature of 23⁰ C , Light period of 12 hrs. in CHU 13 medium. It has high lipid content in the (25 % - 86 %). *Botryococcus braunii* can grow using different waste waters like dairy , food processing , sewage waste waters.

Keywords: *Botryococcus braunii*, Chlorococcales, planktonic , photo bioreactors.

References:

1. Antolin et al., 2002; G. Antolin., F.V. Tinaut and Y. Briceno, Optimisation of biodiesel production by sunflower oil transesterification, Bioresour. Technol. 83, pp. 111