International Journal of ChemTech Research
CODEN (USA): IJCRGG ISSN: 0974-4290
Vol.8, No.12 pp 543-551, 2015

An Efficient Extraction Method for the Isolation of Newly Isolated Green Microalgae from Fresh Water Bodies

S Michael Donatus, S Vijayalakshmi, J Ranjitha*

CO_2 Research and Green Technologies Centre, VIT University, Vellore-14

Abstract: Algal culture has been isolated from pond water and tested for its growth, pigment, protein and fatty acid contents. The growth of algal biomass was assessed by the means of optical density with at one week intervals up to fifth week Then for identification of the species level, DNA was extracted and sequenced and identified *Chlorella vulgaris* and *Scenedesmus dimorphus* was stained by DAPI staining for visualization of the microalgae cells in Fluorescent microscopic observations and also lipid was determined by using BODIPY staining method. Algal oil was extraction by two effective methods were followed for the estimation of lipids level of both algal culture Bligh and Dyer Extraction and Extraction n-hexane using Soxhlet's extraction process method, After the algal lipid was extraction from both algal culture, the lipid bodies was view under two different types of Microscopy CARS Microscopy, Scanning Electron Microscopy.
Keywords: *Chlorella vulgaris*; Isolation; Growth; Pigment; Carotenoid; Proteins; fatty acid; DAPI staining method.

*****