

The influence of culture condition and additional salinity on growth and hydrocarbon production in *Botryococcus braunii*

반상훈, 심상준*

성균관대학교

(simsj@skku.edu*)

Botryococcus braunii is a green colonial fresh water microalgae. It is recognized as one of the renewable resources for production of liquid hydrocarbon. Their composition is determined by the nature of a respective algal race (A, B, or L), and their content is believed to depend also on growth condition.

Our work show effect of carbon dioxide on biomass, hydrocarbon production in various condition of *B. braunii* using a conical flask. It can be grown at the tested levels of Culture condition included carbon dioxide concentration and salinity. The growth and lipid content of *B. braunii* LB-572 from USA were compared at three carbon dioxide concentrations, four salinities for 3 weeks, respectively. The increase in biomass yields and changes in other culture conditions found the influence of culture condition and the organism's adaptability to the tested levels of salinity. The results of the present study indicate that the organism can optimize to culture condition for biomass and hydrocarbon production.