

Optimization for supercritical CO₂ extraction of DHA algal oil from *schizochytrium sp.* using response surface methodology

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In this study, extraction of DHA algae oil from *schizochytrium sp.* was conducted using supercritical CO₂ and ethanol. For the economical and efficient method of extraction, experimental design was generated based on Box-Behnken and response surface methodology (RSM) was applied to obtain the optimum extraction condition and to evaluate the effect of reaction parameters such as temperature, time, pressure, and flow ratio of supercritical CO₂ to ethanol. In addition, predicted optimum extraction conditions generated by suitable modeling technology was statistically studied as compared to results of actual experimental under optimum conditions to validate the accuracy of developed model.