

عنوان مقاله:

Effect of light and temperature factors in optimizing the growth of Parachlorella microalgae

محل انتشار:

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خلاصه مقاله:

Determining the optimal culture conditions for algae growth is one way of increasing its products, such as carbohydrates, which may assume an important role in increasing the amount of algae-yielded ethanol. The present study was conducted to determine the effects of light-dark photoperiod (12-12h, 16-8h, 20-4h) and temperature (25 C, 29 C, 33 C) on growth rate and sugar content of Parachlorella kessleri Microalgae. To achieve this, microalgae was cultured in nine different treatments (each with three replications) of specified photoperiod and temperature conditions. Data analysis showed that temperature has no significant effects on growth factor ($p \geq 0.05$); however significant effect of photoperiod on these two factors was observed ($p \geq 0.05$). In addition, light-temperature interaction effect on these factors was not significant ($p \geq 0.05$). In conclusion, the optimal culture conditions were the light-dark photoperiod of 12-12h in temperature of 25 C.

کلمات کلیدی:

Culture optimization, Parachlorella Algae, Light, Temperature, Growth

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