

Pengaruh pemberian spektrum cahaya tampak terhadap persentase protein *Botryococcus braunii* = The effect from visible light spektrum for protein percentage of *Botryococcus braunii*

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Abstrak

[ABSTRAK

Di beberapa negara, perkembangan bioteknologi telah meluncurkan produk pangan yang dikenal dengan makanan kesehatan. Dimana mikroalga saat ini dapat dijual dalam bentuk kapsul atau di dalam makanan seperti aneka minuman dan pasta yang telah menunjukkan khasiat pengobatan dalam perlakuan kondisi seperti hiperkolesterolemia dan aterosklerosis. Penelitian ini bertujuan untuk mengetahui kadar protein pada mikroalga *Botryococcus braunii* dengan variasi spektrum cahaya tampak dengan metode Biuret. Hasil kadar protein untuk variasi spektrum cahaya tampak adalah dengan cahaya langsung 17,60 % , pemberian cahaya merah 13,48 % dan pemberian cahaya biru 11,82 %. Asam amino tertinggi yang dimiliki *B.braunii* baik sampel A, sampel B dan sampel C adalah Leusin/Leucine untuk asam amino esensial dan Alanin/Alanine untuk asam amino non esensial. Pada penelitian ini juga dapat didapatkan metode nilai kapasitansi lebih relevan dibandingkan metode absorbansi untuk melihat pertumbuhan mikroalga *B. braunii*.

ABSTRACT

In some countries, the development of biotechnology has launched a food product known as health food. Now microalgae can be sold in capsule or in foods such as drinks and pasta that has shown efficacy in the treatment of treatment of conditions such as hypercholesterolemia and atherosclerosis. This study aims to determine levels of protein in microalgae *Botryococcus braunii* with variations in the visible light spectrum with Biuret method. Results for the protein content of the visible light spectrum variation is 17.60% for direct light, 13.48% for giving the red light and 11.82% for blue light giving. The highest amino acid *B.braunii* owned both the sample A, sample B and sample C is Leucine for amino acids essential and Alanine for non-essential amino acids. In this study, can also be obtained capacitance value method is more relevant than the absorbance method to see the growth of microalgae *B. braunii*.;In some countries, the development of biotechnology has launched a food product known as health food. Now microalgae can be sold in capsule or in foods such as drinks and pasta that has shown efficacy in the treatment of treatment of conditions such as hypercholesterolemia and atherosclerosis. This study aims to determine levels of protein in microalgae *Botryococcus braunii* with variations in the visible light spectrum with Biuret method. Results for the protein content of the visible light spectrum variation is 17.60% for direct light, 13.48% for giving the red light and 11.82% for blue light giving. The highest amino acid *B.braunii* owned both the sample A, sample B and sample C is Leucine for amino acids essential and Alanine for non-essential amino acids. In this study, can also be obtained capacitance value method is more relevant than the absorbance method to see the growth of microalgae *B. braunii*., In some countries, the development of biotechnology has launched a food product known as health food. Now microalgae can be sold in capsule or in foods such as drinks and pasta that has shown efficacy in the treatment of treatment of conditions such as hypercholesterolemia and atherosclerosis. This study aims to determine levels of protein in microalgae *Botryococcus braunii* with variations in the visible light spectrum with Biuret method. Results for the protein content of the visible light

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