

Pengaruh Pencahayaan Siklus harian terhadap Produksi Biomassa *Chlorella Vulgaris* Buitenzorg dalam Fotobioreaktor Kolom Gelembung

Deskripsi Lengkap: <https://lib.ui.ac.id/detail?id=20303985&lokasi=lokal>

Abstrak

Green Algae *Chlorella vulgaris* Buitenzorg green have a potencies such as their ability in CO₂ fixation and it 's protein and essential contents observation for supplement food purpose. *Chlorella vulgaris* Buitenzorg's cultivation results using daily cycle illumination showed that the final biomass production and CO₂ fixation rate are lower if compared to continuous illumination treatment. The comparisons between these two treatments are 54.0% for CTR (carbon dioxide transferred rate) value and 50.0% for q_c-0; (microbial carbon dioxide fixation ability) value as parameter that shown it 's CO₂ fixation ability and 79.0% for biomass production. Both of treatments was done in 1.0 L bubble column fotobioreaktor content 600 mL Beneck medium that was sparged by 3.6 m/h superficial velocity of air consisting of 10. 0% CO₂ as carbon source at 29. 0°C and 1.0 atm. Additionally, the consumption energy for biomass formation (EX) in daily cycle illumination, was 70.0% larger than continuous illumination treatment.