

عنوان مقاله:

Optimization of domestic waste water as a medium culture for *Chlorella vulgaris*

محل انتشار:

همایش ملی مصرف بهینه آب در صنعت چالشها و راهکارها (سال: 1394)

تعداد صفحات اصل مقاله: 6

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خلاصه مقاله:

Microalgae are regarded as promising feedstock for sustainable biofuel production, because of their high growth rates and high lipid contents. Moreover, compared with other oil crops, much less land is needed to culture microalgae. This study aimed to provide a cost effective medium to large scale production of *Chlorella vulgaris*. This intention was implemented by using waste water and adding Nitrogen for optimizing it. Three type of culture medium was chosen :Set I : Bold medium as control , Set II : sterilized raw waste water , Set III : sterilized waste water + Nitrogen source of Bold medium(same concentration). The alga was grown for 6 weeks at 25 ± 2 C, pH :6.8-7. The growth characteristics: optical density (at 680 nm) and Chlorophyll - a of the alga grown in these media were measured. The results revealed that maximum amount of optical density and content Chlorophyll by value (2.28 , 20.5 $\mu\text{g/ml}$) was in Set III. Our results indicate that among These media, Set III was the best for growing algae and affordable

کلمات کلیدی:

Chlorella, chlorophyll , culture media , growth , optical density , waste water

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