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Short Communication

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Isolation and heterotrophic cultivation of mixotrophic microalgae strains for domestic wastewater treatment and lipid production under dark condition

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Abstract

Cultivating microalgae heterotrophically could overcome the light dependency, and thus increase the yield of microalgal lipid per unit area. In this study, three newly isolated strains of microalgae (*Scenedesmus* sp. ZTY2, *Scenedesmus* sp. ZTY3 and *Chlorella* sp. ZTY4) from a domestic wastewater treatment plant were heterotrophically cultivated in domestic wastewater with no illumination. During the cultivation, the algal densities of *Scenedesmus* species and *Chlorella* species were increased by 203.0% and 60.5% comparing with the initial densities, respectively. After 11-day cultivation, the lipid contents of *Scenedesmus* sp. ZTY2, *Scenedesmus* sp. ZTY3 and

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