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Unlocking microalgal treasures

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Prepositions

Accompanying the dissertation

Unlocking microalgal treasures - Utilization of palm oil mill effluent as growth medium for the production of value-added microalgal compounds

By

M.M.Azimatun Nur

1. *Phaeodactylum tricornutum* can produce high levels of fucoxanthin when growing on POME especially after urea addition. (This thesis)
2. Optimization of sulfated exopolysaccharide of *Phaeodactylum tricornutum* grown on POME is mainly regulated by temperature and urea addition. (This thesis)
3. Semi-continuous cultivation increases the phycocyanin productivity of *Arthrospira platensis* grown on high POME fractions (This thesis)
4. Photodegradation plays a significant role in POME color and phenolic compound removal at high light intensity, however the contribution of microalgae dominates at low light intensity (This thesis)
5. POME is a potential sustainable replacement of synthetic medium for the cultivation of microalgae on commercial scales. (This thesis)
6. High-value biochemical production from microalgae cultivated on POME becomes more feasible in the future if the owners implement a wastewater treatment system based on bioreactor digesters.
7. By implementing biorefinery concept, the production cost of high value biochemical production from microalgae could be minimized, thus lowering the price of the products.
8. And, when you cannot go back, you have to worry only about the best way of moving forward (Paulo Coelho, The Alchemist)