



Review

Recent advances on microalgae cultivation for simultaneous biomass production and removal of wastewater pollutants to achieve circular economy

Wan Adibah Wan Mahari^{a,b,1}, Wan Aizuddin Wan Razali^{c,1}, Hidayah Manan^b, Mursal Abdulkadir Hersi^b, Sairatul Dahlianis Ishak^b, Wee Cheah^d, Derek Juinn Chieh Chan^e, Christian Sonne^f, Pau Loke Show^g, Su Shiung Lam^{b,a,h,i,*}

^a Henan Province Engineering Research Center for Biomass Value-added Products, School of Forestry, Henan Agricultural University, Henan 450002, Zhengzhou, China

^b Higher Institution Centre of Excellence (HiCoE), Institute of Tropical Aquaculture and Fisheries (AKUATROP), Universiti Malaysia Terengganu, Terengganu 21030, Kuala Nerus, Malaysia

^c Faculty of Fisheries & Food Science, Universiti Malaysia Terengganu, 21030 Kuala Nerus, Terengganu, Malaysia

^d Institute of Ocean and Earth Sciences, Universiti Malaya, Kuala Lumpur, Malaysia

^e School of Chemical Engineering, Engineering Campus, Universiti Sains Malaysia, 14300 Nibong Tebal, Pulau Pinang, Malaysia

^f Aarhus University, Department of Bioscience, Arctic Research Centre (ARC), Frederiksborgvej 399, PO Box 358, DK-4000 Roskilde, Denmark

^g Department of Chemical Engineering, Faculty of Science and Engineering, University of Nottingham Malaysia, 43500 Selangor, Malaysia

^h Automotive Development Centre (ADC), Institute for Vehicle Systems and Engineering (IVeSE), Universiti Teknologi Malaysia (UTM), Johor Bahru, 81310, Johor, Malaysia

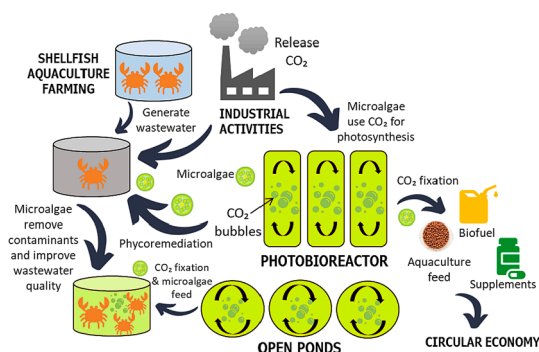
ⁱ Sustainability Cluster, School of Engineering, University of Petroleum & Energy Studies, Dehradun, Uttarakhand 248007, India



HIGHLIGHTS

- Emerging microalgae cultivation technologies are reviewed.
- Value-added compounds in microalgae and its role in sequestering CO₂ are reviewed.
- Microbubbles technology can enhance microalgae mixing and CO₂ fixation rate.
- Role of microalgae as phycoremediation agent in treating wastewater is discussed.
- Circular economy of sustainable microalgae biorefinery is discussed.

GRAPHICAL ABSTRACT



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ABSTRACT

Microalgae are known for containing high value compounds and its significant role in sequestering carbon dioxide. This review mainly focuses on the emerging microalgae cultivation technologies such as nanomaterials technology that can improve light distribution during microalgae cultivation, attached cultivation and co-cultivation approaches that can improve growth and proliferation of algal cells, biomass yield and lipid

* Corresponding author.

E-mail address: lam@umt.edu.my (S.S. Lam).

¹ Co-first authors with equal contribution to this work.

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