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(72) Inventor; and

(71) Applicant : **HO, TET SHIN** [MY/MY]; 8th Floor, Ming Building, No.0801, Jalan Bukit Nanas, 50250 W.P Kuala Lumpur, Malaysia (MY).

(74) Agent: **LOK, CHOON HONG**; Suite 6.03, 6th Floor, Wisma Mirama, Jalan Wisma Putra, 50460 Kuala Lumpur (MY).

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(54) Title: A METHOD AND A SYSTEM FOR MASS-CULTIVATING MICROALGAE WITH ENHANCED PHOTOSYNTHETIC EFFICIENCY

(57) Abstract: A method for cultivating photosynthetic microorganisms with optimal photosynthetic efficiency, comprising the steps of exposing the microorganisms grown in a culture tank of culture broth to light and carbon source; circulating the culture broth vertically from the bottom of the tank up to the surface of the tank to allow momentary exposure of the microorganisms to the light and carbon source, using one or more circulating means located within the culture tank which are regulated according to a selected cultivation mode; and maintaining the cultured microorganisms at a substantially constant areal density range of 300 to 12,000 g/m² to attain the optimal photosynthetic efficiency of the cultivation.



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