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(54) Title: CONTROLLED BIOSECURE AQUATIC FARMING SYSTEM IN A CONFINED ENVIRONMENT

(57) Abstract: The present invention relates generally to a controlled farming system for energy efficient farming in a confined space that is monitored and controlled by a hard and soft sensing system whereby the controlled farming system comprises reactors and storage containers, which are interconnected and/or are communicating with the confined space, which comprises the farming system. In particular embodiment the energy, biomass and molecule flows in the internal environment of the reactors, the storage containers and the confined space comprising the reactors and storage containers are controlled for energy efficient farming of aquatic organisms and crops and the minimal waste of energy and material in the external environment. More particularly the present invention concerns a system and method for farming of crops and aquatic animals with improved control of the systems components for optimal use of the biomass and energy input and less energy and biomass waste output. The system comprises a bacterial bioreactor to treat the sludge separated from culture water to produce biogas.



WO 2010/142004 A8