

ABSTRACT

The Effects of The Micro-Bubble Generator Configuration on The Oxygen Supplying in The Simulating Wastewater Treatment

Bayu Rachmat Saputra

Supervisor : Dr. Deendarlianto

Water crisis is a kind of scary phenomena that force people to find the solution how to save the water. Micro-bubble generator is one of solution in the wastewater for the environmentally friendly purposes.

From the experiment investigation on the configuration of micro-bubble generator to generate micro-bubbles as oxygen supplying, the optimum of configuration is found. The optimum configuration of micro-bubble generator can supply high dissolved oxygen rate, low hydraulic power, high bubble generation efficiency and more micro-bubbles generated.

In the present investigation was also found a phenomena about bubble coalescence. Bubble coalescence affect the diameter size of bubble become bigger. The bigger size of bubble will increase the rising velocity and decrease the capability to keep oxygen in the water. All the detail informations regarding the effect of the configuration of micro-bubble generator are reported in this present paper.

Keywords : micro-bubbles, configuration, micro-bubble generator, wastewater treatment, dissolved oxygen, bubble coalescence