



Effect Of Glucose In Addition To The Sequencing Batch Biofilter Granular Reactor (SBBGR) For Microorganism Growth

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Abstract: Liquid waste of slaughter house are mostly organic materials with high concentrations of BOD 344,56 mg/l, COD 880 mg/l, TSS 850 mg/l, while Nitrogen 4,675 mg/l. If the liquid waste discharged into water bodies without treatment, environment will be polluted, because it needed wastewater treatment plant (WWTP). Sequencing Batch Biofilter Granular Reactor (SBBGR) is one of development activated sludge conventional. Where the aeration and sedimentation process done in one reactor with feeding intermittent. Media aims to reduce sludge index that is a by product of the activated sludge. To support the growth of microorganisms necessary macro and micro nutrient in comparison with the balanced. Preliminary analysis result abattoir waste having carbon ratio: nitrogen: phosphorous is 27:56:2, so it needs the addition of carbon from the outside. The purpose of this paper to determine the growth of microorganisms, if added glucose to the variation of 1070 mg/l, 1080 mg/l and 1090 mg/l, as well as the growing influence of the media. The media used is a ceramic and plastic bottle cap. The analysis showed the addition of glucose 1080 mg/l in the ring ceramic can accelerate the growth of microorganisms as compared to the control reactors and other glucose variations. While the media is a ceramic is better than the plastic bottle caps.

Keyword: ceramic, glucose, plastic, SBBGR, slaughter house.

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