ABSTRACT

One of the way to degrade the rate of phenolics compound in clove immersion water is by biodegradation with Pseudomonas putida bacterium. Before the bacterium degrade phenolics compound, P. putida bacterium must be adapted. The adaptation process done with two treatment, first is with remain amount of clove immersion water and the second with increased amount of clove immersion water, those by decreasing amount of nutrition. Analysis of phenolics compound done by spectrophotometry, using colouring reagent 4-aminoantipyrin and Potassium hexasianoferrat (III). Result of this research indicate that P. putida bacterium can grow maximum in media contain 11 mL clove immersion water and 4 mL nutrition. P. putida bacterium can adapted with the two adaptation process, with remain amount of clove immersion water and also increased amount of clove immersion water, those by decreasing the amount of nutrition. But the best composition for P. putida bacterium adaptation is with remain amount of clove immersion water and decreased amount of nutrition. In degradation process, P. putida bacterium can degrade phenolics compound from 184,42 ppm to 130,65 ppm or degrade 53,77 ppm (29%).