ABSTRACT

Producing electricity from organic materials with Microbial Fuel Cell (MFC) is one of a concept that has been around for almost 100 years. MFC is the alternative energy that has advantages in operation and function technologically for producing energy using organic materials on this day. In this research, the volume ratio of rice field mud sediment, waste rice, and aquadest had been variated in order to know the optimum composition. Besides the variation of volume ratio, this study also analyzes the duration rottenness of waste rice. The result from the duration of rottenness waste rice for 5 days had the highest current rather than the other duration. However on rottenness for 3 days has a stationary graph. It because of the cell is still undergoing stationary phase . On the measurement of volume ratio obtained that the addition of aquadest has no effect on the increase in the production of electrical energy because it decreased the organic materials also the source of bacteria.

Keywords: *Microbial Fuel Cell, volume ratio, waste rice.*