

ABSTRACT

Currently it is said that liquid waste disposal is one of the main problems in developing countries such as in Indonesia. Also in several studies it is said that textile waste contains a high concentration of COD (Chemical Oxygen Demand), where COD itself is a water pollution parameter. One of the innovations to overcome these problems is by using a Microbial Fuel Cell in which microorganisms are used as a catalyst to oxidize waste with products that produce electricity. Previous research with the use of textile waste without the addition of inoculum and pH adjustment obtained a decrease in COD of 77.09%. In this study, the DCMFC system was used with a bridge mixture of cement and NaCl and Zn/Cu as the electrodes, referring to the research that has been done, and the use of textile waste as the substrate, without the addition of inoculum and pH adjustment. The decrease in COD in the first, second, third and fourth samples was 45.81%, 26.91%, 9.04%, and 8.09%, respectively.

Keywords :Chemical Oxygen Demand (COD), Microbial Fuel Cell (MFC), Waste