

The effectiveness of anaerobic baffled reactor and rotating biological contactor in batik wastewater treatment

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Abstrak

Batik is one of popular arts of Indonesia. The batik industries in Sragen, Central Java, are prepared to compete in global market. In order to realize that objective, batik products should fulfill some qualifications, one of which is 'environmental friendliness'. As batik production is usually generating wastewater which pollutes the environment, the technology of wastewater treatment should be developed to solve the problem. This preliminary study has been done to assess the effectiveness of anaerobic baffled reactor (ABR) and rotating biological contactor (RBC) in batik wastewater treatment. In 40 days of treatment period, the ABR performance in reducing pollutants showed an effectiveness up to 75%, whereas RBC effectiveness was in the range of 15-57%. Concerning the quality standard of wastewater, the wastewater treatment system showed a good performance to decrease pH, whereas the COD was still high. Further optimization, then, is needed to improve the quality of effluent.