

ABSTRACT

One of the environmental pollutions that occur today is pollution caused by textile industry waste. Because before being disposed of, the waste must be processed first so as not to directly pollute the Environment, because textile waste is very dangerous for public health because it still contains a lot of Methylene Blue (MB). In this study, TiO_2 as a degradation process of MB was mixed with activated karbon whose concentration varied by 0.1 g, 0.2 g, 0.3 g, 0.4 g, and 0.5 g of the amount of TiO_2 used. Then it was affixed to the surface of the plastik paper and then cut to a size of 1 cm x 1 cm and added to MB wastewater to degrade MB wastewater by drying MB wastewater that had been sprinkled with TiO_2 and karbon under 300 Watt halogen lamps. The sample used as MB wastewater is a mixture of water with MB. Tests in this study were carried out by comparing MB wastewater samples that were given TiO_2 and activated karbon 0.1 g, 0.2 g, 0.3 g, 0.4 g, and 0.5 g of the amount of TiO_2 used every 5 hours, for 45 hours. The use of plastic sheets contained TiO_2 with 0.2 g carbon powder inserts is the most effective way to degrade Methylene blue wastewater samples

Keywords: Methylene blue waterwaste, TiO_2 , carbon, photodegradation.