

**SISTEM BIOFILTRASI AIR RAWA GAMBUT DAN PENGARUH FILTRASI
TERHADAP pH, BOD, COD, TSS DAN ASAM HUMAT AIR RAWA GAMBUT DENGAN
ADANYA PENAMBAHAN KARBON**

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ABSTRACT

The research about bio-filtration of peat water using paddy chaff coated by carbon as filter biomaterial has been conducted. Iodimetry titration method was selected for determination of BOD and COD concentration, while gravimetry method and UV/Vis spectrophotometry is used to determinate TSS and humic acid containing in sample. The results of filtration with bio-filter lock up this paddy able to reduce organic compounds in peat water. The existence of coating carbon causing of BOD 22.37 mg/L (without carbon 27.73 mg/L), COD 54.30 mg/L (without carbon 86.02 mg/L), TSS 120 mg/L (without carbon 155 mg/L) concentration was decreasing, especially at the third step of filtration.

Keywords : *peat water, biofiltration, biomass*

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