

**PEMANFAATAN HYDRILLA (*Hydrilla verticillata*) UNTUK MENURUNKAN LOGAM
TEMBAGA (Cu) DALAM LIMBAH ELEKTROPLATING**

Studi Kasus : Industri Kerajinan Perak Kelurahan Citran, Kotagede

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ABSTRACT

*Silver handicraft industries released waste water which contained copper (Cu) with concentration of 4,628mg/l. Such concentration had exceeded the standard quality oh KepMenLH No 51 Year 1995. Waste water treatment to reduce Cu concentration was conducted by using hydrilla (*Hydrilla verticillata*). This experiment had a purpose to find out the efficiency of hydrilla weight and the optimum retention time to reduce Cu concentration. Experiment was conducted in batch system with 150 gr, 200 gr, and 250 gr hydrilla weight variances and 30 days retention time. Experiment design used was Completely Random Design (CRD) repeated twice. Waste water sample was 5 L for each topless with the total of 7 topless. Cu concentration analysis was performed on laboratory by examining some parts of the hydrilla sample once in 3 days, and the waste water was examined for the Cu contentration on the 30th day. The operation result showed the average of Cu concentration reduction at the control topless without any treatment was 3,782 mg/l, the average of the 250 gr hydrilla weight treatment was 0,862 mg/l. The averages of Cu reduction efficiency for each weight were : 150 gr = 54,49%; 200 gr = 70,43%; 250 gr = 81,37%. The optimum retention time is at the 15th day with 0,027 mg/l of Cu concentration reduction. These results showed that the most efficient treatment was the hydrilla with the weight variance of 250 gr with 15 days retention time*

Keywords : *copper (Cu), electroplating, hydrilla*