

TEKNOLOGI PENGOLAHAN LIMBAH CAIR ELEKTROPLATING KHROM DALAM UPAYA MENGAMBIL DAN MEMANFAATKAN KEMBALI LOGAM KHROM DENGAN METODA ELEKTROLISA

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ABSTRACT

Chrome waste in form Cr^6 is one of waste water which very dangerous and toxic characteristic because include in list of B_3 waste. Final concentrarion of Cr^{6+} in wastewater at electroplating industry area Bajomulyo village still high that is 20 mg/l. The aim of this research is takingan reuse chrome metal which is left in waste chrome water, in order to final result of Cr^{6+} less and fullfill quality standart waste water of electroplating industry and reuse for proccess.

The research with electroliysis method is done by recycling electroplating chrome waste water that is used as electrolyte. That electrolyte is flow many current that are through 2 electrodes, Pd as anode and cuprum as cathode with definite voltage. The processes is done with 3 variation, that are Cr^{6+} concentration, time and current. Research result, we obtain the best operation condition of chrome waste water treatment, that are during 50 minutes with 25 Ampere. At those condition could remove 98.605% . The concentration of Cr^{6+} effluent is 0.14 mg/l, and comply with waste water quality standard for electroplating industry (0.3 mg/l).

Keywords : Electroplating, Elektrochemistry, Electrolysis, Oxidation, Reduction, Anode, Katode