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## **ELEKTRODEKOLORISASI LIMBAH CAIR INDUSTRI KAIN TENUN MENGUNAKAN ELEKTRODA PbO<sub>2</sub>/Pb**

### **ABSTRAK**

Telah dilakukan penelitian tentang elektrokolorisasi limbah cair industri kain tenun dengan elektroda PbO<sub>2</sub>/Pb. Penelitian dilakukan dengan mengelektrolisis sampel limbah cair industri kain tenun pada potensial 5,0 volt. Media elektrolisis zat warna adalah air limbah industri kain tenun sedangkan elektroda yang digunakan adalah PbO<sub>2</sub>-Pb serta pengaturan waktu elektrolisis selama 90 menit. Hasil akhir elektrolisis dianalisis secara kualitatif dan kuantitatif dengan Spektrometer *UV-Vis* dan analisis produk terhadap nilai *total dissolved solid* (TDS) dan kekeruhan. Hasil yang diperoleh menunjukkan elektrolisis air limbah industri kain tenun menggunakan elektroda PbO<sub>2</sub>-Pb menghasilkan dekolorisasi sebesar 98,8%, penurunan nilai *total dissolved solid* (TDS) sebesar 96,05% dan kekeruhan sebesar 99,90%

*Kata kunci : elektrokolorisasi, elektroda, TDS, kekeruhan*

## **ELECTRODECOLORIZATION OF WEAVE CLOTH INDUSTRY LIQUID WASTE USING PbO<sub>2</sub>/Pb ELECTRODES**

### **ABSTRACT**

Research on electrodecolorization of weave cloth industry liquid waste using PbO<sub>2</sub>/Pb electrodes has been done. This research was performed by electrolyzing dye sample solution at potential of 5.0 volts. The electrolysis dye solution was liquid waste of weave cloth industry while electrode applied is PbO<sub>2</sub>-Pb and electrolysis timing of 90 minutes. Analysis was done qualitatively and quantitatively by *UV-Vis* Spectrometry, analysis was also performed to obtain the value of *total dissolved solid* (TDS) and turbidity. Result shows that electrolysis of the liquid waste of weave applying PbO<sub>2</sub>-Pb electrode yield in decolourisation up to 98.8%, decreasing in *total dissolved solid* (TDS) value up to 96.05% and turbidity of 99.90%

*Key words : electrodecorization, electrodes, TDS, turbidity*

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