

## ADSORPSI CONGO RED PADA HUMIN HASIL ISOLASI DARI TANAH HUTAN DAMAR BATURRADEN PURWOKERTO

<b>Title</b>	ADSORPSI CONGO RED PADA HUMIN HASIL ISOLASI DARI TANAH HUTAN DAMAR BATURRADEN PURWOKERTO
<b>Author Order</b>	5 of 6
<b>Accreditation</b>	
<b>Abstract</b>	<p>Congo red is one of dyes-stuff in textile industry wastewater. If it is thrown directly without waste management process, the dyes could pollute environment, especially soil. Humin has OH phenolic and carboxylic functional group which can interacted with congo red. The aim of this study is recognize humin characteristic from the soil of Baturraden resin forest, determine the adsorption capacity and isotherm adsorption pattern of congo red by humin from the soil of Baturraden resin forest. Humin in this study is isolated from the soil of Baturraden resin forest. soil cleared of gravel and dirt, then it extracted by using NaOH of nitrogen atmosphere and purified to applies mixture HCl:HF. Humin that is obtained is used to be interacted with dyes with various contact time, various of pH and concentration of congo red so that the adsorption capacities and isotherm adsorption pattern can be obtained. Result of the study showed that the humin has water content 34.92 %, dust content 8.64 %, total acidity 475 cmol/Kg, carboxylic rate 272.5 cmol/Kg, and OH Phenolic rate 202.5 cmol/Kg. The optimum contact time of congo red adsorption by humin is 40 minutes, with optimum pH is 7, adsorption capacities 57.14 mg/g and isotherm adsorption pattern of congo red by humin is follow the pattern of Langmuir isotherm adsorption.</p>
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