

Efficiency of *Aspergillus* sp. 3 to reduce chromium, sulfide, ammonia, phenol, and fat from batik wastewater

<b>Publons ID</b>	39997453
<b>Wos ID</b>	WOS:000685614100003
<b>Doi</b>	10.1088/1755-1315/308/1/012003
<b>Title</b>	Efficiency of <i>Aspergillus</i> sp. 3 to reduce chromium, sulfide, ammonia, phenol, and fat from batik wastewater
<b>First Author</b>	
<b>Last Author</b>	
<b>Authors</b>	Dewi, RS; Kasiamdari, RS; Martani, E; Purwestri, YA;
<b>Publish Date</b>	2019
<b>Journal Name</b>	INTERNATIONAL SYMPOSIUM ON BIOREMEDIATION, BIOMATERIAL, REVEGETATION, AND CONSERVATION
<b>Citation</b>	5
<b>Abstract</b>	Batik coloring waste contains heavy metal chromium (Cr), and other components such as, Sulfide (S <sup>2-</sup> ), Ammonia (NH <sub>3</sub> ), phenol and oil-fat. The Batik industries are generally classified as small and medium enterprises, which usually do not process their waste. The aim of this study was to observe the ability of <i>Aspergillus</i> sp. 3 to reduce the concentration of Cr, sulfide, ammonia, phenol, and oil-fat component from batik wastewater. The selected fungus, <i>Aspergillus</i> sp. 3 was isolated from batik waste. Based on previous study, selected fungus, <i>Aspergillus</i> sp. 3 was able to decolorize and remediate Indigosol Blue batik wastewater. Potato dextrose broth medium was used for growing the mycelium. Reduction process was occurred with omitted of medium (formed mycelium-supplemented the batik wastewater). Based on experiments, <i>Aspergillus</i> sp. 3 was able to reduce 89.09%, 83.05%, 56.37%, 48.48%, 95.09%, 32.56, 39.28 and 38.15% of Cr sulfide, NH <sub>3</sub> , phenol and total oil-fat concentration, respectively. <i>Aspergillus</i> sp. 3 had potential application in bioremediation of water polluted by batik wastewater.
<b>Publish Type</b>	Book in series
<b>Publish Year</b>	2019
<b>Page Begin</b>	(not set)
<b>Page End</b>	(not set)
<b>Issn</b>	1755-1307
<b>Eissn</b>	
<b>Url</b>	<a href="https://www.webofscience.com/wos/woscc/full-record/WOS:000685614100003">https://www.webofscience.com/wos/woscc/full-record/WOS:000685614100003</a>
<b>Author</b>	Dr RATNA STIA DEWI, S.Si, M.Sc.