

Penentuan Kadar Selulosa Asetat pada Daun Tanaman Puring (*Codiaeum variegatum*) sebagai Penyerap Timbal di Udara

Title	Penentuan Kadar Selulosa Asetat pada Daun Tanaman Puring (<i>Codiaeum variegatum</i>) sebagai Penyerap Timbal di Udara
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Accreditation	
Abstract	<p>Pollution is one of the environmental problems in developing countries. Sources of pollution can be caused by nature and due to human actions. One of the air pollution sources is heavy metal content of Pb which is not easily decomposed in nature so that it can contaminate the environment. In Puring plants, especially the leaves have cellulose acetate which can filter heavy metals. The purpose of this study was the manufacturing of cellulose acetate from the leaves of the Puring plant. The cellulose obtained from the simplicia of leaves of the Puring plant will then be reacted into cellulose acetate through the acetylation reaction process using acetic anhydride with variations in temperature and reaction time taken, namely 40, 50, 60, 70, 80, 90, 100, 110, and 120 °C and as long as 50, 55, and 60 minutes. The levels of cellulose acetate were obtained through the cellulose extraction process, the synthesis of cellulose acetate and the final stage of making the membrane, from this process the optimum temperature and reaction time results were obtained in the second experiment with a temperature and reaction time of 50, 60, 70, 80, 90, 100, 110, and 120 °C each and for 55 minutes without applying a catalyst 12.40%. In addition, the weight variation of raw material powder was taken, namely 20, 40, 60, 80, and 120 mg using a certain concentration of Pb (II) solution to determine the adsorbent capacity. These results can be obtained from analysis using Fourier Transform Infrared (FTIR).</p>
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Author	EKA DYAH PUSPITA SARI, S.Pd, S.Pd, M.Hum, M.Hum