The Effect of Cellulose Acetate Concentration from Coconut Nira on Ultrafiltration Membrane Characters

Publons ID	37307714
Wos ID	WOS:000452032100020
Doi	10.1088/1757-899X/349/1/012020
Title	The Effect of Cellulose Acetate Concentration from Coconut Nira on Ultrafiltration Membrane Characters
First Author	Vaulina, E.; Widyaningsih, S.; Kartika, D.; Romdoni, M. P.;
Last Author	
Authors	Vaulina, E; Widyaningsih, S; Kartika, D; Romdoni, MP;
Publish Date	2018
Journal Name	12TH JOINT CONFERENCE ON CHEMISTRY
Citation	
Abstract	Cellulose acetate is one of material in produce ultrafiltration membrane. Many efforts have been done to produce cellulose acetate from natural product to replace commercial one. In this research, ultrafiltration membrane has been produced from coconut flower water (nira). Ultrafiltration membrane is widely used in separation processes. This research aims to determine the characteristics of ultrafiltration membrane at a various concentration of cellulose acetate. The ultrafiltration membrane is conducted by phase inversion method at various concentration of cellulose acetate. The cellulose acetate concentration was 20%, 23% and 25% (w/w) with formamide as additives. The results showed that the greater the concentration of cellulose acetate, the smaller the flux value. The highest flux was a membrane with 20% cellulose acetate concentration with water flux value 55.34 L/(m(2).h). But the greater the concentration of cellulose acetate the greater the rejection. The highest rejection value was on a membrane with 25% cellulose acetate concentration of 82.82%. While from the tensile strength test and the pore size analysis, the greater the cellulose acetate concentration the greater the tensile strength and the smaller the pore size.
Publish Type	Book in series
Publish Year	2018
Page Begin	(not set)
Page End	(not set)
Issn	1757-8981
Eissn	
Url	https://www.webofscience.com/wos/woscc/full-record/WOS:000452032100020
Author	DWI KARTIKA, S.Si, M.Sc.