

Pembuatan mikrokristalin selulosa rotan manau (*calamus mana sp.*) serta karakterisasinya = Preparation and characterisation of microcrystalline cellulose from manau rattan (*calamus mana sp.*)

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Abstrak

Rattan is one of natural resources of Indonesia which contains 30%-40% cellulose. its high cellulose contents makes it very potential as a source of microcrystalline cellulose (MCC). In this research, manau rattan was characterized by using the chesson methods. Microcrystalline cellulose was prepared by using two methods, i.e. alkalization and acid hydrolysis. Alkalization was performed by soaking manau rattan powder into sodium hydroxide 17,5% for 8 hours. Acid hydrolysis was prepared by using sulfuric acid at a concentration of 0.1 M ; 0.3 M; and 0.5 M for 4, 6, 8, and 10 hours. The crystallinity MCC of 72.42% was obtained from acid hydrolysis with 0.5 M for 10 hours. The crystallinity of the MCC product increases with concentration and hydrolysis time