

**Optimasi Rasio Refluks Pada Proses Pemurnian Etanol Menggunakan Alat Destilasi Bertingkat (Fraksionasi) (*Optimization Reflux Ratio on Ethanol Purification Process using Multilevel Distillation Apparatus (Fractionation)*)**

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**ABSTRACT**

*One of methods to increase the production of high level ethanol content is by distillation using a multilevel distillation apparatus. To optimize this distillation process may use the reflux ratio during the distillation process so that the ethanol content of the distillate produced is higher. Optimizing the setting reflux ratio used to avoid flooding when higher of reflux ratio used in process distillation for maximize destilat obtained. This research used feed with content of ethanol 30% as much as 1000 ml with flow rate 1,4 ml/second. The treated reflux ratio used in the distillation process is 1:1 ; 3:1 ; and 5:1 with a temperature setting of distillation multilevel apparatus 70 °C and 78 °C at each treatment. The most optimum result in this research was using reflux ratio of 5:1 with a temperature setting of 78 °C with ethanol content obtained for 96,5 % of 167 ml.*

**Keywords :** *distillation, ethanol, optimize, and reflux ratio.*