ANALISA PERBANDINGAN JUMLAH *INTAKE* TERHADAP *EFISIENSI* DESTILASI ASAP CAIR

Nama Mahasiswa	:	Hajatul Muharil
Nim	:	2204201238
Dosen pembimbing	:	Alfansuri,ST.,M.Sc

ABSTRAK

Penelitian ini berjudul "Analisa Perbandingan Jumlah *Intake* Terhadap *Efisiensi* Destilasi Asap Cair". Tujuan penelitian ini adalah untuk mengevaluasi pengaruh jumlah *intake* terhadap *efisiensi* alat destilasi asap cair. Penelitian dilakukan menggunakan alat destilasi dengan 1 *intake* dan 2 *intake*. Hasil penelitian menunjukkan bahwa perbandingan *efisiensi* massa antara pembakaran 1 *intake* dan 2 *intake* menunjukkan hasil pembakaran dengan 2 *intake* memberikan *efisiensi* sedikit lebih tinggi, yaitu 17% dibandingkan 16% pada pembakaran 1 *intake* .Asap cair yang dihasilkan alat dengan 1 *intake* sebesar 166.2 Kg sedangkan untuk alat dengan 2 *intake* sebesar 97 Kg. Analisis regresi linier berganda menunjukkan bahwa suhu lingkungan, suhu masuk, dan suhu keluar memiliki pengaruh signifikan terhadap kuantitas asap cair yang dihasilkan. Untuk alat dengan 1 *intake*, koefisien determinasi (R^2) adalah 35,78%, sementara untuk alat dengan 2 *intake* adalah 29,88%.. Penelitian ini menyimpulkan bahwa *efisiensi* destilasi asap cair dipengaruhi oleh jumlah *intake* dan media pendingin yang digunakan.

Kata kunci: destilasi asap cair, intake, efisiensi, regresi linier berganda, kuantitas asap cair.

ANALYSIS OF INTAKE QUANTITY COMPARISON ON THE EFFICIENCY OF LIQUID SMOKE DISTILLATION

Student : Hajatul Muharil

Nim : 2204201238

Advisor : Alfansuri, ST., M.Sc

ABSTRACT

This study is entitled "Comparative Analysis of the Amount of Intake on the Efficiency of Liquid Smoke Distillation". The purpose of this study was to influence the amount of intake on the efficiency of the liquid smoke distillation device. The study was conducted using a distillation device with 1 intake and 2 intakes. The results showed that the mass efficiency between combustion of 1 intake and 2 intakes showed that combustion with 2 intakes provided a slightly higher efficiency, which was 17% compared to 16% in combustion of 1 intake. The liquid smoke produced by the device with 1 intake was 166.2 Kg while for the device with 2 intakes it was 97 Kg. Multiple linear regression analysis showed that ambient temperature, inlet temperature, and outlet temperature had a significant effect on the quantity of liquid smoke produced. For the device with 1 intake, the coefficient of determination (R^2) was 35.78%, while for the device with 2 intakes it was 29.88%. This study concluded that the efficiency of liquid smoke distillation was influenced by the amount of intake and the cooling media used..

***Keywords**: liquid smoke distillation, intake, efficiency, multiple linear regression, liquid smoke quantity.*