

PENGUKURAN EFISIENSI THERMAL HASIL PEMBAKARAN MINYAK JELANTAH KELAPA, JAGUNG, DAN CURAH

ABSTRAK

Penggunaan minyak goreng secara berulang-ulang dapat menyebabkan masalah kesehatan yang serius. Telah dilakukan suatu penelitian tentang pemanfaatan minyak jelantah sebagai bahan bakar pengganti minyak. Pada penelitian ini, digunakan tiga jenis minyak jelantah yaitu jelantah kelapa, jelantah jagung, dan jelantah curah (dari pedagang kaki lima). Ketiga jenis minyak jelantah tersebut digunakan untuk memasak air hingga mendidih. Uji efisiensi thermal dilakukan dengan melihat lamanya waktu pemasakan tiap kenaikan suhu 10 °C.

Dari hasil penelitian, didapatkan hasil bahwa efisiensi thermal menurun seiring dengan meningkatnya suhu. Efisiensi thermal dari ketiga jenis minyak jelantah yang digunakan yaitu tertinggi pada minyak jelantah jagung, diikuti jelantah kelapa, dan terakhir jagung.

Kata kunci : Minyak Jelantah, Efisiensi Thermal, Suhu.

THE MEASUREMENT OF THERMAL EFFICIENCY AS RESULT OF COMBUSTION OF RESIDUAL COOKING OIL MADE FROM COCONUT, CORN, AND TAKEN FROM VENDORS

ABSTRACT

Repeatedly using cooking oil can cause serious health problems. There has been done a research regarding the use of residual cooking oil as substitute for oil fuel. This research used three kinds of residual cooking oils. They are residual cooking oil made from coconut, corn, and taken from vendors. Those three residual cooking oils were used to boil water. The thermal efficiency test was done by checking how long the boiling process spending time to increase the temperature per 10°C.

The research found that the thermal efficiency is decreasing along with the increasing of temperature. The highest thermal efficiency from the three residual cooking oils used is residual cooking oil made from corn, followed by residual cooking oil made from coconut, and the last is residual cooking oil taken from vendors.

Key words: Residual Cooking Oil, Thermal Efficiency, Temperature.