ABSTRACT

Nowadays needs and energy consumption continues rising and focusing on oil and gas which are non renewable energy and its cost rising any time. This statement forces us to find another alternative fuel to replace oil and gas needs. In the other hand, Indonesia is one of the largest producer and consumer of rice (Oryza sativa L.) because rice is Indonesian primary food. This fact represents the large production of rice byproduct, rice husk. Rice husk is organic waste which continues growing and may causes serious problem if not effectively handled. Furthermore, good value of rice husk is its high heating value between 3300-3600 kcal/kg. Based on the high heating value of rice husk, this materials can be used as an alternative fuel, briquettes. The aim of this research is to find out the best composition and characteristic of rice husk briquettes that consists of heating value, volatile matters, moisture content, ash content, and the compressive strength on carbonization and non-carbonization processes. In this research, the best briquettes is carbonization briquettes with the ratio of rice husk and starch variable of 80:20 that have the heating value of 5190 kcal/kg, moisture content value is 7.381%, volatile matters value is
45.714%, ash content value is 15.635%, and tensile strength value is 0.269 kg/cm$^2$

Key word: briquettes, carbonization, rice husk, starch