ABSTRACT

Energy is a major problem in the world today. Then alternative energy is needed to overcome these problems. One such alternative energy is briquette-based energy. Besides being cheaper, the basic ingredients for making briquettes can also come from household organic wastes that are easily available. In this study, briquettes were made with basic ingredients of household organic waste mixed with wood charcoal, coconut shell charcoal, and rice husk charcoal. The method used to mix the material is with hydraulic pressure in the sample with a mass ratio of 1:1; 1,25, 0,75; 1,50: 0,50. This test was conducted to find the heating value, water temperature, fire temperature, and combustion time using the bomb calorimeter and gasification stove. From the test, the highest value on waste briquettes with wood charcoal 1:1 was 5.246 cal/gr resulting in water temperature $94.49°C$, fire temperature $324.75°C$ within 631s.

Keywords: Briquettes, Heat, Bomb Calorimeter, Gasification Stove