

ABSTRACT

In general, waste becomes the main source of environmental pollution, therefore one of the utilization of waste can be used as alternative fuel. The waste that will be used as alternative fuel is calculated calorific value first. The value of waste heat becomes an important parameter because by knowing the calorific value of each waste component will make it easier to get a more efficient alternative fuel. The calorific value required for the waste combustion process is at least about 1500 kcal / kg, while the calorific value of waste in Indonesia only reaches 1000 kcal / kg. In addition to waste there are some that can be used as a mixture of materials to produce high calorific value such as the addition of additive materials such as coal, rice husks, sawdust, king grass. The method performed by measuring the value of waste heat with bomb calorimeter tool. For average waste heat calorific value of about 4668 cal / g, coal calorific value is about 5708 cal / g, sawdust heat value about 4408 cal / g, rice calorific value of rice about 4424 cal / g, and king grass calorific value about 4997 cal / g.

Keywords: Additional Alternative Energy, Waste Heat, Calorimeter Bomb Test, Waste to Energy