Uji Nilai Kalor Dan Angka Oktan Pengaruh Variasi Suhu Kondensasi Hasil *Pyrolisis* Untuk Menghasilkan Bahan Bakar Plastik *Polypropilene* Setara Premium

(*Calorific Value Test and Octane Number Effect of Pyrolysis Condensation Temperature Variations to Produce Premium Equivalent Polypropylene Plastic Fuel****)***

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ABSTRACT

Utilization of polypropylene plastic waste by using the pyrolysis process to make polypropylene fuel using a pyrolysis reactor and with temperatures of 100°C, 125°C, 150°C, 175°C and 200°C in the process of taking fuel, this pyrolysis process was carried out in the Community Self-Help Group (KSM) of Wlingi Village, Blitar Regency who then tested the Chlorine Value with a Calorimeter Bomb and Octane Numbers with an Octane Meter at the Energy and Environmental Laboratory of DRPM ITS which produced data on Calorific Value of 10,837 Cal / g, 10,848 Cal / g, 10,867 Cal / g, 10,878 Cal / g and 10,893 and on Octane Numbers of Polypropylene plastic fuel yield RON 99.1, 99.1, 99.1, 99.1 and 98.1. The method of making polypropylene plastic fuel is by using a reactor with a capacity of 10 kg and taking the fuel from temperatures of 100°C, 125°C, 150°C, 175°C and finally 200°C. The highest calorific value with a temperature of 200°C which produces 10,893 Cal / g and the lowest heating value with a temperature of 100°C which produces 10,837 Cal / g. The highest octane number with a temperature of 100°C, 125°C, 150°C and 175°C which results in 99.1 and the lowest octane number with a temperature of 200°C which produces 98.1. In the next researchers, the need for clean and dry plastic waste in making fuel.

Keywords: BB Polipropylene, Calorific Value, Octane Numbers