

**Aplikasi Gas Metana (CH₄) Hasil Pemurnian Biogas Sebagai Bahan Bakar
Motor Bensin 4 Tak Mono Silinder**
*(Application of Methane Gas (CH₄) Results of Biogas Purification as Fuel Motor
Gasoline 4 Stroke Mono Cylinder)*

Abu Rizal

Study Program of Renewable Energy Technique

Majoring of Technique

Program Studi Teknik Energi Terbarukan

Jurusan Teknik

ABSTRACT

Methane gas in biogas can be utilized as motor fuel so that biogas can be one solution of energy crisis that happened in Indonesia and in world. This research was conducted at Jember of Polytechnic from April until July 2017 with purpose to know the influence of fuel consumption and exhaust emissions using premium fuel and biogas. The research results show that use of biogas fuel consumption is lower than premium fuel. Exhaust emissions testing show that CO and HC exhaust emission when use premium fuel is lower than biogas fuel. The analysis has show that biogas fuel is feasible to be used because Co and HC gas still within limit threshold stipulated by Minister of Environment Regulation in 2006.

Keyword : Biogas, Exhaust Emission, Fuel Consumption, Premium