## **ABSTRACT**

## ANALYSIS OF EXHAUST EMISSIONS OF FUEL OIL AND LIMBAS PLASTIC PROCESSED BY PYROLYSIS

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The development of the home community industrial sector plays a strategic role and must bring fundamental changes in the economic structure in Indonesia by making innovations in an appropriate technology with certain fuels having environmentally friendly exhaust gases. The smaller the level of environmentally friendly exhaust emissions, the better for the environment. While the greater the level of exhaust emissions, the more unsafe for the environment, testing on CB 100 brand motorcycles at 1500 rpm, 2000 rpm, 2500 rpm each for 60 seconds with pertalite, HDPE, and LDPE fuel then recorded how much exhaust emissions were caused at each increase in rpm for 60 seconds. HDPE and LDPE fuels are generally higher in HC, CO, CO<sub>2</sub>, and O<sub>2</sub> exhaust emissions compared to pertalite. So that pertalite is more environmentally friendly. However, the exhaust gas emissions of HC, CO, CO<sub>2</sub>, and O<sub>2</sub> that have been tested are not feasible with the government's threshold standards. We recommend doing research with a standard exhaust and pay attention to the engine temperature to get accurate data.

**Keywords**: Exhaust emissions, Pertalite, HDPE, LDPE, Environment