

ABSTRACT

Jakarta as one of the largest cities in Indonesia and the capital of the Unitary States of the Republic of Indonesia has many problems, one of which is about air pollution caused by high population activity, especially in the sector of the use of motor vehicles that still use fossil fuels in carrying out their activities. Fossil fuels that do not burn perfectly result in the formation of gases and particle pollutants that result in an increase in the amount in the air that has an impact on the environment. Therefore, measurements of motor vehicle emissions test with microsensor with CO, CO₂, NO₂, PM_{2.5}, temperature, and humidity parameters. The use of flowrate is intended to drain emission gases to be measured from the vehicle exhaust to the testing chamber and passed on for discharge into the outside air. The flow rate used in this test ranges from speeds of 12-15 lpm. For this reason, the authors conducted a 10-minute test and obtained a comparison with the official emissions test in the market with a CO₂ value in the official emissions test of 14% or converted in ppm by 140000 ppm, for a CO value of 0.12% or converted in ppm of 1200 ppm. And for a temperature value of 80 ° C. The result is because the measurement range of the microsensor is so small that it has a very far difference.

Keywords: *Air Pollutans, Motor Vehicle Emissions, Micro Sensor*