DESIGN AND BUILD OF EXHAUST CATALYTIC CONVERTER WITH COPPER (Cu) COATED BY MANGANESE (Mn) AS CATALYST AND ANALYSIS OF ITS EFFECT ON EMISSION LEVELS HONDA SUPRA X 100 CC

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ABSTRACT

Along with the increasing levels of air pollution, one of which is caused by the development of the automotive industry which is still largely use fossil-fuel (gasoline) as the main fuel, and also the increasing consumption levels of gasoline-fueled vehicles such as cars, motorcycles, public transport results in increased levels of air pollution. Some types of emissions including Carbon Monoxide (CO), hydrocarbon (HC), Nitrogen Dioxide (NOx) and sulfur dioxide (SO₂), which has a bad effect on the health of the human body and scrape the existing ozone layer in the atmosphere, one way to reduce the concentration of exhaust emissions is the installation of catalytic converter (CC), CC is a type of exhaust that serves as a reducing agent in the exhaust emissions of motor vehicles such as lowering the concentration of HC, CO, SO₂, etc.

In this research design used exhaust catalytic converter with copper (Cu) coated by manganese (Mn) as a catalyst installed in the exhaust duct, and then do the test. The data in the analysis of the test results and then compare emission concentrations between normal exhaust and catalytic converter exhaust.

The results obtained from this study is the reduction of the concentration of emissions (CO, HC, O₂) and CO₂ concentration...
increase after the comparison of the results of the comparison with the standard exhaust muffler catalytic converter.

**Keyword:**

*Catalytic Converter, Emission, Exhaust, Catalyst, Muffler, Comparation, Analysis reduction*