

## **Modelling of Filters CO<sub>2</sub> (Carbondioxide) and CO (Carbonmonoxide) Portable in Motor Vehicle's Exhaust with Absorbent Chitosan**

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**Abstract :** The increased of greenhouse gases, that is CO<sub>2</sub> (carbondioxide) in atmosphere induce the rising of earth's surface average temperature. One of the largest contributors to greenhouse gases is motor vehicles. Smoke which is emitted by motor's exhaust containing gases such as CO<sub>2</sub> (carbondioxide) and CO (carbon monoxide). Chemically, chitosan is cellulose like plant fiber that has the ability to bind like absorbant foam. Chitosan is a natural antacid (absorb toxins), when chitosan is spread over the surface of water, chitosan is able to absorb fats, oils, heavy metals, and other toxic substances. Judging from the nature of chitosan is able to absorb various toxic substances, it is expected that chitosan is also able to filter out gas emission from the motor vehicles. This study designing a carbondioxide filter in the exhaust of motor vehicles using chitosan as its absorbant. It aims to filter out gases in the exhaust so that CO<sub>2</sub> and CO can be reduced before emitted by exhaust. Form of this reseach is study of literature and applied with experimental research of tool manufacture. Data collected through documentary studies by studying books, magazines, thesis, search on the internet as well as the relevant reference. This study will produce a filters which has main function to filter out CO<sub>2</sub> and CO emissions that generated by vehicle's exhaust and can be used as portable.

**Keywords :** filter, carbon, carbondioxide, exhaust, chitosan

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