

Emissions of Elemental Carbon in Particulate Matter from Diesel engines

Background

Particulate matter causes a severe threat to human health and the environment. Although legislations from ground vehicles (using internal combustion engines) are coming into place, there are many other sources. From a working environment perspective, new legislation including “diesel particulates” will be enforced 20231. This legislation will put new requirements on both monitoring techniques as well as emissions reduction for workers.



This MSc thesis project is a collaborative project which combines diesel engine technology and aerosol chemistry to get increased knowledge for all stake holders involved in the new legislation

Project description and objectives

The project will be mainly experimental and includes two different topics

- To compare and evaluate measurement techniques based on filter-sampling vs. direct sampling methods in an engine test rig (at Chalmers, M2, Combustion and Propulsion Systems)
- To perform field measurements (at GU, AMM) using portable equipment and compare with engine rig results.

If time allows, a Chemical analysis of the collected particulates will be performed.

Students

We seek two highly motivated students (preferably with different backgrounds) with knowledge in Combustion and Aerosol Science. You are meticulous and skilled in both data analysis and report writing.

Contact:

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