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PARTICULATE MATTER: COMPARISON BETWEEN TWO BUS FUELS

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Abstract

Particulate matter is a dangerous polluting. Particulate health effects depend from two factors: mass concentration and chemical-physical particles composition, as chemical marker, size and morphology. Particulate health risk factor is due to particles penetration in respiratory system. The aim of this work is based on the physical characterization of particulate matter emission from two different fuels used in public transport: diesel and ecologic. Particulate mass is determined by gravimetric method, while chemical-physical composition by electron microscopy and microanalysis. The dimensional distribution showed a relation between fuel used and particles morphology. Different fuels have produced different particles in mass and morphology.

Keywords: particulate matter, bus fuel, size distribution, combustion, urban transport

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