

F-MBU01

Exposure Assessment of diesel bus emissions

Vorgetragen im HS 403, am 1. Okt. 2003, 11.35 bis 11.45 Uhr

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The study of ultrafine particles (particles with diameters less than 100 nm) emitted by diesel busses and the assessment of human exposure was part of our recent research activities. This study was conducted at the Wooloongabba busway station in Brisbane, Australia in the winter months during which temperature inversions occur frequently. Most busses that utilize the station are fuelled by diesel, which causes the exhaust to contain a significant quantity of particulate matter. Such particles may be composed of toxic and carcinogenic substances. The aim of this project was to investigate the exposure of waiting passengers to particles emitted from busses. During the course of this study, passenger census was conducted, based on video surveillance, yielding person-by-person waiting time data. Furthermore, a bus census revealed accurate information about the total number of diesel versus CNG-powered busses. Background (outside of the bus station) and platform measurements of ultrafine particulate number-size distributions were made to determine ambient aerosol concentrations. It was assumed that significant differences between platform and background distributions were due to bus emissions which, combined with passenger waiting times, yielded an estimate of passenger exposure to ultra-fine particles from diesel busses.

F-MBU02

The RADALP 1 project: Altitude dependency of ^{137}Cs and ^{90}Sr mobility in alpine areas and its effects on agriculture

Vorgetragen im HS 403, am 1. Okt. 2003, 11.50 bis 12.00 Uhr

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