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STUDY ON THE IMPACT OF THE TRAFFIC ON AIR QUALITY BY USING DIFFUSIVE SAMPLING METHOD IN VESZPRÉM

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Abstract

Air quality is mainly determined by traffic, domestic heating and pollutions originating from industrial activities. However, it also depends on pollution which comes from greater distances influenced by the meteorological parameters.

The Institute of Environmental Engineering, University of Pannonia carried out a series of extensive air pollution measurements at ten different sites in City of Veszprem. The research was conducted during a heating and a non-heating period of the year. The primary point of view in selecting the sampling sites was to monitor and follow up the impact of the traffic/transportation on the air pollutant concentrations with special emphasize on different traffic patterns at different locations and time within the city. For the characterization of the air quality the generally accepted indicators – the nitrogen-dioxide and benzene concentrations – were used, which well characterizes the changes in air pollution stemming from the traffic and domestic heating as well. Results show clearly that nitrogen-dioxide and benzene concentrations are both higher at those measuring points where the direct impact of traffic on the air pollutant concentrations is significant. During the heating period of the year these values increase due to pollution stemming from the domestic heating.

Key words: air pollution, diffusive sampling, domestic heating, traffic impact

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