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Investigation on the Concentrations of PM2.5 in Expressway Tunnels

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Extended Abstract

Currently the air quality on road has been damaged due to the air pollutants caused by the automobiles. And according to a dominant opinion the damage will be even more serious in future. As the level of the ambient air quality becomes increasingly important, air pollutants management strategies tend to strengthen air quality standard.

In the case of expressway tunnels, many factors indicate a high pollution levels. But lack of states data gives the difficulty in establishing a management plan. Therefore, this study was performed in order to prepare actively to strengthen air quality standards and prepare an effective management plan by identifying the status of PM2.5 concentrations in expressway tunnel.

The 24hours-average concentrations of PM2.5 in tunnels are $4.2\sim46.5~\mu\text{g/m}^3$. These results are higher than standard. The concentration of PM2.5 was highest in B tunnel which had the highest traffic volume.

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