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Annual PM2.5 and PM10 Variations on Belgrade's Mostar Interchange – Traffic Impact

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Abstract: Air pollution is becoming an increasingly pronounced problem globally, while Belgrade is often one of the most polluted cities in Europe. Some of the most common emitters and air pollutants are individual combustion plants, factory plants and traffic. In this paper, the variations of PM2.5 and PM10 particles were analyzed in the four-year period (from 2018 to 2021) in the area of Mostar interchange in Belgrade. The results showed that there is a statistically significant difference in the levels of PM2.5 and PM10 particles by year, which is why the influence of traffic on the increase in the level of harmful substances in the air was analyzed. The analysis showed that traffic has no influence on the change of PM2.5 and PM10 particles at the analyzed location. The obtained results indicate that traffic, in this particular case, is not a central source of pollution, but of course it can have an impact on reducing air quality. Accordingly, the impacts of other emitters, such as individual combustion plants and factory plants, on the territory of Belgrade should be analyzed and determined in more detail, which will be the subject of future research.

Keywords: Air pollutants, air quality, PM2.5, PM10, traffic