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# Biogenic Isoprene and Its Impact on Human Health in Dependence on Meteorological Conditions

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## ABSTRACT

Urban green areas have an important implication on the local climate. A cross-linkage of many small green spaces could result in decreasing the effect of the urban heat island, but also increase people ' s thermal comfort. By the way, urban green areas could also induce a positive effect on the local urban air quality. But attention has to be paid to the assortment of the tree species. More or less all tree species are emitting biogenic volatile organic compounds in different concentration. These serve as precursors for the formation of ozone near the ground. So near surface ozone has the ability to react with different particulate matters and could become toxic, due to oxidation or nitrification. This causes inflammations and inspired allergens may increase the risk of a respiratory disease. Therefore, an analysis and assessment of the urban green area air quality could help to make a statement about the recreational effect of these areas in dependence of the leading vegetation and for that matter for the exposure to ozone. By the help of these the results can be used as a guidance of urban planning taking into account the influence of biogenic emission as a function of actual weather conditions.

## KEYWORDS

Biogenic Isoprene; Ozone; Urban Green; Air Quality

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