



NO₂ DOAS Measurements of Traffic Emissions by Chasing Cars

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On this poster we present NO₂ measurements using a Cavity-Enhanced DOAS on a measurement bus which we used to chase other vehicles to measure their NO₂ emissions. Emissions of nitrogen oxides from on-road vehicles have received highly attention recently due to the increasing trend of ambient NO_x level. It is particularly important to identify and quantify the direct emission and secondary formation of NO₂ contributed by traffic emissions, in order to study the impact to the local air quality.

We sampled on-road emissions in different environments and different driving conditions (e.g. urban, highway, different speeds). We analyse the data set in terms of spatial and temporal variability to search for temporal and spatial patterns. We present mean values sorted for different vehicle types, distance to the target car and travelling speeds to provide an emission data base from this measurement study.