



Comparison of OMI NO₂ with air quality monitoring sites and modelled values

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As well as being an air pollutant in its own right, NO₂ is a key chemical species in the formation of ground-level ozone. A large number of air quality monitoring networks have been set up over the past few decades to monitor ground-level concentrations of, among other things, NO₂. More recently, satellite-borne instruments have been deployed to measure atmospheric NO₂. The latest such instrument, OMI (ozone monitoring instrument) can provide a once daily measurement of NO₂ tropospheric as well as total atmospheric column densities. A rough estimate of the NO₂ surface concentration can be calculated by dividing the column amount with the height of the boundary layer.

NO₂ ground-level concentrations from 25 sites of the Saxon air quality measurement network are compared with tropospheric columns from OMI and the two are linked by simulations from a chemistry-meteorological model. This work discusses the significance of these comparisons.