



NMHC at the German GAW Platform Hohenpeissenberg – Variability and Trends

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Nonmethane hydrocarbons (NMHC) have been measured by on-line GC since 1998 at the Global Atmosphere Watch (GAW) station Hohenpeissenberg in rural southern Germany. Results of noon time samplings are used to analyze the abundance, seasonal cycles, trends, and correlation between different NMHC. Groups of NMHCs with high correlation among each other are identified based on cluster analysis, comprising the groups of anthropogenic and biogenic compounds with source related subgroups. The impact of NMHC on local chemistry is estimated based on turn-over rates calculated from concurrently measured OH (see poster by Berresheim et al., this session) and related to the turn-over of other trace gases, e.g. CO and NO_x. Variability-lifetime relations indicate that Hohenpeissenberg may be characterized as a continental site with only minor impact due to local anthropogenic emissions. Trends for the period of observation are estimated and point towards continuously declining concentrations in recent years. However, the rates of decline compared to the early 1990's have decreased.