

## 5.148 Global comparisons of seasonal cycles of tropospheric ozone and its precursors observed at high-altitude sites.

Presenting Author:

**Sachiko OKAMOTO**, Center for Global Environmental Research, National Institute for Environmental Studies, Tsukuba, Ibaraki, Japan,  
[okamoto.sachiko@nies.go.jp](mailto:okamoto.sachiko@nies.go.jp)

Co-Authors:

**Hiroshi TANIMOTO**, Center for Global Environmental Research, National Institute for Environmental Studies, Tsukuba, Ibaraki, Japan

Abstract:

Located far from anthropogenic emission sources, high-altitude mountain stations are considered to be ideal sites for monitoring the baseline changes in trace gases and aerosols of climatic and environmental importance in the free troposphere. In addition, the observations at these stations are often used to study the long-range transport of dust and anthropogenic and biomass burning pollutants from the source regions and to evaluate the performance of global and regional models. We summarize the results from past and ongoing field measurements of atmospheric constituents at high-altitude stations across the globe, with particular emphasis on reactive trace species including tropospheric ozone ( $O_3$ ), along with its precursors such as carbon monoxide (CO), nitrogen oxides ( $NO_x$ ), total reactive nitrogen ( $NO_y$ ), and nonmethane hydrocarbons (NMHCs).