Geophysical Research Abstracts
Vol. 20, EGU2018-15264-1, 2018
EGU General Assembly 2018

Long term trends of atmospheric PAH concentrations in background regions of the Russian Federation

Mariya Kotorova (1) and Sergrey Gromov (1,2)

(1) Institute of Global Climate and Ecology of Roshydromet & RAS, Department of measurements of background chemical pollution of continental natural systems, Moscow, Russian Federation (mkotorova.igce@gmail.com), (2) Institute of Geography RAS, Moscow, Russian Federation (gromov@igras.ru)

In recent decades, the problem of the active impact of human activities on natural ecosystems is the basis for building integrated background monitoring (IPM). Among the main types of observations of the current monitoring system, pollution of atmospheric air with large polyaromatic hydrocarbons was noted.
The present report synthetises the main features of the evolution over the 1995-2017 time period of the concentration of polycyclic aromatic hydrocarbons in atmospheric aerosols in background regions of the Russian Federation, the seasonal variability of benzapyrene and benzperylene is indicated. Observations of background pollution of atmospheric air were carried out at four stations of complex background monitoring, providing the necessary amount of information only for characterizing the regional background pollution of the atmosphere in the central regions of the European territory of Russia.
The results of the analysis of the observed data are an important element of information support for the implementation of the tasks of state supervision over the sources of emissions (discharges) of harmful substances into the environment, as well as long-term planning of environmental activities.
Key words: specially protected natural area, integrated background monitoring, persistent organic pollutants, method of high performance liquid chromatography.