

Some results of CO and aerosols atmospheric pollution investigations in Moscow and Beijing

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Results of the CO total column (TC) and submicron (sbm) and soot concentrations measurements in Moscow and Beijing for period from 1992 to 2013 years are presented.

The rate of decrease of CO TC Moscow anthropogenic portion is 1.4 % per year for 1992–2013 years in spite of multiple increase of the motor vehicles number. There are no significant changes in CO TC over Beijing for whole period of measurements (1992–2013 years).

Soot concentration in Beijing has decreased while sbm aerosol has increased since 2006 year.

Level of atmospheric CO and aerosols pollution in Beijing is 2–5 times stronger in comparison with Moscow ones. Reasonably typical of atmospheric pollution events for Beijing with extreme values of CO TC and aerosols concentrations were observed in Moscow during wild fires of 2002 and 2010 years only. Trajectory cluster analysis using has allowed studying the location of sources of CO and aerosols emissions. Relatively stronger atmospheric pollution of Beijing partially due to the atmospheric transportation from industry regions of China located to south, south-east and east from the city.