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The influence of anti-icing salts on the chemical composition of precipitation in Moscow according to monitoring and modeling.

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The monitoring data and results of analysis of variability of acidity and mineral composition of precipitation, which took place in Moscow in 2012, compared with the previous period are presented. It has been found that the source of chloride anions in precipitation in recent years could be mainly chlorides of anti-icing salts. The origin of the chloride anions (together with chlorides of metal components of these reagents), could be partly obliged to dissolution of the hydrogen chloride. It has been shown that appearance of hydrogen chloride in the atmosphere of Moscow (leading to acid rains) could be the result of heterophase chemical reactions involving anti-icing salts. Preliminary assessment of the impact of these chemicals on the mineral composition and the acidity of precipitation has been presented.

Keywords: Acid rain, monitoring of atmospheric precipitation mineral composition, the chloride anions, anti-icing salts.