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Assessment of the Recreational Zones in Moscow Using Neutron Activation Analysis and Atomic Absorption Spectrometry

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Instrumental neutron activation analysis was used to determine the content of more than 30 chemical elements in moss, soil and leaves samples collected in seven Moscow parks, Russia. To determine Cd, Pb and Cu atomic absorption spectrometry was applied. In general, in moss samples used to assess air pollution the content of elements increased with exposure time, except alkali element (K, Cs and Rb) which content decreased, probably due to pollutants impact. In leaves the highest content of elements was observed at the end vegetation period, that may be associated with processes in plants which promote elimination of toxic elements. In some soil samples was revealed excess of As, Zn and Cd. According to calculated total pollution index, the highest values was observed for soil, that can be associated with their ability to accumulate pollutants emitted by aerotechnogenic way for a longer period.

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