

Cosmogenic radionuclide Be-7 variations in auroral latitudes in connection with cosmic rays and atmospheric circulations

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Results of regular measurements of the Be-7 radionuclide started in June, 2001 and continued up to the moment (January, 2003) have been considered. Atmospheric radionuclide Be-7 is formed at interaction of cosmic rays with nucleuses of atoms of air at stratospheric heights.

The variations of its content in the bottom of atmosphere are marked by the large irregularity. The ways of penetration Be-7 from stratosphere where it is formed, to the lower atmosphere are not completely known. The maxima of Be-7 concentration are observed in the spring and autumn when there is a penetration of air masses from stratosphere in the low atmosphere. On the other hand, there is little information about variations of Be-7 with solar and galactic cosmic rays as well as atmospheric circulations. The study of connection Be-7 concentrations with ozone is of interest in this connection.