

Influence of galactic and solar cosmic rays on the Earth's atmosphere and atmosphere processes through nuclear and chemical reactions, and ionization; influence on formation of clouds and on atmospheric electrodynamics

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In this paper we continue our research described in the monograph [1] and consider the problem, how CR influence on the atmosphere and atmosphere processes: through nuclear reactions of primary and secondary CR with air and aerosol matter accompanied by the formation of many unstable and stable cosmogenic nuclides, through the generation in the atmosphere of secondary relativistic electrons and EAS (Extensive Atmospheric Showers) playing a crucial role in atmospheric electric field phenomena, through air ionization influences on the low ionosphere and radio wave propagation, through induced chemical reactions, influences on the chemistry of the atmosphere and the ozone layer as well as on the formation of clouds and influence on long-term global climate change.

1 References

[1]. Lev I. Dorman, Cosmic Rays in the Earth's Atmosphere and Underground, Kluwer Acad. Publ., Dordrecht/Boston/London (2004).