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Periodical structure of bioaerosol concentration fields in the troposphere over the southern part of West Siberia

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Abstract

The properties of the bioaerosol concentration fields are also influenced by oscillatory processes in the atmosphere. The analysis of data on surface concentration of aerosols of total protein obtained in the vicinity of Novosibirsk presented in allowed us to find a correlation between the variations in the aerosol mass concentration and the total protein concentration in the surface atmospheric layer with its characteristic periodical synoptic processes. In this paper we present the results of wavelet and harmonic analysis of the experimental dataset on the concentration of aerosols of total protein and viable microorganisms in the troposphere over the southern part of West Siberia obtained during a 5-yr observation period (1999-2003). Copyright © 2004 by MAIK "Nauka /Interperiodica" (Russia).
