



Aerosol impact on extreme weather and climate events, clouds and precipitation

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Within the frame of Fundamental RAS Program “Natural catastrophes” during year of 2006 was launched the new subprogram named “Hydrometeorological and geophysical catastrophes”.

The main goal of the project “Possibilities of aerosol impact on extreme meteorological processes and situations” is to investigate ways and results of different types of atmospheric aerosol impact on extreme weather and climate events.

The presentation contents analysis of known methods of aerosol impacts on clouds and precipitation and overview of hierarchy aerosol impact on extreme weather and climate events.

History and problems in weather modification as well as aerosol impact on clouds and precipitation are discussed.

The special attention is given to new geoengineering ideas like sulfate climate cooling by burning S_2 or H_2S and delivering sulfate aerosol into the troposphere and stratosphere.

Exothermal processes of H_2S hydrolysis and H_2SO_4 condensation are studied in relation to troposphere and stratosphere sulfate aerosol clouds creation.