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Modeling of selected Martian geomorphological structures in the laboratory

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[POSTER]

An important turning point in the history of Mars was the decrease in the pressure of the Martian atmosphere to a level when liquid water became unstable on the planet's surface. Water in aquifers boiled. The interaction of steam with the sand layer resulted in the formation of sand volcanoes, landslides and other geomorphological forms. As part of the research, a number of experiments were carried out on the interaction of sand, dust and gravel layers with gas streams. The results indicated several different physical processes (e.g., fluidization) and the formation of various structures, including sand volcanoes. The results of the research were compared with the observations on Mars and cases corresponding to some of the effects found in the laboratory were indicated.



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