

A systematization of fluidized craters on Mars and targets of exploration

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Our precise analysis based on the Viking's digital images shows that the variety of fluidized craters on Mars is composed of the double lobate type and derivatives of the type. This study restricts the formation process of the craters and contribution of volatiles in their process. This study turns over the stratigraphy of two lobes of fluidized ejecta on the type. Latitudinal dependence on extent of fluidized lobes suggests that entrainment of surface regolith plays a main role in the process. The double type is divided into two; the inner lobe derived from the volatiles' effect and the outer lobe from the atmospheric effect. True indicator of subsurface volatiles on Mars would be the onset diameter of the double lobate type, not the traditional onset diameter of fluidized craters.

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