

Origin of periodically spaced wrinkle ridges on Venusian plains: Analogue experiments

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On Venusian plain there are the structure called wrinkle ridge. In this study, we take notice of periodic spacing of wrinkle ridges and make origin and underground structure of plains clear by analogue experiments using various materials and sand box.

First, various material were compressed, and we try to reproduce the structure similar to periodic spacing of wrinkle ridges. Next, these conditions were investigated. As it turned out, we succeeded to reproduce those structure. Moreover, we discovered that the periodic ridges were influenced the thickness of first and second layer and strain ratio. In addition, origin of periodic ridges was influenced shrinkage of third layer rather than buckling of first layer.