

Formation mechanism of the lunar volcanic domes

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Dome was studied to know the origin of magmatic system of the moon for lunar domes are closely related to a surrounding tectonic setting. Mare domes locate mostly in a central part of mare, while highland domes locate near mare-highland border. Morphological features are also very different from each other. Hence genetic relation between them is important. As a result of analysis using Lunar Orbiter photographs and Clementine spectral images, Rümker hills, one of mare domes, has similar spectral features to an underlying mare so that it would be the last stage products of a series of mare magmatism. Though most of highland domes seem to be different from the surrounding highland materials, genetic relations between the domes and the surrounding units are not so clear at this point.