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Structural geology of volcano deformation: Its utility and future issues

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We have reviewed recent development in the study of volcano structure and deformation by use of the geological sciences. There are several approaches that can be applied in the study of volcano deformation. Geological sciences can be used to reveal history of volcanic eruptions and evolution of volcano structures. Material sciences can deal with both hot magma and its consolidated rocks. Geophysical sciences can deal with migration of magma before/during eruption events. While the geology has the great advantage to measure eruption magnitude, style, and those variations in the past events, it shows another aspect as just a record in the historic science. This aspect of geology might become an incompatible factor to the physics and chemistry methods. We hence encourage that a use of structure approach plays a key role to develop the physical understanding of eruption in long-term volcanism.

Keywords: structural geology, volcano, deformation, tectonics