

Introduction of fumarole temperature observation in the Tateyama Jigokudani valley

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A molten sulfur flows has occurred infrequently in fumarole field of Tateyama Jigokudani valley. The cause of active molten sulfur flow in Jigokudani valley is not known well. In recently, the Jigokudani valley fumarole gas properties such as component, temperature and concentration have shown large changes. So that raise of fumarole gas temperature might have dissolved sulfur deposit of ground surface, or the sulfur plumes might have ascent from the reservoir of shallow hydrothermal fluids.

This paper mainly reports the results of an investigation about time variations of the fumarole gas temperature, and distribution of surface temperature in the Tateyama Jigokudani valley. We thought the geothermal observation in the fumarole field may be an index of hydrothermal fluids activity. At the moment, the obtained data only shows the extrinsic factor change resulting from a weather. We carried out the long-term continuously observation and investigate whether the change of datum is associated with such as earthquakes and crustal movement.

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