



Magma Degassing from Magma at Depth to the Surface

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Message from the Guest Editors

This Special Issue of Geosciences aims to gather high-quality and original research articles, reviews and technical notes on degassing from magma at depth to the surface.

Volcanoes are commonly observed to emit larger amounts of gas than can be dissolved in the volume of erupted magma, especially in subduction zones. Combined with an understanding of the underlying mechanisms, quantification of this so-called excess degassing can provide valuable insights into eruptive processes. The dynamics of eruptive processes are linked to both the gas composition in magmas and the physics of degassing, but no single approach is sufficient for describing the full range of these dynamics. Thus, it is crucial to integrate studies on the behaviour and transfer of volatile components from their starting conditions in the deep magmatic system through ascent in the volcanic conduit and release into the atmosphere. Combining these data with state-of-the-art geophysical methods and numerical modelling, will improve our understanding of the dynamics of magma degassing.





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Message from the Editor-in-Chief

Understanding the Earth's origin and its bio-geological evolution, the multiple implications of the geosciences (as a coherent set of interconnected disciplines), and the sociocultural and ethical interdisciplinary approaches, will be crucial for a better understanding of Nature, and also for undertaking scientifically based political decisions.

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