

2-dimensional vesicle morphology in submarine basaltic pyroclasts

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Pyroclastic rocks from the Ogi basalt are subdivided into scoria agglomerate, scoria lapilli tuff and scoria tuff. The vesicle shapes in their fine glassy particles varies from spherical, ellipsoidal to tube-like. Some particles contain both spherical dominated and ellipsoidal dominated areas. The boundary is characterized by the echelon arrangement of ellipsoidal vesicles. The spherical and ellipsoidal vesicles are typical to the scoria agglomerate and scoria lapilli tuff. On the other hand, tube-like shapes are typical to the scoria tuff, and also included in some fine particles in the scoria lapilli tuff. The vesicle diameters are the smallest in the tube-like shape. It is concludes that the fragmentation of the Ogi basaltic magma was accompanied by the elongation of the bubbles.

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