

マグマ内に存在する Fe_2O_3 の高圧下での部分モル体積

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Partial molar volume of Fe_2O_3 in magma at high pressure

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Understanding of the magma behavior is essential for discussing igneous activities not only on the surface but also in the interior of the Earth. Based on geophysical observations, the presence of magma is proposed in the deep mantle. Previous studies indicate the existence of high concentration of Fe_2O_3 in the lower mantle. Although the knowledge of the behavior of Fe_2O_3 in the magma has become essential for discussing in the deep mantle, i.e., at high pressure and temperature, there is no data on it. In this study, we report partial molar volume of Fe_2O_3 in silicate melts calculated from the density of Fe_2O_3 -bearing silicate melt measured by sink-float method.

Keywords: partial molar volume, magma, sink-float method

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