Rock magnetic identification of coexisting titanohematite and titanomagnetite: a case study on dacite samples from Unzen volcano

Masayuki Torii[1]; Maya Takayanagi[2]

[1] Dept. Biosphere-Geosphere, Okayama Univ. Sci.; [2] Biosphere,Okayama Univ.Sci

http://tor9.big.ous.ac.jp

We applied various rock magnetic methods to identify titanohematite and titanomagnetite in the recent dacite samples from Unzen volcano. It is not always easy to suggest the presence of titnohematite without a help of petrographical analysis such as using an EPMA. We found that IRM unimix (Heslop et al. 2002) is very effective in revealing the presence of titanohematite which features relatively high coercivity as high as 1T. Being combined with other rock magnetic methods, IRM unmix is very useful to analyze multiple composition of magnetic minerals.