

Development and Operation of Data Transfer System of Seismo-Geochemical Data via E-Mail

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It is essential to reveal the mechanism of geochemical changes related to earthquake in order to realize the geochemical earthquake prediction. Geochemical data such as the radon concentration is easily affected by the environmental factors. Measurement of not only environmental factors but also the chemical composition is required to discriminate a precursor from noise in geochemical time series.

Gas chromatography, mass spectrometry, and optical spectroscopy are available to analyze the chemical composition simultaneously. Transferring of time series of a chemical concentration is easy by use of a traditional method for seismic recording system. Unfortunately, the traditional system is not able to treat vector data such as a mass spectrum.

A novel transferring system for geochemical vector data via e-mail will be discussed from the view points of robustness, security, and cost performance in this report.