

## Boron geochemistry of shales from the Miocene Kusanagi and Onagawa formations, and behavior of boron during diagenesis

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The average boron contents in normal marine sediments is about 100ppm. Sediments is an important reservoir on the Earth surface. Boron is a trace essential element for organisms, especially for advanced terrestrial plants. It is not to ignore the possibility that the boron concentration level of sediments are increased by biological activity. However, we do not know how boron concentrations in sediments and how boron behaves during diagenesis. So the behavior of boron in diagenesis must be identified. Boron, organic carbon, nitrogen, sulfur concentrations in hard shale of Miocene Kusanagi and Onagawa formations are analyzed. As the result, boron is a useful element for considering the proportion of terrestrial organic matter and paleoenvironment.