

CO₂ capacity and mineral trapping in sequestration of carbon dioxide: an example of the Boso Peninsula, Chiba, central Japan

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The issue of capacity of carbon dioxide is significantly important to evaluate the feasibility of sequestration of carbon dioxide in the aquifer. Also, it would be preferable for a long-term isolation of carbon dioxide in the lithosphere that fixation of carbon due to mineral trapping by water-rock reactions occurs.

The sedimentary basin is often assumed as a disposal site. In this study, we investigated mineralogy and water quality in the Boso Peninsula, which is a typical region of the sedimentary basin in Japan. By using them, the capacity of carbon dioxide is estimated. Moreover, we discussed the availability of mineral trapping by using a numerical model.