

Mechanism of boron enrichment in hemipelagic sediments and its implication to role of terrestrial biota in the global carbon cycle

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Biological mediation of B can be alternative explanation to enrich B into sediments, because B is one of the essential elements for biological activities. It is hypothesized that B concentrations in marine sediments are enriched by addition of organically bound B introduced from terrestrial organisms. The B flux numbers are calculated from continents to pelagic sediments. This further indicates that B can be a tracer for the change of biological activities (i.e., extinction, large loss of terrestrial plants, or occurrence) during the geological time. In such a case, it is suggested that the terrestrial organisms (including soil) may be very important reservoir to control global carbon cycles.

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