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Abstract

The fundamental studies on spatial distribution of metal elements, particularly essential elements such as iron, and the global circulation from geo-environment through aquatic environment are summarized in the article. The elution promotion of iron and the formation of complex between humic-substances and iron are considered to be an important process to rehabilitate the coastal environment, because the organic complex of iron, fulvic acid iron and humic acid iron, are soluble substances in aquatic environment and can be directly utilized for marine algae. The coupled utilization of steel slag and humic substances can promote the elution of essential minerals enabling rehabilitation of coastal environment. These fundamental researches can provide various useful information and data needed for the proposed green innovative technology.