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MIS24-P02

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Humic Substances Affect Growth of the Marine Phytoplankton Cultures

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Humic substances are major components of dissolved organic matter in aquatic systems and known to have a substantial influence on the trace metal speciation, and thus the bioavailability of trace elements. Using newly developed chemically defined medium, we investigated the iron requirements and effects of humic substances on the growth of axenic phytoplankton cultures. Calculated EDTA bound iron species had positive effects on the growth of marine plankton cultures. It is suggested that the composition and concentration of humic substances affect the growth of marine phytoplankton by controlling the iron availability.

Keywords: Marine phytoplankton, Humic substance, Iron, Culture experiment