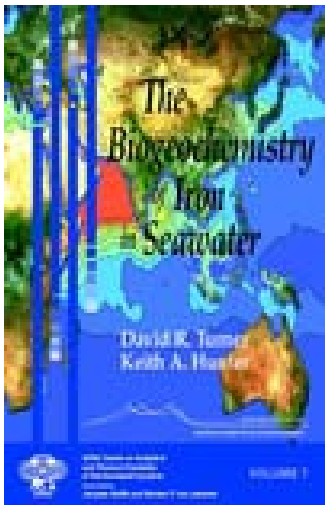

The Biogeochemistry of Iron in Seawater
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A link between iron bioavailability and phytoplankton growth in the oceans was first put forward in the 1930s but it was not until the 1980s that developments in clean sampling and analytical techniques had advanced sufficiently to allow accurate measurements of iron at trace levels. The 1990s have been dubbed the 'Iron Age of Oceanography', and there is no doubt that the role played by iron in plankton ecology has been the decade's 'hot topic' in marine biogeochemistry. During that time the field has developed rapidly, and the initial simple hypothesis, that shortage of iron limits primary production in large areas of the ocean, has evolved into a new paradigm which recognises that iron, along with nitrogen, phosphorus and silicon, is an essential plant nutrient whose availability is a key determinant of phytoplankton growth and species distribution.

Answering the need for an up-to-date, wide-ranging and critical review, this volume:
- Is the only comprehensive review of the subject area to date;
- Is sponsored by both SCOR and IUPAC - this, together with the leading international status of the editors and chapter authors, gives the book unique authority;
- Contains many references to original research papers, including the key contributions in the field;
- Identifies priorities for future research.

The Biogeochemistry of Iron in Seawater will be an invaluable reference for academics and graduate students in marine sciences as well as marine scientists and oceanographers; environmental analytical chemists; and scientists studying the environmental impact of metals and their role in marine ecosystems.

Preface.
Introduction (D.R. Turner, K.A. Hunter and H.J.W. de Baar).
Iron Limitation in the Oceans (A.J. Watson).
Bioavailability and Bioaccumulation of Iron in the Sea (W.G. Sunda).
Atmospheric Iron Inputs to the Oceans (T.D. Jickells and L.J. Spokes).
Distributions, Sources and Sinks of Iron in Seawater (H.J.W. de Baar and J.T.M de Jong).
Analytical Methods for the Determination of Concentrations and Speciation of Iron (K.W. Bruland and E.L. Rue).
Thermodynamics of the Iron System in Seawater (T.D. Waite).
Transformations Among Different Forms of Iron in the Ocean (J.W. Moffett).
Summary and Recommendations (K.A. Hunter, P.W. Boyd, K.W. Bruland, J. Buffle, P. Buat-Menard, H.J.W. de Baar, R.A. Duce, W.J. Sunda, T.D. Jickells, J.W. Moffett, E.L. Rue, L.J. Spokes, B. Sulzberger, D.R. Turner, T.D. Waite, A.J. Watson and M. Whitfield).