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2009, *Oceanography* 22(2):261–263, <http://dx.doi.org/10.5670/oceanog.2009.60>

BOOK REVIEW | Chemical Oceanography and the Marine Carbon Cycle

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Book Information

Chemical Oceanography and the Marine Carbon Cycle

By Steven Emerson and John Hedges, Cambridge University Press, 2008, 453 pages, ISBN 978-0-521-83313-4, Hardcover, \$90 US

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Reviewer

Timothy Shaw | Department of Chemistry and Biochemistry, University of South Carolina, Columbia, SC, USA

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First Paragraph

Chemical Oceanography and the Marine Carbon Cycle reflects the two authors' wealth of research and teaching experience, and the community is fortunate that Steve Emerson was able to complete this major effort following John Hedges' untimely death in 2003. This book is a compilation of many years' worth of notes used by the authors, professors of oceanography at the University of Washington, for teaching at both the undergraduate and graduate levels. The first seven chapters make up the core of their undergraduate chemical oceanography curriculum. The remaining five chapters reflect the additional material used in advanced graduate courses. It is partitioned so that an instructor can develop a course at any level by adding or omitting sections or chapters as necessary. This approach is essential in a field where students come to the subject from a wide range of scientific backgrounds. This book provides the chemistry background necessary to go beyond observations and conceptual models, providing the chemical theory that validates the models and explains observations. It is also refreshing to read a chemical oceanography book that presents organic chemistry and biochemistry of the ocean in appropriate detail. This book will make an excellent primary text for an upper level or graduate chemical oceanography course as well as an excellent reference for the advanced enthusiast.

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