1. Record Nr. UNINA9910830768803321 Autore Chester Roy Titolo Marine geochemistry / / Roy Chester, Tim Jickells Pubbl/distr/stampa Chichester, West Sussex, UK:,: Wiley/Blackwell,, 2012 **ISBN** 1-118-34908-3 Edizione [Third edition.] 1 online resource (424 pages): illustrations Descrizione fisica 551.4 Disciplina Soggetti Chemical oceanography Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Includes bibliographical references and index. Nota di bibliografia Nota di contenuto Machine generated contents note: 1. Introduction -- pt. I The Global Journey: Material Sources -- 2. The input of material to the ocean reservoir -- 3. The transport of material to the oceans: the fluvial pathway -- 4. The transport of material to the oceans: the atmospheric pathway -- 5. The transport of material to the oceans: the hydrothermal pathway -- 6. The transport of material to the oceans: relative flux magnitudes -- pt. II The Global Journey: The Ocean Reservoir -- 7. Descriptive oceanography: water-column parameters --8. Air-sea gas exchange -- 9. Nutrients, oxygen, organic carbon and the carbon cycle in seawater -- 10. Particulate material in the oceans -- 11. Trace elements in the oceans -- 12. Down-column fluxes and the benthic boundary layer -- pt. III The Global Journey: Material Sinks -- 13. Marine sediments -- 14. Sediment interstitial waters and diagenesis -- 15. The components of marine sediments -- 16. Unscrambling the sediment-forming chemical signals -- pt. IV The Global Journey: Synthesis -- 17. Marine geochemistry: an overview. Sommario/riassunto "Marine Geochemistry offers a fully comprehensive and integrated treatment of the chemistry of the oceans, their sediments and biota. The first edition of the book received strong critical acclaim and was described as 'a standard text for years to come.' This third edition of Marine Geochemistry has been written at a time when the role of the oceans in the Earth System is becoming increasingly apparent. Following the successful format adopted previously, this new edition

treats the oceans as a unified entity, and addresses the question 'how do the oceans work as a chemical system?' To address this question,

the text has been updated to cover recent advances in our understanding of topics such as the carbon chemistry of the oceans, nutrient cycling and its effect on marine chemistry, the acidification of sea water, and the role of the oceans in climate change. In addition, the importance of shelf seas in oceanic cycles has been re-evaluated in the light of new research. Marine Geochemistry offers both undergraduate and graduate students and research workers an integrated approach to one of the most important reservoirs in the Earth System."-- Provided by publisher.