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Nota di contenuto	Introduction -- Biogeochemical peculiarities of the vertical distributions of nutrients in the Black Sea -- Anaerobic Microbial Community in the Aerobic Water and at the Oxic/Anoxic Interface in the Black Sea -- The Energetic Balance of Microbial Exploitation of Pelagic Redox Gradients -- Manganese and iron at the redox-interfaces in the Black Sea, the Baltic Sea and the Oslo Fjord -- Role of Sulfide Oxidation Intermediates in the Redox Balance of the Oxic-Anoxic Interface of the Gotland Deep, Baltic Sea -- On interannual variability of chemical characteristics of redox layer and cold intermediate layer of the Black Sea -- Large scale dynamics of hypoxia in the Baltic Sea -- Biogeochemical Characteristics in the Elefsis Bay (Aegean Sea, Eastern Mediterranean) in relation to anoxia and climate changes -- Redox Layer Model (ROLM): a tool for analysis of the water column oxic/anoxic interface processes -- Modelling of the meromictic Fjord Hunnbunn (Norway) with an Oxygen Depletion model (OxyDep) -- Numerical modeling of biogeochemical regime response to decadal atmospheric variability during 1960-2000 in the Black Sea -- Conclusions.
Sommario/riassunto	Over the last few decades many studies have focused on the oxygen depletion of coastal and oceanic waters. An understanding of the

processes involved is fundamental to assess the effects of global and climatic changes and to support an ecosystem approach to adaptive environmental management for coastal seas and ocean basins. This timely book presents the state-of-the-art of our knowledge of the nature and chemical structure of redox interfaces in a marine water column, oxygen depletion and connected processes. The structures of the redox layers, including the distribution of certain parameters and microbiological features, are described in detail. The volume also covers studies devoted to the interannual variability of some oxygen-depleted systems, modeling and new developments in observation techniques. In addition, it identifies remaining gaps in our knowledge of the cycling of chemical elements in changing redox conditions. The chapters are based on extensive observational data, collected by the authors during sea and shore expeditions, on archive data, and on a broad range of scientific literature.