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Titolo	The effects of UV radiation in the marine environment / / edited by Stephen de Mora, Serge Demers, and Maria Vernet [[electronic resource]]
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Descrizione fisica	1 online resource (x, 324 pages) : digital, PDF file(s)
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Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Enhanced UV radiation: a new problem for the marine environment / Robert F. Whitehead, Stephen J. de Mora and Serge Demers -- UV physics and optics / Susana B. Diaz, John H. Morrow, and Charles R. Booth -- Spectral weighting functions for quantifying effects of UV radiation in marine ecosystems / Patrick J. Neale -- Marine photochemistry and its impact on carbon cycling / Kenneth Mopper and David J. Kieber -- Photochemical production of biological substrates / David J. Kieber -- Mechanisms of UV damage to aquatic organisms / Warwick F. Vincent and Patrick J. Neale -- Strategies for the minimisation of UV-induced damage / Suzanne Roy -- UV radiation effects on heterotrophic bacterioplankton and viruses in marine ecosystems / Wade H. Jeffrey, Jason P. Kase, and Steve W. Wilhelm --

	Effects of UV radiation on the physiology and ecology of marine phytoplankton / Maria Vernet -- Impact of solar UV radiation on zooplankton and fish / Horacio E. Zagarese and Craig E. Williamson -- Implications of UV radiation for the food web structure and consequences on the carbon flow / Behzad J. Mostajir [and others].
Sommario/riassunto	This book, first published in 2000, provides a comprehensive review of UV radiation effects in the marine environment. A multidisciplinary approach is adopted to discuss all aspects from a physical, chemical and biological perspective. The book begins by describing the attenuation of UV radiation in the atmosphere and sea water, outlining the photochemical reactions involved and highlighting the role that such chemistry can play in influencing the biogeochemical cycling of various elements. The deleterious consequences of such radiation on organisms and strategies adopted to mitigate these harmful repercussions are discussed. The organisms considered range from virus and bacteria through phytoplankton and zooplankton to fish and mammals. The book is aimed at researchers and graduate students in photobiology, photochemistry and environmental science. It will also be useful as a supplementary text for courses in oceanography, climatology and ecology.