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Titolo	Photobiogeochemistry of organic matter : principles and practices in water environments / / Khan M.G. Mostofa ... [et al.], editors
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ISBN	1-283-94584-3 3-642-32223-9
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Collana	Environmental science and engineering. Environmental science, , 1431-6250
Altri autori (Persone)	MostofaKhan M. G
Disciplina	572.435
Soggetti	Water - Organic compound content Water - Composition
Lingua di pubblicazione	Inglese
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Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	Hydrogen Peroxide and Organic Peroxides -- Hydroxyl Radical and Other Free Radical Species -- Dissolved Organic Matter Degradation -- Chromophoric or Colored Dissolved Organic Matter -- Fluorescent Dissolved Organic Matter -- Photosynthesis -- Chlorophyll -- Biogeochemical Complexion of Dissolved Organic Matter with Trace Elements -- Impacts of Global Warming on Biogeochemical Cycles.
Sommario/riassunto	Photoinduced processes, caused by natural sunlight, are key functions for sustaining all living organisms through production and transformation of organic matter (OM) in the biosphere. Production of hydrogen peroxide (H2O2) from OM is a primary step of photoinduced processes, because H2O2 acts as strong reductant and oxidant. It is potentially important in many aquatic reactions, also in association with photosynthesis. Allochthonous and autochthonous dissolved organic matter (DOM) can be involved into several photoinduced or biological processes. DOM subsequently undergoes several physical, chemical, photoinduced and biological processes, which can be affected by global warming. This book is uniquely structured to overview some vital issues, such as: DOM; H2O2 and ROOH; HO•; Degradation of DOM; CDOM, FDOM; Photosynthesis; Chlorophyll; Metal complexation, and Global warming, as well as their mutual interrelationships, based on updated scientific results.".