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Descrizione fisica	1 online resource (582 p.)
Disciplina	363.73 55 551.9 571.95
Soggetti	Geochemistry Soil science Soil conservation Pollution Environmental toxicology Soil Science & Conservation Terrestrial Pollution Ecotoxicology
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Characterization of the Subsurface Environment -- Selected Geochemical Processes -- Inorganic and Organometallic Compounds -- Organic Compounds -- Sorption, Retention, and Release of Contaminants -- Contaminant Partitioning in the Aqueous Phase -- Partitioning of Volatile Compounds -- Selected Research Findings: Contaminant Partitioning -- Water Flow in the Subsurface Environment -- Transport of Passive Contaminants -- Transport of Reactive Contaminants -- Selected Research Findings: Contaminant Transport -- Abiotic Contaminant Transformations in Subsurface Water -- Abiotic Transformation at the Solid-Liquid Interface -- Biologically Mediated Transformations -- Selected Research Findings: Transformations and Reactions -- Contaminant-Induced Irreversible Changes in

Groundwater Chemistry -- Contaminant Impacts on the Soil–Subsurface Solid Phase.

Sommario/riassunto

In this updated and expanded second edition, new literature has been added on contaminant fate in the soil-subsurface environment. In particular, more data on the behavior of inorganic contaminants and on engineered nanomaterials were included, the latter comprising a group of “emerging contaminants” that may reach the soil and subsurface zones. New chapters are devoted to a new perspective of contaminant geochemistry, namely irreversible changes in pristine land and subsurface systems following chemical contamination. Two chapters were added on this topic, focusing attention on the impact of chemical contaminants on the matrix and properties of both liquid and solid phases of soil and subsurface domains. Contaminant impacts on irreversible changes occurring in groundwater are discussed and their irreversible changes on the porous medium solid phase are surveyed. In contrast to the geological time scale controlling natural changes of porous media liquid and solid phases, the time scale associated with chemical pollutant induced changes is far shorter and extends over a “human lifetime scale”.
