Environmental and Low Temperature Geochemistry presents the conceptual and quantitative principles of geochemistry in order to foster an understanding of natural processes at and near the Earth's surface, as well as anthropogenic impacts on the natural environment. It provides the reader with the essentials of concentration, speciation and reactivity of elements in soils, waters, sediments and air, drawing attention to both thermodynamic and kinetic controls. Specific features include:

- An introductory chapter that reviews basic chemical principles applied to environmental and low-temperature geochemistry
- Explanation and analysis of the importance of minerals in the environment
- Principles of aqueous geochemistry
- Organic compounds in the environment
- The role of microbes in processes such as biomineralization, elemental speciation and reduction-oxidation reactions
- Thorough coverage of the fundamentals of important geochemical cycles (C, N, P, S)
- Atmospheric chemistry
- Soil geochemistry
- The roles of stable isotopes in environmental analysis
- Radioactive and radiogenic isotopes as environmental tracers and environmental contaminants
- Principles and examples of instrumental analysis in environmental geochemistry

The text concludes with a case study of surface water and groundwater contamination that includes interactions and reactions of naturally derived inorganic substances and introduced organic compounds (fuels and solvents), and illustrates the importance of interdisciplinary analysis in environmental geochemistry.

Readership: Advanced undergraduate and graduate students studying environmental/ low T geochemistry as part of an earth science, environmental science or related program.

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