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Sommario/riassunto	Water is the basis of all life. Preservation of aquatic ecosystems and protection of water resources thus are among the most important goals of a sustainable development. The quality of water is mainly determined by its constituents, the entirety of the substances dissolved

or suspended in water. To assess the water quality on a sound basis requires in-depth knowledge about the occurrence, behavior and fate of these constituents. That explains the importance of hydrochemistry (also referred to as water chemistry or aquatic chemistry) as a scientific discipline that deals with water constituents and their reactions within the natural water cycle and within the cycle of water use. This textbook introduces the elementary basics of hydrochemistry with special focus on reaction equilibria in aquatic systems and their mathematical description. It is designed as an introductory textbook for students of all environment-related courses who are beginning their hydrochemical education. Only minor knowledge in General Chemistry is required to understand the text. The book is also suitable for continuing education. Topics discussed in this textbook include: structure and properties of water, concentration measures and activities, colligative properties, basics of chemical equilibria, gas-water partitioning, acid/base reactions, precipitation/dissolution, calco-carbonic equilibrium, redox reactions, complex formation, and sorption. The text is supplemented by numerous figures and tables. More than 50 examples within the text as well as more than 60 problems to be solved by the reader support the acquiring of knowledge. Complete and detailed solutions to all problems are given in a separate chapter.

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