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Nota di contenuto	The Role of Halogens in Terrestrial and Extraterrestrial Geochemical Processes: Surface, Crust, and Mantle -- Halogens in Terrestrial and Cosmic Geochemical Systems: Abundances, Geochemical Behaviors, and Analytical Methods -- Halogen-Rich Minerals: Crystal Chemistry and Geological Significances -- Halogen Elements in Sedimentary Systems and their Evolution During Diagenesis -- Halogen Geochemistry of Ore Deposits: Contributions Towards Understanding Sources and Processes -- Halogens in Mafic and Intermediate-Silica Content Magmas -- Halogens in Silicic Magmas and their Hydrothermal Systems -- The Behavior of Halogens during Subduction-Zone Processes -- Halogens in Seawater, Marine Sediments and the Altered Oceanic Crust and Lithosphere -- The Role of Halogens during Regional and Contact Metamorphism -- Halogens in High-Grade Metamorphism -- Halogens in Hydrothermal Fluids and their Role in the Formation and Evolution of Hydrothermal Mineral Systems -- The role of Halogens in the Lithospheric Mantle -- Halogens in the Earth's

Mantle: What we know and what we don’t -- Halogens in Chondritic Meteorites -- The role of Halogens During Fluid and Magmatic Processes on Mars -- Halogens on and within the Ocean Worlds of the Outer Solar System.

Sommario/riassunto

The book summarizes the knowledge and experiences concerning the role of halogens during various geochemical processes, such as diagenesis, ore-formation, magma evolution, metasomatism, mineralization, and metamorphism in the crust and mantle of the Earth. It comprises the role of halogens in other terrestrial worlds like volatile-rich asteroids, Mars, and the ice moons of Jupiter and Saturn. Review chapters outline and expand upon the basis of our current understanding regarding how halogens contribute to the geochemical/geophysical evolution and stability of terrestrial worlds overall.