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Nota di contenuto	Front matter -- Editorial -- Contents -- List of contributing authors -- 1. The power of databases: The RRUFF project / Lafuente, Barbara / Downs, R. T. / Yang, H. / Stone, N. -- 2. Structural complexity of minerals and mineral parageneses: Information and its evolution in the mineral world / Krivovichev, Sergey V. -- 3. Ab initio simulations of mineral surfaces: Recent advances in numerical methods and selected applications / Churakov, Sergey V. -- 4. Natural quasicrystals: A new frontier in mineralogy and its impact on our understanding of matter and the origin of the solar system / Bindi, Luca / Steinhardt, Paul J. -- 5. Ringwoodite: its importance in Earth Sciences / Nestola, Fabrizio -- 6. Investigation of bio-related minerals by electron-diffraction tomography: Vaterite, dental hydroxyapatite, and crystalline nanorods in sponge primmorphs / Mugnaioli, Enrico -- 7. Mayenite Ca ₁₂ Al ₁₄ O ₃₂ [X ₂]: From minerals to the first stable electride crystals / Gfeller, Frank -- Index
Sommario/riassunto	"Highlights in Mineralogical Crystallography" presents a collection of review articles with the common topic: structural properties of minerals and synthetic analogues. It is a valuable resource for mineralogists,

materials scientists, crystallographers, and earth scientists. This book includes: An introduction to the RRUFF database for structural, spectroscopic, and chemical mineral identification. A systematic evaluation of structural complexity of minerals. *ab initio* computer modelling of mineral surfaces. Natural quasicrystals of meteoritic origin. The potential role of terrestrial ringwoodite on the water content of the Earth's mantle. Structural characterization of nanocrystalline bio-related minerals by electron-diffraction tomography. The uniqueness of mayenite-type compounds as minerals and high-tech ceramics.
