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Titolo	Advances in Experimental and Genetic Mineralogy : Special Publication to 50th Anniversary of DS Korzhinskii Institute of Experimental Mineralogy of the Russian Academy of Sciences // edited by Yuriy Litvin, Oleg Safonov
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Descrizione fisica	1 online resource (357 pages)
Collana	Springer Mineralogy, , 2366-1585
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Livello bibliografico	Monografia
Nota di contenuto	1. Phase Composition and States of Water-Hydrocarbon Fluids at Elevated and High Temperatures and Pressures (Experiment with the Use of Synthetic Fluid Inclusions) -- 2. Experimental studies of hydrothermal fluid -- 3. Influence of Silicate Substance on Pyrochlore and Tantalite Solubility in Fluoride Aqueous Solutions (Experimental Studies) -- 4. Experimental and Theoretical Studies of the Viscosity of the Fluid Magmatic Systems in Conjunction with the Structure of Melts at the Thermodynamic Parameters of the Earth's Crust and Upper Mantle -- 5. Crystallization of CPX in the Ab-Di System under the Oscillating Temperature: Contrast Dynamic Modes at Different Periods of Oscillation -- 6. Solubility and Volatility of Moo3 in High-Temperature Aqueous Solutions.
Sommario/riassunto	This book presents fundamental experimental data and experiment-based theoretical conclusions on, as well as physico-chemical models of, the natural hydrothermal, metasomatic, metamorphic, magmatic

and ore-producing processes in the Earth's crust, upper mantle, transition zone and lower mantle. The topics discussed concern the interactions of oil and aqueous fluids as revealed by aqueous-hydrocarbonic inclusions in synthetic quartz and applied to the natural evolution of oil; determining the solubility and inter-phase partitioning of trace and strategic elements and their components; and experimentally validating physico-chemical mechanisms in the ultrabasic-basic evolution of deep-mantle magmatic and diamond-forming systems. In addition, the book presents experimental studies on the physico-chemical properties of supercritical water and hydrothermal fluids, viscosity of acidic ultramafic magmatic materials melts, peculiarities of metamorphism in basic rocks, kinetics of mineral nucleation in silicate melts and hydrothermal solutions, and influence of complex H₂O-CO₂-HCl fluids on melting relations in mantle-crust rocks, together with novel results and conclusions. Given its scope, the book will be of great interest to all Earth scientists, lecturers and students specialized in experimental and genetic mineralogy, petrology and geochemistry.
