Record Nr. UNINA9910557106303321

Autore Zaccarini Federica

Titolo Innovative and Applied Research on Platinum-Group and Rare Earth

Elements: Dedicated to the Work and Memory of Dr. Demetrios G.

Eliopoulos, IGME (Greece)

Pubbl/distr/stampa Basel, Switzerland, : MDPI - Multidisciplinary Digital Publishing

Institute, 2020

Descrizione fisica 1 electronic resource (270 p.)

Soggetti Research & information: general

Earth sciences, geography, environment, planning

Lingua di pubblicazione Inglese

Formato Materiale a stampa

Livello bibliografico Monografia

Sommario/riassunto

This book (Special Issue) presents the geological environment. physical/chemical properties, and crystallographic data for two new minerals associated with chromitites from the Othrys ophiolite complex: Eliopoulosite, V7S8/IMA2019-96, and Grammatikopoulosite, NiVP/IMA2019-090. The distribution, mineralogy, and field relationships of PGE-enriched ores, which are important for our understanding of the metallogenic controls on the concentration of PGE and their exploration, are addressed in papers, providing (a) the first detailed data on the chromitites and platinum-group elements (PGE) mineralization from Ulan-Sar'dag ophiolite, Central Asian Fold Belt/East Sayan, Russia, (b) peculiarities on the distribution of PGE in arsenopyrites and pyrites from the Natalkinskoe gold ore deposit, NE Russia, and (c) the occurrence of zoned laurite found in the Merensky Reef of the Bushveld layered intrusion, South Africa, characterized by textural/compositional features suggesting "hydrothermal" origin. Two papers deal with (a) the rare earth element (REE) distribution in various mineral deposits of Sweden, obtained during the EURARE project, and their application to the exploration of REE and (b) the optimization of the beneficiation process for the REE recovery from black sands. Five papers provide new data of genetic and exploration significance on

trace elements, including REE and PGE in various ore-types, and factors controlling the Cr stable isotope (53Cr values) in chromitites from the Balkan peninsula.