

1. Record Nr.	UNINA9910495176103321
Autore	Garanin Victor
Titolo	Diamonds from the Arkhangelsk province, NW Russia / / Victor Garanin [and three others]
Pubbl/distr/stampa	Cham, Switzerland : , : Springer, , [2021] ©2021
ISBN	3-030-35717-1
Descrizione fisica	1 online resource (260 pages)
Collana	Springer mineralogy
Disciplina	553.82
Soggetti	Diamond deposits
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Intro -- Introduction -- References -- Contents -- Abbreviations -- 1 Geological Summary of Kimberlites and Related Rocks in the Archangelsk Diamondiferous Region (ADR) -- 1.1 Historical Perspective of ADR Discovery -- 1.2 ADR Geological Location and Structure -- 1.3 V. Grib and M. V. Lomonosov Deposits -- 1.4 Low- and Non-diamondiferous ADR Bodies -- References -- 2 Typomorphism of Diamond from Deposits of the Arkhangelsk Diamondiferous Region -- 2.1 Mineralogical Characteristics of Diamonds from the M.V. Lomonosov Deposit Pipes -- 2.1.1 Crystal Morphology -- 2.1.2 Internal Structure -- 2.1.3 Diamond Coloration -- 2.1.4 Diamond Gemological Characteristics -- 2.1.5 Diamond Typomorphic Characteristics -- 2.2 Mineralogical Characteristics of Diamonds from Pipe of the V. Grib Deposit -- 2.2.1 Crystal Morphology -- 2.2.2 Internal Structure -- 2.2.3 Diamond Coloration -- 2.2.4 Diamond Microcrystals -- 2.2.5 Diamond Gemological Characteristics -- 2.2.6 Typomorphic Characteristics of the V. Grib Pipe Diamonds -- 2.3 Morphology and Other Major Characteristics of ADR Diamond from Low and Poor Diamond-Bearing Kimberlites Zolotitsa and Kepina Fields -- 2.3.1 Zolotitsa Field Diamonds: Snegurochka, Pervomayskaya, Koltsovskaya Pipes -- 2.3.2 Kepina Field Diamonds -- 2.3.3 Typomorphic Characteristics of Diamonds from Low- and Poor-Diamondiferous Kimberlites -- References -- 3 Defect-Impurity Composition, Optical and Spectrometric Properties of Diamond

from ADR Deposits -- 3.1 Luminescence -- 3.2 Electron Paramagnetic Resonance -- 3.3 IR Spectroscopy -- 3.4 Raman Spectroscopy of Diamonds and X-Ray Spectrometry for Studying Inherent Mineral Inclusions -- 3.4.1 Graphite -- 3.4.2 Olivine -- 3.4.3 Garnet -- 3.4.4 Chromite -- 3.4.5 Hematite -- 3.4.6 Carbonate -- 3.5 Some Consequences from Data on Studies of Mineral Inclusions in Diamond from ADR Deposits.

References -- 4 Recent Data on Diamond from the M. V. Lomonosov Deposit -- 4.1 Cubic Habit Diamond from M. V. Lomonosov Deposit -- 4.2 Microinclusions in Diamonds -- 4.3 Quality, Deformation, Physical and Mechanical Properties Estimation of Diamond from the Arkhangelskaya and Karpinskogo-1 Pipes -- 4.4 Investigation of Diamonds Inert ToX-Ray Excitation -- 4.4.1 Qualitative Evaluation of Diamonds Inert to X-ray Excitation -- 4.4.2 Defect-Impurity Composition of Diamond Crystals Non-luminescent in X-rays -- 4.4.3 Link Between Mineralogy and Defect-Impurity Composition of Diamond Crystals in the Collection Mined from X-ray Luminescent Separation Tailings -- 4.4.4 X-ray Luminescence -- 4.4.5 Paramagnetic Centers in X-Ray-Luminescent and Non-Luminescent Diamond Crystals (EPR Spectroscopy) -- 4.4.6 Summary of Results and Comparative Analysis Based on EPR Data -- References -- 5 Constitutional Characteristics and Patterns of Diamond Formation in the ADR -- 5.1 Petrochemical Types of Kimberlites -- 5.2 Morphogenetic Groups of Diamonds from the Deposits in Arkhangelsk Diamondiferous Region and Yakutian Diamondiferous Province -- 5.3 Constitutional Characteristics and General Patterns of Diamond Formation from Low-Titaniferous and Moderate Titaniferous Kimberlites -- 5.4 Crystallization and Evolution of Diamonds from ADR Bodies -- References -- 6 Method of Morphogenetic Studies of Diamond and Associated Indicator Minerals, Its Application to Solve the Problems of Typing Search Halos and Evaluation of the Degree of Diamondiferous Kimberlite Rocks Arkhangelsk Diamondiferous Region -- 6.1 Theoretical Foundations and Development of Morphogenetic Studies of Diamond and Indicator Minerals -- 6.2 The Methodology for the Study of Morphogenetic Peculiarities of Diamond Crystals -- References -- Afterword -- List of Terms.
