

EDITOR'S PREFACES

This issue of *Mineralogical Almanac* is a monograph on Konder placers of platinum minerals, one of the most extraordinary and most outstanding mineral localities both in Russia and globally. These placers are sourced from the Konder ring alkaline ultramafic massif located in Khabarovsk Krai, Russian Far East. Principal attention is paid to the platinum nuggets, main Konder treasure, with especially large crystals of intermetallic compounds of platinum and other noble metals. No equivalents elsewhere in the world exist for both crystals and mineral associations. Due to their uniquely large size and mineralogical expression, they are much more interesting as museum exhibits than as a utilitarian source of a precious metal. This study presents an information on geology, petrology and mineralogy of the Konder massif, on history of its study and data of genesis of its host rocks and noble-metal mineralization. For the first time, detailed geological data on most interesting and extremely rich platinum placers of the Konder and Uorgalan rivers, actively mined today, are being published. These placer deposits yielded outstanding specimens of Konder platinum and other noble-metal minerals.

It is particularly valuable that the reported information is not only on mineralogy. It also covers geology, petrology, and history, coming from a first-hand source. The author, Dr. Alexander Gennadievich Mochalov, is a co-discoverer of the Konder platinum placers. He is a leading specialist on these placers and one of the leading Russian specialists in the mineralogy of deposits of Platinum-group elements (PGE). He spent more than forty years studying the Konder massif and related platinum deposits, continuing his work until today. Dr. Mochalov's work focused on the mineralogy of PGE and associated chemical elements, on the geochemistry of ores and petrology of ultramafic and alkaline rocks, as well as on diverse aspects of geology and geochronology. He discovered several new minerals and published several dozen papers about Konder. He is particularly interested in genesis and subsequent transformation of minerals and mineral associations, unusual Konder rocks and the Konder massif in general. He elaborated several original, albeit debatable, hypotheses on genetic mineralogy of PGE based on fine observations of morphology and relationships between the minerals and subsequent ontogenetic conclusions.

In one or another way, these aspects are discussed in this monograph. It is somewhat different from traditional publications in *Mineralogical Almanac* on outstanding mineralogical objects, both in concept and sense focus. It is partly due to specific features of the mineralogy of PGE, which reveals an amazingly great morphological diversity based on the relatively small diversity of mineral

species available for macroscopic observations. Partly, it is also due to the specific approach of the author, particularly focusing on morphogenetic and ontogenetic analyses, as well as 'life history' of presented and illustrated mineral individuals and mineral aggregates. Significant attention is paid to the genesis of most interesting rocks and orebodies at Konder.

It is worth to emphasize the illustrations in this issue. They are based on a unique collection carefully assembled and studied in detail for many years by Dr. Mochalov. A series of photographs, reflecting a morphological diversity of platinum-iron intermetallic system and some other minerals, is published for the first time. Also, many images of these specimens are unique morphologically and genetically, without direct 'relatives' in other deposits of the world. These are complex cascade twin crystals of isoferroplatinum, often with unusual epitactic overgrowths of other noble-metal minerals, amazingly twisted whiskers of iron-platinum intermetallic compounds and many others. In addition to such morphogenetically unusual aggregates from the above-mentioned collection belonging to the Russian Academy of Sciences assembled and curated by Dr. Mochalov, This issue presents photographs of unique in both size and perfection crystals of isoferroplatinum and zvyagintsevite from collection of the Gokhran of Russia – State Fund of Precious Metals and Precious Stones of Russian Federation. These photo made by Michael B. Leybiv are published for the first time as well.

As a result, this issue of *Mineralogical Almanac* can be considered without exaggeration as a unique source of original information, first of all, mineralogical and mineralogenetic, on the amazing natural phenomenon called the Konder platinum deposit.

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