

IN MEMORY OF OLEG I. GRITSENKO:
EXHIBITION AT THE
FERSMAN MINERALOGICAL MUSEUM

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1. Oleg Igorevich Gritsenko
(28.03.1966–01.08.2021).

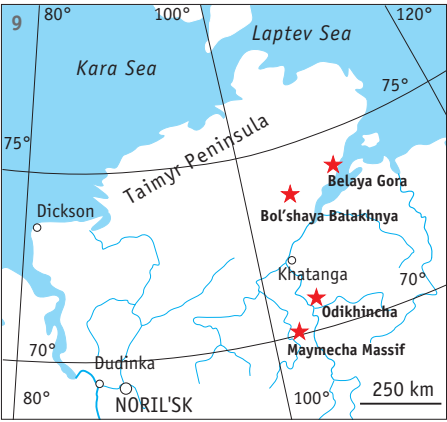
Specimens: Fersman Mineralogical
Museum RAS (FMM) and collected by
Oleg I. Gritsenko and his pupils in trips
and donated to the Museum.

2. Yulia D. Gritsenko at the showcase
dedicated to Oleg I. Gritsenko.
Photo: Michael B. Leybov.

The Fersman Mineralogical Museum of the Russian Academy of Sciences opened an exhibition dedicated to the memory of Oleg Igorevich Gritsenko.

In August 2021, Oleg Igorevich Gritsenko, geologist, teacher, founder and head of the children's geological club "*Geocompany*," who cooperated with our museum for many years, passed away at the age of 56. In "*Geocompany*," Oleg together with pupils worked for many years on many mineralogical sites of southern and central Yakutia, Evenki Okrug, Taimyr, Putorana Plateau and the Anabar Uplands, Tuva and Khakasia, Irkutsk region, Polar, Middle and South Urals, central Kazakhstan, Pamirs, Tajikistan, Karelia, Kola Peninsula and Caucasus. Oleg and his pupils donated more than one hundred mineralogical specimens to the museum. The exhibition, devoted to Oleg, has more than thirty specimens collected by him and his pupils during expeditions and presented to the museum. Below I will describe some of them in more detail.

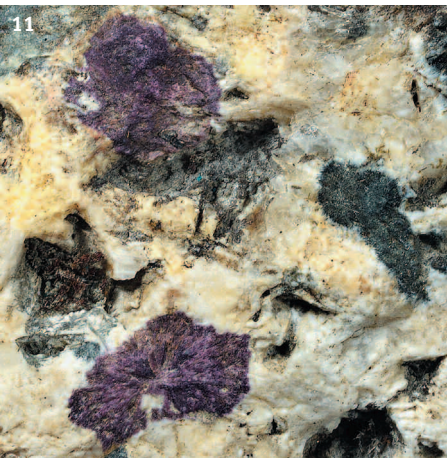
Oleg graduated from the Department of Petrology at Lomonosov Moscow State University (MSU) in 1988. He worked in the Geochemistry Laboratory at IMGRE. He taught at the Geological School of MSU, and in 1988, he created his own children's geological club "*Geocompany*," which has existed for 34 years. In



9. Mineralogical localities of Taimyr, where trips were organized.



10. At the occurrence of titanium garnet morimotoite. Odikhincha Massif, 2016.
11. **Odikhinchaite** in K-feldspar. FOV 2.5 x 3 cm. Odikhincha Massif, Taimyr District, Krasnoyarsk Krai, Russia. Found 2020. Fersman Mineralogical Museum, #97131. Photo: Michael B. Leybov.



¹ Gritsenko Yu.D., Gerasimova E.I. (2018) Unique Crystals of Morimotoite from Pegmatite of the Odikhincha Alkaline Pluton, Siberia, Russia // Mineral Observer. Mineralogical Almanac, v. 23 issue 1, c. 27–41.

² Gritsenko Yu D., Chukanov N.V., Aksekov S.M., Pekov I.V., Varlamov D.A., Pautov L.A., Vozchikova S.A., Britvin S.N. (2020) Odikhinchaite, Na₂Sr₃[(H₂O)₂Na]Ca₆Mn₃Zr₃NbSi(Si₂₄O₇₂)O(OH)₃(CO₃)H₂O, a new eudialyte-group mineral from the Odikhincha intrusion, Taimyr Peninsula, Russia // Minerals, V. 10(12), 1062.

One of the most interesting objects from a mineralogical point of view was the Odikhincha Massif, which Khatanga geologists from the Polar Geological Exploration Expedition dubbed the "*Pearl of the Polar Region*." The geological exploration expeditions would drive all-terrain vehicles up there, but we could reach it only at first by river on catamarans and then on foot with backpacks. The first time we reached Odikhincha along the river it was an 850 km trip from the head of the Kotuy River (Fig. 12). For the follow-up visits, he chose a shorter 220 km route from Khatanga, but it was upstream.

Large pegmatoid veins were outcropping in the Odikhincha Alkaline Massif. They contain unique in size and quality titanium garnets (morimotoite) and titanite andradite crystals, sharp crystals and aggregates of nepheline crystals, "stars" of long prismatic apatite crystals and many other minerals (Fig. 10). More information about this massif is available in vol. 23, issue 1 of the Mineralogical Almanac¹.

In the southern part of the massif, pegmatites of nepheline syenites, rare for this massif, composed of flattened feldspar crystals (up to several cms in size) in association with nepheline, partly replaced by cancrinite and natrolite, and radial-rayed needle aggregates of aegirine, planked pectolite crystals and veinlets of lovorhorrite, were revealed in the Brook Ebe-Eryakh. Spherulites of lamellar crystals, up to 11 mm in diameter and of intense crimson color, were found in one such veins (Fig. 11). Detailed study showed that this is a new mineral species from the eudialyte group Na₉Sr₃[(H₂O)₂Na]Ca₆Mn₃Zr₃NbSi(Si₂₄O₇₂)O(OH)₃(CO₃)·H₂O. In 2020, it was approved by the International Mineralogical Association's Commission on New Minerals, Nomenclature and Classification under the name odikhinchaite (IMA No. 2020–064). The composition of odikhinchaite is close to that of another mineral of the eudialyte group, taseqite. In contrast to taseqite, Mn²⁺ prevails over Fe²⁺ in odikhinchaite, and, in the anionic part, (CO₃)²⁻ dominates over Cl⁻. Odikhinchaite can also be considered as a low-sodium strontium analogue of carbokentbrooksite Na₁₅Ca₆Mn₃Zr₃NbSi(Si₂₄O₇₂)O(OH)₃(CO₃)·H₂O or the Nb⁻ and (CO₃)-dominant analogue of manganohomyakovite Na₁₂Sr₃Ca₆Mn₃Zr₃W(Si₂₅O₇₃)(O,OH,H₂O)₃(OH,Cl)₂.

Now, when the size of the most newly discovered minerals does not exceed the first hundred microns, the discovery of such large and bright aggregates of a new mineral species is not quite an ordinary event.

In the same area, 120 km west of the Odikhincha Massif, between the Putorana Plateau and Anabar Highlands in the middle course of the Maymecha River, in the beds of Kuranakh and Sedete, its right tributaries, there are finds of native iron. Native iron segregations associate with the Maymecha intrusion, which is poorly studied, since this occurrence has no economic significance and is located in the remote area.

We reached this massif by motorized catamarans, first up the Khatanga River, then by Kheta, and the last 120 km by the Maymecha River. We had to pull the

1976, when quite a big batch of specimens was collected here. Since then, almost no one went for these glendonites. We had to overcome more than half a thousand km across the Taimyr tundra on ATV to get to this occurrence.

Taimyr glendonites are radial, usually isometric, less often flattened or elongated aggregates-concretions, up to 20 cm in size, consisting of oriented in different directions sharp-pyramidal crystals-pseudomorphs, 2–3 cm or less often up to 12 cm long (*Fig. 21*). The color of glendonites is usually whitish or greyish-beige. Intergrowths, excavated from native clayey strata, are brownish-orange when fresh, but when dried after several days (less often weeks), they take on the whitish color, typical of Taimyr glendonite. Only a few druses retained their original brownish color, but maybe it was aided by chance. The point is that some of the specimens could have been covered with oil on their surface. What happened was this. When we went back and Khatanga was just one hundred and fifty km away, we were stopped by the Novaya River, about 100 m wide. The ATV can float. But not for a long time... When our second ATV entered the water, it was turned around by the flow, and it went downstream, slowly filling up with water through all the gaps and holes. When the water had already filled the entire body and even flooded the driver's seat in the cabin, one track caught the bottom, the ATV still managed to turn around and made it to shore. All the stuff and samples were completely wet. The fuel, oil and other liquids that had been on the engine room floor and in the boat had floated up, producing a thin film on the water surface. When the water drained,

21. **Glendonite** samples in sandy clay sediments in the coastal cliffs of the Bolshaya Balakhnya River. 2021.



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22. **Glendonite**. 9.5 × 11.5 cm. Bolshaya Balakhnya River, Taimyr District, Krasnoyarsk Krai, Siberia, Russia. Found 2021. Fersman Mineralogical Museum, #3202. Photo: Michael B. Leybov.

some specimens of glendonite may have been covered with a thin layer of oil. Perhaps this is why they retained their rich brownish color (*Fig. 22*).

Mineralogical sites of the Pamirs are extremely interesting, but are famous for their inaccessibility, and not so much because of the remoteness from settlements and lack of roads, but because of the difficulty of working in high mountains, quick changes in weather and the danger of mountain sickness.

One of the most interesting objects here is the Amigo granite pegmatite located on the northern slope of the Muzkol Ridge in the Eastern Pamirs of Tajikistan. The Amigo pegmatite is located 150 km west of the famous Rangkul pegmatite field in the vicinity of the circular part of Dzhalan Valley, at an altitude of 4,900 m (*Fig. 23*). We worked at the site in the first half of July and saw with our own eyes, these areas are called deserts. It never rains here — either scorching sun or snow, even in the middle of summer. We were snowed in for most of the week. It started snowing, like on schedule, at