Jubilee:
to 100-year Anniversary

ALEXANDER V. SIDORENKO, AN OUTSTANDING SCIENTIST AND SCIENCE ORGANIZER

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Alexander Vasilievich Sidorenko (1917–1982).

Alexander Leonidovich Yanshin, Alexander Vasilievich Sidorenko's successor as the Vice President of the Academy of Sciences of the USSR, marked a paragraph of his extensive essay (1986) devoted to his predecessor in which he very briefly but nimbly formulated the principal landmarks of A.V. Sidorenko's scientific activities: characteristics of hydrothermal processes at the Kopet Dag and supergene processes in deserts in Soviet Middle Asia, pre-Quaternary geological evolution of the Kola Peninsula, and the solution of problems of Precambrian sedimentary geology and minerageny at all continents, which led him to establish a primary sedimentary nature of most metamorphic rocks and prove that life existed on Earth as early as the Archean.

I strongly believe that these and all other A.V. Sidorenko's global achievements were predetermined by his very high qualification as a mineralogist. Here an analogy with V.I. Vernadsky came to my mind, whose ideas on life as a geological phenomenon were developed and explored in depth by A.V. Sidorenko and led him to formulate fundamentals of a new science of biogeology.

Alexander Vasilievich Sidorenko was born on October 19, 1917, in the village of Novonikolaevka in Melovskii district, Luganck oblast. In 1940, he graduated cum laude from the Geological Faculty of the Voronezh State University and received a position of assistant at the Department of Mineralogy and Petrography, which was then headed by Prof. S.P. Povov, a V.I. Vernadsky's disciple. The young graduate attracted the attention of my master E.K. Lazarenko, who was appointed as the dean of this faculty in 1941. On Evgenii Konstantinovich's initiative, colleagues elected A.V. Sidorenko a member of local committee of the Trade Union at the faculty. For Alexander Vasilievich, this was a good start to his future high-rank public work.

The newspaper For Scientific Brainpower of February 18, 1940, wrote that *"...the recent state exams have shown that the students Komov, Chernyakov, Ozerov, and Sidorenko show a very high level of knowledge and much erudition"*. Alexander Vasilievich remembered his teachers S.P. Popov, E.K. Lazarenko, G.P. Gorshkov, and others and wrote that *"They have greatly contributed to the Earth sciences and communicated to us their ardent love for geology"* (*Kommunar* newspaper of June 5, 1941).

Sergei Platonovich Popov, who was an expert in the mineralogy of Crimea, summoned A.V. Sodorenko to solve certain local mineralogical problems. The first papers by the young scientist were *"Aragonite from Alushta"* (1939) and *"On the Problem of Anapaite Weathering Products"* (1940).

Starting on the very first days of the Great Patriotic War, A.V. Sidorenko was on the frontlines. After a serious injury at Stalingrad, he was mustered out of service in

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MARINA S. SAKHAROVA

Marina Sergeevna Sakharova
(March 9, 1917–May 26, 1998)

March 9, 2017 marked 100 years since the birth of Marina Sergeevna Sakharova, the great mineralogist, Honored Geologist of Russia, Doctor of Mineralogy and Geology.

Marina S. Sakharova was a nation- and world-wide renowned scientist and specialist in gold and gold-silver deposits. She graduated magna cum laude from the Geology and Soil Science Department of the Leningrad State University, majoring in geochemistry. After evacuation from besieged Leningrad, she worked in the Commission of Geological and Geographic Service for the Red Army in 1942–1943.

Marina Sergeevna devoted her whole life to mineralogy and explored its various branches. She prepared her candidate dissertation (first-degree Ph.D.) based on data she acquired by studying the mineralogy of rare-metal and base-metal deposits of the Karamazar group in Soviet Middle Asia. The dissertation *"Mineralogy of the Andrasman Deposit, Eastern Karamazar"* was defended in 1947. In 1949–1954, Marina Sergeevna Sakharova worked as a senior researcher at the State Institute of Minerals for Chemical Industry (GIGKhS) of the Ministry of Chemical Industry of the USSR, conducted exploration operations for phosphate minerals, and studied their mineralogy. She had developed a model of a metamorphic origin of Archean apatite ores in the western Baikal area.

Starting in 1954 until the very end of her life, Marina S. Sakharova worked at the Department of Mineralogy of the Lomonosov Moscow State University, and equally fruitfully participated in scientific and pedagogical work. Marina Sergeevna gave both general-purpose and specialized mineralogical course lectures and supervised ten candidate dissertations, with the last one defended four days before her death. She has published more than 200 research papers. For Marina S. Sakharova, a new mineral sakharovite (Pb-Bi sulfosalt) was named in 1959; the mineral was discovered by Ivan Kostov, an academician of the Bulgarian National Academy of Science.

In the 1950s and 1960s, Marina S. Sakharova studied the geology and mineralogy of various types of gold deposits in eastern Transbaikalia. The results of these studies greatly contributed to academic and applied aspects of mineralogy and were synthesized in the form of her doctorate dissertation (second-degree Ph.D.) *"Mineralogy and Genesis of Gold-Quartz-Sulfide Deposits in Eastern Transbaikalia"* (defended in 1973).

The research team headed by Marina S. Sakharova in the 1970s through 1990s conducted research at gold and gold-silver deposits in the Okhotsk-Chukotka Volcanic Belt and Kamchatka Peninsula, elucidated the prospectivity of several of the deposits, and provided a scientific basis for their development.

Marina S. Sakharova's fundamental studies were focused on the mineralogy of precious metals and chalcogenides, the origin of gold and silver deposits, and physicochemical parameters of the ore-forming processes. The results of these studies allowed Marina Sergeevna to put forth a hypothesis outlining the roles of various physicochemical parameters in the accumulation of precious metals. This, in turn, led Marina S. Sakharova to suggest models for the origin of major types of gold and gold-silver deposits.

Marina S. Sakharova's papers devoted to the roles of electrochemical processes, on the concept of typomorphism of minerals in gold ore associations and its importance for exploration for these types of ore mineralization were awarded with a prize of the Ministry of Higher Education of the USSR.

Marina S. Sakharova was a full member of the International Association on the Genesis of Ore Deposits (IAGOD) and made several talks on international and national research symposia and conferences. She was an active popularizer of science and organizer of the Club of Mineral Amateurs at the Lomonosov Moscow State University.

Marina Sergeevna Sakharova was a charming and passionate personality, a true and bright Russian intellectual, with a broad circle of interests and a big heart. Her friends, colleagues, and disciples remember her as a perceptive judge of music and literature, eager reader, interesting and passionate partner in conversation, and a good storyteller.

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