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## Obituary

## Vladislav Borisovich Lazarev

Professor Lazarev was born on 25 July 1929, in the settlement of Reutovo, Balashikha District, Moscow Region. In 1952 he was graduated with honours from the Faculty of Physics of Moscow State University. He received his Candidate degree from the Kurnakov Institute in 1958 under the direction of Professor K. Semenchenko, and his Doctorate in 1968. Since 1954, his scientific activities were inseparably connected with the Kurnakov Institute of General and Inorganic Chemistry, where he progressed from the postgraduate level to Deputy Director (1973–1992), and became a most prominent expert in the fields of the physical chemistry and technology of inorganic materials, chemical thermodynamics, physicochemical and thermal analysis, and solid state chemistry.

In 1979, Professor Lazarev and co-workers were the first to synthesize compounds of mixed rare-earth and alkali-earth cuprates, and to reveal the metallic conductivity of these compounds in the range 78–700 K. These particular substances proved to be the first high-temperature superconductors. Professor Lazarev and co-workers were among the first to develop original methods of synthesis and to study the thermodynamic properties of a wide range of oxide high-temperature superconductors, which won world-wide recognition. The wide-ranging investigation of the thermodynamic and thermal properties of inorganic substances with tetrahedral ions, carried out in the Kurnakov Institute under Professor Lazarev's leadership, led to very interesting results on the rotational properties of these ions in the crystal lattice.

Professor Lazarev's fundamental works in the physical chemistry and technology of oxides, chalcogenides and semiconductors made a large contribution to the theory and practice of inorganic materials science. The discovery of a conduction mechanism in mixed oxides systems, fundamental advances in the synthesis and studies on the properties of binary and ternary semiconductor compounds, the revealing of the intraglobular crystallization phenomenon in amorphous oxide systems, development of original ideas concerning the dynamic strength of ceramic materials, based on the thermodynamics of nonequilibrium processes, synergism, and fractal topology — all these aspects owe much to Professor Lazarev. His fundamental investigations were always closely connected with solving top priority problems and have become classics of Russian science.

He was a prominent chemist, Head of the Laboratory of the Thermodynamic Fundamentals of Inorganic Materials Science at Kurnakov Institute of General and Inorganic Chemistry, winner of the State Prize of the USSR, Editor-in-Chief of the journal *Inorganic Materials*, Chairman of the National Committee of Russia on Thermal Analysis from 1978.

The scientific activities of Professor Lazarev won great recognition among his colleagues all over the world: he was elected an ICTAC member in 1978, member of ICTAC Award Committee, and member of the Editorial Boards of international journals (*Thermochimica Acta, Journal of Thermal Analysis*, and *Ceramics International*).

The encyclopaedic character of Professor Lazarev's knowledge, and his profound theoretical interests always attracted young scientists to him. The scientific school he founded deservedly holds a leading place in world science. Professor Lazarev generously shared his knowledge: he is the author of eight monographs, more than 600 scientific publications, more than 100 inventions, and two scientific discoveries.

To his pupils and colleagues, Vladislav Borisovich Lazarev will always remain an example of honest and noble service to science and his country.

A. Izotov K. Gavrichev