

VLADIMIR IVANOVICH VESELOVSKII (ON HIS 60TH BIRTHDAY)

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On July 20, one of the leading Soviet electrochemists—Professor Vladimir Ivanovich Veselovskii—celebrated his 60th birthday.

V. I. Veselovskii was born in the Donets Basin Region, where he began work as a coal miner in one of the mines of the Donets Basin as a boy of 15.

In 1933 V. I. Veselovskii graduated from Moscow State University in the specialty of electrochemistry. He has devoted all his subsequent scientific life to this field of science.

The first steps of the young electrochemist were associated with Karpov Physicochemical Institute, where he completed graduate studies at the Laboratory of Surface Phenomena, headed by A. N. Frumkin, and soon defended a candidate's dissertation on the topic: "Polarization Capacitance and Adsorption Properties of the Silver Electrode."

Beginning with this time, V. I. Veselovskii began an independent development of a new field of electrochemistry—investigating the influence of light emission on the course of electrochemical processes. The first cycle of studies of photoelectrochemistry ended with his doctoral dissertation (1949). In this generalization, profound quantitative relationships between the principles of electrochemical kinetics and photochemical processes were revealed for the first time.

The ideas developed in V. I. Veselovskii's doctoral dissertation served as a basis for his development of new trends in electrochemistry—the electrochemistry of semiconductors and radiation electrochemistry. In these fields also, V. I. Veselovskii has been a pioneer, drawing many researchers after him.

The studies of V. I. Veselovskii and his associates have disclosed the role of semiconductor oxide layers on electrodes, determining the complex structure of the potential drop at the electrode/solution interface and the electrochemical behavior of the electrode.

One of the interesting ideas of V. I. Veselovski, which was developed in the radiation-electrochemical studies of his and his associates, was the idea of selectivity of electrode materials, determined by their electrochemical properties, with respect to the products of radiation chemical transformations in aqueous solutions.

V. I. Veselovskii's interest in the unique properties of surface layers formed on an electrode at high anodic potentials has been especially fruitful. Extensive information on the phenomena in this region, obtained by the newest experimental methods, has revealed a number of fundamental principles important for an understanding of highly efficient oxidizing agents. The success of these investigations has been due in large measure to the use of ideas developed by V. I. Veselovskii on the participation of active oxygen and other surface compounds in the processes of electrochemical synthesis. The electrochemical pathway of the synthesis of highly active oxidizing agents is now acquiring great significance to the national economy.

In short summary it would be impossible to reflect all the multifaceted scientific activity of Professor Veselovskii; we should like to emphasize its basic feature—an acute sensitivity to innovation in science and the formulation of broad investigations in directions distinguished by novelty and cogency.

All of V. I. Veselovskii's scientific life—from 1934 to the present time—has been spent at Karpov Physicochemical Institute; since 1948 he has headed the Laboratory of Electrochemistry of this Institute. The only interruption in his work at the Institute was associated with his voluntary enlistment in June 1941 in the ranks of the Soviet armed forces, where he remained until 1946. He took part in the military actions of the Third Belorussian Front and in the development of a number of military problems of a scientific and technical nature.

V. I. Veselovskii is noted for his high principles in all questions of scientific and social life of the Institute and the country, in his relationships with his co-workers and all the members of the group of the Institute.

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The idea of the link of science with Communist construction finds reflection in all of V. L. Veselovskii's activity and will be the foundation for his successes in the future.

