YAROSLAV VASIL'EVICH DURDIN

(ON HIS SEVENTIETH BIRTHDAY)

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Professor Ya. V. Durdin, the well-known Soviet electrochemist, director of the Department of Electrochemistry of the A. A. Zhdanov Leningrad State University, and Doctor of Chemical Sciences, celebrated his seventieth birthday in August 1970.

Durdin's scientific activity began in the department of physical chemistry of Leningrad University under the direction of M. S. Vrevskii. Then, at the age of 30, under the direction of Academician N. N. Semenov in the Leningrad Institute of Chemical Physics he began to investigate the kinetics of reactions of metals with acids and was one of the first to propose that such reactions be considered as a series of interlinked electrochemical reactions. This idea subsequently received wide recognition and constituted the basis for modern concepts of the kinetics of the electrochemical reactions in the dissolving of metals.

Since 1935, Durdin has been working in Leningrad University, first in the Department of Inorganic Chemistry, and then in the Department of Electrochemistry, which he has headed since 1952. Durdin and co-workers have carried out comprehensive, systematic investigations of the kinetics and mechanisms of the dissolving of metals in solutions of acids and other electrolytes. The results of these studies are well known, both in the Soviet Union and abroad, as are the concepts developed by Durdin regarding the kinetic importance of the process which forms one of the links in the system of the complex process; these concepts are of great significance for kinetics as a whole and are the basis of the generalized electrochemical theory of the dissolving of metals in acids also evolved by him.



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Durdin and co-workers worked out the fundamentals of the oscillographic (galvanostatic) method of investigating the kinetics of electrode processes occurring in metals dissolved in acids. They also investigated the principles of hydrogen overvoltage in a number of metals and amalgams as well as the anodic dissolving of metals in concentrated solutions of acids. Particular interest in the investigation of the hydrogen overvoltage in solutions of acids was directed to an explanation of the role of anion absorption processes, especially those involving halide ions. Recently, Durdin and co-workers conducted a theoretical and experimental study of the dependence of the value of the limiting diffusion current on the concentration of a foreign electrolyte. Durdin is currently directing investigations of the kinetics and mechanisms of the electroreduction reactions of hydrogen and metal ions on liquid electrodes.

Durdin composed and delivered a number of important lectures on general chemistry, general and chemical thermodynamics, and on the kinetics of electrode processes in Leningrad University. In his lectures, papers, and discussions of his scientific research, Durdin, and his inherent, extremely far-reaching range of vision and pedagogical mastery, always knew how to develop the fundamental aspects

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of all phenomena under consideration and how to penetrate their very essence. Under his direction, a large number of doctoral dissertations were defended and several of his students became Doctors of Science.

Durdin participates in the public life of the chemical faculty of Leningrad State University and is the director of the work of the Urban Seminar on Theoretical and Applied Electrochemistry in Leningrad.

As a great scientist, excellent teacher, and remarkable human being, Durdin has made a tremendous contribution to the development of Soviet electrochemistry. He has been awarded Orders and Medals of the Soviet Union for his fruitful scientific and pedagogical activity.

His co-workers in the chemical faculty of Leningrade State University, his comrades, and his students wish Durdin good health and continued fruitful scientific and pedagogical activity.