# SOVIET ELECTROCHEMISTRY

VOLUME I: Kinetics and Polarography

**VOLUME II: Oxidation and Reduction** 

VOLUME III: Applied

# SOVIET ELECTROCHEMISTRY

(Proceedings of the Fourth Conference on Electrochemistry)

**VOLUME II: Oxidation and Reduction** 



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from the Russian of the original
Proceedings of the Fourth Conference
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A rearrangement of the original material
has been effected, as explained in the Preface.



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#### PREFACE VOLUME II

As a matter of publishing expediency the lengthy "Proceedings of the Fourth Soviet Conference on Electro-chemistry" has been divided into three manageable volumes. This procedure has necessitated some rearrangement of the papers as originally grouped under various topic headings.

Fully one fourth of the papers were in one of the ten original sections entitled "The Electrodeposition of Metals." Of these, roughly one third could properly be considered as theoretical in nature, at least by comparison with the balance, which clearly consisted of studies of practical deposition systems. Accordingly, the reduction subdivision of Volume II includes the above-mentioned theoretical electrodeposition papers and also two from "Electrode Processes in Melts" and the two non-polarography papers of the section title "Electrolytic Reduction."

In the oxidation subdivision of Volume II the entire original section "The Mechanism of Electrochemical Oxidation Processes" has been included, together with the section "Metal Passivity and Chemisorbed Layers." To the oxidation group were added two pertinent papers from the section on melts. Also included were two papers dealing with metal dissolution originally located in separate sections.

The original section "Electrode Processes in Melts" has been entirely dispersed within the three volumes in appropriate locations.

The discussions located at the end of each original section have been appropriately relocated in association with the pertinent papers at the end of the subdivisions of the present volumes.

It is hoped that this collection will be useful in supplying an over-all picture of the present-day trends in Soviet electrochemical research, since reported papers are usually dispersed in several chemistry journals in the absence of a journal devoted exclusively to electrochemistry. The usefulness of the collection is enhanced by the inclusion of several papers by leading researchers of other nations.

L. N.

## SOVIET ELECTROCHEMISTRY

#### Volume II

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