PREFACE BY THE ENGLISH EDITION EDITORS

Worldwide recognition of the Soviet Union's scientific prowess came in the early 1950's with the discovery of the great progress and achievements of their scientists and engineers, as evidenced by the Russian scholarly literature that had remained almost totally obscured to the West until that time. This realization of important academic and applied strides led to a flurry of translated Russian books and jouma1s. In the field of heat transfer, the heretofore unknown names linked to fundamental research in the thermal sciences began to appear in the translated literature and, in ever-increasing numbers, in Western citations giving rise to the recognition of the high level of Soviet heat transfer.

As in all branches of science and engineering, the tradition associated with a given institution of learning is of great importance to the prestige of the staff itself, both within and outside the walls of the academy, university, institute or laboratory, be they of the fundamental or applied ilk.

The well known authors of this book, E.K. Kalinin, G. A. Dreitser, I.Z. Kopp, and A.S. Myakochin, represented, respectively, the following well known and respected institutions: Moscow Aviation Institute (Technical University), St. Peters- burg State Technical University (former Leningrad Polytechnical Institute), with some of the authors having found their homes today in the United States.

The contacts between the Soviet, post-Soviet Russian and Western heat transfer engineers have been growing and increasing over the years and in 1999, one of us, Arthur Bergles, attended the International Conference on Compact Heat Exchangers and Enhancement Technology for the Process Industry in Banff, Canada (the proceeding of which were published by the other one, Bill Begell). We met with one of his Russian colleagues, Prof. Dreitser who showed him the Russian copy of this book. The conversation turned to the value of the information contained in the monograph and, in a couple of years later, following a great effort

in translating, trimming, and editing the work, the present book is being made available to the English-speaking heat transfer engineering community.

There is much good and useful material in this book. It will be valuable for the Western researchers and designers to have the perspective of leading Russian specialists. We found the translation by N. K. Shveyeva to be excellent, and more than the usual care has been taken with clarifying the text and correcting the proof.

We found that while the text contains some extra background material, there is a good deal of useful and original research and results that can be "mined" from the book by engineers involved with the design and research of Efficient Surfaces for Heat Exchangers.

Now the Table of Contents thoroughly reflects the completeness of the coverage found in this monograph.

We are pleased to present the book to heat transfer engineers with the understanding that we have endeavored to eliminate, in this presentation, many of the walls that are always present in trying to breach the language barrier and overcome he difference in approaches to basic research and applied design that exist between the cultures, philosophies, and methods on both sides of the ocean and beyond the Urals.

We believe that we have been, at least partially, successful in minimizing the distance between the these geographies.

Arthur Bergles

Bill Begell

September, 2001