

Foreword to Volume 3 of the English Edition

Although ten years have passed since the publication of the third volume of the Russian edition of this book, the basic materials of this volume as well as of Volumes 1 and 2 are still applicable and most recommendations remain reliable even today. In cases when new data have appeared after the publication of the Russian edition that make it possible to substantially improve recommended thermodynamic properties, these data were used to update the recommendations. In general, the tables of thermodynamic properties of more than 90 substances were recalculated mainly due to improvement of the molecular constants of gases and the heat capacity and phase transition data for substances in the condensed state. The thermochemistry of many other substances (e.g., compounds of strontium and barium) was changed using new data, more accurate processing of old data, and new estimations. In addition, 47 tables of the thermodynamic properties of substances that were not included in the Russian edition are given in this volume, mainly for compounds of gallium, indium, and thallium with halogens.

After Prof. Vadim Medvedev died during the course of preparation of this volume, Dr. A. Gusarov served as the editor of paragraphs devoted to thermochemical data. Drs. N. Aristova, Yu. Khodeev, and Mrs. A. Efimova participated in the evaluation of data for several substances each.