

## Book Review

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*Evaluated Kinetic Data for High Temperature Reactions, Vol. 3: Homogeneous Gas Phase Reactions of the O<sub>2</sub>-O<sub>3</sub> system, the CO-O<sub>2</sub>-H<sub>2</sub> system, and of sulphur-containing species*, by D. L. Baulch, D. D. Drysdale, J. Duxbury and S. Grant, published by Butterworths, London, 1976; 593 pp.; price £ 29.50.

The Science Research Council supports a project, under the direction of Dr. D. L. Baulch at Leeds, on the compilation and evaluation of kinetic data for reactions of interest in high temperature systems and the present volume is part of the outcome of this work. The aims have been to prepare for each reaction a comprehensive tabulation of the available reaction rate data, to evaluate critically the existing data and, wherever possible, to recommend reliable values for the rate parameters.

High temperature systems of greatest practical importance involve reactions of atoms, small radicals and molecules, composed of the elements hydrogen, carbon, nitrogen, oxygen, sulphur, fluorine and chlorine. There is a formidable number of homogeneous gas phase reactions of these species and selection is unavoidable. Attention is concentrated on those reactions for which sufficient rate data exist to allow some critical assessment. However, other reactions which are related to those critically assessed or which may be important in either high temperature processes or related low temperature systems are also included.

Volume 3 of the evaluated kinetic data is concerned with reactions in the O<sub>2</sub>-O<sub>3</sub> system, reactions in the CO-O<sub>2</sub>-H<sub>2</sub> system and reactions involving sulphur-containing species. The compilation is of potential interest to a wide spectrum of technologists, physicists, chemists and engineers. In drawing up the tables, the authors have tried to keep in mind the various needs of this range of users. Particular attention has been given to the format and to the introductory notes to assist the non-specialist in chemical kinetics in finding quickly the information he requires and in understanding the terms and symbols used. For the kineticist capable of making his own evaluation, a comprehensive bibliography is given, and in the Discussion sections the authors have indicated briefly their reasons for selecting or rejecting particular measurements. For rapid reference, a summary table is provided, in which all the recommendations for rate constants are listed.

The cost seems high for a book produced by offset from typescript. However, there are 593 pages of information of inestimable value. The book surely needs to be near at hand for reference by kinetics research groups, even if individuals might not wish to own it.

R. P. W.