

Book Review

Progress on Reaction Kinetics, Vol. 10

edited by K. R. Jennings and R. B. Cundall; published by Pergamon, Oxford, 1981; 406 pp.; price, U.S. \$82.50

This volume of *Progress in Reaction Kinetics* contains three admirable reviews. The first, by Levy, is a massive account (252 pages and 1144 references) of the dynamics of reactive collisions. It is well organized, briefly describing both experimental and theoretical methods before giving a comprehensive review of specific reactions. This latter section is the major contribution of the review. It takes the form of extensive but somewhat cryptic notes on the results for individual reactions or classes of reactions and includes details of, for example, correlation or surprisal arguments where appropriate. It represents a great organizational feat and it is well worth consulting. The only criticism is that the latest cited references are for 1978. Donovan gives a more synoptic account of reactive, inelastic and radiative processes involving electronically excited atoms. The review is an update of his important review with Husain published in 1970. The most interesting section is on energy transfer but the review also contains useful sections on ionization and reaction. The review is selective but provides a good physical insight into the processes involved. Kemp provides a timely review of the luminescence kinetics of metal complexes in solution concentrating on chromium(III) and ruthenium(II) but also giving a brief discussion of osmium(II), platinum(II), rhodium(III), iridium(III), ligand-centred luminescence and organometallics. The emphasis is on the photochemical kinetics and useful appendixes are provided for various important kinetic schemes. There is also some discussion of the photophysical behaviour. Overall, the volume is an excellent addition to the series.

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