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tially somewhat confusing to one who is familiar with the literature.

This book could be used successfully as a text for an advanced (graduate-level) course in chemical kinetics dealing specifically with unimolecular reactions. It contains problems at the end of each chapter, most of which are simple but informative. It should also be useful for anyone involved with unimolecular processes and hence I recommend it to kineticists involved in active research pertaining to unimolecular reactions. The book should provide a common language for mass spectroscopists, photochemists and kineticists to discuss their problems and thus develop more communication between these different research-oriented groups.

D. C. TARDY

University of Iowa
Iowa City

The Liquid State

F. Kohler, ed.

256 pp. Crane, Russak, New York,
1972. \$32.50

Several monographs on the liquid state have appeared within the past decade, but these are for the most part devoted to the description of the properties of the simplest liquids. *The Liquid State*, edited by Frederick Kohler, is different, being much more like an extended review article. The topics covered range from elementary-thermodynamic considerations, through equilibrium and nonequilibrium statistical mechanics in the distribution-function representation, and include discussion of the properties of complicated hydrogen-bonded liquids. I feel that the general level of discussion is excellent for the purpose of introducing the reader to the key ideas and providing literature references for further research. This is not a volume that one studies to learn in detail about liquids. It is a volume that can be recommended to anyone interested in a broad survey with enough detail to provide interesting examples and to elucidate both successes and difficulties of the current level of understanding. I would have no hesitation in recommending it to first-year graduate students or even good seniors as a source book of information.

Given the above statements, I can find no better way of describing the contents than to list the chapter headings which are: Models for the Liquid State, Computer Experiments, Pair Distribution Function, Pair Potential, Thermodynamic Properties of Liquids, Equilibrium Theories of the Liquid State, Non-Equilibrium Properties: Transport Coefficients, Non-Equilib-

rium Properties, Liquid Dynamics, Polyatomic Molecules, Molecular Reorientation in Liquids and Associated Liquids. The book belongs in all physics and chemistry departmental libraries.

STUART A. RICE

University of Chicago
Chicago, Illinois

Introduction to Biomechanical Analysis of Sport

J. W. Northrip, G. A. Logan,

W. C. McKinney

338 pp. William C. Brown,
Dubuque, Iowa, 1974. \$8.95

Most of us have at least some interest in sports, and if we are interested in physics as well, the mechanics of sport is a fascinating subject. A number of good books on it are available. C. B. Daish's *The Physics of Ball Games* (English Universities Press) is an outstanding book, strongly recommended to readers of PHYSICS TODAY. Geoffrey Dyson's *The Mechanics of Athletics* (U. of London Press) and R. A. R. and B. J. K. Tricker's *The Science of Movement* (Elsevier) are good books designed for readers with little or no knowledge of physics.

Introduction to Biomechanical Analysis of Sport is designed for physical educators and coaches. Its aim is to improve their effectiveness as coaches by teaching them to analyse sport movements in physical terms. Examples are taken from numerous sports including baseball, gymnastics, swimming and all branches of athletics.

The book has three sections. The first is concerned with the range of movements of which the human body is capable. The structure of the skeleton is shown in a series of quite detailed drawings. Extreme positions of many joints are illustrated by photographs of athletes; they are often striking and generally clear, but the same points could have been made with less risk of being misunderstood if simple diagrams had been used.

The second section of the book is the longest and the least satisfactory. It is an introduction to the branches of mechanics that can be applied to sport. It is full of facile and potentially misleading attempts to explain physical principles. For instance, a passage about arm movements in running includes the sentence "This force-counterforce relationship of the arms helps maintain the body in an equilibrium position from which the legs can function most effectively to accelerate the runner." A coach needs a sounder and clearer understanding of mechanics