

Book Review

T. Kihara: Intermolecular Forces (translated from the Japanese by S. Ichimaru). London: John Wiley and Sons 1978. 182 pp., price: £9.50

The publisher's blurb states that this book is intended for undergraduates and postgraduates in physics, chemistry and biophysics. In my view undergraduates are likely to find it very difficult but it is suitable for postgraduates and others who are looking for an introductory account of some aspects of intermolecular forces.

Because the author is assuming only an elementary background in quantum mechanics, he uses the first few chapters to develop fundamental principles, basically very simple quantum chemistry and electrostatics. Very quickly, and perhaps too quickly, there follows a good account of dispersion forces and virial coefficients. The second half of the book deals with topics where Professor Kihara himself has made distinguished contributions. These include: computation of virial coefficients for the Lennard-Jones potential, effects due to multipole interactions, crystal structure, viscosity. It could be said that, taken together, these give a somewhat narrow view of the subject but I would prefer to call it a personal view and, as such, I found it rather refreshing and invigorating.

Certainly it is the later chapters in the book which will be of most interest to readers of this journal and these chapters can be recommended as being helpful and informative. However, it must be stressed that the book is not primarily intended for research workers in the field of intermolecular forces but, rather, for students or those who are just beginning to work in the area. Given this fact, the book can be welcomed as a useful addition to the literature of this subject.

A. T. Amos, Nottingham

Received September 23, 1978