

out. The correlation with classical orbital symmetry rules is further examined.

The reviewer considers that the main value of the book is the new synopsis of the otherwise well established theory of vibronic coupling. The author convincingly demonstrates the general validity and usefulness of the vibronic approach for chemical problems and gives an illustrative survey over a broad range of applications of the concept. The book is well written and restricts itself to only the necessary mathematical formalism. Some errors in citing experimental data (Table 5.4) are not serious and do not affect the attractiveness of this original book.

Though about 530 references are cited, this is only a selection of 3204, which have been collected up to 1980, and classified with short codified abstracts, in a separate volume:

The Jahn-Teller effect, a bibliographic review. By I. B. BERSUKER *et al.* Pp. ix+589. New York, London: Plenum, 1984. Price \$85.00.

This volume will be extremely helpful for chemists and physicists, who are actively engaged in research activities connected with or related to vibronic theory and experimental manifestations of the Jahn-Teller effect. The references are classified according to five main headings, each of which is subdivided into four to eight subtitles. A clear key system facilitates access to the literature data. Additional information can be drawn from the key-word and subject, substance, formula and author indexes. In all, a highly useful compilation of reference data - not only for the scientists, who are directly involved in vibronic theory and its applications.

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X-ray crystallography and drug action. Edited by A. S. HORN and C. J. DE RANTER. Pp. xii+514. Oxford: Clarendon Press, 1984. Price £30.00.

This volume includes 27 papers presented at the ninth International School of Crystallography held in 1983 at Erice, Italy. It is essentially a collection of works on molecular modelling and drug design and reflects one of the most exciting areas of science to which X-ray crystallographers are turning their attention. Many of the contributions are by well known and distinguished authors. The papers are extremely stimulating to read; the meeting in Italy must have been a resounding success. The contents range from reports on relatively simple molecular systems, such as conformationally restricted analogues of neurotransmitters like noradrenaline, to current ideas and work on actual drug receptors. Other articles concentrate on the unravelling of the types of interactions operating between aggregating molecules, a subject of the utmost importance to all concerned with the use of computer graphics as a tool for drug design. The limitations of current methodology are highlighted and reviewed.

The articles cover a broad range of topics and, although each one tends to stand alone, the whole set gives a clear snapshot of this approach to the understanding of drug action, and to drug design. The X-ray crystallographer has an obvious and useful role to play in this work.

The book is highly recommended to anyone with an interest in drug design and the use of computer graphics in organic chemistry.

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