

$J_{AX} + J_{A'X} + J_{A''X} + \dots$. The fractional intensity of the X spectrum that is in the sharp doublet depends on r , the number of nuclei of the A type. It can readily be shown to be $(1/2)^{r-1}$. Thus, for the spectra illustrated by Allen, *et al.*,⁵ for $r = 3, 4, 5, 6, 7, 8$, this fraction is $1/4, 1/8, 1/16, 1/32, 1/64, \text{ and } 1/128$, thus

readily explaining the apparent "disappearance" of the doublet as r increases.

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RECEIVED SEPTEMBER 27, 1965

Book Review

Mechanisms of Inorganic Reactions. Edited by ROBERT F. GOULD. Advances in Chemistry Series, No. 49. American Chemical Society, Washington, D. C. 1965. 266 pp. 16 × 23 cm. \$8.00.

This volume contains the proceedings of the 1964 Summer Symposium of the Division of Inorganic Chemistry. An introductory paper by J. C. Bailar, Jr., ten invited papers, and related discussions are included. The papers are more or less review in nature, and the discussions tend to be lengthy and rather more opinionated than thoughtful. Probably because of my own research interests, I particularly enjoyed the papers by Basolo and Duke. On the whole, however, the book did not come up to the expectations of this interested chemist.

One can hardly read the book without feeling the need for a new approach to the unsolved problems in coordination compound mechanisms. The need for original insight in this research area is brought sharply into focus by the number of places in this book wherein a question remains unanswered (even in principle) by either theory or experiment. Certainly we still have a long way to go before we achieve a satisfactory degree of understanding of substitutions in octahedral complexes.

The book will be useful to the chemist who deals with inorganic

mechanisms, particularly those of coordination compounds. The ten papers provide up-to-date entries into ten specific systems. With most of the papers, there is an excellent list of references. It is doubtful if the book could be used as a general reference in the area of inorganic mechanisms; the reader would get a very unbalanced diet indeed.

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BOOKS RECEIVED

February 1966

BEAT MEYER, Editor. "Elemental Sulfur, Chemistry and Physics." John Wiley and Sons, Inc., 605 Third Ave., New York 16, N. Y. 1965. ix + 390 pp. \$15.00.

B. N. FIGGIS. "Introduction to Ligand Fields." John Wiley and Sons, Inc., 605 Third Ave., New York 16, N. Y. 1966. v + 351 pp. \$9.50.