of results prior to publication. We also acknowledge a NATO postdoctoral fellowship to C.J.S., a postdoctoral fellowship from the Miller Research Foundation at the University of California, Berkeley, to J.H.F., and a generous loan of $RhCl_3.3H_2O$ from Johnson-Matthey, Inc.

Supplementary Material Available: Spectroscopic and analytical data for complexes **2a–e** and **5a–e** and details of the structure determination of complexes **2c** and **5a**, including experimental description, ORTEP drawings showing full atomic numbering scheme, crystal and data collection parameters, general temperature factor expressions (B's), positional parameters and their estimated standard deviations, and intramolecular distances and angles (34 pages); tables of calculated and observed structure factors for **1** (37 pages). Ordering information is given on any current masthead page.

Additions and Corrections

Magnetic Properties of Manganese in the Photosynthetic O_2-Evolving Complex. 2. Evidence for a Manganese Tetramer [*J. Am. Chem. Soc.* **1986**, *108*, 4002–4009]. JULIO C. DE PAULA, WARREN F. BECK, and GARY W. BRUDVIG*

Page 4007: In the fourth row of Table I, following (NH_4Cl treated), the exchange coupling constants should be $J = 16$ cm^{-1} and $J' = -42$ cm^{-1} instead of $J = 23$ cm^{-1} and $J' = -53.5$ cm^{-1} and $\Delta_2 = 8.1$ cm^{-1} instead of 48.6 cm^{-1}.

Page 4007: In Table II, the headings should read Δc_1, Δc_2, Δc_D, Δc_3, and Δc_4 rather than c_1, c_2, c_D c_3, c_4, where Δc_i represents the difference of the c_i's (as given in the text) of the two levels of the Kramer's doublet. The corrected Table II is given below.

Table II. Hyperfine Reduction Constants for a $3Mn^{III}$–Mn^{IV} Tetramer

state of OEC	illumination (K)	Δc_1	Δc_2	Δc_D	Δc_3	Δc_4
resting	200	−0.006	−0.006	−0.989	1.978	0.989
(NH_4Cl treated)	273	−0.085	−0.085	−0.830	−1.660	0.830
active	245	−0.071	−0.071	−0.859	−1.718	0.859
	160	−0.029	−0.029	−0.941	−1.882	0.941

Book Reviews*

Mechanisms of Inorganic and Organometallic Reactions. Volume 4. Edited by M. V. Twigg. Plenum Press: New York and London. 1986. xviii + 536 pp. $79.50. ISBN 0-306-42332-4

Reviews of previous volumes have described the antecedents, scope, organization, usefulness, and limitations of this continuing series (*J. Am. Chem. Soc.* **1985**, *107*, 1091; **1986**, *108*, 2496). In this volume, the text continues to be organized into the three main sections: Electron Transfer Reactions (3 chapters), Substitution and Related Reactions (6 chapters), and Reactions of Organometallic Compounds (5 chapters). A fourth section is a 13-page Table of Volumes of Activation. The literature is covered for the period January 1984 through June 1985. To hold down the length of the book and its price, the Author Index has been eliminated. While the user can still turn to a particular subject, one can no longer quickly review the publications of a particular research group. This series belongs in research libraries and is useful to specialists in the field and those writing reviews.

John T. Yoke, *Oregon State University*

The Peptides: Analysis, Synthesis, Biology. Volume 7: Conformation in Biology and Drug Design. Edited by Victor J. Hruby. Academic Press: Orlando. 1985. xx + 495 pp. $99.00. ISBN 0-12-304207-0

This is the seventh volume of the very successful, *The Peptides*. As expected from the title, the book describes the present state of conformational analysis of peptides in biology and drug design. There is a balance between chapters describing experimental methods and theoretical analysis with two of the nine chapters devoted to energetic calculations. The critical utility of NMR in the field is borne out by the fact that four chapters introduce different aspects of the applications of NMR. Chapters on the use of fluorescence and circular dichroism as well as a brief introduction to conformational analysis complete the book.

The two chapters on energetic calculations provide a well-referenced, detailed introduction into the field. The chapter by S. Zimmerman represents a clear and concise overview of the development of energy calculations. He begins with a description of the hard-sphere approximations used early in the development of the field and continues with the determination of parameters and methods of minimization. Although most of the examples and applications used are drawn from the program ECEPP (Empirical Conformational Energy Program for Peptides) the chapter is quite thorough in its coverage. A more general description of the methods employed in energetic calculations can be found in the chapter written by A. Hagler. There is an historical description of the different methods and analysis of what can be gained from the use of them. The chapter concludes with what can be expected in the future with the advent of faster and larger computers.

The use of NMR in conformational analysis begins with a description of the use of paramagnetic ions as a conformational probe. The chapter written by R. E. Lenkinski and J. D. Glickson examines the utilization of the binding of paramagnetic ions by monitoring variance in chemical shift and relaxation rates in conformational analysis. The next topic covered is the NMR examination of peptide–macromolecule interaction. The chapter by M. Blumenstein is a well-written, detailed presentation with many timely examples. S. J. Opella and L. M. Gierasch have examined the use of solid-state NMR in the study of peptide conformations. Solid-state NMR is growing in importance. This chapter should serve as a basic and focused reference on the subject. Finally, H. Kessler et al. have the formidable task of describing the use of NMR studies of solutions in the conformational analysis of peptides. Realizing that a complete introduction of NMR studies in solution would require many monographs of this size the chapter concentrates on the use of 2D techniques. There is a description, with adequate references and examples, of the most common homo- and heteronuclear techniques used in the assigning of proton, carbon, and nitrogen resonances.

Chapters on circular dichroism and fluorescence complete the book. As the contributors note both of these techniques are powerful tools, especially when used in conjunction with NMR and energetic calculations. The chapter written by R. W. Woody is a detailed description of the theoretical and experimental aspects of CD and optical rotary dispersion, ORD. There are many well-referenced examples of applications of these techniques. The use of fluorescence in conformational studies is described by P. W. Schiller. Again there are many referenced examples with an emphasis on the practical concerns of the utilization of fluorescence. The presentation of the theoretical details and the many applications are very timely.

*Unsigned book reviews are by the Book Review Editor.