which might be drawn from these papers is that the more applied the experiments, the less pessimistic the conclusions concerning behavioral problems in space flight. The final section contains papers on hypothermia, hypnosis, and the concept of the cyborg, which is defined as "the extension of homeostatic controls by means of cybernetic techniques." These final papers suggest the possibility that man may take some stupendous trips in a rather stuporous state.

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Advanced Textbook

Stereochemistry of Carbon Compounds. Ernest L. Eliel. McGraw-Hill, New York, 1962. xv + 486 pp. Illus. $15.

There is every cause to applaud the basic purpose of this book, which should soon become accepted as the standard textbook in carbon stereochemistry and which, as such, should also be the guidebook to this important field. It is an overdue modernization of the work by Shriner, Adams, and Marvel and by Wheland, and it presents the new systems and methods of nomenclature and configurational assignment, with an extensive treatment of conformational analysis.

The subject of stereochemistry has grown to "impossible" proportions, as W. Klyne has noted, but in my opinion, the task of inclusion and exclusion has been carried out exceedingly well in this book. The stereochemistry of nitrogen is treated in several sections, but that of the other elements (with the exception of carbon) is not mentioned. This major exclusion may also be read into the book's somewhat ambiguous title.

That this is an advanced text is evident from its assumption of a preliminary understanding of chemical reactions, nomenclature, thermodynamics, and kinetics. The seven or eight "reader exercises" scattered through the book are too simple and too few, to serve as problems for students, but each chapter concludes with a selection of general references that constitute a list of previous treatments and, thus, a source for further reading. Specific references appear on each page. The author writes well and critically and, in some instances (page 246), he discusses current questions when available data allow only tentative conclusions.

Errors inevitably occur in a work of this compass, but in this volume they are not serious. On page 39, for example, racemization is *not* evidently due to change of configuration at the No. 5 carbon. Digitonin (page 59) is a saponin. Printing errors are found on pages 65, 97, 387, and 410. Casual inspection of the author index shows that the entry "R. Adams" includes the citations to the work of two people. The subject index withstood my spot check for errors, but it failed to direct me to the subject of the shape of heterocyclic rings (page 246), except under the terms *morpholine* and *piperidine*, or to interconversion of amine enantiomers (page 385). Some readers will be irked by the frequent necessity of turning one or more pages in order to examine both a figure and the text material that applies to it.

This book is well done and although it will be most useful to students, it will find a place on many reference shelves as well.

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Notes

Visual Books Series

Space, the Architecture of the Universe, by Gottfried Honegger and Peter van de Kamp (Dell, New York, 1962. 120 pp. Paper, $0.95), is the first of a new paperback series that will present to the student and the general reader factual knowledge in an unusual and colorful manner. An artist and a recognized scholar closely collaborate, with the aid of four-color art, the result being a book that is half color drawings and pictures and half text. *Space* is really a book on "instant astronomy," which has little if anything to do with present space efforts as such. The book is marred by a number of errors, the diagrams are too often confusing, the colors are sometimes inappropriate, and far too many statements need to be qualified. However, the approach is useful and interesting and should appeal to most readers.

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New Books

Mathematics, Physical Sciences, and Engineering

Advances in Catalysis. And related subjects. vol. 13. D. D. Eley, P. W. Selwood, and Paul B. Weisz, Eds. Academic Press, New York, 1962. 472 pp. Illus. $15.

The Atom. Sir George Thomson. Oxford Univ. Press, New York, ed. 6, 1962. 228 pp. Illus. $1.70.

Concise Encyclopedia of Electrical Engineering. M. G. Say, Ed. Newnes, London, 1962. 918 pp. Illus. 140s.

A Course of Modern Analysis. An introduction to the general theory of infinite processes and of analytic functions, with an account of the principal transcendental functions. E. T. Whittaker and G. N. Watson. Cambridge Univ. Press, New York, 1962 (reprint of ed. 4, 1927). 608 pp. Illus. Paper, $4.95.

Elasticity, Fracture, and Flow. With engineering and geological applications. J. C. Jaeger. Methuen, London; Wiley, New York, 1962. 216 pp. Illus. $3.

Elements of Linear Spaces. A. R. Amir-Moez and A. L. Fass. Pergamon, New York, 1962. 158 pp. Illus. $5.50.

Experimental Transition Probabilities for Spectral Lines of Seventy Elements. Derived from the National Bureau of Standards tables of spectral-line intensities. Monograph No. 53. Charles H. Corliss and William R. Bozman. Superintendent of Documents, GPO, Washington 25, D.C. 580 pp. $4.25.

Formulaire Technique du Géologue. Raymond Furon. Lechevalier, Paris, ed. 2, 1962. 228 pp. Illus. NF. 18.

Fundamental Chemistry. Donald H. Andrews and Richard J. Kokes. Wiley, New York, 1962. 829 pp. Illus.

Gas Chromatography. John H. Knox. Methuen, London; Wiley, New York, 1962. 134 pp. Illus. $3.25.

High-Speed Analog Computers. Rajko Tomovic and Walter J. Karplus. Wiley, New York, 1962. 266 pp. Illus. Plate. $9.95.

High Speed Testing. Proceedings of the symposium held at Boston, Mass., in October 1961. Albert G. H. Dietz and Frederick R. Eirich, Eds. Interscience (Wiley), New York, 1962. 111 pp. Illus. $5.

International Conference on Magnetism and Crystallography, Proceedings. vol. 1, *Magnetism* (729 pp.); vol. 2, *Electron and Neutron Diffraction* (401 pp.); vol. 3, *Neutron Diffraction Study of Magnetic Materials* (71 pp.). Physical Society of Japan, Tokyo, Japan, 1962. Illus. Paper. The conference, held in Kyoto, Japan, during the period 25–30 September 1961, was organized by the Science Council, the Physical Society, and the Crystallographic Society of Japan.

Mathematics of Modern Engineering. vol. 1, Ernest G. Keller and Robert E. Doherty, 331 pp.; vol. 2, Ernest G. Keller, 319 pp. Dover, New York, 1961 (reprint). Illus. $1.65 each; set, $3.30.

Programming and Utilizing Digital Computers. Robert Steven Ledley. McGraw-Hill, New York, 1962, 589 pp. Illus. $12.50.