

in the subject. Prof. Struve's own contribution in this field was not mentioned; the limelight was on the discovery of the binary nature of Nova Herculis, and what it implied in our search for the missing link in stellar evolution. The other lectures were on stellar evolution, origin of the Solar System, galaxies and radio astronomy. In all these Prof. Struve can be depended on for being up to date (in 1959)—and this means the lecture on radio astronomy is already somewhat out of date. The last lecture is an odd-man-out. It has for its title "Man and the Universe", but turns out to be a plea for carrying out more astronomy; the reasons, apparently, are (1) the Russians had fired the first satellite; (2) astronomy had been useful to physics; (3) there may be other intelligent beings outside our planet.

There is a large number of diagrams and photographs in the book—too many photographs, I feel. A large assortment of lantern slides, each shown for a brief moment, may be just the thing in public lectures, but to reproduce them all in print, which seems to be the case, is sheer extravagance. The diagrams are all right because they serve a particular purpose, but the photographs, most of them familiar anyway, simply take up a lot of space and put up the cost of the book out of proportion to their usefulness.

T. KIANG

SPACE SCIENCE

Interplanetary Dynamical Processes

(Interscience Monographs and Texts in Physics and Astronomy, Vol. 8.) By E. N. Parker. Pp. viii+272. (New York and London: Interscience Publishers, a division of John Wiley and Sons, 1963.) 95s.

Astrophysique

(Cours à l'usage de la Licence.) Par E. Schatzman. Pp. 150. (Paris: Masson et Cie, 1963.) 29 F.

Radio Astronomy

By J. Steinberg and J. Lequeux. Translated by R. N. Bracewell. Pp. xii+260. (New York: McGraw-Hill Book Company, Inc.; London: McGraw-Hill Publishing Company, Ltd., 1963.) 77s.

INTERPLANETARY Dynamical Processes is devoted to a discussion of the theory of coronal expansion or the theory of the 'solar wind'. This is a question which has acquired great importance since the first introduction of this subject more than ten years ago. The problem is introduced and the observational evidence presented and discussed in the first three chapters. The next six chapters are concerned with establishing the mathematical techniques used, that is, the necessary hydrodynamical equations and their solutions under various conditions. The part played by magnetic fields, irregularities and the propagation of high-energy particles in the expanding corona are discussed. The book is concluded by a discussion of the question of coronal expansion for stars other than the Sun.

This is a particularly interesting account of the theory of coronal expansion. It summarizes in one volume the hydrodynamical theory of such expansion and presents the arguments and evidence in support of this method of approach. The accounts of the work were previously scattered in the literature. While expensive, the price is not unduly high for a specialized monograph which must have appeal limited to the fields of solar and space dynamics.

Astrophysique (Cours à l'usage de la Licence) begins by discussing the means of obtaining astrophysical information before discussing the Sun, double stars, variable stars, stellar distributions and motions, interstellar material and extragalactic nebulae. The subject is covered in a very concise way. The compactness is of such a

degree that it would be difficult to use this text independently either of the course of lectures on which it is based or a set of reference texts.

However, there is a need for this type of text where there is more demand for astrophysics courses. The book allows rapid refreshment of the memory and allows the student to obtain a grasp of the subject as a whole. In this respect, however, the price of the book is somewhat high. It would be desirable to see more of this type of document associated with courses given in Britain. While the expense of the book precludes its use by students, it should find a place in astronomical libraries, where it can be used to good effect in the planning and presentation of new courses.

The translation of J. Steinberg and J. Lequeux's book brings a fine text to the English-speaking readership. The standard at which *Radio Astronomy* is written will make it an excellent text to supplement a course of lectures on radio astronomy at degree level. The topics covered are: the role of the atmosphere; thermal radiation; simple radio telescopes; interferometers and aperture synthesis; spectral observations; mechanism of the emission of radio waves; radio emission from the Sun; radio emission from the Solar System; galactic radio emission; galactic radio sources; extragalactic radio sources. The treatment is kept simple, but no endeavour is made to avoid mathematical treatment at the expense of clarity. The section on the mechanism of radio emission is of particular interest.

While useful as a text-book, its value should not end there. It is perfectly comprehensible to advanced general readers who wish to gain some insight into the techniques and the results of radio astronomy. There are few books of this level on radio astronomy and it is indeed welcome that this excellent French text should have been translated by such a well-known radio astronomer as Dr. R. N. Bracewell.

D. McNALLY

PRESENT STATE OF HISTONE STUDIES

The Nucleohistones

Edited by Prof. James Bonner and Dr. Paul Ts'o. Pp. xvii+398. (San Francisco and London: Holden-Day, Inc., 1964.) 12.75 dollars.

THIS book is the outcome of the first World Conference on Histone Biology and Chemistry in April 1963. It is worth stating at the outset that this is a very useful work as it contains most of the present data on histones and, unlike many *Proceedings* of international meetings, is likely to be consulted for some time to come.

It is inevitable in a work of this nature that there will be considerable overlapping of the individual contributions, and the student wishing to ascertain the present-day views on histone function will need to work carefully through with a notebook and then cross-reference his own notes. This is not a criticism of the work of the editors who have tidied the contributions into sections which are, to some extent, self-contained. They have also avoided verbatim reports of discussions, which can be merely distracting to the reader who does not know the participants. The difficulty in assessing the present standing of histones reflects the diversity of opinions expressed in the book, all founded on well-documented experiments; it is probably a salutary introduction for any student entering the field of molecular biology.

The book opens with a very readable chapter on the history of histone chemistry, starting with the work of Hoppe-Seyler and ending with the Kossel school. This is followed by ten chapters by various authors, dealing with details of histone chemistry. The heterogeneity of