The second half of the book may appeal to a different group, one concerned more with science policy than science. It is an account of the characters who conceived and nourished the ocean business and the scenery—mainly in Washington—in which they acted. The script is copiously annotated with interpretations of the motivations of individuals and organizations. It looks into the mind of the Secretary of Defense and into the collective minds of the aerospace companies looking into his mind—altogether a heady experience. The content of this sometimes theatrical prose consists of hard and hard-won facts which are a credit to the reportorial skills of the authors. Occasionally it seems to me that they go adrift in their history of maneuvering in Washington, but perhaps someone else recalled the events differently for them.

This is an account of little science growing into big science and a scientific revolution that will be welcomed by the specialist for its breadth and by a wider audience for its clarity.

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The Far Infrared

Submillimetre Spectroscopy. A Guide to the Theoretical and Experimental Physics of the Far Infrared. G. W. CHANTRY. Academic Press, New York, 1971. x, 386 pp., illus. $18.

During the past ten years a number of technical achievements such as commercial far infrared interferometers, cheap minicomputers, and simple lasers have made the submillimeter wave region of the electromagnetic spectrum available to specialists and nonspecialists alike. This book aims at both of these groups. A number of research topics are surveyed for the specialist while the simplicity of far infrared spectroscopy is revealed to the nonspecialist. This book begins with a fairly comprehensive account of Fourier transform spectroscopic theory and practice and ends with a detailed description of submillimeter lasers and submillimeter aspects of nonlinear phenomena. A graduate student or researcher with a background in physics, physical chemistry, or electrical engineering should find these chapters quite rewarding. These two topics are separated by a chapter entitled "Submillimetre physics," which definitely does not meet the objectives stated on the book's cover flap: "Every important aspect is discussed, and each topic is illustrated by up to date examples. In short, [the book] is a survey of the field as it appears today." In fact this chapter concentrates on submillimeter wave physics carried out at the National Physical Laboratory. The chapter is still important, however, because it contains a complete record of the contributions made by the "Gebbie group" to far infrared spectroscopy.

What do I recommend? Two things: (i) If you plan to or do work in the submillimeter wave region read this book; it exposes a different and refreshing slice of far infrared spectroscopy; and (ii) destroy the cover flap.

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The Sun's Atmosphere

Physics of the Solar Corona. Proceedings of a NATO Advanced Study Institute, Athens, Greece, Sept. 1970. CONSTANTIN J. MACKRIS, Ed. Springer-Verlag, New York, and Reidel, Dordrecht, Holland, 1972. xii, 348 pp., illus. $28.60. Astrophysics and Space Science Library, vol. 27.

This is pretty good as symposium volumes go. Most of the authors are leaders in the study of the marvelously complex million-degree atmosphere of the sun, and much of the material is new or recent. A good introduction by Evans discusses the new problems. The million-degree plasma is best studied in radio and ultraviolet wavelengths, and good articles by G. Noci and by M. Kundu discuss the various processes involved in producing these emissions. (Yet Noci's second article, on models of the solar transition region just above the surface, is virtually incomprehensible.) The observations from above the atmosphere are given in good articles by Noyes on the Orbiting Solar Observatory data, who covers the extreme ultraviolet, and by Neupert and by Phillips on the spectroscopy of the soft region. These along with an article by Jordan and Wilson on deduction of coronal structure from these observations give a good introduction to analysis of the outer solar atmosphere by observations beyond the visual limits. However, there is nothing about hard x-rays from solar flares or about microwave solar radio emission, which tell us a great deal about the flare phenomenon. Furthermore, there is very little, except in Athay's article on chromospheric structure, on the way these phenomena are connected with the surface and on the way we must face the new challenge of understanding these observations in terms of the fine structure of the sun.

R. B. Dunn presents the results of many years of monitoring the solar corona in the monochromatic radiation of Fe XIV. He definitely establishes that some of the fast coronal changes are produced by flare-associated waves. The structures Dunn observes can be compared with Newkirk's magnetic field deductions presented in his article. However, it is difficult to convince oneself that the predicted fields really agree with the observed structures.

The flare waves themselves are discussed in an interesting article by Smith and Harvey which gives new material that has not been published. It is a pity that a movie cannot be presented in the book to show these magnetohydrodynamic waves moving out through the corona.

There is really a lot of meat in this book if one can only remember to look for it there. But in the end I felt something lacking, with no really comprehensive picture of how the sunspots and plages create the corona, how the magnetic fields mold it, and how the great outward flow to the earth takes place. Maybe this is because the authors are talking to one another rather than to the students.

The production is up to Reidel's usual high standards.

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Beetles

Monographie der Familie Platypodidae, Coleoptera. KARL E. SCHEDL. Junk, The Hague, 1972. vi, 322 pp., illus. 70 guilders.

This volume summarizes Schedl's 42 years of taxonomic contributions to our knowledge of the ambrosia beetle family Platypodidae, which now contains 995 species, 550 of them named by the author. Contrary to the indication in the title, it is not a taxonomic monograph in the usual sense. The outline and organization are essentially the same as those of *Genera Insectorum*.