selected anthology that his book serves its real purpose in providing tasters of the writings of the great scientists such as Kepler, Galileo, Newton, Einstein, and Heisenberg to give students of Science the same chance as students of the Arts to experience the works of the Old Masters. Does the book live up to its subtitle as an "Anthology of Great Science Writing"? There is certainly some great science, and some great history of science; perhaps my perspective as a practising physicist (and hence, some might add, philistine) makes me ill qualified to judge the writing, but if the purpose of writing is to transmit the human experience then this anthology does it perfectly. — BARRY KENT.


The last two decades have seen several successful space missions to study the interior and atmosphere of the Sun. At the same time ground-based observations have improved and we are attacking outstanding solar problems over a wide range of wavelengths with improved temporal, spatial, and spectral resolution. There is a need to bring together all these new observations and review our current understanding of solar physics.

This book is aimed at final-year undergraduates and new research students and deals almost exclusively with observations of the solar corona. Some sections are starred as being more technical and may be omitted at a first reading. The authors begin by giving a brief history of coronal studies. This approach of giving the historical background first before giving the more up-to-date results is also done with respect to the space missions and, in my view, helps to place the more recent observations in perspective. The basic principles of spectroscopy and radiation from hot plasmas are dealt with in chapter three. Aspects of the solar cycle are described in the next chapter. Here the properties of the X-ray corona are vividly illustrated through a large number of pictures, taken from a variety of solar satellites. The shape of the corona during the solar cycle is clearly seen in an excellent sequence of eclipse and coronagraph pictures.

Ground-based observations and space observations are dealt with in chapters five, six, and eight. Activity in the corona, including coronal heating, and solar flares are discussed in chapters seven and ten and the book finishes with a chapter on solar-terrestrial physics, namely coronal holes, the solar wind, and coronal mass ejections.

A lot of effort has been put into describing the observations and referring to the original work but, unfortunately, the same cannot be said for the theory. The description of the theory is very selective, with some of the original articles not being mentioned at all. One particularly worrying point is that the description of Alfvén waves, in the section on coronal heating, is wrong, with the dispersion relation being correctly stated but the derivation given is for fast magneto-acoustic waves in a low-β plasma instead.

An interesting feature is the use of notes at the end of the book to expand on points raised in the various chapters. This provided extra (and interesting) information without ruining the development of the chapters. There is a reasonably extensive list of references to journal articles. This book describes the current understanding of the solar corona very well. I enjoyed reading it and feel that it is essential reading for new graduate students, with a caveat on some of the theory. — ALAN HODD.