BOOKREVIEW

Gregory H. Wannier, Statistical Physics.
John Wiley & Sons, Inc. New York - London - Sydney. 1966
532 p., price 90/-.

Traditionally, physics has been taught by giving students several subjects next to each other e.g. electricity & magnetism, mechanics, thermodynamics, solid state physics etc. This is one way of making cross sections through the world of physics. Wannier has written a book in which a new cross section is made. He lumps together all fields in which, because of the large number of participating particles, statistical methods have to be applied.

According to this idea, the field of thermodynamics is entered along the statistical road and Carnot cycles are added in a chapter which is marked as being "particularly easy". The book is divided into three parts in which are treated:

1) the principles of statistical thermodynamics
2) equilibrium statistics of special systems and
3) kinetic theory, transport coëfficients and fluctuations.

Both the easy and the difficult chapters are marked. The book is intended for graduate or the better undergraduate students.

"Statistical Physics" made several impressions:

a. It is an appetizer. Scientists interested in the subject will look into it repeatedly.
b. As a guide through statistical physics it needs a very solid background in the other branches of physics. I doubt if it can ever serve as a first introduction to thermodynamics. Some parts of the "difficult" chapters are unreadable without prior knowledge of the subject.
c. The applications in part II and III cover a very wide field and are excellent reading for the non-specialist graduate student and the research worker interested in general physics.
d. The price is reasonable for this well-produced book.

D. Feil