

revised as in this volume, but the order of presentation has been very carefully chosen. The author states in his preface that the entire discussion is based "upon the systematic elaboration of a single principle, the tendency of an isolated system to approach its situation of greatest randomness."

The temptation to present the ideal gas first so that the variety of observed phenomena can be explained in problems is resisted. Instead the text succeeds in giving a comprehensive basis for the understanding of all macroscopic systems, of which the ideal gas is a special case. Thus the text emphasizes that understanding basic concepts of probability is fundamental to understanding macroscopic systems, much of which is necessary for a reasonable description of the macroscopic properties of all systems.

Notable in the text are the slow and careful introduction to the concept of temperature, computer-calculated figures illustrating distribution of particles in a box, and the consistent use of spin systems as examples of statistical behavior. It should also be noted that throughout the whole Berkeley series reference to biological systems is made whenever appropriate, thus pointing the way to the richest research frontier for the student.

This book would be a valuable addition to any physics library. The combination of this text and the senior-level one by the same author (*Statistical and Thermal Physics*, McGraw-Hill, 1965) would certainly provide the material for a course in statistical mechanics and thermodynamics at any level of the undergraduate physics curriculum.

* * *

The reviewer is associate professor of physics at the George Mason College of the University of Virginia. Her research interests are in solid-state physics.

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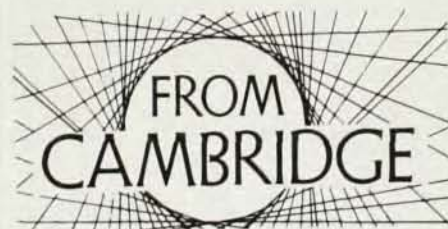
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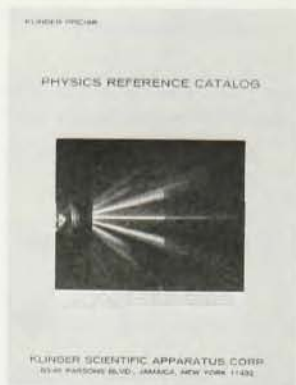
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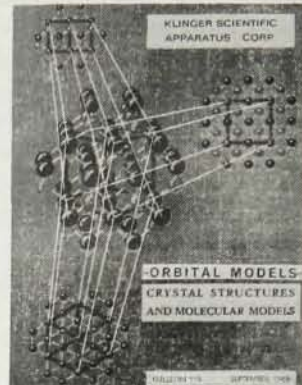
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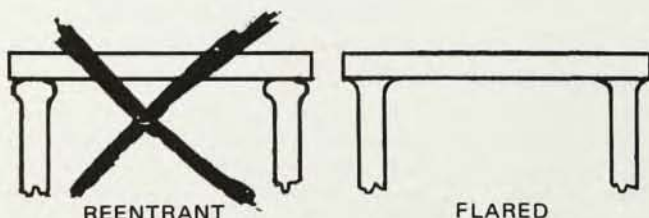
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