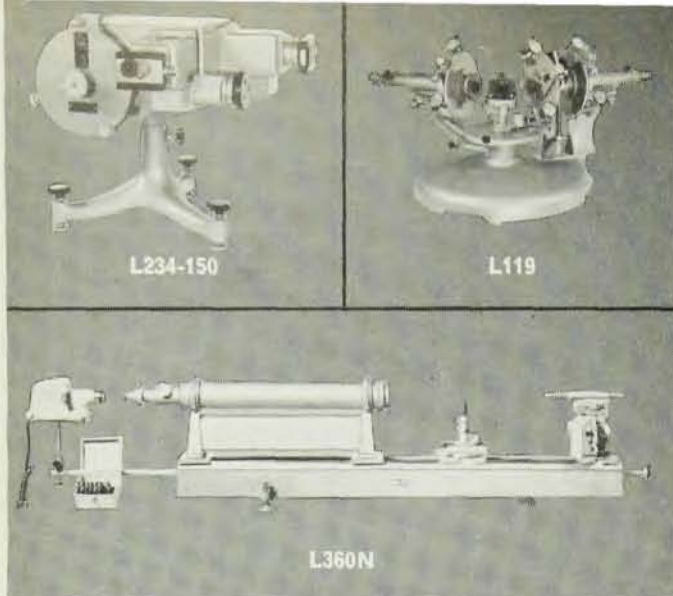
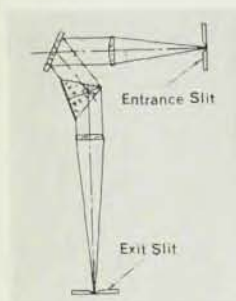




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chemical thermodynamics treated. Despite the statement in the introduction, the text is not useful for chemists.

The latter part of the book is devoted to a treatment of elementary statistical mechanics. This portion of the text is standard in format except for the treatment of diatomic molecules which is unusually complete and carefully done.

In general, I believe this will be a useful text for an elementary undergraduate course in thermodynamics. The drawbacks I have mentioned are exclusively matters of taste and not of substance. The book should therefore be recommended for examination to all teachers of thermodynamics.

Numerical Mathematical Analysis (5th ed.). By James B. Scarborough. 594 pp. Johns Hopkins Press, Baltimore, 1962. \$7.00. *Reviewed by Joseph Hilsenrath, National Bureau of Standards, Washington, D. C.*

FOR the past 30 years, this book, now in its 5th edition, has been widely used for undergraduate courses in numerical methods. Much of its success lies in the fact that it comes quite close to achieving the author's objective which is "to set forth in a systematic manner and as clearly as possible the most important principles, methods, and processes used for obtaining numerical results".

The exposition is clear and detailed. The symbolism is as simple as the subject will allow. A great many examples are worked out in full numerical detail. Derivations are presented from the point of view of exposition rather than mathematical rigor. Aside from the finite difference methods which one would expect in a book of this type, one finds introductory treatments on the solution of ordinary and partial differential equations, integral equations, least-squares curve fitting, statistical and harmonic analysis, and matrix multiplications and inversion. Students of numerical analysis should be grateful to the author and publishers for keeping this book in print.

The Mainstream of Physics. By Arthur Beiser. 468 pp. Addison-Wesley, Reading, Mass., 1962. \$9.75. *Reviewed by R. Bruce Lindsay, Brown University.*

THE zeal for providing more effective teaching for college students approaching physics for the first time continues unabated, and new introductory textbooks appear regularly. The trend appears to be in the direction of including a higher percentage of so-called modern physics than was the custom earlier, and this is well exemplified by Professor Beiser's volume. About a third of his book is devoted to topics in relativity, and quantum and nuclear physics. In spite of this relatively large coverage of 20th century material, the size of the book has been kept within manageable limits, and this is much to be commended.

The treatment of classical physics is conventional,

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