

BOOK REVIEW

M. H. Hablanian: High Vacuum Technology

Eds. Marcel Dekker, Inc. New York, 1990. 432 pp.

The High-Vacuum Technology by Hablanian gives an essentially non-analytical introduction to high vacuum technology for engineers and technicians. They can get a general orientation about the theme before a scientifically rigorous and more technical interpretation.

This book deals with achieving and maintaining an environment of extremely low gas densities, the instrumentation for measuring extremely low pressures, the design of high vacuum systems, and the associated requirement for highly sensitive leak detection techniques. This book develops an understanding, scope, limitations and appreciation of basic relationships between pumps, instrumentation, and system performance.

The book contains important chapters as follows:

- Properties of gases;
- Fluid flow and pumping concepts;
- Vacuum systems;
- Course vacuum pumps;
- Diffusion pumps;
- Molecular pumps;
- Cryogenic pumps;
- Ultrahigh vacuum;
- Vacuum gauges and gas analyzers;
- Leak detection.

Featuring self-contained chapters for easy reference, more than 225 illustrations, plus numerous tables and display equations, this exemplary resource is invaluable reading for mechanical, chemical, electrical, design and industrial engineers; physicists; X-ray, microwave, laser tube processing and vacuum equipment manufacturers; and advanced undergraduate and graduate students in these disciplines.

The book should also be useful for technical industrial and laboratory personnel who may not have a direct interest in high vacuum science and technology, but would like to develop some familiarity with the subject.

The book cannot be considered as a design handbook or a compilation relevant known all over the world, it is an outstanding guide.

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