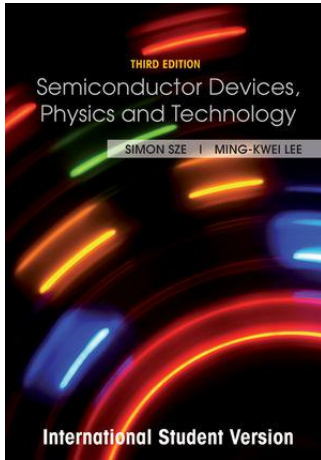


[Semiconductors]

Semiconductor Devices: Physics and Technology, Third Edition is an introduction to the physical principles of modern semiconductor devices and their advanced fabrication technology.



半導体デバイス 第3版

Semiconductor Devices: Physics and Technology 3rd Edition International Student Version

Simon M. Sze, Bell Laboratories, Inc.

Semiconductor Devices: Physics and Technology, Third Edition is an introduction to the physical principles of modern semiconductor devices and their advanced fabrication technology. It begins with a brief historical review of major devices and key technologies and is then divided into three sections: semiconductor material properties, physics of semiconductor devices and processing technology to fabricate these semiconductor devices.

特長

- ◆ Covers all key semiconductor devices with up-to-date information and easy-to-understand descriptions. Each chapter is presented in a logical manner enabling students to learn all important devices from a single source.
- ◆ Covers historical developments of devices and technology in the last 100 years.
- ◆ Coverage of basic physics and material properties of key semiconductors help students to easily understand the basic properties and offers access to the most up-to-date, accurate values of device/material parameters.
- ◆ The new edition provides coverage of all important processing technologies, offering students the opportunity to learn the basic process steps to fabricate various devices, especially integrated circuits.
- ◆ The revision of this successful text has tripled the worked-out examples and doubled the end-of-chapter problems.

New to edition

- 35% of the material has been revised or updated. The authors have added many sections of current interest such as CMOS image sensors, FinFET, third generation solar cells, and atomic layer deposition. In addition, the authors have omitted or reduced sections of less important topics.
- This edition features expanded treatment of MOSFET and related devices in two chapters because of their importance in electronic applications. Treatment of photonic devices has also been expanded to two chapters because of their importance in communication and alternative energy sources.
- To improve the exposition of each subject for an undergraduate audience, sections that contain graduate-level mathematics or physical concepts have been omitted or moved to the Appendices.

対象

Electrical engineers, scientists. Students and Instructors in electrical engineering

裏面コンテンツもご覧下さい

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Semiconductor Devices: Physics and Technology 3rd Edition

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