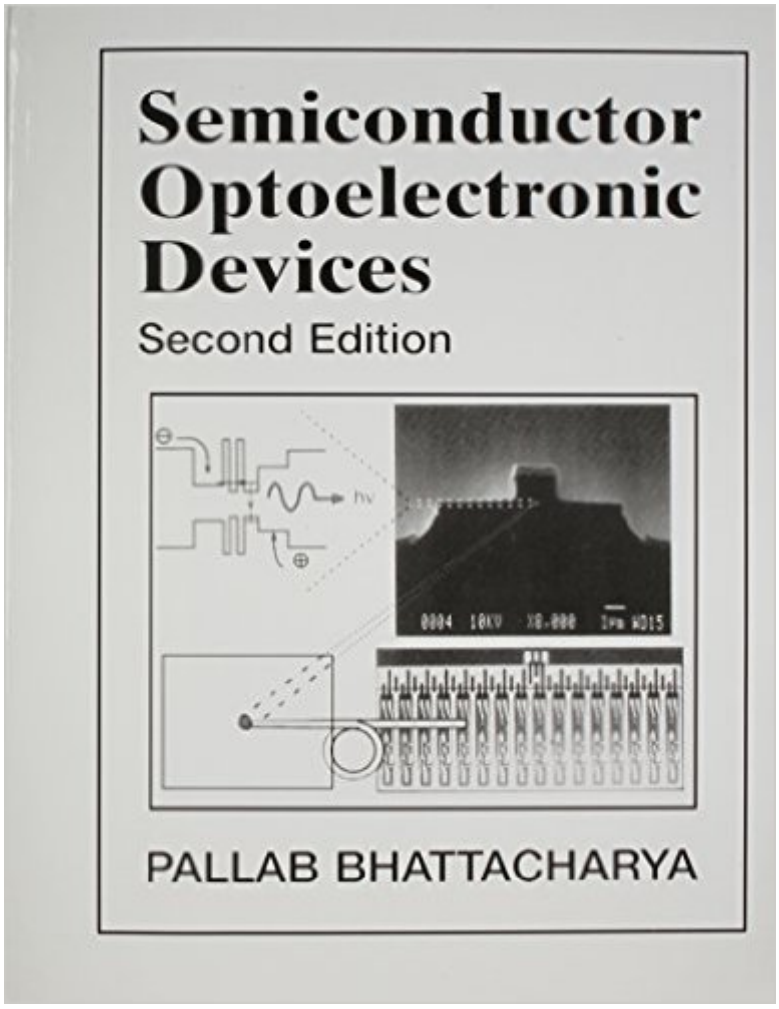
Semiconductor Optoelectronic Devices (2nd Edition)



Synopsis

The first true introduction to semiconductor optoelectronic devices, this book provides an accessible, well-organized overview of optoelectric devices that emphasizes basic principles. Coverage begins with an optional review of key conceptsâ ”such as properties of compound semiconductor, quantum mechanics, semiconductor statistics, carrier transport properties, optical processes, and junction theoryâ ”then progress gradually through more advanced topics. The Second Edition has been both updated and expanded to include the recent developments in the field.

Book Information

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Customer Reviews

If you are an undergraduate, this book is pretty good and it covers a lot of funamentals.If you are a grad student, get Coldren’s book - "diode lasers and photonic integrated circuits" or Chuang’s "Physics of optoelectronic devices" though the theory there is hard for undergrad. Another good,easier book is "Principles and Applications of Optical Communications" by Max Ming-Kang Liu. The most recent book on the theory is "Physics of optoelectronics"-- very good book.There are some errors in this book such as the rate eq for lasers. The real strength of this book is that it contains a lot of real structures, materials, and applications. Also, the semiconductor part is very complete. However, an updated version would be ideal.

This is an excellent book on optoelectronics. I think it is suited for undergrad and grad students and

practicing researchers as well. With reviews on semiconductor fundamentals, junction physics, bandstructure this book contains almost everything that you need to know on optoelectronics. With the in-depth analysis of the optoelectronic devices you can come back to review some of the basic staff that you need to know. I think it is a must buy for optoelectronics/photonics engineers. It is somewhat dated though and needs an updated edition.

The condition of the book was great no problems there at all.The text itself is technical to a fault though. Few examples in places and somewhat of a thick read.overall not that bad for a Text book.

Unfortunately my professor used this book for the class. The book is not clear, almost nothing is demonstrated, the index is very short and incomplete, the exercises are not concize, it lacks a lot of theory, and many important devices such as the second harmonic generator are not covered in the book. If I could turn back in time I would never spent a cent on this book.