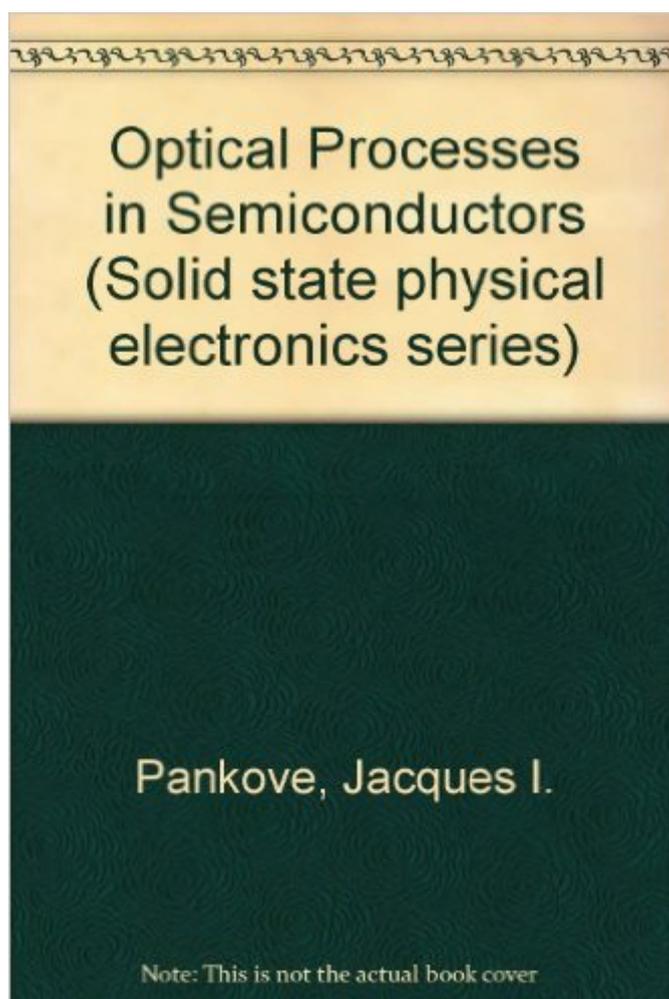


The book was found

Optical Processes In Semiconductors (Prentice-Hall Electrical Engineering Series. Solid State Physical Electronics Series)



Synopsis

Based on a series of lectures at Berkeley, 1968-1969, this is the first book to deal comprehensively with all of the phenomena involving light in semiconductors. The author has combined, for the graduate student and researcher, a great variety of source material, journal research, and many years of experimental research, adding new insights published for the first time in this book. Coverage includes energy states in semiconductors and their perturbation by external parameters, absorption, relationships between optical constants, spectroscopy, radiative transitions, nonradiative recombination, processes in pn junctions, semiconductor lasers, interactions involving coherent radiation, photoelectric emission, photovoltaic effects, polarization effects, photochemical effects, effect of traps on luminescence, and reflective modulation. The author has presented the subject in a manner which couples readily to physical intuition. He introduces new techniques and concepts, including nonradiative recombination, effects of doping on optical properties, Franz-Keldysh effect in absorption and emission, reflectance modulation, and many others. Dr. Pankove emphasizes the underlying principle that can be applied to the analysis and design of a wide variety of functional devices and systems. Many valuable references, illustrative problems, and tables are also provided here.

Book Information

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Customer Reviews

This book for me is a "book of revealing semiconductor secrets" which includes good in-depth details of fundamental semiconductors that majority of semiconductor books, published in last 10-15 years do not include. Since it was written over 30 years or so back, it includes basic stuff, which is

what your advisor or lecturer at university "expects" you to know or understand without a problem (of course in reality nothing is easy unless one knows about it and this book, I feel, does provide those basic answers :o)

Useful. Started as a good introduction but then evolved to outdated review. I wish I knew a better introductory book on this topic but this one is not satisfactory either.

Good condition. Everything that was promised.

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