Materials for Optoelectronics

Materials for Optoelectronics_下载链接1_

著者:Quillec, Maurice 编

出版者:

出版时间:1996-1

装帧:

isbn:9780792396659

Materials for Optoelectronics is the first book to offer a complete view of this subject area. It begins by describing the material needs defined by various optoelectronic functions. Basic aspects of the materials' specific properties are presented, including the relevant properties of semiconductors in terms of electron-photon interactions. Since the semiconductors for optoelectronics are generally based on alloys, the thermodynamic properties of interest are developed as well. Next, semiconductors for detection, emission and modulation are detailed. The fabrication of these materials is presented through a comparison and review of the epitaxial techniques. The III-V semiconductors for IR and visible light devices are presented. The II-VI family is also considered, with an emphasis on recent developments for visible light emission. A description of the status of silicon for optoelectronics is given as well. Finally, non-semiconductors for optoelectronics, namely optical fibers for telecommunications, electrooptic materials, and organic materials, are also presented. Materials for Optoelectronics is useful to materials and device engineers interested in increasing their knowledge of the potential and actual properties and uses of various materials. Students will also find this volume useful since it emphasizes the basic properties and needs for optoelectronics.

作者介绍:

目录:

标签

评论

Materials for Optoelectronics_下载链接1_

书评

Materials for Optoelectronics_下载链接1_