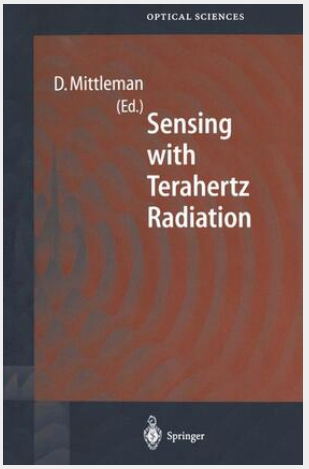
Mittleman

Sensing with Terahertz Radiation

One aspect of the field of THz radiation is the marriage of microwave and optical techniques. By its very nature, THz radiation bridges the gap be tween the microwave and optical regimes. The former can be characterized by the fact that most devices are comparable in size to the wavelength of the radiation. As a result, the propagation of energy in these devices is generally in the form of single-mode or low-order-mode guided waves. In contrast, the optical and infrared ranges are generally characterized by beams containing many modes, with dimensions much larger than the wavelength. Of course, there are exceptions to these rules, notably the single-mode propagation of optical radiation in fibers. Nonetheless, the general description holds true. Because of these fundamental differences, it is natural that the techniques used in their implementation are quite distinct. Much of the research in the THz field has been based on the melding of these disparate ideas.

One aspect of the field of THz radiation is the marriage of microwave and optical techniques. By its very nature, THz radiation bridges the gap be tween the microwave and optical regimes. The former can be characterized by the fact that most devices are comparable in size to the wavelength of the radiation. As a result, the propagation of energy in these devices is generally in the form of single-mode or low-order-mode guided waves. In contrast, the optical and infrared ranges are generally characterized by beams containing many modes, with dimensions much larger than the wavelength. Of course, there are exceptions to these rules, notably the single-mode propagation of optical radiation in fibers. Nonetheless, the general description holds true. Because of these fundamental differences, it is natural that the techniques used in their implementation are quite distinct. Much of the research in the THz field has been based on the melding of these disparate ideas.



213,99 €
199,99 € (zzgl. MwSt.)

Lieferfrist: bis zu 10 Tage

Artikelnummer: 9783642077173
Medium: Buch
ISBN: 978-3-642-07717-3
Verlag: Springer
Erscheinungstermin: 06.12.2010
Sprache(n): Englisch
Auflage: 1. Auflage. Softcover version of original hardcover Auflage 2003
Serie: Springer Series in Optical Sciences
Produktform: Kartoniert
Gewicht: 540 g
Seiten: 338
Format (B x H): 155 x 235 mm

Kundenservice Fachmedien Otto Schmidt
Neumannstraße 10, 40235 Düsseldorf | kundenservice@fachmedien.de | 0800 000-1637 (Inland)