

Plasmons As Sensors: Revolutionizing the Frontiers of Sensing Technologies

Plasmons are collective oscillations of electrons that can exist in certain materials. They have been gaining significant attention in recent years for their potential use in sensing applications. This book, "Plasmons As Sensors: Springer Theses", delves into the fundamentals and applications of plasmons in sensor technology, providing a comprehensive overview of the field.



Plasmons as Sensors (Springer Theses) by MEI

★★★★★ 5 out of 5

Language	: English
File size	: 48677 KB
Text-to-Speech	: Enabled
Enhanced typesetting	: Enabled
Word Wise	: Enabled
Print length	: 601 pages
Screen Reader	: Supported
Hardcover	: 149 pages
Item Weight	: 14.1 ounces
Dimensions	: 6.14 x 0.38 x 9.21 inches



Fundamentals of Plasmons

The book begins by introducing the basic concepts of plasmons. It explains how plasmons are formed and how their properties can be tailored by controlling the material's composition and structure. The book also discusses the different types of plasmons, such as surface plasmons and localized surface plasmons.

Plasmons in Sensing Applications

The book then explores the various applications of plasmons in sensing. It discusses how plasmons can be used to detect a wide range of analytes, including chemicals, biological molecules, and even single cells. The book also provides detailed examples of plasmonic sensors that have been developed for various applications, such as medical diagnostics, environmental monitoring, and food safety.

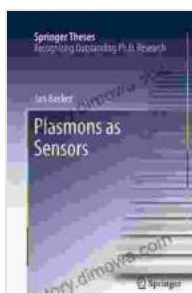
Future Prospects

The book concludes by discussing the future prospects of plasmonic sensors. It highlights the challenges that need to be overcome and the potential for future developments. The book also provides an outlook on the emerging applications of plasmons in sensing and other related fields.

Benefits of Reading This Book

* Gain a comprehensive understanding of the fundamentals of plasmons *
Learn about the various applications of plasmons in sensing * Discover the latest advancements in plasmonic sensor technology * Get insights into the future prospects of plasmons in sensing and other related fields

"Plasmons As Sensors: Springer Theses" is an essential resource for anyone interested in the field of plasmonic sensors. It provides a comprehensive overview of the topic, from the fundamentals to the latest applications. The book is written in a clear and concise style, making it accessible to readers with a wide range of backgrounds. Whether you are a student, researcher, or engineer, this book will provide you with the knowledge and insights you need to succeed in the field of plasmonic sensors.



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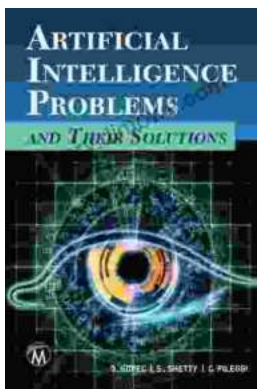
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