

<<分层媒质中的电磁场>>

图书基本信息

书名：<<分层媒质中的电磁场>>

13位ISBN编号：9787308064019

10位ISBN编号：7308064018

出版时间：2009-3

出版时间：浙江大学出版社

作者：李凯

页数：224

版权说明：本站所提供下载的PDF图书仅提供预览和简介，请支持正版图书。

更多资源请访问：<http://www.tushu007.com>

<<分层媒质中的电磁场>>

内容概要

"Electromagnetic Fields in Stratified Media" deals with an important branch of electromagnetic theory, which has many useful applications in subsurface communication, radar, and geophysical prospecting and diagnostics. The book introduces to the electromagnetic theory and wave propagation in complex media, while presenting detailed models for various media: 3, 4, N-layered media, boundary conditions, and anisotropic media. In particular, the complete solutions for a trapped surface wave and lateral wave in a three- or four-layered region, the complete solutions for low frequency wave propagation over a spherical surface coated with a dielectric layer, and the transient field of a horizontal dipole in the boundary layer of two different media are presented. The book is designed for the scientists and engineers engaged in antennas and propagation, EM theory and applications.

Dr. Kai Li is Professor at Zhejiang University.

<<分层媒质中的电磁场>>

书籍目录

1 Historical and Technical Overview of Electromagnetic Fields in Stratified Media 1.1 Electromagnetic Wave Along Air-Earth Boundary 1.2 Surface Waves Along Surfaces of Stratified Media 1.3 Lateral Waves Along the Air-Earth Boundary 1.4 Trapped Surface Wave in the Presence of Three-Layered Region 1.5 Electromagnetic Field Radiated by a Dipole over Spherical Earth References

2 Electromagnetic Field of a Vertical Electric Dipole in the Presence of a Three-Layered Region 2.1 Introduction 2.2 The Integrated Formulas for Electromagnetic Field in Air 2.3 Field of Vertical Dipole over Dielectric-Coated Perfect Conductor 2.4 Field of Vertical Dipole over Dielectric-Coated Imperfect Conductor 2.5 Radiation from Vertical Dipole in Three-Layered Region

3 Electromagnetic Field of a Horizontal Electric Dipole in the Presence of a Three-Layered Region 3.1 Introduction 3.2 Electromagnetic Field of Horizontal Electric Dipole 3.3 Radiation of Horizontal Electric Dipole and Microstrip Antenna 3.4 Summary References

4 Electromagnetic Field of a Vertical Electric Dipole in the Presence of a Four-Layered Region 4.1 Introduction 4.2 Formulation of Problem 4.3 Evaluations of the Trapped Surface Wave and Lateral Wave 4.4 Computations and Conclusions References

5 Electromagnetic Field of a Horizontal Electric Dipole in the Presence of a Four-Layered Region 5.1 Integrated Formulas for the Electromagnetic Field 5.2 Evaluation for the Electric-Type Field 5.3 Evaluation for the Magnetic-Type Field 5.4 Final Formulas for the Six-Field Components 5.5 Computations and Conclusions References

6 Electromagnetic Field Radiated by a Dipole Source over a Dielectric-Coated Spherical Earth 6.1 Introduction 6.2 Electromagnetic Field due to Vertical Electric Dipole

7 Electromagnetic Field of a Dipole Source over the Spherical Surface of Multi-Layered Earth

8 Exact Transient Field of a Horizontal Electric Dipole the Boundary Between Two Dielectrics

9 Approximate Transient Field of Horizontal Electric Dipole on the Boundary Between a Homogeneous Isotropic Medium and One-Dimensionally Anisotropic Medium

Index

<<分层媒质中的电磁场>>

版权说明

本站所提供下载的PDF图书仅提供预览和简介，请支持正版图书。

更多资源请访问:<http://www.tushu007.com>