

<<纳米结构中的运输>>

图书基本信息

书名：<<纳米结构中的运输>>

13位ISBN编号：9787506256384

10位ISBN编号：750625638X

出版时间：2002-7

出版时间：世界图书出版公司北京公司

作者：David K.Ferry

页数：512

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>

<<纳米结构中的输运>>

内容概要

This book has grown out of our somewhat disorganized attempts to teach the physics and electronics of mesoscopic devices over the past decade. Fortunately, these have evolved into a more consistent approach, and the book tries to balance experiments and theory in the current understanding of mesoscopic physics. Whenever possible, we attempt to first introduce the important experimental results in this field followed by the relevant theoretical approaches. The focus of the book is on electronic transport in nanostructure systems, and therefore by necessity we have omitted many important aspects of nanostructures such as their optical properties, or details of nanostructure fabrication. Due to length considerations, many germane topics related to transport itself have not received full coverage, or have been referred to by reference. Also, due to enormity of the literature related to this field, we have not included an exhaustive bibliography of nanostructure transport. Rather, we have tried to refer the interested reader to comprehensive review articles and book chapters when possible.

<<纳米结构中的输运>>

书籍目录

Preface Acknowledgements
1 Introduction 1.1 Nanostructures: The impact 1.2 Mesoscopic observables in nanostructures 1.3 Space and time scales 1.4 An introduction to the subsequent chapters 1.5 What is omitted
2 Quantum confined systems 2.1 Nanostructure materials 2.2 Quantization in heterojunction system 2.3 Lateral confinement: Quantum wires and quantum dots 2.4 Electronic states in quantum wires and quantum dots 2.5 Magnetic field effects in quantum confined systems 2.6 Screening and collective excitations in low-dimensional systems 2.7 Homogeneous transport in low-dimensional systems
3 Transmission in nanostructures 3.1 Tunneling in planar barrier structures 3.2 Wavefunction treatment of tunneling 3.3 Current in resonant tunneling diodes 3.4 Landauer formula 3.5 The multi-channel case 3.6 Quantized conductance in nanostructures 3.7 Transport in quantum waveguide structures 3.8 Lattice Green's function method 3.9 Multi-probe formula 3.10 Magnetic fields and quantum waveguides
4 Quantum dots and single electron phenomena
5 Interference in diffusive transport
6 Temperature decay of fluctuations
7 Nonequilibrium transport and nanodevices
Index

<<纳米结构中的输运>>

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>