

# Contents

LIST OF CONTRIBUTORS . . . . .	vii
PREFACE . . . . .	ix
CONTENTS OF PREVIOUS VOLUMES . . . . .	xi

## Chapter 1 Low-Field Electron Transport

*D. L. Rode*

I. Introduction . . . . .	1
II. Formal Transport Theory . . . . .	7
III. Electron Scattering . . . . .	26
IV. Results . . . . .	46
V. Summary . . . . .	86

## Chapter 2 Mobility of Holes in III-V Compounds

*J. D. Wiley*

I. Introduction . . . . .	91
II. Valence Band Structure . . . . .	95
III. Scattering Mechanisms and Models . . . . .	110
IV. Experimental Hole Mobilities . . . . .	141
V. Summary . . . . .	170
Appendix . . . . .	171

## Chapter 3 Apparent Mobility Enhancement in Inhomogeneous Crystals

*C. M. Wolfe and G. E. Stillman*

I. Introduction . . . . .	175
II. Magnetoconductivity Theory . . . . .	185
III. Single Conducting Inhomogeneity . . . . .	190
IV. Multiple Conducting Inhomogeneities . . . . .	202
V. Conclusions . . . . .	215
VI. Summary . . . . .	219

**Chapter 4 The Magnetophonon Effect***Robert L. Peterson*

I. Introduction . . . . .	221
II. Historical Overview and Physical Discussion . . . . .	224
III. Ohmic Regime . . . . .	231
IV. Hot-Electron Regime . . . . .	273
V. Effects of Stress . . . . .	285
VI. Final Remarks . . . . .	287
Appendix . . . . .	288
 AUTHOR INDEX . . . . .	291
 SUBJECT INDEX . . . . .	301