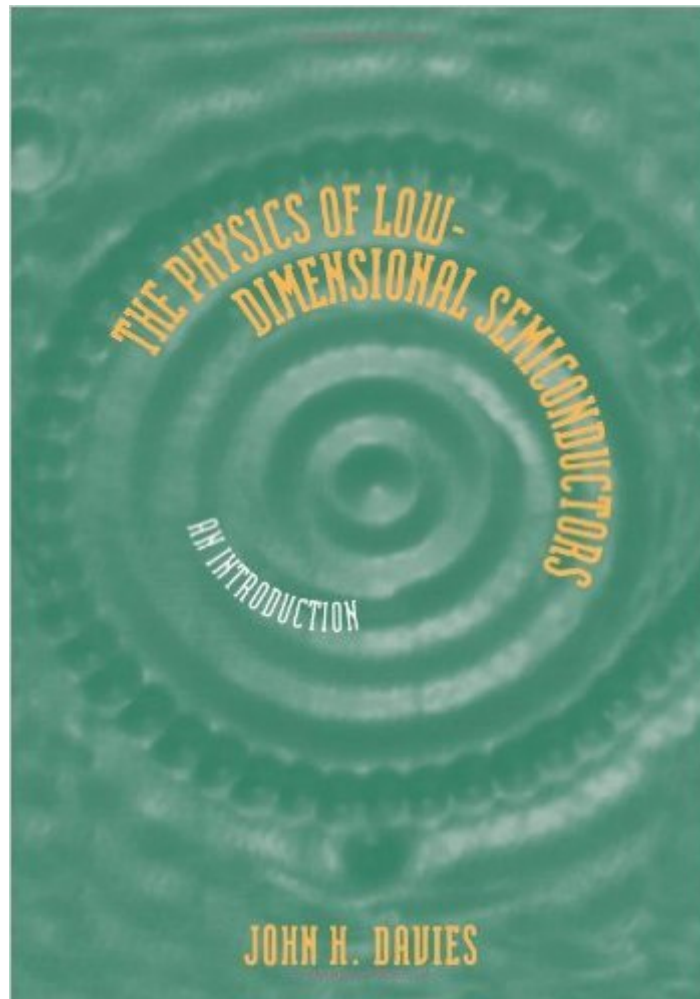


The book was found

The Physics Of Low-dimensional Semiconductors: An Introduction



Synopsis

Low-dimensional systems have revolutionized semiconductor physics and had a tremendous impact on technology. Using simple physical explanations, with reference to examples from actual devices, this book introduces the general principles essential to low-dimensional semiconductors. The author presents a formalism that describes low-dimensional semiconductor systems, studying two key systems in detail: the two-dimensional electron gas, employed in field-effect transistors, and the quantum well, whose optical properties have multiple applications in lasers and other opto-electronic devices. The book will be invaluable to undergraduate and first-year graduate physics or electrical engineering students taking courses in low-dimensional systems or heterostructure device physics.

Book Information

Paperback: 460 pages

Publisher: Cambridge University Press; 1 edition (December 13, 1997)

Language: English

ISBN-10: 052148491X

ISBN-13: 978-0521484916

Product Dimensions: 7 x 0.9 x 10 inches

Shipping Weight: 2.2 pounds (View shipping rates and policies)

Average Customer Review: 4.4 out of 5 stars [See all reviews](#) (10 customer reviews)

Best Sellers Rank: #1,046,240 in Books (See Top 100 in Books) #71 in [Books > Engineering & Transportation > Engineering > Electrical & Electronics > Electronics > Optoelectronics](#) #182 in [Books > Engineering & Transportation > Engineering > Electrical & Electronics > Electronics > Semiconductors](#) #2856 in [Books > Textbooks > Science & Mathematics > Physics](#)

Customer Reviews

The first book you should read if you wanna do some Low Dimensional Electron Physics and only learned Solid State Physics before. It just covers all topics in this field --- with the knowledge in this book, you could read any new paper published recently. And this book's written style is very friendly --- just a textbook! So it could be finished in 2 days if you know the basic notions in Solid State Physics and concentrate on it. So there is no match for such a good introductory book --- there's no other ones like this --- I searched a lot when I tried to enter this field, and this is a good choice:)

Readable introductions to mesoscopic physics are few and far between, many being either far too simplistic and naive or too mired in formalism. Davies gives clear and lucid discussions of such

topics as electron confinement in quantum wells, the integral quantum Hall effect, quantum point contacts, and MODFET's/HEMT's. Although by no means extensive and in depth, Davies does point out simplifications and refers the interested reader to relevant references for more details. Overall, it is a balanced introduction. This book is a useful point of entry for undergraduates to low-dimensional semiconductor physics. Reading this book is good preparation for more advanced and specialized literature including: Solid State Physics vol. 44 ed. Ehrenreich and Turnbull; Perspectives in Quantum Hall Effects, Das Sarma and Pinczuk. As with any new text, there are errata but an up to date webpage of corrections is maintained by the author.

These guys write in a way that's *helpful*, as opposed to many other writers who simply write it to have it there, but not make the subject any clearer. I learned more from this book than from my Solid State class. They also mention practical things that are actually done in industry, which is cool.

Used it during my graduate study when my thesis adviser recommended it. It is useful for students who want to get started, the name says "an introduction", so be prepared to move on :-). Good luck with Quantum Mechanics. PS: don't be too hard on yourself, give yourself some time while putting in consistent effort. If this book is not for you then find another one. Arrived in reasonable time and in good condition.

Solid state physics is a complicated and vast subject to understand. This book covers basic concepts regarding to the solid state physics side of semiconductors, without burdening the students of too much math. Straight-forward and easy to understand.

[Download to continue reading...](#)

The Physics of Low-dimensional Semiconductors: An Introduction Low carb cookbook: 35 delicious snack recipes for weight loss. Low carb cooking, low carb diet, low carbohydrate, low carb recipes, low carb, low carb ... low carb cooking, weight loss Book 1) Low Carb Cookbook: Delicious Snack Recipes for Weight Loss. (low carbohydrate foods, low carb cooking, low carb diet, low carb recipes, low carb, low carb ... dinner recipes, low carb diets Book 1) Low Carb BOX SET 4 IN 1: 100 Best Low Carb Recipes You Will Love!: (low carbohydrate, high protein, low carbohydrate foods, low carb, low carb cookbook, ... low carb lunches, low carb dinners,) Low Carb Freezer Meals: 26 Make-Ahead Low Carb Freezer Meals: (low carbohydrate, high protein, low carbohydrate foods, low carb, low carb cookbook, low ... Ketogenic Diet to Overcome Belly Fat) Low Carb BOX SET 7 IN 1: 165 Amazing Low Carb Recipes You Will Love!: (low carbohydrate, high protein, low carbohydrate

foods, low carb, low carb cookbook, low carb recipes) Low Carb Casseroles: 21 Super Satisfying Low Carb Casseroles: (low carbohydrate, high protein, low carbohydrate foods, low carb, low carb cookbook, low ... Ketogenic Diet to Overcome Belly Fat) Low Carb: Low Carb Diet For Beginners. How To Lose 10 Pounds in 10 Days: (low carbohydrate, high protein, low carbohydrate foods, low carb, low carb cookbook, ... diet for dummies, low carb high fat diet,) Low Carb Diet - Top 200 Low Carb Recipes Cookbook: (Low Carb, Budget Cookbook, Low Carb Diet, Low Carb Recipes, Atkins Diet, Low Carb Slow Cooker Recipes, Low Carb Living) Low Carb Diet BOX SET 3 IN 1: 30 Low Carb Snacks + 21 Low Carb Casseroles + 20 Low Carb Soups: (low carbohydrate, high protein, low carbohydrate foods, ... Ketogenic Diet to Overcome Belly Fat) Low Carb Ice Cream: 21 Great Low Carb Sugar Free Ice Cream Recipes: (low carbohydrate, high protein, low carbohydrate foods, low carb, low carb cookbook, ... Ketogenic Diet to Overcome Belly Fat) Low Carb Diet: 15 Healthy And Delicious Low Carb Salads To Lose Weight Fast: (low carbohydrate, high protein, low carbohydrate foods, low carb, low carb ... Ketogenic Diet to Overcome Belly Fat) Low Carb Mexican Recipes: 25 Of Your Favorite Mexican Recipes Made Low Carb!: (low carbohydrate, high protein, low carbohydrate foods, low carb, low ... Ketogenic Diet to Overcome Belly Fat) Advanced Physics of Electron Transport in Semiconductors and Nanostructures (Graduate Texts in Physics) Low Carb Living Box Set: Low Carb Snacks, Low Carb Desserts, Low Carb Smoothies and Low Carb Italian Recipes Low Carb Diet. Slow Cooker Recipes: 25 Delicious Low Carb Dinners To Lose Weight Fast: (low carbohydrate, high protein, low carbohydrate foods, low carb, ... Ketogenic Diet to Overcome Belly Fat) Low Carb Cookies: 23 Best Low Carb Cookie Recipes To Maintain Your Healthy Eating Habits: (low carbohydrate, high protein, low carbohydrate foods, low ... Ketogenic Diet to Overcome Belly Fat) Low Carb Diet Book Collection: 90 Amazing Recipes - Low Carb Casseroles, Low Carb Soups, Low Carb Fat Bombs and Low Carb Ice Cream: (Fat Bomb Recipes, ... healthy eating recipes, ketogenic desserts) Low Carb Casseroles BOX SET 2 IN 1: 38 Super Satisfying Low Carb Casseroles That Will Amaze Your Family: (low carbohydrate, high protein, low carbohydrate ... diet for dummies, low carb high fat diet) Low Carb: Low Carb, High Fat Diet. The Winning Formula To Lose Weight (Healthy Cooking, Low Carb Diet, Low Carb Recipes, Low Carb Cookbook, Eat Fat, Ketogenic Diet)

[Dmca](#)