



Alternative Energy Technologies: An Introduction with Computer Simulations (Nano and Energy)

By Gavin Buxton

[Download now](#)

[Read Online](#) 

Alternative Energy Technologies: An Introduction with Computer Simulations (Nano and Energy) By Gavin Buxton

Alternative energy sources are becoming increasingly important in a world striving for energy independence, clean air, and a reprieve from global warming. Solar cells, wind power, and biofuels are some of the competing alternative energy sources hoping to gain a foothold in our future energy mix, and the economic advantages of these technologies are continually increasing as costs are reduced and efficiencies increased.

Alternative Energy Technologies: An Introduction with Computer Simulations explores the science and engineering behind a number of emerging alternative energy technologies, including polymer solar cells, algae biofuels, and artificial leaves. It also addresses the environmental need for these technologies. However, unlike its predecessors, this book employs simple computer models implemented within spreadsheet environments to simulate different aspects of the alternative energy technologies and therefore teach the subject matter.

This unique approach:

- Provides a dual introduction to alternative energy technologies and computer simulation
- Elucidates the fundamental behaviors and complex interactions within the alternative energy systems
- Makes computer simulation straightforward and accessible to readers with no prior programming experience

Featuring investigative exercises that deepen understanding and inspire further research, **Alternative Energy Technologies: An Introduction with Computer Simulations** makes an ideal introductory textbook for undergraduate students and a valuable professional reference for experimental researchers.

 [Download Alternative Energy Technologies: An Introduction w ...pdf](#)

 [Read Online Alternative Energy Technologies: An Introduction ...pdf](#)

Alternative Energy Technologies: An Introduction with Computer Simulations (Nano and Energy)

By Gavin Buxton

Alternative Energy Technologies: An Introduction with Computer Simulations (Nano and Energy) By Gavin Buxton

Alternative energy sources are becoming increasingly important in a world striving for energy independence, clean air, and a reprieve from global warming. Solar cells, wind power, and biofuels are some of the competing alternative energy sources hoping to gain a foothold in our future energy mix, and the economic advantages of these technologies are continually increasing as costs are reduced and efficiencies increased.

Alternative Energy Technologies: An Introduction with Computer Simulations explores the science and engineering behind a number of emerging alternative energy technologies, including polymer solar cells, algae biofuels, and artificial leaves. It also addresses the environmental need for these technologies. However, unlike its predecessors, this book employs simple computer models implemented within spreadsheet environments to simulate different aspects of the alternative energy technologies and therefore teach the subject matter.

This unique approach:

- Provides a dual introduction to alternative energy technologies and computer simulation
- Elucidates the fundamental behaviors and complex interactions within the alternative energy systems
- Makes computer simulation straightforward and accessible to readers with no prior programming experience

Featuring investigative exercises that deepen understanding and inspire further research, **Alternative Energy Technologies: An Introduction with Computer Simulations** makes an ideal introductory textbook for undergraduate students and a valuable professional reference for experimental researchers.

Alternative Energy Technologies: An Introduction with Computer Simulations (Nano and Energy) By Gavin Buxton **Bibliography**

- Sales Rank: #3221401 in Books
- Published on: 2014-12-16
- Original language: English
- Number of items: 1
- Dimensions: 9.20" h x .90" w x 6.30" l, .0 pounds
- Binding: Hardcover
- 302 pages

 [Download Alternative Energy Technologies: An Introduction w ...pdf](#)

 [Read Online Alternative Energy Technologies: An Introduction ...pdf](#)

Download and Read Free Online Alternative Energy Technologies: An Introduction with Computer Simulations (Nano and Energy) By Gavin Buxton

Editorial Review

Review

"This book seamlessly meshes modeling concepts with alternative energy concepts and provides the reader with interesting real world simulation examples and exercises. The use of Excel as a modeling platform provides beginners with an easy-to-use framework from which they can visualize each step in the simulation process while checking their results for each step."

—Dr. Tony Kerzmann, Robert Morris University, Moon Township, Pennsylvania, USA

About the Author

Gavin A. Buxton is assistant professor of physics in the Science Department at Robert Morris University, Moon Township, Pennsylvania, USA. Previously, he was visiting assistant professor at Case Western Reserve University, Cleveland, Ohio, USA; postdoctoral research associate at Durham University, UK; and postdoctoral research associate at University of Pittsburgh, Pennsylvania, USA. He holds an M.Sc in engineering physics (hons) and a Ph.D in computational physics from Sheffield Hallam University, UK. His work has been published in numerous prestigious journals and books including *Soft Matter*, *Encyclopedia of Energy Engineering and Technology*, *Langmuir*, and *The Journal of Chemical Physics*, among others.

Users Review

From reader reviews:

Glenn Remaley:

What do you with regards to book? It is not important to you? Or just adding material when you need something to explain what you problem? How about your extra time? Or are you busy individual? If you don't have spare time to accomplish others business, it is make you feel bored faster. And you have extra time? What did you do? Everybody has many questions above. They should answer that question simply because just their can do in which. It said that about guide. Book is familiar on every person. Yes, it is proper. Because start from on guardería until university need this Alternative Energy Technologies: An Introduction with Computer Simulations (Nano and Energy) to read.

Simona Vela:

Here thing why this particular Alternative Energy Technologies: An Introduction with Computer Simulations (Nano and Energy) are different and trustworthy to be yours. First of all reading through a book is good nonetheless it depends in the content of the usb ports which is the content is as delightful as food or not. Alternative Energy Technologies: An Introduction with Computer Simulations (Nano and Energy) giving you information deeper as different ways, you can find any book out there but there is no publication that similar with Alternative Energy Technologies: An Introduction with Computer Simulations (Nano and Energy). It gives you thrill reading through journey, its open up your personal eyes about the thing that will

happened in the world which is might be can be happened around you. You can actually bring everywhere like in park your car, café, or even in your way home by train. Should you be having difficulties in bringing the imprinted book maybe the form of Alternative Energy Technologies: An Introduction with Computer Simulations (Nano and Energy) in e-book can be your alternative.

Kay Newberry:

Reading a e-book can be one of a lot of task that everyone in the world likes. Do you like reading book therefore. There are a lot of reasons why people enjoyed. First reading a reserve will give you a lot of new data. When you read a reserve you will get new information simply because book is one of numerous ways to share the information or their idea. Second, studying a book will make you actually more imaginative. When you studying a book especially tale fantasy book the author will bring you to imagine the story how the personas do it anything. Third, you could share your knowledge to other people. When you read this Alternative Energy Technologies: An Introduction with Computer Simulations (Nano and Energy), you can tells your family, friends along with soon about yours publication. Your knowledge can inspire average, make them reading a book.

Susan Brooks:

Alternative Energy Technologies: An Introduction with Computer Simulations (Nano and Energy) can be one of your basic books that are good idea. Most of us recommend that straight away because this publication has good vocabulary which could increase your knowledge in language, easy to understand, bit entertaining but nevertheless delivering the information. The article writer giving his/her effort to set every word into satisfaction arrangement in writing Alternative Energy Technologies: An Introduction with Computer Simulations (Nano and Energy) although doesn't forget the main position, giving the reader the hottest in addition to based confirm resource information that maybe you can be one of it. This great information can drawn you into completely new stage of crucial considering.

Download and Read Online Alternative Energy Technologies: An Introduction with Computer Simulations (Nano and Energy) By Gavin Buxton #46S0GMAQI5J

Read Alternative Energy Technologies: An Introduction with Computer Simulations (Nano and Energy) By Gavin Buxton for online ebook

Alternative Energy Technologies: An Introduction with Computer Simulations (Nano and Energy) By Gavin Buxton Free PDF d0wnl0ad, audio books, books to read, good books to read, cheap books, good books, online books, books online, book reviews epub, read books online, books to read online, online library, greatbooks to read, PDF best books to read, top books to read Alternative Energy Technologies: An Introduction with Computer Simulations (Nano and Energy) By Gavin Buxton books to read online.

Online Alternative Energy Technologies: An Introduction with Computer Simulations (Nano and Energy) By Gavin Buxton ebook PDF download

Alternative Energy Technologies: An Introduction with Computer Simulations (Nano and Energy) By Gavin Buxton Doc

Alternative Energy Technologies: An Introduction with Computer Simulations (Nano and Energy) By Gavin Buxton MobiPocket

Alternative Energy Technologies: An Introduction with Computer Simulations (Nano and Energy) By Gavin Buxton EPub