



Nanoscale Flow: Advances, Modeling, and Applications

From CRC Press

Download now

Read Online ➔

Nanoscale Flow: Advances, Modeling, and Applications From CRC Press

Understanding the physical properties and dynamical behavior of nanochannel flows has been of great interest in recent years and is important for the theoretical study of fluid dynamics and engineering applications in physics, chemistry, medicine, and electronics. The flows inside nanoscale pores are also important due to their highly beneficial drag and heat transfer properties.

Nanoscale Flow: Advances, Modeling, and Applications presents the latest research in the multidisciplinary area of nanoscale flow. Featuring contributions from top inventors in industry, academia, and government, this comprehensive book:

- Highlights the current status of research on nucleate pool boiling heat transfer, flow boiling heat transfer, and critical heat flux (CHF) phenomena of nanofluids
- Describes two novel fractal models for pool boiling heat transfer of nanofluids, including subcooled pool boiling and nucleate pool boiling
- Explores thermal conductivity enhancement in nanofluids measured with a hot-wire calorimeter
- Discusses two-phase laminar mixed convection Al_2O_3 -water nanofluid in an elliptic duct
- Explains the principles of molecular and omics imaging and spectroscopy techniques for cancer detection
- Analyzes fluid dynamics modeling of the tumor vasculature and drug transport
- Studies the properties of nanoscale particles and their impact on diagnosis, therapeutics, and theranostics
- Provides a brief background and review of medical nanoscale flow applications
- Contains useful appendices of physical constants, equations, common symbols, mathematical formulas, the periodic table, and more

A valuable reference for engineers, scientists, and biologists, **Nanoscale Flow: Advances, Modeling, and Applications** is also designed for researchers, universities, industrial institutions, and government, giving it broad appeal.

 [Download Nanoscale Flow: Advances, Modeling, and Applicatio ...pdf](#)

 [Read Online Nanoscale Flow: Advances, Modeling, and Applicat ...pdf](#)

Nanoscale Flow: Advances, Modeling, and Applications

From CRC Press

Nanoscale Flow: Advances, Modeling, and Applications From CRC Press

Understanding the physical properties and dynamical behavior of nanochannel flows has been of great interest in recent years and is important for the theoretical study of fluid dynamics and engineering applications in physics, chemistry, medicine, and electronics. The flows inside nanoscale pores are also important due to their highly beneficial drag and heat transfer properties.

Nanoscale Flow: Advances, Modeling, and Applications presents the latest research in the multidisciplinary area of nanoscale flow. Featuring contributions from top inventors in industry, academia, and government, this comprehensive book:

- Highlights the current status of research on nucleate pool boiling heat transfer, flow boiling heat transfer, and critical heat flux (CHF) phenomena of nanofluids
- Describes two novel fractal models for pool boiling heat transfer of nanofluids, including subcooled pool boiling and nucleate pool boiling
- Explores thermal conductivity enhancement in nanofluids measured with a hot-wire calorimeter
- Discusses two-phase laminar mixed convection Al_2O_3 -water nanofluid in an elliptic duct
- Explains the principles of molecular and omics imaging and spectroscopy techniques for cancer detection
- Analyzes fluid dynamics modeling of the tumor vasculature and drug transport
- Studies the properties of nanoscale particles and their impact on diagnosis, therapeutics, and theranostics
- Provides a brief background and review of medical nanoscale flow applications
- Contains useful appendices of physical constants, equations, common symbols, mathematical formulas, the periodic table, and more

A valuable reference for engineers, scientists, and biologists, **Nanoscale Flow: Advances, Modeling, and Applications** is also designed for researchers, universities, industrial institutions, and government, giving it broad appeal.

Nanoscale Flow: Advances, Modeling, and Applications From CRC Press Bibliography

- Sales Rank: #4163698 in eBooks
- Published on: 2014-12-15
- Released on: 2014-12-15
- Format: Kindle eBook

 [Download Nanoscale Flow: Advances, Modeling, and Applicatio ...pdf](#)

 [Read Online Nanoscale Flow: Advances, Modeling, and Applicat ...pdf](#)

Editorial Review

About the Author

Sarhan M. Musa, Ph.D, is associate professor in the Department of Engineering Technology, Roy G. Perry College of Engineering, at Prairie View A&M University, Texas. He has been director of the Prairie View Networking Academy, Texas since 2004. Dr. Musa has published more than a hundred papers in peer-reviewed journals and conferences, is a frequent invited speaker on computational nanotechnology, has consulted for multiple organizations nationally and internationally, and has written and edited several books, including *Computational Nanotechnology Modeling and Applications with MATLAB®*. *He is a senior member of the IEEE and an LTD Sprint and Boeing Welliver fellow.*

Users Review

From reader reviews:

James Kline:

The book Nanoscale Flow: Advances, Modeling, and Applications can give more knowledge and information about everything you want. Why must we leave the good thing like a book Nanoscale Flow: Advances, Modeling, and Applications? Some of you have a different opinion about guide. But one aim that book can give many information for us. It is absolutely suitable. Right now, try to closer with the book. Knowledge or details that you take for that, you can give for each other; you could share all of these. Book Nanoscale Flow: Advances, Modeling, and Applications has simple shape nevertheless, you know: it has great and big function for you. You can search the enormous world by wide open and read a e-book. So it is very wonderful.

Amber Payne:

The particular book Nanoscale Flow: Advances, Modeling, and Applications has a lot details on it. So when you make sure to read this book you can get a lot of advantage. The book was written by the very famous author. Mcdougal makes some research just before write this book. This kind of book very easy to read you can get the point easily after looking over this book.

William Kelley:

People live in this new day of lifestyle always aim to and must have the free time or they will get large amount of stress from both way of life and work. So , when we ask do people have extra time, we will say absolutely indeed. People is human not just a robot. Then we inquire again, what kind of activity have you got when the spare time coming to an individual of course your answer may unlimited right. Then ever try this one, reading ebooks. It can be your alternative with spending your spare time, the book you have read will be Nanoscale Flow: Advances, Modeling, and Applications.

Agatha Draper:

Many people spending their moment by playing outside having friends, fun activity using family or just watching TV all day every day. You can have new activity to spend your whole day by examining a book. Ugh, ya think reading a book will surely hard because you have to accept the book everywhere? It fine you can have the e-book, bringing everywhere you want in your Smartphone. Like Nanoscale Flow: Advances, Modeling, and Applications which is keeping the e-book version. So , why not try out this book? Let's see.

Download and Read Online Nanoscale Flow: Advances, Modeling, and Applications From CRC Press #FSD834IXZJO

Read Nanoscale Flow: Advances, Modeling, and Applications From CRC Press for online ebook

Nanoscale Flow: Advances, Modeling, and Applications From CRC Press 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 Nanoscale Flow: Advances, Modeling, and Applications From CRC Press books to read online.

Online Nanoscale Flow: Advances, Modeling, and Applications From CRC Press ebook PDF download

Nanoscale Flow: Advances, Modeling, and Applications From CRC Press Doc

Nanoscale Flow: Advances, Modeling, and Applications From CRC Press Mobipocket

Nanoscale Flow: Advances, Modeling, and Applications From CRC Press EPub