



Freeze-drying of Pharmaceuticals and Biopharmaceuticals: Principles and Practice

By Felix Franks, Tony Auffret

Download now

Read Online ➔

Freeze-drying of Pharmaceuticals and Biopharmaceuticals: Principles and Practice By Felix Franks, Tony Auffret

Aimed at product and process developers in the biopharmaceutical industry and academia, this is the first book to describe freeze-drying, as related to the pharmaceutical industry.

↓ [Download Freeze-drying of Pharmaceuticals and Biopharmaceut ...pdf](#)

📄 [Read Online Freeze-drying of Pharmaceuticals and Biopharmace ...pdf](#)

Freeze-drying of Pharmaceuticals and Biopharmaceuticals: Principles and Practice

By Felix Franks, Tony Auffret

Freeze-drying of Pharmaceuticals and Biopharmaceuticals: Principles and Practice By Felix Franks, Tony Auffret

Aimed at product and process developers in the biopharmaceutical industry and academia, this is the first book to describe freeze-drying, as related to the pharmaceutical industry.

Freeze-drying of Pharmaceuticals and Biopharmaceuticals: Principles and Practice By Felix Franks, Tony Auffret **Bibliography**

- Sales Rank: #4546676 in Books
- Published on: 2007-03-05
- Original language: English
- Number of items: 1
- Dimensions: 9.21" h x .69" w x 6.14" l, 1.05 pounds
- Binding: Hardcover
- 220 pages

 [Download Freeze-drying of Pharmaceuticals and Biopharmaceut ...pdf](#)

 [Read Online Freeze-drying of Pharmaceuticals and Biopharmace ...pdf](#)

Download and Read Free Online Freeze-drying of Pharmaceuticals and Biopharmaceuticals: Principles and Practice By Felix Franks, Tony Auffret

Editorial Review

Review

Dr Franks then settles into a number of chapters on the physics and chemistry of the frozen state. This is crucial to a good understanding of freeze drying and especially formulation development for freeze drying, and there can be few people who could discuss this topic more eloquently or thoroughly than the author. The strengths of this work are unsurprisingly in the thorough treatment of the frozen state and an understanding of the amorphous state both in terms of formulation and freeze drying process design and also the discussion of the study/prediction of product stability. This book is a very useful and thorough overview of the process in operation during freezing and lyophilisation and should be read by all those who are interested in freeze drying and pharmaceutical formulation design. I certainly will be returning to it as an excellent summary of these important issues.

From the Back Cover

Freeze-drying, in the past popular in the food industry, has more recently been adopted by the pharmaceutical industry as a standard method for the production of stable solid preparations. Freeze-drying of Pharmaceuticals and Biopharmaceuticals is the first book to specifically describe this process, as related to the pharmaceutical industry. The emphasis of this book is on the properties of the materials processed, how effective formulations are arrived at, and how they are stored and marketed. Beginning with a historical overview of the process, Freeze-drying of Pharmaceuticals and Biopharmaceuticals briefly describes the processes and equipment involved, including: the physics, chemistry and biochemistry associated with freezing, aspects of formulation development, primary and secondary drying; the economics and engineering of scaling up; and, most importantly, attributes of the dried product. It also discusses in detail the science behind freeze-drying, such as the properties of crystalline and amorphous solids. The book concludes with selected case studies and discusses the future of freeze-drying, advances in alternative drying methods, and concludes with an extensive bibliography. This book, written by a leading expert in the field, is aimed primarily at product and process developers in the biopharmaceutical industry and academia.

About the Author

The Author

Users Review

From reader reviews:

Nakia Schultz:

Do you have favorite book? For those who have, what is your favorite's book? Reserve is very important thing for us to know everything in the world. Each guide has different aim or even goal; it means that publication has different type. Some people truly feel enjoy to spend their time to read a book. They are reading whatever they consider because their hobby is actually reading a book. What about the person who don't like looking at a book? Sometime, man feel need book after they found difficult problem or exercise. Well, probably you will want this Freeze-drying of Pharmaceuticals and Biopharmaceuticals: Principles and Practice.

John Jonas:

Your reading 6th sense will not betray an individual, why because this Freeze-drying of Pharmaceuticals and Biopharmaceuticals: Principles and Practice guide written by well-known writer we are excited for well how to make book which can be understand by anyone who all read the book. Written within good manner for you, dripping every ideas and creating skill only for eliminate your personal hunger then you still skepticism Freeze-drying of Pharmaceuticals and Biopharmaceuticals: Principles and Practice as good book not just by the cover but also by the content. This is one reserve that can break don't determine book by its protect, so do you still needing another sixth sense to pick that!? Oh come on your looking at sixth sense already told you so why you have to listening to a different sixth sense.

Kenneth Salinas:

Many people spending their moment by playing outside having friends, fun activity using family or just watching TV all day long. You can have new activity to invest your whole day by looking at a book. Ugh, you think reading a book will surely hard because you have to accept the book everywhere? It okay you can have the e-book, taking everywhere you want in your Smart phone. Like Freeze-drying of Pharmaceuticals and Biopharmaceuticals: Principles and Practice which is keeping the e-book version. So , why not try out this book? Let's observe.

Jerry Melgar:

Is it a person who having spare time and then spend it whole day by means of watching television programs or just resting on the bed? Do you need something totally new? This Freeze-drying of Pharmaceuticals and Biopharmaceuticals: Principles and Practice can be the answer, oh how comes? It's a book you know. You are thus out of date, spending your time by reading in this brand new era is common not a nerd activity. So what these books have than the others?

Download and Read Online Freeze-drying of Pharmaceuticals and Biopharmaceuticals: Principles and Practice By Felix Franks, Tony Auffret #DTISAJP537R

Read Freeze-drying of Pharmaceuticals and Biopharmaceuticals: Principles and Practice By Felix Franks, Tony Auffret for online ebook

Freeze-drying of Pharmaceuticals and Biopharmaceuticals: Principles and Practice By Felix Franks, Tony Auffret 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 Freeze-drying of Pharmaceuticals and Biopharmaceuticals: Principles and Practice By Felix Franks, Tony Auffret books to read online.

Online Freeze-drying of Pharmaceuticals and Biopharmaceuticals: Principles and Practice By Felix Franks, Tony Auffret ebook PDF download

Freeze-drying of Pharmaceuticals and Biopharmaceuticals: Principles and Practice By Felix Franks, Tony Auffret Doc

Freeze-drying of Pharmaceuticals and Biopharmaceuticals: Principles and Practice By Felix Franks, Tony Auffret Mobipocket

Freeze-drying of Pharmaceuticals and Biopharmaceuticals: Principles and Practice By Felix Franks, Tony Auffret EPub

DTISAJP537R: Freeze-drying of Pharmaceuticals and Biopharmaceuticals: Principles and Practice By Felix Franks, Tony Auffret