

Edited by  
The Society of Fiber Science  
and Technology, Japan

繊維学会会員は、先着500冊（冊子版・電子版）まで  
2割引で購入出来ます（平成31年9月末日締め）  
<http://www.springer.com/jp/book/9784431552024>  
へアクセス後、クーポンコード「Sample2016」を入力  
してご購入下さい。

The Society of Fiber Science and  
Technology, Japan *Editor*

## High-Performance and Specialty Fibers

Concepts, Technology and Modern  
Applications of Man-Made Fibers for  
the Future

 Springer

# High-Performance and Specialty Fibers

Concepts, Technology and Modern Applications of Man-Made Fibers for the Future

- Covers from high-performance super fibers to highly functionalized fibers so-called 'Shin-gosen', which are manufactured in Japan
- Is the first English book for modern fiber science and technology authorized by the Society of Fiber Science and Technology, Japan
- Is written by fiber specialists in industry and academe
- Introduces both recent and historically important man-made fibers

This book reviews the key technologies and characteristics of the modern man-made specialty fibers mainly developed in Japan. Since the production of many low-cost man-made fibers shifted to China and other Asian countries, Japanese companies have focused on production of high-quality, high-performance super fibers as well as highly functionalized fibers so-called 'Shin-gosen'. Zylon™ and Dyneema™ manufactured by Toyobo, Technora™ produced by Teijin, and Vectran™ developed by Kuraray are those examples of super fibers. Carbon fibers Torayca™ from Toray have occupied the most advanced high-performance application area. Various types of polyester fibers having design-shaped cross-sections and special fiber morphologies and those showing specific physico-chemical properties have also been developed to acquire a high-value textile market of the world.

This book describes how these high-tech fibers have been developed and what aspects are the most important in each fiber based on its structure-property relationship. Famous specialists both in industry and academia are responsible for the contents, explaining the design concepts and the special technologies for the production of these special fibers. For university teachers and students, this volume is an excellent textbook that elucidates the basic concepts of modern fibers. At the same time, researchers, both in academia and industry, will find a comprehensive overview of recent man-made fibers.

This publication, presenting the most easily understandable general survey of specialty man-made fibers to date, is dedicated to the 70th-anniversary of the Society of Fiber Science and Technology, Japan.

Read  
Today

