



Self-healing Materials: Fundamentals, Design Strategies, and Applications

From Brand: Wiley-VCH

Download now

Read Online ➔

Self-healing Materials: Fundamentals, Design Strategies, and Applications

From Brand: Wiley-VCH

The book covers self-healing concepts for all important material classes and their applications: polymers, ceramics, non-metallic and metallic coatings, alloys, nanocomposites, concretes and cements, as well as ionomers.

Beginning with the inspiration from biological self-healing, its mimicry and conceptual transfer into approaches for the self-repair of artificially created materials, this book explains the strategies and mechanisms for the readers' basic understanding, then covers the different material classes and suitable self-healing concepts, giving examples for their application in practical situations.

As the first book in this swiftly growing research field, it is of great interest to readers from many scientific and engineering disciplines, such as physics and chemistry, civil, architectural, mechanical, electronics and aerospace engineering.

 [Download Self-healing Materials: Fundamentals, Design Strat ...pdf](#)

 [Read Online Self-healing Materials: Fundamentals, Design Str ...pdf](#)

Self-healing Materials: Fundamentals, Design Strategies, and Applications

From Brand: Wiley-VCH

Self-healing Materials: Fundamentals, Design Strategies, and Applications From Brand: Wiley-VCH

The book covers self-healing concepts for all important material classes and their applications: polymers, ceramics, non-metallic and metallic coatings, alloys, nanocomposites, concretes and cements, as well as ionomers.

Beginning with the inspiration from biological self-healing, its mimicry and conceptual transfer into approaches for the self-repair of artificially created materials, this book explains the strategies and mechanisms for the readers' basic understanding, then covers the different material classes and suitable self-healing concepts, giving examples for their application in practical situations.

As the first book in this swiftly growing research field, it is of great interest to readers from many scientific and engineering disciplines, such as physics and chemistry, civil, architectural, mechanical, electronics and aerospace engineering.

Self-healing Materials: Fundamentals, Design Strategies, and Applications From Brand: Wiley-VCH
Bibliography

- Sales Rank: #5593709 in Books
- Brand: Brand: Wiley-VCH
- Published on: 2008-12-22
- Original language: English
- Number of items: 1
- Dimensions: 9.70" h x .82" w x 7.00" l, 1.60 pounds
- Binding: Hardcover
- 306 pages

 [Download Self-healing Materials: Fundamentals, Design Strat ...pdf](#)

 [Read Online Self-healing Materials: Fundamentals, Design Str ...pdf](#)

Editorial Review

Review

"Ghosh has assembled a selection of chapters that will catalyze future researchers to pursue fundamental studies in self-healing materials; the goals are rich for societal impact and intertwined in the fundamental concepts of chemical structure and physical characterization. This text will stay on the office shelf for a long time." (Macromolecular Chemistry and Physics, March 2009)

From the Back Cover

The book covers self-healing concepts for all important material classes and their applications: polymers, ceramics, non-metallic and metallic coatings, alloys, nanocomposites, concretes and cements, as well as ionomers.

Beginning with the inspiration from biological self-healing, its mimicry and conceptual transfer into approaches for the self-repair of artificially created materials, this book explains the strategies and mechanisms for the readers' basic understanding, then covers the different material classes and suitable self-healing concepts, giving examples for their application in practical situations.

As the first book in this swiftly growing research field, it is of great interest to readers from many scientific and engineering disciplines, such as physics and chemistry, civil, architectural, mechanical, electronics and aerospace engineering.

About the Author

Swapan Kumar Ghosh received his Ph.D in 2000 from the Indian Institute of Technology, India. His thesis was based on the synthesis and structure-property relationship of elastomeric ionomers. Following a PostDoc position at the Technical University of Eindhoven, The Netherlands, he joined as a Research Engineer at ArcelorMittal R& D Industry Gent, Belgium in 2002. He managed and coordinated both industrial and governmental funded projects in the field of coatings as well as knowledge development on new coatings related ideas for metallic substrates especially for steel. Since September 2008 he has been appointed as the chief executive of Procoat India Private Limited (a subsidiary of ProCoat Technologies, Barcelona/Spain). In addition, he has edited the book 'Functional Coatings by Polymer Microencapsulation', and has published several research papers in international journals and is inventor /co-inventor of several patents in the fields of coatings technology.

Users Review

From reader reviews:

Randolph Dilworth:

Do you have favorite book? If you have, what is your favorite's book? Book is very important thing for us to find out everything in the world. Each guide has different aim or maybe goal; it means that publication has different type. Some people sense enjoy to spend their time for you to read a book. These are reading whatever they get because their hobby will be reading a book. What about the person who don't like reading a book? Sometime, individual feel need book whenever they found difficult problem or perhaps exercise. Well, probably you should have this Self-healing Materials: Fundamentals, Design Strategies, and Applications.

Rene Moore:

Reading a book can be one of a lot of action that everyone in the world loves. Do you like reading book so. There are a lot of reasons why people enjoy it. First reading a publication will give you a lot of new details. When you read a guide you will get new information because book is one of various ways to share the information or even their idea. Second, studying a book will make you actually more imaginative. When you examining a book especially fiction book the author will bring you to imagine the story how the characters do it anything. Third, you could share your knowledge to some others. When you read this Self-healing Materials: Fundamentals, Design Strategies, and Applications, it is possible to tells your family, friends and soon about yours publication. Your knowledge can inspire average, make them reading a publication.

Juanita Bey:

The e-book untitled Self-healing Materials: Fundamentals, Design Strategies, and Applications is the guide that recommended to you you just read. You can see the quality of the publication content that will be shown to you actually. The language that article author use to explained their way of doing something is easily to understand. The copy writer was did a lot of research when write the book, hence the information that they share to you personally is absolutely accurate. You also can get the e-book of Self-healing Materials: Fundamentals, Design Strategies, and Applications from the publisher to make you considerably more enjoy free time.

Angela Yoder:

Why? Because this Self-healing Materials: Fundamentals, Design Strategies, and Applications is an unordinary book that the inside of the e-book waiting for you to snap this but latter it will surprise you with the secret that inside. Reading this book close to it was fantastic author who write the book in such awesome way makes the content interior easier to understand, entertaining method but still convey the meaning entirely. So , it is good for you because of not hesitating having this anymore or you going to regret it. This excellent book will give you a lot of positive aspects than the other book possess such as help improving your ability and your critical thinking method. So , still want to delay having that book? If I had been you I will go to the guide store hurriedly.

**Download and Read Online Self-healing Materials: Fundamentals, Design Strategies, and Applications From Brand: Wiley-VCH
#YKEC1QNOHG0**

Read Self-healing Materials: Fundamentals, Design Strategies, and Applications From Brand: Wiley-VCH for online ebook

Self-healing Materials: Fundamentals, Design Strategies, and Applications From Brand: Wiley-VCH 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 Self-healing Materials: Fundamentals, Design Strategies, and Applications From Brand: Wiley-VCH books to read online.

Online Self-healing Materials: Fundamentals, Design Strategies, and Applications From Brand: Wiley-VCH ebook PDF download

Self-healing Materials: Fundamentals, Design Strategies, and Applications From Brand: Wiley-VCH Doc

Self-healing Materials: Fundamentals, Design Strategies, and Applications From Brand: Wiley-VCH Mobipocket

Self-healing Materials: Fundamentals, Design Strategies, and Applications From Brand: Wiley-VCH EPub

YKEC1QNOHG0: Self-healing Materials: Fundamentals, Design Strategies, and Applications From Brand: Wiley-VCH