



UHMWPE Biomaterials Handbook, Second Edition: Ultra High Molecular Weight Polyethylene in Total Joint Replacement and Medical Devices (Plastics Design Library)

By Steven M. Kurtz Ph.D.

[Download now](#)

[Read Online](#) 

UHMWPE Biomaterials Handbook, Second Edition: Ultra High Molecular Weight Polyethylene in Total Joint Replacement and Medical Devices (Plastics Design Library) By Steven M. Kurtz Ph.D.

This book describes the science, development, properties and application of ultra-high molecular weight polyethylene (UHMWPE) used in artificial joints. This material is currently used in 1.4 million patients around the world every year for use in the hip, knee, upper extremities, and spine.

Since the publication of the 1st edition there have been major advances in the development and clinical adoption of highly crosslinked UHMWPE for hip and knee replacement. There has also been a major international effort to introduce Vitamin E stabilized UHMWPE for patients. The accumulated knowledge on these two classes of materials are a key feature of the 2nd edition, along with an additional 19 additional chapters providing coverage of the key engineering aspects (biomechanical and materials science) and clinical/biological performance of UHMWPE, providing a more complete reference for industrial and academic materials specialists, and for surgeons and clinicians who require an understanding of the biomaterials properties of UHMWPE to work successfully on patient applications.

* The UHMWPE Handbook is the comprehensive reference for professionals, researchers, and clinicians working with biomaterials technologies for joint replacement * New to this edition: 19 new chapters keep readers up to date with this fast moving topic, including a new section on UHMWPE biomaterials; highly crosslinked UHMWPE for hip and knee replacement; Vitamin E stabilized UHMWPE for patients; clinical performance, tribology and biologic interaction of UHMWPE * State-of-the-art coverage of UHMWPE technology, orthopedic applications, biomaterial characterisation and engineering aspects from recognised leaders in the field

 [**Download** UHMWPE Biomaterials Handbook, Second Edition: Ultr...pdf](#)

 [**Read Online** UHMWPE Biomaterials Handbook, Second Edition: UI...pdf](#)

UHMWPE Biomaterials Handbook, Second Edition: Ultra High Molecular Weight Polyethylene in Total Joint Replacement and Medical Devices (Plastics Design Library)

By Steven M. Kurtz Ph.D.

UHMWPE Biomaterials Handbook, Second Edition: Ultra High Molecular Weight Polyethylene in Total Joint Replacement and Medical Devices (Plastics Design Library) By Steven M. Kurtz Ph.D.

This book describes the science, development, properties and application of ultra-high molecular weight polyethylene (UHMWPE) used in artificial joints. This material is currently used in 1.4 million patients around the world every year for use in the hip, knee, upper extremities, and spine.

Since the publication of the 1st edition there have been major advances in the development and clinical adoption of highly crosslinked UHMWPE for hip and knee replacement. There has also been a major international effort to introduce Vitamin E stabilized UHMWPE for patients. The accumulated knowledge on these two classes of materials are a key feature of the 2nd edition, along with an additional 19 additional chapters providing coverage of the key engineering aspects (biomechanical and materials science) and clinical/biological performance of UHMWPE, providing a more complete reference for industrial and academic materials specialists, and for surgeons and clinicians who require an understanding of the biomaterials properties of UHMWPE to work successfully on patient applications.

* The UHMWPE Handbook is the comprehensive reference for professionals, researchers, and clinicians working with biomaterials technologies for joint replacement * New to this edition: 19 new chapters keep readers up to date with this fast moving topic, including a new section on UHMWPE biomaterials; highly crosslinked UHMWPE for hip and knee replacement; Vitamin E stabilized UHMWPE for patients; clinical performance, tribology and biologic interaction of UHMWPE * State-of-the-art coverage of UHMWPE technology, orthopedic applications, biomaterial characterisation and engineering aspects from recognised leaders in the field

UHMWPE Biomaterials Handbook, Second Edition: Ultra High Molecular Weight Polyethylene in Total Joint Replacement and Medical Devices (Plastics Design Library) By Steven M. Kurtz Ph.D.
Bibliography

- Sales Rank: #2869092 in Books
- Published on: 2009-07-06
- Original language: English
- Number of items: 1
- Dimensions: 11.10" h x 1.30" w x 8.70" l, 1.10 pounds
- Binding: Hardcover
- 568 pages



[Download UHMWPE Biomaterials Handbook, Second Edition: Ultr ...pdf](#)

 [Read Online UHMWPE Biomaterials Handbook, Second Edition: Ul ...pdf](#)

Download and Read Free Online UHMWPE Biomaterials Handbook, Second Edition: Ultra High Molecular Weight Polyethylene in Total Joint Replacement and Medical Devices (Plastics Design Library) By Steven M. Kurtz Ph.D.

Editorial Review

Review

"The UHMWPE Handbook is a comprehensive yet concise presentation of the important role that polyethylene has played and continues to play in the treatment armamentarium of the orthopaedic surgeon."
- Joshua J. Jacobs, MD, Rush University Medical Center, Chicago, IL

About the Author

Dr. Kurtz has been researching ultra-high molecular weight polyethylene(UHMWPE) for use in orthopedics for over 10 years. He has published dozens of papers and several book chapters related to UHMWPE used in joint replacement. He has pioneered the development of new test methods for the material in orthopedics. Dr. Kurtz has authored national and international standards for medical upgrade UHMWPE.

As a principle engineer at Exponent, an international engineering and scientific consulting company, his research on UHMWPE is supported by several major orthopedic manufacturers. He has funding from the National Institutes for Health to study UHMWPE changes after implantation in the body, as well as to develop new computer-based tools to predict the performance of new UHMWPE materials.

Dr. Kurtz is the Director of an orthopedic implant retrieval program in Philadelphia which is affiliated with Drexel University and Thomas Jefferson University. He teaches classes on the performance of orthopedic polymers (including UHMWPE) at Drexel, Temple, and Princeton Universities.

Users Review

From reader reviews:

June Whitaker:

What do you think of book? It is just for students because they are still students or that for all people in the world, what the best subject for that? Only you can be answered for that issue above. Every person has different personality and hobby for each other. Don't to be forced someone or something that they don't want do that. You must know how great and also important the book UHMWPE Biomaterials Handbook, Second Edition: Ultra High Molecular Weight Polyethylene in Total Joint Replacement and Medical Devices (Plastics Design Library). All type of book can you see on many methods. You can look for the internet solutions or other social media.

Joy Hutchinson:

The guide untitled UHMWPE Biomaterials Handbook, Second Edition: Ultra High Molecular Weight Polyethylene in Total Joint Replacement and Medical Devices (Plastics Design Library) is the book that recommended to you to study. You can see the quality of the e-book content that will be shown to anyone. The language that article author use to explained their ideas are easily to understand. The writer was did a lot

of analysis when write the book, therefore the information that they share to you is absolutely accurate. You also might get the e-book of UHMWPE Biomaterials Handbook, Second Edition: Ultra High Molecular Weight Polyethylene in Total Joint Replacement and Medical Devices (Plastics Design Library) from the publisher to make you much more enjoy free time.

Richard Ault:

The book UHMWPE Biomaterials Handbook, Second Edition: Ultra High Molecular Weight Polyethylene in Total Joint Replacement and Medical Devices (Plastics Design Library) has a lot of information on it. So when you check out this book you can get a lot of benefit. The book was compiled by the very famous author. The writer makes some research just before write this book. That book very easy to read you will get the point easily after perusing this book.

Patrick Leon:

You can get this UHMWPE Biomaterials Handbook, Second Edition: Ultra High Molecular Weight Polyethylene in Total Joint Replacement and Medical Devices (Plastics Design Library) by look at the bookstore or Mall. Just simply viewing or reviewing it could possibly to be your solve difficulty if you get difficulties for the knowledge. Kinds of this publication are various. Not only simply by written or printed but can you enjoy this book by simply e-book. In the modern era such as now, you just looking because of your mobile phone and searching what their problem. Right now, choose your own personal ways to get more information about your e-book. It is most important to arrange you to ultimately make your knowledge are still revise. Let's try to choose appropriate ways for you.

**Download and Read Online UHMWPE Biomaterials Handbook,
Second Edition: Ultra High Molecular Weight Polyethylene in Total
Joint Replacement and Medical Devices (Plastics Design Library)
By Steven M. Kurtz Ph.D. #5CUJQIN4FPL**

Read UHMWPE Biomaterials Handbook, Second Edition: Ultra High Molecular Weight Polyethylene in Total Joint Replacement and Medical Devices (Plastics Design Library) By Steven M. Kurtz Ph.D. for online ebook

UHMWPE Biomaterials Handbook, Second Edition: Ultra High Molecular Weight Polyethylene in Total Joint Replacement and Medical Devices (Plastics Design Library) By Steven M. Kurtz Ph.D. Free PDF download, 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 UHMWPE Biomaterials Handbook, Second Edition: Ultra High Molecular Weight Polyethylene in Total Joint Replacement and Medical Devices (Plastics Design Library) By Steven M. Kurtz Ph.D. books to read online.

Online UHMWPE Biomaterials Handbook, Second Edition: Ultra High Molecular Weight Polyethylene in Total Joint Replacement and Medical Devices (Plastics Design Library) By Steven M. Kurtz Ph.D. ebook PDF download

UHMWPE Biomaterials Handbook, Second Edition: Ultra High Molecular Weight Polyethylene in Total Joint Replacement and Medical Devices (Plastics Design Library) By Steven M. Kurtz Ph.D. Doc

UHMWPE Biomaterials Handbook, Second Edition: Ultra High Molecular Weight Polyethylene in Total Joint Replacement and Medical Devices (Plastics Design Library) By Steven M. Kurtz Ph.D. Mobipocket

UHMWPE Biomaterials Handbook, Second Edition: Ultra High Molecular Weight Polyethylene in Total Joint Replacement and Medical Devices (Plastics Design Library) By Steven M. Kurtz Ph.D. EPub