



Armour: Materials, Theory, and Design

By Paul J. Hazell

[Download now](#)

[Read Online](#) 

Armour: Materials, Theory, and Design By Paul J. Hazell

Highlights Recent Advances in Materials/Armour Technology

As long as conflict exists in the world, protection technologies will always be in demand. **Armour: Materials, Theory, and Design** describes the existing and emerging protection technologies that are currently driving the latest advances in armour systems. This book explains the theory, applications, and material science aspects of modern armour design as they are used in relation to vehicles, ships, personnel, and buildings, and explores the science and technology used to provide protection against blasts and ballistic attacks. It covers materials technologies used in protection; addresses the system effects of adding blast-wave shaping to vehicles, as well as the effect on the human body; and outlines ballistic testing techniques.

Takes a Look at How Armour Works

The book discusses ceramics for armour applications; transparent armour; and metals for armour applications (including aluminium alloys, magnesium alloys, titanium alloys and steels); as well as composite armour systems; explosive reactive armour systems with reference to defensive aid suites for vehicles; and wound ballistics. In addition, the author lists more than 100 references for advanced study and further reading.

Armour: Materials, Theory, and Design introduces a variety of armour technologies, outlines modern threats and dangers applicable to protection technology, and aids readers in implementing protective structures that can be used in battle, conflict, military zones, and other related environments.

 [Download Armour: Materials, Theory, and Design ...pdf](#)

 [Read Online Armour: Materials, Theory, and Design ...pdf](#)

Armour: Materials, Theory, and Design

By Paul J. Hazell

Armour: Materials, Theory, and Design By Paul J. Hazell

Highlights Recent Advances in Materials/Armour Technology

As long as conflict exists in the world, protection technologies will always be in demand. **Armour: Materials, Theory, and Design** describes the existing and emerging protection technologies that are currently driving the latest advances in armour systems. This book explains the theory, applications, and material science aspects of modern armour design as they are used in relation to vehicles, ships, personnel, and buildings, and explores the science and technology used to provide protection against blasts and ballistic attacks. It covers materials technologies used in protection; addresses the system effects of adding blast-wave shaping to vehicles, as well as the effect on the human body; and outlines ballistic testing techniques.

Takes a Look at How Armour Works

The book discusses ceramics for armour applications; transparent armour; and metals for armour applications (including aluminium alloys, magnesium alloys, titanium alloys and steels); as well as composite armour systems; explosive reactive armour systems with reference to defensive aid suites for vehicles; and wound ballistics. In addition, the author lists more than 100 references for advanced study and further reading.

Armour: Materials, Theory, and Design introduces a variety of armour technologies, outlines modern threats and dangers applicable to protection technology, and aids readers in implementing protective structures that can be used in battle, conflict, military zones, and other related environments.

Armour: Materials, Theory, and Design By Paul J. Hazell Bibliography

- Sales Rank: #1532848 in Books
- Published on: 2015-07-29
- Original language: English
- Number of items: 1
- Dimensions: 9.21" h x .88" w x 6.14" l, .0 pounds
- Binding: Hardcover
- 395 pages

 [Download Armour: Materials, Theory, and Design ...pdf](#)

 [Read Online Armour: Materials, Theory, and Design ...pdf](#)

Download and Read Free Online Armour: Materials, Theory, and Design By Paul J. Hazell

Editorial Review

Review

"This book explains the theory, applications, and material science aspects of modern armour design... examines different areas of the advanced threat and armour protection in the light of new development and gives a lot of examples of the increases in performance possible to expect."

?*Advances in Military Technology*, 2015

"... a valuable resource ... I predict it will be on the shelves of all researchers in this field in no time. It is full of relevant examples, material information, and illustrations that provide the reader with a complete picture of penetration mechanics in a wide variety of materials. ... well-researched and combines some of the latest approaches with classical theories resulting in a full picture of armor penetration. I really like Professor Hazell's writing style and I am certain my students will enjoy the book as well.

?Don Carlucci, Co-Author, Ballistics, Theory and Design of Guns and Ammunition

"...I found the book extremely informative. While the actual design of armor and the defeat of it has the basis in much deeper mathematics and studies than covered in the book, it provides the full overview and references needed for a full perspective. This book will be highly useful to materials scientists and engineers beyond those explicitly interested in armor and munitions, as the mathematics and mechanics of materials presented in the book are of immediate use to anyone researching impact-absorbing materials. Relevant fields range from medical implants to civil and automotive engineering. The classical knowledge of armor and impact could also find relevance in fields of ion bombardment and nanomanufacturing techniques. I can also see this as a good short-course textbook for undergraduate and even graduate mechanics of materials classes, as it clearly illustrates practical examples of how the mechanics, composition, and formulation of materials affect their ability to damage or withstand damage from another material. Additionally, the book contains useful charts and tables that summarize the mechanical attributes (e.g., fracture toughness, Young's modulus)."

?*MRS Bulletin*, July 2016

About the Author

Paul J. Hazell is a professor of impact dynamics at UNSW Australia. His main research interests are shock loading, penetration mechanics, and lightweight armour optimization. He also teaches courses related to terminal ballistics and armour design at the Australian Defence Force Academy in Canberra. Prior to coming to Australia, he worked for Cranfield University at the Defence Academy of the United Kingdom at Shrivenham. Hazell graduated from the University of Leeds in 1992 with a BEng (Hons) degree in mechanical engineering, and pursued his doctoral studies at the Shrivenham campus of Cranfield University (at the Royal Military College of Science).

Users Review

From reader reviews:

Mary Goldstein:

The book Armour: Materials, Theory, and Design can give more knowledge and also the precise product information about everything you want. Exactly why must we leave the good thing like a book Armour: Materials, Theory, and Design? Wide variety you have a different opinion about book. But one aim which book can give many details for us. It is absolutely correct. Right now, try to closer along with your book. Knowledge or details that you take for that, you may give for each other; you are able to share all of these. Book Armour: Materials, Theory, and Design has simple shape however, you know: it has great and large function for you. You can look the enormous world by available and read a e-book. So it is very wonderful.

Nancy Hunt:

The ability that you get from Armour: Materials, Theory, and Design is the more deep you rooting the information that hide within the words the more you get considering reading it. It does not mean that this book is hard to comprehend but Armour: Materials, Theory, and Design giving you excitement feeling of reading. The author conveys their point in selected way that can be understood by simply anyone who read the idea because the author of this guide is well-known enough. This book also makes your own vocabulary increase well. So it is easy to understand then can go with you, both in printed or e-book style are available. We highly recommend you for having this specific Armour: Materials, Theory, and Design instantly.

Edward McCain:

Spent a free time for you to be fun activity to try and do! A lot of people spent their down time with their family, or their friends. Usually they performing activity like watching television, going to beach, or picnic from the park. They actually doing same every week. Do you feel it? Do you want to something different to fill your personal free time/ holiday? Could be reading a book may be option to fill your free of charge time/ holiday. The first thing you ask may be what kinds of book that you should read. If you want to try out look for book, may be the guide untitled Armour: Materials, Theory, and Design can be fine book to read. May be it could be best activity to you.

Kenneth Sigler:

Do you have something that you want such as book? The publication lovers usually prefer to decide on book like comic, short story and the biggest one is novel. Now, why not trying Armour: Materials, Theory, and Design that give your fun preference will be satisfied by simply reading this book. Reading habit all over the world can be said as the method for people to know world a great deal better then how they react to the world. It can't be explained constantly that reading routine only for the geeky person but for all of you who wants to be success person. So , for every you who want to start studying as your good habit, you can pick Armour: Materials, Theory, and Design become your own starter.

**Download and Read Online Armour: Materials, Theory, and Design
By Paul J. Hazell #KGENQA87WJ1**

Read Armour: Materials, Theory, and Design By Paul J. Hazell for online ebook

Armour: Materials, Theory, and Design By Paul J. Hazell 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 Armour: Materials, Theory, and Design By Paul J. Hazell books to read online.

Online Armour: Materials, Theory, and Design By Paul J. Hazell ebook PDF download

Armour: Materials, Theory, and Design By Paul J. Hazell Doc

Armour: Materials, Theory, and Design By Paul J. Hazell MobiPocket

Armour: Materials, Theory, and Design By Paul J. Hazell EPub

KGENQA87WJ1: Armour: Materials, Theory, and Design By Paul J. Hazell