Journals Books Register Sign in

Search all fields | Author name | -This Journal/Book- | Volume | Issue | Page | Subm Advanced search



Lightweight Ballistic Composites (Second Edition)

Military and Law-Enforcement Applications

A volume in Woodhead Publishing Series in Composites Science and Engineering

Edited by A. Bhatnagar

ISBN: 978-0-08-100406-7

Add to Favorites

Copyright © 2016 Elsevier Ltd. All rights reserved.

Table of Contents

Search within this book

Export

- Related titles, Front Matter, Copyright, Dedication, List of contributors, Woodhead Publishing Series in Composites Science and Engineering, Preface
- 1 - High-performance ballistic fibers and tapes, *Pages 1-39*, T. Tam, A. Bhatnagar
  Abstract | Purchase PDF - $31.50
- 2 - High performance fabrics and 3D materials, *Pages 41-53*, D.J. Carr, C. Crawford
  Abstract | Purchase PDF - $31.50
- 3 - Nonwoven and crossplied ballistic materials, *Pages 55-85*, G.A.T. Webster
  Abstract | Purchase PDF - $31.50
- 4 - Ballistic threats: Bullets and fragments, *Pages 87-114*, A. Helliker
  Abstract | Purchase PDF - $31.50
- 5 - International ballistic and blast specifications and standards, *Pages 115-136*, Phil Gotts
  Abstract | Purchase PDF - $31.50
- 6 - Lightweight composite materials processing, *Pages 157-216*, D. Dixit, R. Pal, G. Kapoor, M. Stabenau
  Abstract | Purchase PDF - $31.50
- 7 - Personal armor, *Pages 217-229*, E. Lewis, D.J. Carr
  Abstract | Purchase PDF - $31.50
- 8 - Durability of high-performance ballistic composites, *Pages 231-283*, N. Bhatnagar, N. Aeja
  Abstract | Purchase PDF - $31.50
- 9 - Vehicle armor, *Pages 285-309*, R.A. Ash
  Abstract | Purchase PDF - $31.50
- 10 - Testing of armor systems, *Pages 311-326*, J. Cronin, R. Kinsler, J. Allen
  Abstract | Purchase PDF - $31.50
- 11 - Numerical analysis of ballistic composite materials, *Pages 327-348*, S.D. Rajan
  Abstract | Purchase PDF - $31.50
- 12 - Design, manufacture, and analysis of ceramic-composite armor, *Pages 349-367*, L. Bracamonte, R. Loutfy, I.K. Yilmazcoban, S.D. Rajan
  Abstract | Purchase PDF - $31.50
- 13 - Ceramic-faced molded armor, *Pages 369-391*, B. Quellilec, M. Dartois
  Abstract | Purchase PDF - $31.50
- 14 - Materials, manufacturing, and enablers for future soldier protection, *Pages 393-437*, J.Q. Zheng, S.M. Walsh
  Abstract | Purchase PDF - $31.50
- Index, *Pages 439-459*
  First page PDF | Purchase PDF - $31.50

Lightweight Ballistic Composites: Military and Law-Enforcement Applications, Second Edition is a fully revised and updated version of this informative book that explores the many changes in composite materials technology that have occurred since the book's first release in 2006, especially the type of commercial products used by armed forces around the world.

Some changes can be attributed to the wars in Iraq and Afghanistan, whereas others are due to massive investment by private companies to neutralize the ever-increasing global threats and fulfill the military's appetite for lighter materials. Soldiers are now better protected against new ballistic threats and the overall weight of body protection has been reduced, while comfort has increased.

New military vehicles are no longer purely armored with steel, and are instead lined with lightweight ballistic materials that increase the distance military vehicles can travel without refueling and also improve maneuverability. The book considers all aspects of lightweight ballistic composites from fiber manufacturing to commercial products and testing.

Chapters also cover the many uses of lightweight ballistic composites in the military and law-enforcement industries. It will be an invaluable reference for ballistic composite design engineers, product development engineers, and all those involved in promoting new products for both defense and the law-enforcement industry.

- Gives comprehensive coverage on all aspects of lightweight ballistic composites, from fiber manufacturing, to commercial products and testing
- Discusses the wider applications of lightweight ballistic composites in military and law-enforcement industries
- Edited by a highly respected industry expert with over thirty years' experience developing lightweight composite ballistic materials and products