



1st ed. 2017, XXIII, 378 p. 198 illus., 184 illus. in color.

 **Printed book****Hardcover**

- ▶ 189,99 € | £141.50 | \$229.00
- ▶ \*203,29 € (D) | 208,99 € (A) | CHF 209.00

 **eBook**

Available from your library or

- ▶ [springer.com/shop](http://springer.com/shop)

 **MyCopy**

Printed eBook for just

- ▶ € | \$ 24.99
- ▶ [springer.com/mycopy](http://springer.com/mycopy)

A.M. Loske

**Medical and Biomedical Applications of Shock Waves**

Series: Shock Wave and High Pressure Phenomena

- ▶ **Contains novel applications of shock waves to medicine**
- ▶ **Describes biomedical devices and treatment methodologies**
- ▶ **Reports the state of the art of shock wave-mediated gene transfection and transformation**

This book provides current, comprehensive, and clear explanations of the physics behind medical and biomedical applications of shock waves. Extracorporeal shock wave lithotripsy is one of the greatest medical advances of our time, and its techniques and clinical devices are continuously evolving. Further research continues to improve the understanding of calculi fragmentation and tissue-damaging mechanisms. Shock waves are also used in orthopedics and traumatology. Possible applications in oncology, cardiology, dentistry, gene therapy, cell transfection, transformation of fungi and bacteria, as well as the inactivation of microorganisms are promising approaches for clinical treatment, industrial applications and research.

*Medical and Biomedical Applications of Shock Waves* is useful as a guide for students, technicians and researchers working in universities and laboratories. Chemists, biologists, physicians and veterinarians, involved in research or clinical practice will find useful advice, but also engineers and physicists may benefit from the overview of current research endeavors and future directions. Furthermore, it may also serve to direct manufacturers towards the design of more efficient and safer clinical, industrial and laboratory equipment.



Order online at [springer.com](http://springer.com) ▶ or for the Americas call (toll free) 1-800-SPRINGER ▶ or email us at: [customerservice@springer.com](mailto:customerservice@springer.com). ▶ For outside the Americas call +49 (0) 6221-345-4301 ▶ or email us at: [customerservice@springer.com](mailto:customerservice@springer.com).

The first € price and the £ and \$ price are net prices, subject to local VAT. Prices indicated with \* include VAT for books; the €(D) includes 7% for Germany, the €(A) includes 10% for Austria. Prices indicated with \*\* include VAT for electronic products; 19% for Germany, 20% for Austria. All prices exclusive of carriage charges. Prices and other details are subject to change without notice. All errors and omissions excepted.