

Springer

1st
edition1st ed. 2018, XXI, 748 p.
538 illus., 15 illus. in color.**Printed book**

Hardcover

Printed book

Hardcover

ISBN 978-981-10-7208-6

\$ 129,00

Available

Discount group

Professional Books (2)

Product category

Graduate/advanced undergraduate textbook

Series

Springer Series in Materials Science

Other renditions

Softcover

ISBN 978-981-13-3922-6

Materials Science : Metallic Materials

Bhaduri, Amit, Indian Institute of Technology Kharagpur, Kharagpur, India

Mechanical Properties and Working of Metals and Alloys

- Covers both mechanical testing and mechanical forming aspects of metallic materials
- Contains many solved example problems
- Provides more than 150 numerical problems and many multiple choice questions as exercise, along with their answers
- Includes detailed and easy-to-understand mathematical analyses
- Provides an exhaustive description of mechanical testing and evaluation, and metal working in sufficient depth and with reasonably wide coverage

This book is intended to serve as core text or handy reference on two key areas of metallic materials: (i) mechanical behavior and properties evaluated by mechanical testing; and (ii) different types of metal working or forming operations to produce useful shapes. The book consists of 16 chapters which are divided into two parts. The first part contains nine chapters which describe tension (including elastic stress – strain relation, relevant theory of plasticity, and strengthening methods), compression, hardness, bending, torsion – pure shear, impact loading, creep and stress rupture, fatigue, and fracture. The second part is composed of seven chapters and covers fundamentals of mechanical working, forging, rolling, extrusion, drawing of flat strip, round bar, and tube, deep drawing, and high-energy rate forming. The book comprises an exhaustive description of mechanical properties evaluated by testing of metals and metal working in sufficient depth and with reasonably wide coverage. The book is written in an easy-to-understand manner and includes many solved problems. More than 150 numerical problems and many multiple choice questions as exercise along with their answers have also been provided. The mathematical analyses are well elaborated without skipping any intermediate steps.

Order online at springer.com/booksellers**Springer Nature Customer Service Center LLC**

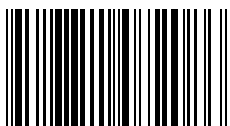
233 Spring Street

New York, NY 10013

USA

T: +1-800-SPRINGER NATURE

(777-4643) or 212-460-1500

customerservice@springernature.com

ISBN 978-981-10-7208-6 / BIC: TDM / SPRINGER NATURE: SCZ16000

Prices and other details are subject to change without notice. All errors and omissions excepted. Americas: Tax will be added where applicable. Canadian residents please add PST, QST or GST. Please add \$5.00 for shipping one book and \$ 1.00 for each additional book. Outside the US and Canada add \$ 10.00 for first book, \$5.00 for each additional book. If an order cannot be fulfilled within 90 days, payment will be refunded upon request. Prices are payable in US currency or its equivalent.

Part of **SPRINGER NATURE**