

1. Record Nr.	UNINA9910787580503321
Autore	Zhou Yichun <1963, >
Titolo	Micro- and macromechanical properties of materials // Yichun Zhou, Li Yang, Yongli Huang
Pubbl/distr/stampa	Boca Raton : , : Taylor & Francis, , [2014]
ISBN	0-429-07364-X 1-138-07233-8 1-4665-9243-5
Edizione	[1st edition]
Descrizione fisica	1 online resource (608 p.)
Collana	Advances in Materials Science and Engineering Advances in materials science and engineering
Disciplina	620.11292
Soggetti	Materials - Mechanical properties Microstructure
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	Front Cover; Contents; Foreword; Foreword to the English Language Edition; Preface; Acknowledgments; Introduction; Authors; Editorial Committee; Chapter 1: Fundamentals of Elasto-Plastic Mechanics; Chapter 2: Basis of Macro- and Microfracture Mechanics; Chapter 3: Basic Mechanical Properties of Materials; Chapter 4: Material Hardness and the Size Effect; Chapter 5: Testing of Material Fracture Toughness; Chapter 6: Residual Stresses in Materials; Chapter 7: Creep and Fatigue of Metals; Chapter 8: Mechanical Properties of Materials in Environmental Media
Sommario/riassunto	This is an English translation of a Chinese textbook that has been designated a national planned university textbook, the highest award given to scientific textbooks in China. The book provides a complete overview of mechanical properties and fracture mechanics in materials science, mechanics, and physics. It details the macro- and micro-mechanical properties of metal structural materials, nonmetal structural materials, and various functional materials. It also discusses the macro and micro failure mechanism under different loadings and contains research results on thin film mechanics, smar

