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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

