Record Nr. UNISALENTO991003230119707536 Autore Kassner, Michael Ernest Titolo Fundamentals of creep in metals and alloys [e-book] / Michael E. Kassner, María-Teresa Pérez-Prado Amsterdam; Boston: Elsevier, 2004 Pubbl/distr/stampa **ISBN** 9780080436371 0080436374 Descrizione fisica xv, 272 p.: ill.; 25 cm Altri autori (Persone) Pérez-Prado, María-Teresaauthor Disciplina 620.11233 Soggetti Materials - Creep Metals - Creep Electronic books. Lingua di pubblicazione Inglese **Formato** Risorsa elettronica Livello bibliografico Monografia Includes bibliographical references (p. [243]-267) and index Nota di bibliografia Nota di contenuto Introduction; five-power-law creep; diffusional creep; harper dorn creep; three-power-law viscous glide creep; superplasticity; recrystallization; creep behavior of particle strengthened alloys; creep fracture Sommario/riassunto * Numerous line drawings with consistent format and units allow easy comparison of the behavior of a very wide range of materials * Transmission electron micrographs provide a direct insight in the basic microstructure of metals deforming at high temperatures * Extensive literature review of over 1000 references provide an excellent reference document, and a very balanced discussion <P>Understanding the strength of materials at a range of temperatures is critically important to a huge number of researchers and practitioners from a wide range of fields and industry sectors including metallurgists, industrial designers, aerospace R&D personnel, and structural engineers. <P>The most upto date and comprehensive book in the field, Fundamentals of Creep in Metals and Alloys discusses the fundamentals of time-dependent plasticity or creep plasticity in metals, alloys and metallic compounds.

This is the first book of its kind that provides broad coverage of a range of materials not just a sub-group such as metallic compounds, superallovs or crystals. As such it presents the most balanced view of

creep for all materials scientists. <P>The theory of all of these phenomena are extensively reviewed and analysed in view of an extensive bibliography that includes the most recent publications in the field. All sections of the book have undergone extensive peer review and therefore the reader can be sure they have access to the most upto-date research, fully interrogated, from the worlds leading investigators. Numerous line drawings with consistent format and units allow easy comparison of the behavior of a very wide range of materials Transmission electron micrographs provide a direct insight in the basic microstructure of metals deforming at high temperatures Extensive literature review of over 1000 references provide an excellent reference document, and a very balanced discussion