Record Nr. UNINA9910437806703321 Autore Chawla Nikhilesh Titolo Metal matrix composites / / Nikhilesh Chawla, Krishan K. Chawla Pubbl/distr/stampa New York:,: Springer,, 2013 **ISBN** 1-4614-9548-2 Edizione [2nd ed. 2013.] 1 online resource (xvi, 370 pages): illustrations (some color) Descrizione fisica Gale eBooks Collana Disciplina 620.0042 Soggetti Metallic composites Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Description based upon print version of record. Note generali Nota di bibliografia Includes bibliographical references and indexes. Nota di contenuto Preface -- Introduction -- Reinforcements -- Matrix Materials --Processing -- Interface -- Micromechanics -- Monotonic Behavior --Cyclic Fatigue -- Creep -- Wear and Corrosion -- Applications --Author Index -- Subject Index. Metal Matrix Composites (MMCs) have progressed from "niche" Sommario/riassunto materials to high performance applications in aerospace, electronic packaging, automotive, and recreational products. This book focuses on the synergistic relationships among processing, microstructure, and properties of metal matrix composites. The authors include chapters on reinforcements, common matrix materials, processing of MMCs, interface characterization and techniques for obtaining interfacial properties, monotonic mechanical and physical properties, cyclic fatigue, creep, wear resistance, corrosion, and applications of MMCs. This, 2nd edition, builds on the text of the previous edition, by adding new and contemporary coverage of nanocomposites, corrosion, new

applications, and new characterization techniques such as x-ray

tomography and micropillar compression.